

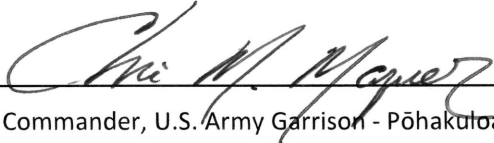
**An Integrated Cultural Resources Management Plan  
for the U.S. Army Garrison – Pōhakuloa  
HAWAI'I ISLAND**



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**U.S. Army Garrison – Pōhakuloa**  
**Hawai'i Island**  
**Integrated Cultural Resources Management Plan**

Approved By:

  
\_\_\_\_\_  
Garrison Commander, U.S. Army Garrison - Pōhakuloa

23 APR 18

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Date

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## EXECUTIVE SUMMARY

This Integrated Cultural Resources Management Plan (ICRMP) for United States Army Garrison-Pōhakuloa (USAG-Pōhakuloa) is a management plan to integrate the cultural resources management program with ongoing mission activities. The mission of USAG-Pōhakuloa is to provide military training opportunities for military and civilian personnel in preparation for deployment anywhere in the world, providing live fire and maneuver capability for the Army, law enforcement at all levels from county to federal agencies, and for other American and allied foreign military services.

The primary purpose of this ICRMP is to provide USAG-Pōhakuloa managers with a guide to ensure compliance with applicable cultural resources management laws and regulations. The ICRMP describes the fundamental requirements of cultural resources management, including identification and evaluation of cultural resources, consultation with concerned parties, consideration of impacts, and decisions about how to treat resources.

ICRMPs are established by Department of Defense Instruction (DoDI) 4715.16 as a Department of Defense (DoD) management plan. Army Regulation (AR) 200-1 *Environmental Protection and Enhancement*, is the implementing regulation for Army Cultural Resources programs. ICRMPs integrate the entirety of the installation's Cultural Resources Management program with ongoing mission activities, and identify compliance actions necessary to maintain the availability of mission essential properties and acreage.

AR 200-1 specifies Army policy for cultural resources management including the development of integrated cultural resources management plans for planning purposes. The Installation Management Command (IMCOM) directs and assists its installations with Cultural Resources Programs consistent with AR 200-1. The Garrison Commander has direct responsibility for establishing an installation's Cultural Resources Program and implementing a plan that successfully integrates cultural resources management within the process of achieving mission objectives.

The Cultural Resources Manager (CRM) plays a primary role in implementing the ICRMP. The CRM coordinates compliance with historic preservation laws and Army regulations on behalf of the Garrison Commander. The CRM coordinates with appropriate parties to ensure compliance with federal historic preservation laws, regulations and executive orders, with particular attention to the National Historic Preservation Act (NHPA), the Native American Grave Protection and Repatriation Act (NAGPRA), and the Archeological Resources Protection Act (ARPA), among others. The ICRMP integrates the management of cultural resources with other plans and processes and adopts goals to improve the program during the effective period of the plan.

The ICRMP contains a set of policies and procedures that enable USAG-Pōhakuloa to achieve and maintain compliance with various historic preservation management laws and regulations. The legal foundation included in this ICRMP provides guidance on carrying out the cultural resources management activities outlined in the Standard Operating Procedures. This document provides direction for routine activities that may have an impact on cultural resources, identifying various consultation requirements, and provides goals that would benefit the management of cultural resources at USAG-Pōhakuloa.

# 1. INTRODUCTION

## 1.1. ICRMP Purpose

There are over 40 separate statutes, regulations, or other binding guidance that set out multiple responsibilities of the United States Army Garrison-Pōhakuloa (USAG-Pōhakuloa) for cultural resources. The need for an Integrated Cultural Resource Management Plan (ICRMP) is established under Department of Defense Instruction (DoDI) 4715.16. Army Regulation (AR) 200-1 is the implementing regulation for Army Cultural Resources programs, including development of ICRMPs. ICRMPs integrate the entirety of the installation's Cultural Resources Management program with ongoing mission activities, and identify compliance actions necessary to maintain the availability of mission essential properties and areas. An ICRMP integrates the complex array of overlapping legal responsibilities into a coherent and efficient overall program. It integrates cultural resources responsibilities with the many other programs and activities that may interact with cultural resources and the people who care about them.

This ICRMP includes goals and priorities for effectively addressing the specific array of cultural resource management needs faced by USAG-Pōhakuloa. The ICRMP stands in support of the primary mission of USAG-Pōhakuloa and the military units that use the facilities. The practices and procedures outlined in the ICRMP minimize conflicts with the military missions supported by the Garrison.

The senior USAG-Pōhakuloa Archaeologist is appointed by the USAG-Pōhakuloa Garrison Commander as the Cultural Resources Manager (CRM) providing day-to-day oversight and coordination for the Cultural Resources Section at Pōhakuloa Training Area (PTA), Kīlauea Military Camp (KMC), and Kawaihae Military Reservation and provides cultural resources support for all three. These installations on the Island of Hawai'i are the subject of this ICRMP. There is a separate ICRMP document for U.S. Army Garrison-Hawai'i (USAG-HI) on Oahu. USAG-Pōhakuloa Commander has command and control authority for PTA as an indirect Garrison to USAG-HI. USAG-HI activities support USAG-Pōhakuloa staff with technical oversight as well as continued administrative and logistical support as USAG-Pōhakuloa grows its capabilities.

The CRM helps ensure that all installation activities are in compliance with applicable cultural resource requirements, serves as a liaison between all persons involved in implementing the ICRMP, and implements the Standard Operating Procedures (SOPs).

## Updating the ICRMP

The ICRMP serves as a long-term planning framework for the Cultural Resources Management Section and is updated annually. The ICRMP may require a major revision if the current ICRMP has been in effect for five or more years, or if there have been any major changes in the USAG-Pōhakuloa mission or cultural resources management activities. If the ICRMP has been in effect for five years and there are no major changes, then the current ICRMP may stay in effect until an annual review determines the need for major revision.

## 1.2. Mission

### U.S. Army Pacific (USARPAC)

The U.S. Army, Pacific (USARPAC) is the Army component of the U.S. Pacific Command (USPACOM) in an area of heightened importance. USARPAC "postures and prepares the force for unified land operations,

responds to threats, sustains and protects the force, and builds military relationships that develop partner defense capacity in order to contribute to a stable and secure United States Pacific Command area of responsibility” (U.S. Army Pacific 2016). USARPAC is headquartered at Fort Shafter, Hawai‘i in facilities managed by USAG-HI, and the USARPAC Commander is the Senior Commander for Army installations in the Pacific, including PTA. The area of responsibility for USARPAC covers more than 100 million square miles and includes 2.5 billion people in 50 countries.

USARPAC is responsible for commanding, equipping, stationing, and training all assigned or attached units and for wartime and peacetime contingency planning for Army forces in Hawai‘i, Alaska, Japan, and South Korea. USARPAC soldiers may find themselves deployed to any one of 42 self-governing nations, selected foreign territories, or 10 U.S. territories in the theater.

Other responsibilities include planning for mobilization, joint/combined exercises, security assistance, emergency evacuation of non-combatants, disaster relief, and civil disturbances. USARPAC also oversees, evaluates, and supports the Army National Guard in Hawai‘i, Alaska, and Guam and has command and control of the Army Reserve units in Saipan, Guam, American Samoa, Hawai‘i, and Alaska.

## **Installation Management Command–Pacific (IMCOM-PAC)**

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IMCOM-PAC is headquartered at Fort Shafter, Hawai‘i in facilities managed by USAG-HI. The USAG-Pōhakuloa Commander reports to IMCOM-PAC and USARHAW through USAG-HI Command. IMCOM-PAC has oversight of garrisons in Alaska, Hawai‘i, Japan, South Korea, and Kwajalein Atoll. The theater of operation for the U.S. Army Pacific Command is a large and complex area, which includes 43 countries, 20 territories and possessions, 10 U.S. territories, and five of the world’s largest foreign armies (IMCOM-Pacific 2016). IMCOM-PAC assists with the development and implementation of conservation programs. IMCOM-PAC reports to IMCOM Headquarters in San Antonio, Texas.

The Installation Management Command (IMCOM) currently manages over 75 Army installations distributed over four regions. IMCOM-PAC is headquartered at Fort Shafter, Hawai‘i, and is the direct reporting unit for USAG-HI.

IMCOM-PAC provides oversight of a myriad of multi-million dollar base operation support programs. IMCOM-PAC operations include management of active and reserve component installations providing support for soldiers, family members, and retirees, as well as civilians.

IMCOM Regional Directors direct and assist their installations in the conduct of Cultural Resources Management Programs.

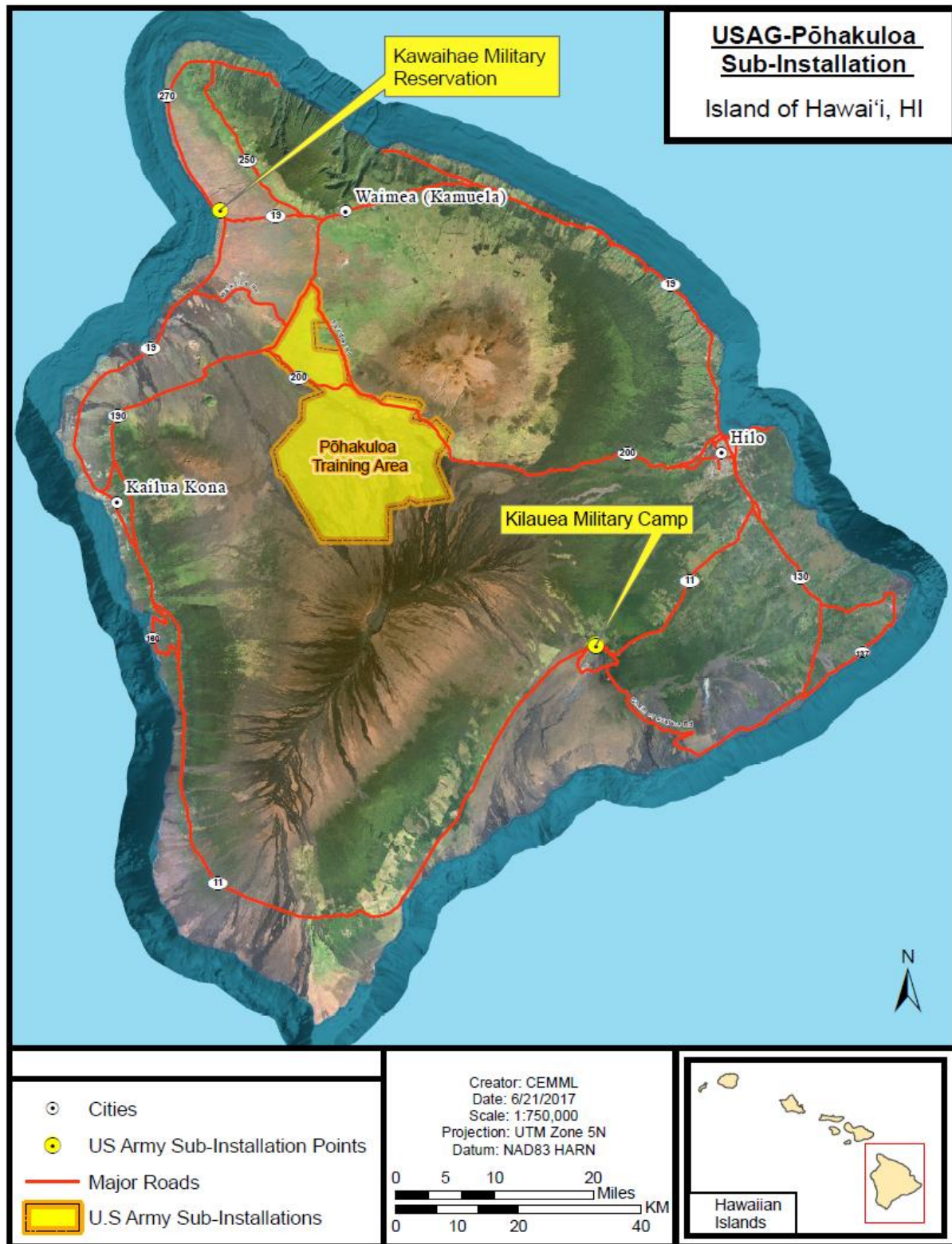
## **U.S. Army Garrison-Hawai‘i (USAG-HI)**

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“Supporting each Warrior, Family and Community with sustainable services, ensuring power projection readiness from Hawai‘i” is the mission of U.S. Army Garrison-Hawai‘i (U.S. Army Garrison-Hawaii 2016).

USAG-HI manages all Army installations in Hawai‘i, providing installation management service and logistical support for approximately 93,700 Army and other military personnel, civilian personnel, military retirees and their dependents, and others. USAG-HI manages a total of 22 sub-installations on the islands of O‘ahu and Hawai‘i. USAG-HI maintains oversight and support responsibilities for the subordinate, indirect garrison of USAG-Pōhakuloa on the Island of Hawai‘i, and jointly with USAG-Pōhakuloa, facilitates cultural resources responsibilities of the Army at Pōhakuloa Training Area (PTA), Kīlauea Military Camp (KMC), and Kawaihae Military Reservation.

Figure 1: USAG- Pōhakuloa Sub-Installations Map



While USAG-HI is responsible for basic support and management services, there are many other military commands and units working from within the installation. The activities and requirements of these units affect the demands facing cultural resources management within the Garrison jurisdiction. The USAG-HI Garrison Commander reports to both the Pacific Region of the Installation Management Command

## **U.S. Army Garrison-Pōhakuloa (USAG-Pōhakuloa)**

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The mission of USAG-Pōhakuloa is to provide support for single service, Joint, and Combined training to afford warfighters the most realistic and flexible training environment available in the Pacific Region.

The USAG-Pōhakuloa Commander has command and control authority for PTA as an Indirect Garrison to USAG-HI and reports to both the USARPAC Commander and IMCOM-PAC through USAG-HI Command and USARHAW. Pōhakuloa Training Area is the primary tactical training area that provides the U.S. Pacific Command (USPACOM) Commander with joint/multinational training capabilities to support home-station training, joint training, and enables theater regional engagements. As a remote location, PTA is ideally suited for emergency deployment readiness exercises (EDREs), regional Joint Reception, Staging, Onward movement and Integration (JRSOI) training, and multinational exercises in support of Theater Security Cooperation Programs (TSCP) and Shaping Operations.

USAG-HI activities support USAG-Pōhakuloa staff with technical oversight, as well as continued administrative and logistical support as USAG-Pōhakuloa grows its capabilities. USAG-Pōhakuloa also has oversight of KMC and Kawaihae Military Reservation and provides cultural resources support for both. The USAG-Pōhakuloa actively supports the following USAG-HI tenant activities, organizations, and units when they deploy to PTA for training. Tenants are required to notify the CRM of any potential changes to historic properties and to coordinate the National Historic Preservation Act (NHPA) Section 106 process through the USAG-Pōhakuloa Cultural Resources Section.

## **25th Infantry Division (25<sup>th</sup> ID)**

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The 25th Infantry Division (25<sup>th</sup> ID) is the major organization deployed forward in the Pacific region. Its mission is to conduct Decisive Actions in support of Unified Land Operations. The division conducts continuous persistent engagement with regional partners to shape the environment and prevent conflict across the Pacific Operational Environment (25th Infantry Division 2016). Also known as the “Tropic Lightning” Division and “America’s Pacific Division,” the unit stands ready to provide mission-tailored force packages to support the full range of operational requirements within the Pacific. The 25<sup>th</sup> ID also conducts partnered exercises and expert exchanges with various countries throughout the region to build partner capacity and interoperability.

Commands within the 25<sup>th</sup> ID consist of:

- 25<sup>th</sup> Headquarters and Headquarters Battalion
- 2<sup>nd</sup> Infantry Brigade Combat Team
- 3<sup>rd</sup> Infantry Brigade Combat Team
- 25<sup>th</sup> Combat Aviation Brigade
- 25th Sustainment Brigade
- 25<sup>th</sup> Division Artillery



## U.S. Army, Hawaii (USARHAW)

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Headquarters, Department of the Army (HQDA) has assigned the Senior Commander of the 25<sup>th</sup> Infantry Division (25th ID) the responsibility of coordination and providing support and prioritization to all Army units in Hawaii. The Senior Commander and the Headquarters staff addressing these responsibilities are U.S. Army, Hawaii (USARHAW). The mission of USARHAW is "prioritizing, directing, and synchronizing installation-level resources to assist commanders to prepare their units for assigned missions."

## Other USAG-HI Tenant Commands and Units

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**8th Theater Sustainment Command**  
**311th Signal Command (Theater)**  
**94th Army Air & Missile Defense Command**  
**Pacific Regional Medical Command & Tripler Army Medical Center**  
**9th Mission Support Command**  
**18th Medical Command**  
**19th Military Police Battalion**  
**500th Military Intelligence Brigade**  
**599th Transportation Brigade**  
**196th Infantry Brigade**  
**U.S. Army Reserves**  
**State of Hawai'i Army National Guard**

**Other Department of Defense Agencies:** The U.S. Navy, U.S. Marine Corps, and the U.S. Air Force execute training exercises at PTA, including Air-to-Ground Gunnery exercises, maneuver, and live-fire exercises. The U.S. Marine Corps training asset inventory does not have adequate land resources to support all of their training requirements. Consequently, the Marine Corps utilizes Army training lands to meet their training requirements. These units have organic infantry, artillery, and aviation assets that train to similar standards as the Army. Navy fighter and attack aircraft crews train using PTA airspace. The Air Force also conducts C-17 heavy drops and high-altitude training runs.

**Allied Armed Forces:** Allied units deploying to Hawai'i for training match the size and mission tasks similar to 25<sup>th</sup> ID units and utilize PTA facilities.

**State of Hawai'i Army National Guard:** The Hawai'i Army National Guard (HIARNG) has two primary missions. The federal mission is to serve as an integral component of the Army by providing fully manned, operationally ready, and well-equipped units that can respond to any national contingency. The state mission of HIARNG is to provide a highly effective, professional, and organized force capable of supporting and assisting civilian authorities in response to natural disasters, human-caused crises, or the unique needs of the state and its communities. The National Guard, while a state organization, trains to the federal Army military standards.

**Hawai'i Island Law enforcement:** In 2012 and 2013, USAG-Pōhakuloa signed interagency agreements allowing the Hawai'i Department of Public Safety, the Hawai'i Police Department, and other public safety workers on Hawai'i Island to use PTA facilities.

### 1.3. Mission Activities of USAG-Pōhakuloa Sub-Installations

The USAG-HI currently manages 22 sub-installations on the islands of O‘ahu and Hawai‘i. Three (3) of these are located on Hawai‘i Island, while the remaining nineteen (19) are located on O‘ahu Island. PTA is the single largest U.S. Army holding in the state of Hawai‘i at 132,000 acres. The majority of PTA was acquired through Presidential Executive Order 11167 (64 percent) and purchases (18 percent). The Ke‘āmuku Parcel (Ke‘āmuku Maneuver Area), a former Parker Ranch land holding managed by the Richard Smart Trust, was purchased in 2006.

*Table 1: USAG-Pōhakuloa Sub-Installations*

| USAG-Pōhakuloa Sub-Installations addressed in this ICRMP                      |   |               |                 |
|---|---|---------------|-----------------|
| Sub-Installation  | Date Established                                    | Date Acquired | Total Acres     |
| <b>Pōhakuloa Training Area (PTA)<br/>(incl. Ke‘āmuku Maneuver Area [KMA])</b> | Camp Pōhakuloa established by U.S. Military ca.1942 | *             | *               |
| <b>Kawaihae Military Reservation</b>  | 1956  | 1956          | 11              |
| <b>Kīlauea Military Camp (KMC)</b>  | 1916  | 1921          | 72 <sup>1</sup> |
| * Pōhakuloa includes training areas and a cantonment:                         |   |               |                 |
| Pōhakuloa Training Area (PTA)   | 1942 (see above)                                    | 1956          | 107,833         |
| (Ke‘āmuku Maneuver Area [KMA])  |   | 2006          | 24,043 (KMA)    |
| Pōhakuloa Cantonment  | 1955-58   | 1956          | 124             |

#### Pōhakuloa Training Area (PTA)

The mission of PTA is to provide military training opportunities for military personnel in preparation for deployment anywhere in the world, providing live fire and maneuver capabilities for the Army, law enforcement at all levels from county to federal agencies, and for other American and allied foreign military services.

PTA is divided into 24 training areas with live-fire and non live-fire fixed ranges, airborne drop zones, landing zones, field artillery and mortar firing points, and a centrally-located Impact Area. PTA contains a large Battle Area Complex (BAX) for battalion-size live-fire maneuvers, an infantry platoon battle course (IPBC), and a convoy live-fire area that supports mounted maneuver and live-fire training requirements (U.S. Army Garrison-Hawaii May 2016). All types of training actions are conducted at PTA, and the area provides realistic training for all branches of the U.S. military as a primary training area of the Pacific region. PTA helped prepare the 25<sup>th</sup> ID, Kaneohe-based Marines, and Hawai‘i Army National Guard for combat operations in Iraq and Afghanistan. Included as part of PTA is the Ke‘āmuku Maneuver Area (KMA), which was purchased from Parker Ranch in 2006 to increase mounted and dismounted maneuver training at PTA. The PTA area has been used for military training since WWII; the Army Training Area was established in 1956.

<sup>1</sup> 72-acres is reported in the HQIIS, but other Department of the Army datasets and NPS records report different acreages for KMC.

## Pōhakuloa Cantonment

The Cantonment area of PTA comprises 124-acres with 120 buildings and structures, mostly Quonset huts, which are largely used for billeting, food preparation, storage, facilities maintenance, and administration. Approximately 190 personnel (civilian and military) are assigned to PTA on a permanent basis.

*Bradshaw Army Airfield (BAAF)* is adjacent to the Pōhakuloa Cantonment area. The airfield contains a runway and terminal facilities (control tower, airfield operations, weather forecasting and reporting, and crash rescue) to support transient aircraft for refuel, parking, and minor maintenance.

## Kawaihae Military Reservation (Kawaihae Harbor)

The land encompassing Kawaihae Military Reservation is part of an area that historically served as a significant seaport and fishing site during the reign of Kamehameha I. Under the reign of Kamehameha I, the area supported a royal residence on the shore at Pelekane as well as Pu'ukoholā Heiau ceremonial site, both of which are outside of the Army's area of responsibility. The port also served as a significant site for the sandalwood trade and cattle industry. Kawaihae Military Reservation is the Army-controlled portion of Kawaihae Harbor that was established during WWII and has served as a docking center for troops and material moving to and from PTA.

## Kīlauea Military Camp (KMC)

Kīlauea Military Camp (KMC) is located on 72 acres within Hawai'i Volcanoes National Park (HAVO).<sup>2</sup> The mission of KMC is to operate as a rest-and-recreation center for active duty and retired members of the Armed Forces, their families, and guests. The idea of Kīlauea as a national park was casually proposed as early as 1903, but it was not until 1910 that official interest from the territorial governor was transmitted to the Secretary of the Interior (Apple 1954). This was followed by a succession of bills to Congress in 1911, 1915, and 1916, to actually create the National Park. In October 1921, the Army took control of the area now known as KMC on the northern edge of Kīlauea Crater and it became the first U.S. Army installation on Hawai'i island, with the primary purpose of providing rest and recreation facilities for Army personnel. During WWII, the facilities were transformed into training camps, and in 1942 KMC served as the headquarters for the 27<sup>th</sup> Division. Several facilities also housed Japanese-American detainees and later served as a Prisoner-of-War camp (Tomonari-Tuggle and Slocumb 2000). KMC remains under the joint support of USAG-HI and USAG-Pōhakuloa under a Special Use Permit (SUP) from the National Park Service.

## 1.4. Management and Responsibilities

DoD policy and Army regulations call for installations and activities to develop and implement an ICRMP for use as a planning tool. These plans help ensure compatibility between the installation's military mission, other planned activities, and the management of its cultural resources. According to AR 200-1, *Environmental Protection and Enhancement*, the major goal of a Cultural Resources Management program is to "develop and implement procedures to protect against encumbrances to mission by ensuring that Army installations effectively manage cultural resources" (Department of the Army 2007).

AR 200-1 and DoDI 4715.16 create a framework for managing cultural resources at the installation level and support the Army in addressing its need to have a comprehensive historic preservation program. Therefore, the effective management of cultural resources, as exemplified by the development and

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<sup>2</sup> 72-acres is reported in the HQIIS, but other Department of the Army datasets and NPS records report different acreages for KMC.



Garrison-wide acceptance of this ICRMP, follows from federal laws, Army regulations, and from Federal Standards and Guidelines for federal historic preservation programs.

## **USAG-HI Garrison Commander**

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The USAG-HI Garrison Commander supports the USAG-Pōhakuloa Commander and PTA staff by supplying technical oversight and administrative and logistical support for USAG-Pōhakuloa (OPORD 48-10 2010).

## **USAG-HI Directorate of Public Works (DPW)**

As head of the USAG-HI Directorate of Public Works, the Director of DPW provides technical oversight and logistical support for USAG-Pōhakuloa, as an indirect Garrison.

## **USAG-HI Environmental Division**

The USAG-HI DPW Environmental Division is comprised of two branches; the Compliance Branch and the Conservation Branch. Both Environmental Division branches provide environmental guidance, support, and liaison services for USAG-Pōhakuloa as an indirect Garrison.

## **USAG-Pōhakuloa Garrison Commander**

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USAG-Pōhakuloa Commander has command and control authority for PTA as an indirect Garrison to USAG-HI. The USAG-Pōhakuloa Garrison Commander (GC) ensures that the Garrison meets the general cultural resources requirements assigned. As the leading authority in charge of cultural resources, the GC is specifically designated as the federal agency official for purposes of the National Historic Preservation Act (36 CFR §800), as the Federal Land Manager for purposes of the Archeological Resources Protection Act (32 CFR §229), as the Federal Agency Official with management authority over archeological collections and associated records (36 CFR §79), and as the Federal Agency Official for purposes of the Native American Graves Protection and Repatriation Act (43 CFR §10).

AR 200-1, Chapter 6, lists Garrison-wide tasks with respect to cultural resources. The lists from this regulation provide a succinct overview of the range of duties and requirements with respect to cultural resources management including, but not limited to, the following:

- Retain general oversight of cultural resources responsibilities.
- Assign operational responsibilities and monitor performance to assure that responsible parties appropriately and cooperatively carry out the tasks that fall within their spheres of authority and responsibility.
- Establish a process that requires installation staff elements, tenants, and other interested parties to coordinate with the CRM early in the planning of projects and activities to determine if any historic properties are, or may be, present that could be directly or indirectly affected by a project or activity. These elements include any training and testing activities, master planning, environmental impact analysis, or natural resources and endangered species management planning and programming.
- Establish and maintain appropriate consultative relationships with Native Hawaiian Organizations and other interested parties.
- Establish funding priorities and program funds for cultural resources compliance and management activities.

## **USAG-Pōhakuloa Cultural Resources Section**

The Cultural Resource Manager (CRM) is the lead position within the USAG-Pōhakuloa Cultural Resources Section. The Cultural Resources Section staff includes both Department of the Army Civilian employees

and contracted support staff. USAG-HI Cultural Resources Section staff maintain oversight and support responsibilities for the subordinate, indirect garrison of USAG-Pōhakuloa, and with the Garrisons jointly facilitate cultural resources responsibilities of the Army on the Island of Hawai'i. Direct supervision of the USAG-Pōhakuloa CRM is provided by the USAG-Pōhakuloa Deputy Garrison Commander.

The general objectives of the USAG-Pōhakuloa cultural resources management program are:

- To eliminate impacts to the military missions arising from cultural resources issues;
- To meet compliance requirements in conjunction with other Garrison offices; and
- To identify, enhance, and implement program efficiencies.

### **Major Cultural Resources Section Responsibilities:**

**Inventory and Monitoring:** Identify and document cultural resources, which also encompasses compiling and managing information about the resources. The Cultural Resources Section staff actively monitor historic property conditions to facilitate management.

**Review of Projects/Undertakings/Actions for Compliance with Cultural Resources Requirements:** The Cultural Resources Section maintains records of Garrison compliance with Section 106 of NHPA, NAGPRA, the archaeological permit standards of ARPA, and other cultural resources requirements for all actions or undertakings that have the potential to affect historic properties, archaeological resources, cultural items, or sacred sites. The Cultural Resources Section reviews proposed projects and actions beginning in early stages of planning to identify cultural resources issues and to inform the proponents regarding the requirements that may apply. The Cultural Resources Section advises proponents as to the most efficient and effective process through which the Garrison may achieve compliance with the cultural resources requirements applicable to specific undertakings.

**Consultation and Public Participation:** In many circumstances, consultations are required with Native Hawaiian Organizations, other agencies, and interested groups and individuals. DoDI 4710.03 directs the Garrison to maintain on-going consultative relationships with Native Hawaiian Organizations.

**Information Management:** The Cultural Resources Section must manage a complex set of interrelated information. Many of the records compiled by the Cultural Resources Section are permanent in nature and need appropriate long-term care.

**Mitigation Implementation:** The results of Section 106 or other compliance reviews often establish responsibilities to implement specific measures to avoid, minimize, or mitigate damage to cultural resources. The Cultural Resources Section implements many of these measures agreed to in consultation. Proponents and Project Managers may also be responsible for implementation of mitigation measures in coordination with the Cultural Resources Section.

**Curation:** Federal Regulation 36 CFR §79 establishes standards, procedures, and guidelines for preserving collections of prehistoric and historic material remains and associated records recovered under the authority of ARPA, NHPA, and other statutes so these collections may retain research and educational value indefinitely.

**Research:** Historical, cultural, and archaeological research all contribute to the documentation necessary for maintaining an accurate inventory record and for evaluating cultural resources significance.

**Budgets, Work Plans, Project Funding Requests, and Contracts:** The CRM develops budgets, annual work plans, and project funding requests for the Cultural Resources Section. The CRM develops and implements cooperative agreements and other contracts necessary to carry out the substantive tasks associated with cultural resources responsibilities of the Garrison. The U.S. Army Corps of Engineers, Honolulu District or other agencies administer many contracts for cultural resources tasks on behalf of project proponents or

on behalf of the Cultural Resources Section. These contracts often include archaeological survey, site documentation, monitoring, and building rehabilitation, or other tasks.

**Internal Program Assessments:** The Environmental Performance Assessment and Assistance System (EPAAS) maintains an extensive checklist of cultural resources requirements applicable to federal agencies in general, and another list addressing Department of the Army policies and direction with respect to those requirements. The CRM conducts an internal program assessment using these checklists and reports results through the Environmental Management System (EMS). Any findings of requirements not well addressed should result in a corrective action plan.

**Track and Report Program Metrics for Data Calls:** The Department of the Army and IMCOM periodically request a variety of data pertinent to cultural resources at Army Garrisons. The USAG-Pōhakuloa and USAG-HI CRMs compile the data and draft responses using the measures specified in the requests. Data calls from IMCOM or Department of the Army normally combine the data from USAG-HI and USAG-Pōhakuloa for reporting purposes.

## Proponent for a Project, Action, or Undertaking

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AR 200-1 defines “proponent” generally as “the unit, element, or organization that is responsible for initiating and/or carrying out the proposed action.” Those units or organizations that frequently plan and implement projects for construction, development, training, and maintenance at PTA are usually proponents of those projects for purposes of complying with Section 106 of the National Historic Preservation Act. Proponent organizations include, but are not limited to:

- USARHAW Integrated Training Area Management (ITAM)
- USARHAW Training Support Systems
- USAG-HI DPW Master Planning Branch
- USAG-HI DPW Utilities
- USAG-HI DPW Job Order Contract managers
- USAG-HI Directorate of Plans, Training, Mobilization & Security (DPTMS)
- USAG-HI and USAG-Pōhakuloa DPW Engineering Divisions
- USAG-HI and USAG-Pōhakuloa Troop Construction project managers
- Managers of other contracted work
- U.S. Army Corps of Engineers
- Military units

Proponents must be *active* agents in the consideration of cultural resources pertinent to their projects in order for the Garrison to achieve compliance. Proponents must be prepared to justly consider altering project plans and parameters responsive to comments and concerns raised during consultations. Project managers implementing a project must be prepared to enforce the terms of all agreements reached for cultural resources protection during the planning process. Proponents cannot rely on the Cultural Resources Section to achieve compliance on their behalf without the active collaboration of the proponent throughout the project planning. Whichever office or individual assumes proponent responsibilities for a project, action, or undertaking, that proponent typically has the following responsibilities as noted in AR 200-1, implementing regulations for NHPA (36 CFR §800), and Army regulations for implementing National Environmental Policy Act (NEPA) (32 CFR §651.4):

- Notice to the CRM of a proposed action or undertaking and its full known scope **early in the planning processes.**
- Participate in defining the Area of Potential Effects for the undertaking

- Assure that funding and support for identification of historic properties, assessments of effect, and implementation of mitigation measures are incorporated into project proposals and budgets
- Supply information needed by the CRM for official correspondence
- Assure that NEPA and NHPA compliance are properly coordinated
- Incorporate any restrictions or agreement stipulations resolving cultural resources issues into project designs, contracts, construction inspections, standard operating procedures for units, and other project oversight.
- Keep written record of Section 106 completion and any resulting conditions or agreements applicable to the project.
- Notify CRM of any material change to the project scale, scope, design parameters, timing, or other circumstances to assess whether the changes affect the Section 106 compliance status at any stage of project planning or implementation.
- Notify the USAG-Pōhakuloa CRM and the USAG-HI DPW when the implementation of the project appears not to be in accord with, or lacking any of the provisions upon which, the Section 106 resolution is contingent.

## 1.5. Partnerships

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USAG-Pōhakuloa and USAG-HI maintain partnerships with outside agencies concerned with cultural resources management. Outside agencies are those organizations, stakeholders, or interested parties that are directly involved with cultural resource management on Army landholdings. As stated in DoDI 4715.16, “Consult in good faith with internal and external stakeholders and promote partnerships to manage and maintain cultural resources by developing and fostering positive partnerships with Federal, tribal, State, and local government agencies; professional and advocacy organizations; and the general public” (Department of Defense 2008). USAG-HI Cultural Resources Section consults with the following organizations:

### Advisory Council on Historic Preservation

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The Advisory Council on Historic Preservation (ACHP) is an independent Federal agency created by the NHPA, and is the major policy advisor to the Government in the field of historic preservation. The ACHP is composed of nineteen Members. A small professional staff serves it with offices in Washington, DC. The Advisory Council may choose to participate in the development of agreement documents. Disputes regarding a federal agency’s completion of Section 106 responsibilities may also be referred to the Advisory Council.

### National Park Service

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The National Park Service (NPS) participates in cultural resources management at both the national and local levels. The Western Regional Office (WRO) has oversight of historic preservation offices in the western continental United States and the Pacific; in this latter role WRO has been reviewing agreement documents signed by the State Historic Preservation Division (SHPD). WRO also participates in Section 106 consultations for undertakings that may affect National Historic Landmarks (NHLs). There are no NHLs under Army control on Hawai’i Island, but Pu’u Kohola Heiau is adjacent to Kawaihae Harbor and the Mauna Kea Adze Quarry is above PTA near the summit of Mauna Kea.

Hawai’i Volcanos National Park (HAVO) owns the land on which Kīlauea Military Camp (KMC) on Hawai’i Island is situated and, therefore, has some ongoing responsibility for the management and care of cultural resources on that installation. The HAVO Superintendent has approval authority over major undertakings

that may have an effect on cultural resources. A cultural resource specialist with the National Park Service provides professional expertise and is the point-of-contact for the CRMs at USAG-HI and USAG-Pōhakuloa.

The NPS also oversees The Secretary of the Interior's Standards for the Treatment of Historic Properties.

## **Hawai'i State Historic Preservation Division (SHPD)**

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State Historic Preservation Offices (SHPOs) were established under the National Historic Preservation Act of 1966 (NHPA). Federal agencies are required to consult with the SHPO and obtain concurrence on determinations of eligibility and effect. The Chairperson for the Hawai'i State Department of Land and Natural Resources (DLNR) is officially designated as the State Historic Preservation Officer for purposes of NHPA. The Administrator for the State Historic Preservation Division (SHPD) within DLNR serves as the Deputy SHPO and directs a professional and technical staff that carries out the regular duties on behalf of the SHPO.

## **Historic Hawai'i Foundation**

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The Historic Hawai'i Foundation was founded in 1974 to preserve Hawai'i's unique architectural and cultural heritage. The organization is an interested party in cultural resource management issues on USAG-Pōhakuloa lands, especially with respect to historic buildings and districts.

## **Hawai'i State Office of Hawaiian Affairs (OHA)**

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The Office of Hawaiian Affairs (OHA) is an agency of the State of Hawai'i, specifically formed to ensure the perpetuation of the culture, the enhancement of lifestyle, and protection of entitlements of Native Hawaiians. OHA functions operationally as a State government agency with a strong degree of autonomy and as a trust. As a part of its mission, OHA participates in consultations regarding cultural resources that hold cultural or religious significance to Native Hawaiians. OHA is a source of expertise and advice regarding values and significance that may be embodied in specific cultural resources, and regarding the other Native Hawaiian organizations and individuals that may wish to participate in specific consultations. Federal laws and regulations requiring federal agencies to consult with Native Hawaiian Organizations specifically designate OHA as one of the organizations that must be included in such consultations.

## **Native Hawaiian Organizations**

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### **Hawai'i Island Burial Council (HIBC)**

The State of Hawai'i established a burial council for each of the major Hawaiian Islands (Hawai'i Revised Statute (HRS) 6E-43.5). These councils have oversight within State of Hawai'i law and regulations to assure that Native Hawaiian burials affected by projects, receive appropriate respect, proper handling and treatment, and proper final disposition. The five Island Burial Councils are supported administratively through the State Historic Preservation Division. Council members are appointed by the Governor and confirmed by the Senate for a four year term.

USAG-Pōhakuloa includes HIBC in consultations regarding burials, as a source of expertise and advice regarding appropriate values and sensitivities related to burials, and for help seeking potential claimants or cultural descendants affiliated with specific burials. Council members meet once a month to address concerns related to Native Hawaiian burial site issues for Hawai'i Island and often participate in consultations where burials are known or likely to occur within the area of potential effect for a proposed undertaking or project under Garrison jurisdiction.

## Other Native Hawaiian Organizations

There are a large number of Native Hawaiian Organizations (NHOs) and groups throughout the Hawaiian Islands that serve and represent the interests of Native Hawaiians for a variety of purposes. The Department of Interior maintains a Native Hawaiian Organizations Notification List website for Federal and State agencies seeking to comply with consultation requirements pursuant to Federal law. The list is updated periodically and available at <https://www.doi.gov/hawaiian/NHOL>.

DoDI 4710.03 provides formal policy guidance with respect to consultations with Native Hawaiian Organizations. It acknowledges the special status of NHOs in Federal laws, states a DoD-wide policy of meaningful consultations, and directs that on-going consultative relationships be maintained with Native Hawaiian Organizations.

## 1.6. Statutes, Regulations, and Guidelines

Statutes, regulations, and guidelines pertaining to the management of cultural resources under U.S. Army Garrison-Pōhakuloa (USAG-Pōhakuloa) stewardship.

### Federal Statutes

*Table 2: Federal Statutes*

| Name   | Citation  | Common Abbreviation |
|--|---|---------------------|
| Abandoned Shipwreck Act of 1987                                  | 43 U.S.C. § 2101-2106                             |                     |
| American Indian Religious Freedom Act of 1978, as amended        | 42 U.S.C. § 1996-1996a                            | AIRFA               |
| Americans with Disabilities Act of 1990                          | 42 U.S.C. § 12101                                 | ADA                 |
| Antiquities Act of 1906, as amended                              | 54 U.S.C. § 320301-320303                         |                     |
| Archaeological and Historic Preservation Act of 1974, as amended | 54 U.S.C. § 312501-312508                         | AHPA                |
| Archaeological Resources Protection Act of 1979                  | 16 U.S.C. § 470aa-470mm                           | ARPA                |
| Coastal Zone Management Act of 1972                              | 16 U.S.C. § 1451-1456                             | CZMA                |
| Historic Sites Act of 1935, as amended                           | 54 U.S.C. § 320101-320106, 102303, 102304, 309101 | HSA                 |
| National Environmental Policy Act, as amended                    | 42 U.S.C. § 4321-4370c                            | NEPA                |
| National Historic Preservation Act of 1966, as amended           | 54 U.S.C. § 300101 et seq.                        | NHPA                |
| Native American Graves Protection and Repatriation Act of 1990   | 25 U.S.C. § 3001-3013                             | NAGPRA              |
| Public Buildings Cooperative Use Act                             | 40 U.S.C. § 3306                                  | PBCUA               |
| Religious Freedom Restoration Act                                | 42 U.S.C. § 2000bb                                | RFRA                |

### *Abandoned Shipwreck Act of 1987 (43 U.S.C. § 2101-2106)*

The Abandoned Shipwreck Act establishes ownership and preservation responsibilities for abandoned shipwrecks in the waters of the United States.

### ***American Indian Religious Freedom Act, as amended (42 U.S.C. § 1996-1996a)***

The American Indian Religious Freedom Act (AIRFA) states that it is the policy of the United States to “protect and preserve for American Indians their inherent right of freedom to exercise the traditional religions of the American Indians, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.” AIRFA promotes consultation and guarantees access to traditional sites located on federal lands and a non-interference with religious practices.

### ***Americans with Disabilities Act of 1990 (42 U.S.C. § 12101)***

The Americans with Disabilities Act (ADA) is a wide-ranging legislation intended to establish a clear and comprehensive prohibition of discrimination on the basis of disability. It establishes standards for accessibility for public buildings in regard to entryways, restrooms, and other issues. Accessibility to properties open to the public, including historic properties, is a civil right.

### ***Antiquities Act of 1906 (54 U.S.C. § 320301-320303)***

The Antiquities Act authorizes the President to designate historic and natural resources located on federally owned or controlled land as National Monuments and provides protection for archaeological resources. The act provides protection to prehistoric and historic ruins and objects by providing criminal sanctions against excavation, injury, or destruction of those resources without the use of a federal permit.

### ***Archaeological and Historic Preservation Act of 1974 (54 U.S.C. § 321501-312508)***

The Archaeological and Historic Preservation Act (AHPA) or Moss Bennet Act provides for the preservation of historical and archaeological data (including relics and specimens) that might otherwise be lost as the result of the construction of a dam or any alteration of the terrain resulting from federal construction project or federally licensed activity or program.

### ***Archaeological Resources Protection Act of 1979 (16 U.S.C. § 470aa-470mm)***

The Archaeological Resources Protection Act (ARPA) secures the protection of archaeological resources and sites on public lands and Indian lands and fosters increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data obtained before the date of the enactment. Unauthorized excavation, removal, damage, alteration, or defacement of archaeological resources on public lands is prohibited. ARPA sets forth criminal and civil penalties for such violations. The act requires a permit for any excavation or removal of archaeological resources from public lands not sponsored by the federal agency. ARPA identifies information about the location and nature of archaeological resources as sensitive information that may not be made available to the public unless such disclosure furthers the purposes of ARPA and does not create a risk of harm to the resources. Such information may be shared with State agencies dependent upon a commitment to protect the confidentiality of the information.

### ***Coastal Zone Management Act of 1972 (16 U.S.C. § 1451-1466)***

The Coastal Zone Management Act (CZMA) established laws and state coastal zone management programs designed to protect, preserve, and restore important ecological, cultural, historic, and esthetic values of our Nation’s coastal communities and zones.



### *Historic Sites Act of 1935 (54 U.S.C. § 320101-320106, 102303, 102304, 309101)*

The Historic Sites Act (HSA) declares it is a national policy to preserve, for public use, historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States. National Historic Landmarks may be designated by action of the Secretary of the Interior under authority of this law independently of National Register consideration. National Historic Landmarks, when so designated, are considered automatically listed in the National Register of Historic Places with National level of significance, per regulations implementing the National Register. The two designations are legally distinct.

### *National Environmental Policy Act (42 U.S.C. § 4321-4370c)*

The National Environmental Policy Act (NEPA) requires all federal agencies to prepare a document, most commonly an Environmental Assessment (EA), which assesses the potential impacts of any proposed action on the environment, including impacts to cultural resources. If impacts are judged potentially significant, an Environmental Impact Statement (EIS) must be prepared. An EIS identifies any unavoidable adverse environmental effects, as well as alternatives to the proposed action, prior to its implementation. This process compels informed decision-making by federal agencies and their departments by requiring consideration of all relevant environmental consequences of proposed actions and involving the public in the decision-making process. As our basic national charter for protection of the environment, NEPA establishes policy, sets goals (Section 101), and provides means (Section 102) for carrying out the policy. Section 102(2) contains action-forcing provisions to make sure federal agencies act according to the letter and spirit of the Act. NEPA procedures must ensure environmental information is available to public officials and citizens before decisions are made and before actions are taken.

### *National Historic Preservation Act of 1966, as amended (54 U.S.C. § 300101 et seq.)*

The National Historic Preservation Act (NHPA) establishes the federal historic preservation program including expansion and maintenance of a National Register of Historic Places (Section 101), requires all federal agencies to take into account the effects of their actions on the Nation's historic properties (Section 106), and directs federal agencies to assume responsibility for the preservation of historic properties that are owned or controlled by such agency (Section 110). NHPA also establishes the State Historic Preservation Offices, the Advisory Council on Historic Preservation, the National Register of Historic Places, and federal agency Historic Preservation programs. NHPA further notes that the historical and cultural foundations of the country should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people.

### *Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. § 3001-3013)*

The Native American Graves Protection and Repatriation Act (NAGPRA) protects Native American burial sites and regulates the removal of human remains, funerary objects, sacred objects, and objects of cultural patrimony on federal, Native American, or Native Hawaiian Home Lands during planned or unanticipated excavations. NAGPRA requires federal agencies and museums receiving federal funds to inventory holdings for such remains and objects and work with tribal groups and Native Hawaiian Organizations in a consultation process to reach agreements on the repatriation, transfer or other disposition of the remains and objects. This act provides for the determination of custody, protection, and repatriation of Native American human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony. It ensures the respectful treatment of these remains and objects and minimizes their exploitation prior to repatriation.



### ***Public Buildings Cooperative Use Act (40 U.S.C. § 3306)***

The Public Buildings Cooperative Use Act (PBCUA) directs federal agencies to acquire and use space in suitable buildings of historic, architectural, or cultural significance, and to encourage public access to and community use of public buildings for cultural, educational, and recreational activities.

### ***Religious Freedom Restoration Act (42 U.S.C. § 2000b)***

The Religious Freedom Restoration Act (RFRA) ensures interests in religious freedom are protected, including access to sacred land and sites. Government activity may substantially burden a person's free exercise of religion only if the activity is in furtherance of a compelling governmental interest and is the least restrictive means of furthering that interest.

## **Executive Orders**

***Table 3: Executive Orders***

| <b>Name</b>   | <b>Citation</b> | <b>Date</b>     |
|---|-----------------|-----------------|
| Protection and Enhancement of the Cultural Environment                            | EO 11593        | 13 May 1971     |
| Locating Federal Facilities on Historic Properties in Our Nation's Central Cities | EO 13006        | 21 May 1996     |
| Indian Sacred Sites   | EO 13007        | 24 May 1996     |
| Preserve America  | EO 13287        | 3 March 2003    |
| Federal Real Property Asset Management  | EO 13327        | 6 February 2004 |

### ***EO 11593 – Protection and Enhancement of the Cultural Environment***

Requires agencies of the executive branch of the Government to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations; initiate measures that facilitate the preservation, restoration, and maintenance of federally owned sites, structures, and objects of historical, architectural, or archaeological significance; and, in consultation with the Advisory Council on Historic Preservation (ACHP), to institute procedures to assure that federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance.

### ***EO 13006 -- Locating Federal Facilities on Historic Properties in Our Nation's Central Cities***

Encourages the use of suitable historic buildings of national, cultural, or architectural significance for federal facilities.

### ***EO 13007 – Indian Sacred Sites***

Requires executive agencies with administrative responsibility of federal land management to accommodate access to and ceremonial use of Indian sacred sites and avoid adversely affecting the physical integrity of sacred sites. Sacred sites may be eligible for the National Register of Historic Places.

### *EO 13287 – Preserve America*

Establishes that the federal government shall recognize and manage the historic properties in its ownership as assets that can support department and agency missions while contributing to the vitality and economic wellbeing of the Nation's communities.

### *EO13327 -- Federal Real Property Asset Management*

Mandates that general real property planning and management incorporates processes responsive to the requirements of EO 13287, which promotes long-term preservation and use of historic real property assets, including a descriptive database with the historic status codes of all real property.

## **Presidential Memoranda**

*Table 4: Presidential Memoranda*

| Subject  | Date          |
|--|---------------|
| Government to Government relations with Native American Tribal Governments | 29 April 1994 |

### *Government-to-Government Relations with Native American Tribal Governments*

Recognizes the unique political relationship between the United States Government and Native American tribal governments. Executive departments and agencies are given principles that reaffirms them to conduct their activities in a manner respectful to the rights of self-government and self-determination with federally recognized tribal governments.

## **Federal Regulations**

*Table 5: Federal Regulations*

| Citation   | Title   | Issuing Agency                                |
|------------|---|---|
| 15 CFR 930 | Federal Consistency with Approved Coastal Management Programs   | National Oceanic and Atmospheric Agency       |
| 32 CFR 229 | Protection of Archaeological Resources<br><br>(Note: Uniform ARPA regulations appear in four separate locations in the CFR, once for each agency mandated to issue enforcing regulations. See 32 CFR 229 for Department of Defense; 36 CFR 296 for Department of Agriculture; 43 CFR 7 for Department of the Interior; and 18 CFR 1312 for the Tennessee Valley Authority. Supplemental regulations appear with Dept. of Interior version). | Department of Defense                         |
| 32 CFR 651 | Environmental Analysis of Army Actions (AR 200-2)   | Department of the Army                        |
| 36 CFR 60  | National Register of Historic Places  | Department of Interior, National Park Service |
| 36 CFR 63  | Determinations of Eligibility (for National Register of Historic Places)  | Department of Interior, National Park Service |
| 36 CFR 65  | National Historic Landmarks   | Department of Interior, National Park Service |

| Citation         | Title  | Issuing Agency   |
|------------------|--|--|
| 36 CFR 67        | Historic Preservation Certifications Pursuant To Sec. 48(G) And Sec. 170(H) Of The Internal Revenue Code Of 1986 | Department of Interior, National Park Service                              |
| 36 CFR 68        | Secretary of the Interior's Standards for Treatment of Historic Properties                                       | Department of Interior, National Park Service                              |
| 36 CFR 78        | Waiver of Federal Agency Responsibilities, Under Section 110 of the National Historic Preservation Act           | Department of Interior, National Park Service                              |
| 36 CFR 79        | Curation of Federally Owned and Administered Archaeological Collections  | Department of Interior, National Park Service                              |
| 36 CFR 800       | Protection of Historic Properties  | Advisory Council on Historic Preservation (ACHP)                           |
| 36 CFR 1911      | Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities;                           | Department of Justice and Department of Transportation                     |
| 40 CFR 1500-1508 | Regulations For Implementing the Procedural Provisions of the National Environmental Policy Act                  | Council on Environmental Quality   |
| 43 CFR 3         | Preservation of American Antiquities   | Secretary of Agriculture, Secretary of the Army, Secretary of the Interior |
| 43 CFR 7         | Protection of Archaeological Resources: Uniform Regulation (Subpart A) and Supplemental Regulation (Subpart B)   | Secretary of the Interior  |
| 43 CFR 10        | Native American Graves Protection and Repatriation Regulations   | Secretary of the Interior  |

***National Oceanic and Atmospheric Agency, Federal Consistency with Approved Coastal Management Programs, 15 CFR 930***

Describes the obligations and roles of all parties who are required to comply with the federal consistency requirement of the CZMA and assigns responsibilities.

***Department of Defense, Protection of Archaeological Resources, 32 CFR 229***

Implements provisions of ARPA by establishing the uniform definitions, standards, and procedures to be followed by all federal land managers in providing protection for archaeological resources on public lands and Indian lands of the United States. Establishes prohibited acts, criminal penalties, and excavation permit and collection procedures.

***Department of the Army, Environmental Analysis of Army Actions (AR 200-2), 32 CFR 651***

Implements NEPA, setting forth Army's policies and responsibilities for the early integration of environmental consideration into planning and decision making.

***Department of the Interior, National Register of Historic Places (NRHP), 36 CFR 60***

Sets forth the procedural requirements for listing properties on the National Register of Historic Places (NRHP) and authorizes the Secretary of the Interior to expand and maintain a National Register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.

***Department of the Interior, Determinations of Eligibility for Inclusion in the National Register of Historic Places (NRHP), 36 CFR 63***

Formal process for resolving questions or disputes regarding the eligibility of properties for inclusion in the National Register of Historic Places.

***Department of the Interior, National Historic Landmark Program, 36 CFR 65***

Facilitates identification and designation of National Historic Landmarks (NHLs), and encourages the long-range preservation of nationally significant properties that illustrate or commemorate the history and prehistory of the United States. These regulations set forth the criteria for establishing national significance and the procedures used by the Department of the Interior for conducting the NHL Program.

***Department of the Interior, Historic Preservation Certifications Pursuant to Sec. 47(G) and Sec. 170(H) of the Internal Revenue Code of 1986, 36 CFR 67***

Established the program authority and function of Section 47 of the Internal Revenue Code which designates the Secretary of the Interior as the authority for the issuance of historic district statutes and of State and local historic districts, certifications of significance, and certification of rehabilitation in connection with certain tax incentives involving historic preservation.

***Department of the Interior, Secretary of the Interior's Standards for the Treatment of Historic Properties, 36 CFR 68***

Establishes standards for the treatment of historic properties including standards for preservation, rehabilitation, restoration, and reconstruction projects.

***Department of the Interior, Waiver of Federal Agency Responsibilities Under Section 110 of the National Historic Preservation Act, 36 CFR 78***

Authorizes the Secretary of the Interior to promulgate regulations under which the requirements in Section 110 may be waived in whole or in part in the event of a major natural disaster or an imminent threat to the national security.

***Department of the Interior, Curation of Federally-Owned and Administered Archaeological Collections, 36 CFR 79***

Establishes definitions, standards, procedures, and guidelines to be followed by federal agencies to preserve collections of prehistoric and historic material remains, and associated records, recovered under the authority of the Antiquities Act, the Reservoir Salvage Act (now the AHPA), the NHPA, or ARPA.

***Advisory Council on Historic Preservation, Protection of Historic Properties, 36 CFR 800***

Outlines how federal agencies carry out consultation responsibilities under Section 106 of the NHPA. It defines the roles of the ACHP, the State Historic Preservation Officer, the Tribal Historic Preservation Officer, and interested parties.

***Department of Justice and Department of Transportation, Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities, 36 CFR 1191***

Provides regulations allowing for the sensitive accessibility of historic buildings.

***Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR 1500-1508***

Provides regulations applicable to and binding on all federal agencies for implementing the procedural provisions of the NEPA, except where compliance would be inconsistent with other statutory requirements.

***Secretary of Agriculture, Secretary of the Army, and Secretary of the Interior, Preservation of American Antiquities, 43 CFR 3***

Places responsibility for ruins, archaeological sites, historic and prehistoric monuments and structures, objects of antiquity, historic landmarks, and other objects of historic and scientific interest on the Secretaries of Agriculture, Army, and Interior on federal lands that fall under their respective jurisdictions. Sets forth the types of permits that may be granted, to whom, and restrictions and requirements for authorized organizations who have obtained a permit for the examination of ruins, the excavation of archaeological sites, and the gathering of objects of antiquity.

***Secretary of the Interior, Protection of Archaeological Resources, 43 CFR 7***

43 CFR 7 Subpart A implements provisions of ARPA by establishing uniform definitions, standards, and procedures to be followed by all federal land managers in providing protection for archaeological resources located on public lands and Indian lands of the United States. 43 CFR 7 Subpart B includes Supplemental Regulations for the Department of the Interior (DOI) regarding determination of loss or absence of archaeological interest as well as permitting and collection procedures.

***Department of the Interior, Native American Graves Protection and Repatriation Act Regulations, 43 CFR 10***

Outlines the provisions and regulations of NAGPRA and provides a process for determining the rights of lineal descendants and Indian Tribes and Native Hawaiian Organizations to certain Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony with which they are affiliated.

## Department of Defense Instructions and Guidance

*Table 6: Department of Defense Instructions and Guidance*

| Item                    | Title   | Date              |
|-------------------------|---|-------------------|
| DoD Instruction 4710.03 | Consultation with Native Hawaiian Organizations | 25 October 2011   |
| DoD Instruction 4715.16 | Cultural Resources Management                   | 18 September 2008 |

### *Department of Defense Instruction 4710.03: Consultation with Native Hawaiian Organizations*

Provides policy and guidance and assigns responsibilities for DoD consultation with NHOs when proposing actions that may affect a property or place of traditional of traditional religious and cultural importance to an NHO.

### *Department of Defense Instruction, 4715.16, Cultural Resource Management*

Establishes DoD policy and assigns responsibilities for the integrated management of cultural resource on DoD managed lands.

## U.S. Army Regulations and Guidance

*Table 7: U.S. Army Regulations and Guidance*

| Item                    | Title  | Date             |
|-------------------------|--|------------------|
| AR 200-1                | Environmental Protection and Enhancement             | 13 December 2007 |
| AR 210-20               | Real Property Master Planning for Army Installations | 16 May 2005      |
| AR 350-19               | The Army Sustainable Range Program                   | 30 August 2005   |
| Headquarters Memorandum | Historic Property Guidance                           | 27 December 2016 |

### *Department of the Army, Army Regulation 200-1 -- Environmental Protection and Enhancement (AR 200-1)*

This regulation implements federal, state, and local environmental laws and DoD policies for environmental management, including cultural resources, to meet legal compliance requirements and to support the Army mission. Cultural resources are specifically defined as:

- Historic properties as defined in the National Historic Preservation Act (NHPA),
- Cultural items as defined in the Native American Graves Protection and Repatriation Act (NAGPRA),
- Archaeological resources as defined in the Archaeological Resources Protection Act (ARPA),
- Sacred sites as defined in Executive Order (EO) 13007 to which access is provided under the American Indian Religious Freedom Act (AIRFA), and
- Collections as defined in 36 CFR §79, Curation of Federally-Owned and -Administered Collections.

Requirements set forth in the National Environmental Policy Act (NEPA) of 1969 as amended, NHPA, ARPA, NAGPRA, AIRFA, 36 CFR 79, EO 13007, EO 11593, and Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments, define the basis of the Army's compliance responsibilities for management of cultural resources. Regulations applicable to the Army's

management of cultural resources include those promulgated by the Advisory Council on Historic Preservation (ACHP) and the National Park Service (NPS).

### ***Department of the Army, Army Regulation 210-20 – Real Property Master Planning for Army Installations (AR 210-20)***

This regulation defines the real property master planning concept and requirement. It establishes policies, procedures, and responsibilities for implementing the real property master planning process. It specifies procedures for Real Property Master Plan (RPMP) development, approval, update, and implementation. It continues the requirement for the installation of Real Property Planning Boards. It also establishes a relationship between environmental planning and real property master planning in order to ensure that the environmental consequences of planning decisions are addressed. It establishes the requirement for complying with environmental documentation procedures. As such, it requires the inclusion of contributory sources of RPMP information, one of which is the ICRMP.

### ***Department of the Army, Army Regulation 350-19 -- The Army Sustainable Range Program (AR 350-19)***

This regulation defines the Integrated Training Area Management (ITAM) program's objectives as achieving optimal sustained use of lands for training and testing, integrating Army training and other mission requirements for land use with sound natural and cultural resources management, and advocating proactive conservation and land management priorities. It requires that the ITAM program be included in the INRMP and ICRMP to ensure the both plans reflect mission requirements for ranges and training lands.

### ***Department of the Army, Headquarters Memorandum, Historic Property Guidance***

This memorandum, dated 27 December 2016, provides policy, guidance, processes, and best practices for integrating historic property management with mission activities having the potential to affect historic properties and other cultural resources. The guidance implements the most current version of AR 200-1.

## **USAG-HI Regulations and Guidance**

***Table 8: USAG-HI Regulations and Guidance***

| Item           | Title   | Date         |
|----------------|---|--------------|
| USAG-HI-10     | Environmental Policy  | 19 May 2014  |
| USAG-HI-30     | Standard Physical Termite Barrier Guidance for Sustainment, Restoration, Renovation, Modernization and Military Construction Projects | 24 July 2015 |
| USAG-HI-63     | Landscaping with Native Plants  | 04 June 2014 |
| USAG-HI-210-15 | Disposition of Temporary World War II-Era Wooden Buildings  | 25 June 2009 |

### ***Environmental Policy (USAG-HI-10)***

Provides formal written environmental policy that also facilitates the incorporation of the 17 mandatory elements of the International Organization for Standardization 14001. Environmental Management system throughout the Garrison.

### ***Standard Physical Termite Barrier Guidance for Sustainment, Restoration, Renovation, Modernization and Military Construction Projects (USAG-HI-30)***

Sets the standard in regard to physical and chemical termite barrier methods and treatment standard used during construction, restoration, renovation, and modernization of facilities. These standards apply to historic buildings, and installation of physical barriers has the potential to adversely effect historic properties.

### ***Landscaping with Native Plants (USAG-HI-63)***

Establishes the policy of using local native plants to reduce the influx of invasive species, reduce water requirements, provide habitat for animals, and create a Hawaiian Landscape on post. This policy shall also apply in cases of cultural landscapes.

### ***Disposition of Temporary World War II-Era Wooden Buildings (USAG-HI Regulation 210-15)***

Establishes the procedures for the demolition of temporary facilities, especially those identified as World War II temporary wooden buildings, pursuant to the Programmatic Memorandum of Agreement for Demolition of WWII Temporary Buildings.

## **Secretary of the Interior's Standards and Guidelines**

The National Historic Preservation Act (NHPA) tasked the Secretary of the Interior to provide guidance and to set standards for federal agencies to use in fulfilling the purposes set forth in that statute. The Secretary of the Interior issued the following sets of standards and guidelines responsive to that task. These acts include preservation, rehabilitation, restoration, and reconstruction.

***Table 9: Secretary of the Interior's Standards and Guidelines***

| <b>Item</b>   |  | <b>Source</b>  |
|---|--|--|
| Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (9/29/1983) |  | 48 Federal Register (FR) 44716-44740, 29 September 1983  |
|   | Standards and Guidelines for Preservation Planning                       | Current version available at:<br><a href="http://www.nps.gov/history/local-law/arch_stnds_1.htm">http://www.nps.gov/history/local-law/arch_stnds_1.htm</a> |
|   | Standards and Guidelines for Identification                              |  |
|   | Standards and Guidelines for Evaluation                                  |  |
|   | Standards and Guidelines for Registration                                |  |
|   | Note on Documentation and Treatment of Historic Properties               |  |
|   | Standards and Guidelines for Historic Documentation                      |  |
|   | Standards and Guidelines for Architectural and Engineering Documentation |  |
|   | Standards and Guidelines for Archaeological Documentation                |  |
|   | Standards and Guidelines for Historic Preservation Projects              |  |
|   | Qualification Standards  |  |
|   | Preservation Terminology   |  |



| Item   | Source   |
|--|--|
| The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act ("Section 110 Guidelines") | 63 FR 2049-20508, 24 April 1998<br><br>Web version:<br><a href="https://www.nps.gov/history/fpi/Section110.html">https://www.nps.gov/history/fpi/Section110.html</a> |

### *The Secretary of the Interior's Standards for Preservation*

This standard is one of four distinct, but interrelated, approaches to the treatment of historic properties. Preservation focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.

### *The Secretary of the Interior's Standards for Rehabilitation*

This standard is one of four distinct, but interrelated, approaches to the treatment of historic properties. Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.

### *The Secretary of the Interior's Standards for Restoration*

This standard is one of four distinct, but interrelated, approaches to the treatment of historic properties. Restoration depicts a property at a particular period of time in its history, while removing evidence of other periods.

### *The Secretary of the Interior's Standards for Reconstruction*

This standard is one of four distinct, but interrelated, approaches to the treatment of historic properties. Reconstruction re-creates vanished or non-surviving portions of a property for interpretive purposes.

### *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*

These are general guidance issued by the Secretary of the Interior to promote effective and consistent historic preservation efforts by all federal agencies. They offer advice regarding appropriate professional practice for the general kinds of historic preservation tasks entailed by the NHPA – Planning, Identification, Evaluation, Registration, Documentation, and Implementation of Preservation Projects.

### *The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs pursuant to the National Historic Preservation Act*

These standards and guidelines are usually called "the Section 110 guidelines." They describe the necessary components of the full program mandated in Section 110 of the NHPA.

## Advisory Council on Historic Preservation

**Table 10: Advisory Council on Historic Preservation Guidance**

| Item   | Source  |
|--|---|
| Consultation with Native Hawaiian Organizations in the Section 106 Review Process: A Handbook, June 2011 | <a href="http://www.achp.gov/Native%20Hawaiian%20Consultation%20Handbook.pdf">http://www.achp.gov/Native%20Hawaiian%20Consultation%20Handbook.pdf</a> |
| NEPA and NHPA: A Handbook for Integrating NEPA and Section 106, March 2013                               | <a href="http://www.achp.gov/docs/NEPA_NHPA_Section_106_Handbook_Mar2013.pdf">http://www.achp.gov/docs/NEPA_NHPA_Section_106_Handbook_Mar2013.pdf</a> |

### *Consultation with Native Hawaiian Organizations in the Section 106 Review Process: A Handbook*

This handbook from the Advisory Council on Historic Preservation states the current advice from the Council as to best practices for consulting with Native Hawaiian Organizations as required to comply with Section 106 of the National Historic Preservation Act.

### *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106 March 2013*

Provides advice on implementing provision added to the Section 106 regulations in 1999 that address the coordination of the Section 106 and NEPA reviews and the substitution of the NEPA reviews for the Section 106 process.

## State of Hawai'i Statutes and Rules

These statutes and rules do not uniformly apply to actions by Federal agencies with respect to historic properties. However, Hawai'i Revised Statutes (HRS) governing the treatment and disposition of Native Hawaiian human remains are germane to NAGPRA compliance and to consultations with Native Hawaiian Organizations and individuals.

These statutes and associated rules also set up the Hawai'i Register of Historic Places with criteria materially similar though not identical to the criteria for inclusion in the National Register of Historic Places. USAG-Pōhakuloa should reasonably expect SHPD, acting in its capacity as the SHPO for the State of Hawai'i, to offer comments, advice, and opinions for Federal undertakings informed by the standards, definitions, and practices defined in these State authorities.

The following list of Hawai'i Revised Statutes (HRS) and Hawai'i Administrative Rules (HAR) are provided for reference purposes only and are therefore not described in detail.

**Table 11: State of Hawai'i Statutes and Rules**

| Title  | Reference            |
|--|----------------------|
| Prehistoric and Historic Burial Sites  | HRS Section 6E-43    |
| Inadvertent Discovery of Burial Sites  | HRS Section 6E-43.6  |
| Island Burial Councils; creation; appointment; composition; duties   | HRS Section 6E-43.5  |
| Rules Governing Procedures for Historic Preservation Review for Government Projects covered under 6E-7 and 6E-8, HRS | HAR 13-275, § 13-275 |
| Rules Governing Standards for Archaeological Inventory Surveys and Reports   | HAR 13-276, § 13-276 |

| Title  | Reference            |
|--|----------------------|
| Rules Governing Requirements for Archaeological Site Preservation and Development  | HAR 13-277, § 13-277 |
| Rules Governing Standards for Archaeological Data Recovery Studies and Reports   | HAR 13-278           |
| Rules Governing Standards for Archaeological Monitoring Studies and Reports  | HAR 13-279           |
| Rules Governing Procedures for Inadvertent Discoveries of Historic Properties During a Project Covered by Historic Preservation Review Process | HAR 13-280           |
| Rules Governing Professional Qualifications  | HAR 13-281           |
| Rules Governing Permits for Archaeological Work  | HAR 13-282           |
| Rules Governing Standards for Osteological Analysis of Human Skeletal Remains  | HAR 13-283           |
| Rules Governing Procedures for Historic Preservation Review to Comment on Section 6E-42, HRS Projects  | HAR 13-284           |
| Rules of Practice and Procedure Relating to Burial Sites and Human Remains   | HAR 13-300           |

## 2. GEOGRAPHIC AND CULTURAL CONTEXTS

### 2.1. Geographic Context

#### Hawaiian Islands

The Hawaiian Islands are an archipelago of 132 islands, reefs, seamounts, and shoals in a 1,523 mile northwest-southeast alignment in the middle of the Pacific Ocean. It is almost 2,500 miles from the nearest landfall with the west coast of the U.S. mainland.

Eight islands make up almost 99 percent of the total land area of the island chain. Situated at the southeastern end of the archipelago, each of the main islands is a volcanic remnant that has been eroded by a combination of wind, rain, streams, and waves. The age of the islands trends from the southeast, so that Hawai'i, the largest island of the chain, is the youngest and is still volcanically active, and Kaua'i and Ni'i'hau are the oldest and most eroded.

The islands were once characterized by distinct natural vegetation zones that have since been transformed by human use and modifications, beginning with the earliest Polynesian settlers of the islands (see Juvik and Juvik 1998 for a graphical comparison of the native island ecosystems before human settlement and at present). Based largely on rainfall and elevation, these vegetation zones have been reconstructed based on existing vegetation, remnant native vegetation in disturbed areas, climatic patterns, and paleoenvironmental research.

Windward vegetation zones include lowland and montane sub-zones. The montane zone extends into mountain bogs that occur in very wet, poorly-drained areas near mountain summits (Cuddihy and Stone 1990). The native lowland wet forest would have been dominated by 'ohi'a (*Metrosideros polymorpha*) or koa haole (*Leucana glauca*), with an understory of native trees such as kōpiko (*Psychotria spp.*) and hame (*Antidesma platyphyllum*), the 'ie'ie vine (*Freycinetia arborea*), and a variety of ferns (depending on specific geographic locations). The native montane wet forest zone would have been dominated by a close-canopied 'ohi'a forest with a well-developed understory of mixed native tree species, shrubs, and tree ferns. Bog vegetation is characterized by sedges and grasses (Mueller-Dombois and Fosberg 2013).

Leeward vegetation is similarly divided into lowland and upland sub-zones. The native lowland dry zone would have been an open parkland type of forest, with extensive grasslands and shrubs (Kirch 1985). The forest would have included wiliwili (*Erythrina sandwicensis*), naio (*Myoporum sandwicensis*), lama (*Diospyros ferra*), 'ohe (*Reynoldsia sandwicensis*), and sandalwood/'iliahi. (*Santalum spp.*). Grasslands would have included pili (*Heteropogon contortus*) as well as endemic grasses that now have a much more restricted range. The native upper dry forest would have been dominated by koa, with an understory of shrubs and vines (Mueller-Dombois and Fosberg 2013). On the Island of Hawai'i elevations exceed those in the most of the archipelago. Sub-alpine and alpine zones are present in these higher elevations. PTA is within the sub-alpine zone and the vegetation is dominated by mamane (*Sophora chrysophylla*), naio and 'ohi'a trees.

#### Geographic Context of Hawai'i

The Island of Hawai'i is the largest of the Hawaiian archipelago, but is one of the least densely occupied. The urban hubs are Hilo on the east coast and Kailua-Kona on the west coast. Much of the remainder of the island encompasses volcanic ranges, lava flows, and agricultural and pasture lands. A number of federal and state land management agencies administer large tracts on Hawai'i Island, including the National Park Service (Hawai'i Volcanoes National Park, Pu'ukohola Heiau National Historical Park, Kaloko-

Honokohau National Historical Park, Pu‘u Honua o Honaunau National Historical Park, and Ala Kahakai National Historical Trail), the U.S. Military (see below), the Department of Land and Natural Resources, the Department of Hawaiian Home Lands, and the Office of Hawaiian Affairs.

Army sub-installations on Hawai‘i Island are as follows: Pōhakuloa Training Area (PTA) in the Saddle Region; Kīlauea Military Camp (KMC) in the summit region of Kīlauea Volcano; and Kawaihae Military Reservation on the leeward west coast of the Island of Hawai‘i.

The island is composed of five volcanoes, of which two (Mauna Loa and Kīlauea) remain active; a third volcano (Hualālai) last erupted in 1801 and, while presently dormant, may erupt again (Macdonald, Abbott, and Petersen 1983). Mauna Kea is a dormant volcano and is the highest point in the state, standing at 13,796 feet above mean sea level (amsl). Mauna Loa is an active shield volcano and is 13,677 feet amsl (Juvik and Juvik 1998, Tilling, Heliker, and Swanson 2010).

The island coastline is considerably rockier than on O‘ahu, with extensive stretches of sheer sea cliffs, particularly along the windward coast. There are few and localized occurrences of sandy beaches, and virtually no major fringing reef on the island. The coastal embayments at Hilo on the windward coast and at Kealahou and Kawaihae on the leeward coast offer the few protected anchorages on the island.

Typical windward coastal amphitheater-headed valleys occur only in the northern part of the island at the present Kohala Mountain. Kohala is the oldest volcano on Hawai‘i Island and is now dormant (Lamb et al. 2007). To the south along the Hāmākua coast, narrow, steep-sided gulches, separated by broad, undivided ridges, emanate out of the more recent Mauna Kea summit.

Kawaihae Military Reservation is on the leeward west shore of the island at Kawaihae Bay. The bay lies at the base of the southwestern slopes of the ancient Kohala Volcano, from which its volcanic soils derive. The leeward side of the Kohala Mountain drops in a relatively steep and undissected slope to a rocky coastline. There are few widely spaced erosional gullies; two gullies drain into Kawaihae Bay at the southern end of the modern harbor.

At the center of the island is the high-elevation Saddle Region or interior plateau, formed by the convergence of lavas from Mauna Kea, Mauna Loa, and Hualālai. Most of PTA is located on the Saddle, at elevations from about 5,000 to 8,800 feet amsl. The northwest portion of PTA, the Ke‘āmuku Maneuver Area, extends from 5,000 to 2,500 feet amsl on the northwest leeward slope of Mauna Kea. Large areas of the Saddle are *pāhoehoe* and *‘a‘ā* lava flows from Mauna Loa. The flows contain subsurface features such as lava tubes and lava blisters; the lava tubes form extensive and sometimes interconnected networks of underground passageways that are accessed from the surface by collapsed openings. Other volcanic constructs in the Saddle Region include *pu‘u* (spatter or scoria cones). Older lava flow surfaces are preserved in *kīpuka*, which are islands of pre-existing terrain and vegetation surrounded by more recent lava flows. Mauna Kea eruptions are represented by sediment covered flows with some lava tubes and *pu‘u*, some of which are now surrounded by Mauna Loa flows.

KMC lies in the summit region of the Kīlauea Volcano, at about 4,000 feet above sea level (asl). The volcano is the youngest and most active of the volcanoes that make up the island. From 1823 to 1924, the Halema‘uma‘u pit crater within Kīlauea was continuously active, with lava at times filling the entire floor of the main crater. From 1924 to the present, activity has been sporadic, but with periodic fiery displays. In the immediate vicinity of KMC (which is the only Army installation in the summit region of the volcano) no new lava has flowed during recorded times, although debris from explosive eruptions in 1790 and 1924 are scattered around the rim.

## 2.2. Cultural Context

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The cultural context is presented in two major sections. The background section summarizes information related to Hawai'i in general, including mythological beginnings, island colonization, and general patterns of development. The subsequent section deals with the pre-contact period of Hawai'i Island with specific emphasis on the areas in which USAG-Pōhakuloa installations are located.

### Background

The history of the islands prior to European contact is based on a vast body of traditional Hawaiian material recorded in the nineteenth and early twentieth centuries, and on archaeological research that was particularly intensive over the last 40 years. Hawaiian chronology derives from these two types of data. Traditional Hawaiian histories and royal genealogies are used for one framework, employing specific numbers of years (varying from 20 to 30) per genealogical generation (Fornander 1969, Stokes 1930, Hommon 1976, Johnson 1994, Cordy 1996b, Masse and Tuggle 1998). The archaeological chronology is based on radiocarbon dating. Where possible, research on pre-contact Hawaiian history has integrated these two sources of dating (Emory 1959, Hommon 1976, Tuggle 1979, Cordy 2000, 1996b). During the late 1990s and early 2000s archaeologists working on Hawai'i became aware of several in-built errors within radiocarbon dating from specific types of materials. Given these insights the archaeological chronology across Hawai'i is being revised. The cultural historic development of the islands has not yet been revised to match the revised radiometric chronology that is being developed.

### Mythological Beginnings

There is no single origin myth in Hawaiian traditions. Instead, there are numerous traditions concerning creation, island origins, the coming of the gods, and migrations. Traditions concerning island origins are found in the works of such Hawaiian writers as Malo (1951, 1996) and Kamakau (1991), as well as numerous authors in the Fornander collection (1969). Analyses of origin and migration traditions are found in nineteenth-century writings such as Fornander's 1878 and 1880 works (1969) and continue to be carried out (Barrere 1969, Cachola-Abad and Kahaunani 1993, Tuggle 2000, Cordy 2000). It is clear that the traditional literature is a rich body of metaphorical and historical complexities.

### Initial Colonization of the Hawaiian Islands

The date of initial island colonization has perhaps been the point of greatest disagreement among archaeologists working in Hawai'i. The following discussion is provided to contextualize the past 50 years of archaeological research in Hawai'i. The two main positions on the issue of Hawai'i's colonization have been labeled the "long count" and the "short count" (Graves and Addison 1995). Those favoring the long count have argued for settlement as early as A.D. 100-300 (Hunt and Holsen 1991, Kirch 2000, Cordy 2000), with those favoring the short count argue for colonization no earlier than A.D. 700-800 (Spriggs and Anderson 1993, Athens and Ward 1993, Masse and Tuggle 1998, Tuggle and Spriggs 2001, Kirch 2011, Kirch and McCoy 2007). However, recent research throughout the Hawaiian Islands has led to the general conclusion that the initial colonization of the Hawaiian Islands took place between AD 800 and 1200 (Kirch 2011, Wilmshurst et al. 2011, Dye 2011, 2014, 2015, Dye and Pantaleo 2010, Athens, Rieth, and Dye 2014), but further research is needed to narrow this date range, and reanalyze all previously dated sites. This date range stems from advances in scientific understanding of the factors influencing the results of radiocarbon dating. The effects of using long-lived species or "old" wood for radiocarbon dating has generally been resolved with the application of stringent 'chronometric hygiene' protocols (Rieth 2011, Kirch 2011, Dye 2015). The importance of the date of colonization lies in the implications for rates of population growth, patterns of settlement expansion, rates of cultural change, and single versus multiple voyages to Hawai'i. The subject of a single voyage or multiple voyages has not been readdressed since consensus was reached on the more recent colonization dates. On this last point, some favor only one

voyage of colonization (Cordy 2000), while others support the episodic migration hypothesis (Cachola-Abad and Kahaunani 1993, Anderson, Chappell, and Grove 2006, Bellwood 2013).

A less contentious point is the area of Hawaiian origin, which is generally believed to have been the Marquesas Islands (Cordy 2000, Kirch 2000, Van Tillburg 2003, McGregor 2007), however this conclusion rests on very limited data (Allen 2014).

## General Patterns of Cultural Development

The cultural development periods discussed below have not yet been revised in the cultural resources management literature to reflect the updated radiocarbon chronology discussed above. Kirch and McCoy (2007) suggest the substitution of the Colonization Period (c. A.D. 800-1000) and the Developmental Period (c. A.D. 1000-1200) with the Foundation Period (c. A.D. 800-1200) until research is conducted to allow for the accurate differentiation between these periods. The discussion below outlines the basic structure of cultural development that is still used in the academic literature.

The model of Hawaiian cultural development based on the chronologies of longer duration (Tuggle 1979, Kirch 1985, Cordy 2000, McGregor 2007) emphasizes early settlement in the rich windward environments and later expansion into the drier leeward regions. Expansion of the population into other parts of the islands was associated with population growth and increasing political complexity. The patterns of settlement have not changed with the chronology, and similar processes may still be used to explain the observed changes with the shorter chronology.

The Development Period was characterized by the emergence of Hawaiian culture in distinct patterns. Linguistic and cultural changes took place that were uniquely adapted to the Hawaiian Islands (McGregor 2007). The society developed into an organized, self-sufficient subsistence social order with extended sovereign control over the archipelago of Hawai'i. The communal social system centered on providing subsistence to large, extended, multigenerational families. Hawaiian spiritual life focused on maintaining harmonious relationships with nature and the deities. The period of major population growth and settlement expansion associated with the Expansion Era in the longer chronology, from about A.D. 1150 to 1400 (Dye and Komori 1992, Dye 1994, McGregor 2007), may actually represent initial settlement within the context of the shorter chronology (Dye 2011). The revised chronology may indicate that political complexity and large polities began to develop during the period of initial settlement in the islands. Genealogical evidence from Hawaiian traditions indicates that it was during this era that powerful lineages of the kings of O'ahu (the Maweke line) and Hawai'i (the Pili line) were founded. Archaeologically, this was the initial period of large temple construction, development of royal centers, and agricultural expansion and intensification (Kolb 1991, Dye 1994, Cordy 1995, 1996a, b, 2000). Alternative hypotheses pose that (a) environmental change or (b) the introduction of sweet potato (*Ipomoea batatas*) was a critical factor in the development or intensification of the large dryland field systems of leeward Hawai'i (Rosendahl and Yen 1971, Yen 1974). The revised chronology makes it likely that the sweet potato was introduced during initial settlement.

Agricultural expansion and population growth continued over the next centuries, until at least A.D. 1700. The extent to which population and agricultural development had stabilized, or perhaps even declined, during the century before European contact is still being investigated (Tuggle 1979, Kirch 1984, Dye and Komori 1992, Dye 1994, Ladefoged, Graves, and McCoy 1996, Cordy 2000). In any case, the settlement pattern of the islands that was described at the time of contact had been clearly established by A.D. 1700, including population centers, royal centers, temples, and expansive dryland and irrigation agricultural field systems (Armstrong 1973, Tuggle 1979, Juvik and Juvik 1998).

Traditions and archaeology indicate periods of intensive warfare and political expansion in the final century of Hawaiian cultural development before European contact in 1778, at which time there were

four competing kingdoms. The kingdom of Hawai'i (Hawai'i Island and a section of Maui) was ruled by Kalani'ōpu'u. The kingdom of Maui (Maui, Lāna'i, and Kaho'olawe) was under Kahekili. The kingdom of O'ahu (O'ahu and Moloka'i) was under the rule of Peleioholani. Kaua'i and Ni'ihau were the realm of Kaneoneo.

## Traditional Hawaiian Context

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### Hawaiian Cultural Context: Hawai'i

The most recent colonization dates for Hawai'i Island are between AD 1220-1260, which are generally 200-400 years later than the generally accepted date range (Rieth 2011). This date range also complements other recent studies: a bayesian analysis by Dye (2015) and a high-precision radiocarbon dating study by Wilmshurst et al. (2011). Many of the previous discussions on the initial colonization of Hawai'i Island were split into the two camps (discussed above). The dates discussed below all rely on a very stringent chronological hygiene protocol that rejects anything other than charcoal of short lived species (Kirch 2011). Given a need to re-date many archaeological sites the following discussion relies predominantly on studies conducted prior to the current consensus and revised sampling protocols.

The model of early windward settlement of the island remains largely untested, with very little work conducted in predicted locations of early occupations. Hunt and Holsen (1991) identified no sites that date prior to A.D. 1000 in the windward area. The earliest sites date to the A.D. 1000-1400 range and are located in Honopūe Valley on the windward Kohala coast (Tuggle 1979, Cordy 1994). To date, only one site dates to an earlier range (A.D. 784-1187), and it is in the Waimanu Valley on the windward Kohala coast (Shun and Schilz 1991, Cordy 1994).

A few sites on Hawai'i Island have been radiocarbon dated to between A.D. 600-900 (Hunt and Holsen 1991). This may affirm the evidence for scattered settlement over various parts of the island during the A.D. 900-1100 era, including the beginnings of cultivation in the leeward regions (Cordy 2000), but the radiocarbon dates for many of these sites have not been reassessed based on the current understanding of radiocarbon dating concerns.

Hawai'i Island's population, settlements, and cultivated areas expanded rapidly until A.D. 400. Some radiocarbon dates from the upland saddle and montane regions (Cordy 1994) indicate activity as early as about A.D. 1000-1100, including initial use of the massive basalt quarry complex on Mauna Kea (McCoy 1978). There is evidence of relatively frequent visits to the region to access unique vegetation, birds, and stone resources up to about A.D. 1400. These radiocarbon dates are based on unidentified charcoal samples and the sites have not been reevaluated.

Traditions suggest that the A.D. 1150-1400 period was one of competing district-sized chiefdoms. In general, there were three centers of power during this period: Waipi'o Valley in the windward region, Kona in the leeward area, and Kohala on the northern end of the island. Toward the end of this period, traditions identify a new social order created through the actions of the priest Pā'ao and the empowerment of the Pili lineage (Fornander 1969, Hommon 1976, Cachola-Abad and Kahaunani 1993, Cordy 2000). Hilo was also a center of power on Hawai'i Island, though oral histories influenced by the Kamehameha family tend to minimize the importance of this record. Kirch (2010) emphasizes the kingdom of Kona and the lineage that Kamehameha I traced his ancestry through; while Cordy (2000) provides a more balanced representation of the traditional history of Hawai'i Island, including the 'I family of Hilo.

There is evidence that some form of island political consolidation occurred under Pili and his successors, although this appears to have varied in strength and cohesiveness. By the time of Līloa in the late A.D. 1500s, there was at times a single ruler with jurisdiction over the entire island. It appears that the massive



dryland agricultural field systems of Kona and Kohala had been extensively developed by this time period, matching the growth of large population centers along the leeward coast of the island. In the early 1600s, Līloa's son, 'Umi, moved the royal center to leeward Kona from its ancient location in windward Waipi'o Valley (Fornander 1969, Cordy 2000).

The trajectory of Hawai'i's population and subsistence in the A.D. 1700s remains uncertain. The *ali'i* (hereditary line of rulers) sponsored or required large construction projects during this period, including possible fishpond construction and certainly the rededication and expansion of major temples, to support their positions and advance their political aspirations (Kamakau 1961). The temple construction was primarily related to an era of intensive warfare, which involved some internal conflict, but was mainly between island kingdoms. At the time of European contact in 1778, the two powerful kings of Hawai'i and Maui were involved in a protracted war.

## Western Contact Context

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When Captain James Cook arrived in Hawai'i in 1778, the Native Hawaiian population was estimated at 400,000 to 800,000 (Kirch and Rallu 2007). Beginning early in the contact period, foreigners began staying on the islands, and in the process the introduction and gifting of western crops, animals, and products to the islands began. The westerners also brought new diseases such as cholera, whooping cough, dysentery, venereal diseases, measles, influenza, and bubonic plague that raged as epidemics, decimating Hawaiian communities (McGregor 2007).

The course of Hawaiian history was significantly altered by these cumulative events in the late 18<sup>th</sup> century. Direct Western contact, while 'minimal' at times, was constant and ever-increasing. Hawai'i became a regular stop for British, American, and Russian trading vessels crossing the Pacific after 1786 with the development of the fur trade on the northwest coast of North America. Beginning in this early phase, Hawaiians began to travel aboard western ships, engaging with and learning western techniques and technologies.

## Inter-Island Wars of Conquest

The history of Inter-Island Wars of Conquest are varied and complex, yet this account will generally touch on the actions of Kamehameha I. The early life of Kamehameha I is largely unknown, yet traditional narratives tell that he was separated from his parents early in life, and that he was raised in the *ali'i* class from which he was chosen for training as a warrior. By the landfall of Captain Cook, Kamehameha had already begun rising in rank and influence, yet it was not until 1782 that he officially began taking steps to consolidate power and influence (Cordy 2000). During Kamehameha I's quest for island unification in the late eighteenth century, he amassed and moved huge armies through many staging points, battles, and battle aftermaths. Several of the USAG-Pōhakuloa installations fall in areas that felt the tread of Kamehameha's army.

Over a period of 12 years, Kawaihae experienced a massive influx of population related to Kamehameha's ascendancy to power. In 1790, several events occurred that allowed Kamehameha to begin consolidating his power: the appropriation of two British ships: the *Eleanor* and the *Fair American* along with the imprisonment of their captains; his marriage to Kalola, a high-ranking woman from Moloka'i; and the initiation of construction of Pu'ukoholā, the heiau where he ultimately solidified his conquest of the island with the sacrifice of his adversary Keōua in the temple dedication (Kuykendall 1938). Kamehameha also maintained a residence at Pelekane in Kawaihae, just north of Pu'ukoholā and inland of Kawaihae Military Reservation.

From around 1793, John Young, an American advisory to Kamehameha, resided at Kawaihae with the task of supervising the construction of Kamehameha's war fleet in preparation for the invasion of Kaua'i

(Sahlins 1992). By the time Kamehameha embarked on the invasion in 1802, he had 7,000 to 8,000 warriors under his command. Such numbers suggest that the use of the Kawaihae coast as a staging area resulted in increased pressure on local resources (Kirch and Sahlins 1992).

The constant state of inter-island wars ended in 1802 with a complete consolidation of power under Kamehameha, excepting Kauaʻi, which would transfer peacefully to Kamehameha's Kingdom in 1810. For a more detailed review of the Inter-Island Wars and the life of Kamehameha I refer to (Cordy 2000).

In 1993, on the 100<sup>th</sup> anniversary of the January 17, 1893 overthrow of the Kingdom of Hawaii, the 103d Congress issued a Joint Resolution to publicly recognize and apologize for the US overthrow of the Kingdom. The acknowledgement and apology is as follows:

The Congress—

- (1) on the occasion of the 100th anniversary of the illegal overthrow of the Kingdom of Hawaii on January 17, 1893, acknowledges the historical significance of this event which resulted in the suppression of the inherent sovereignty of the Native Hawaiian people;
- (2) recognizes and commends efforts of reconciliation initiated by the State of Hawaii and the United Church of Christ with Native Hawaiians;
- (3) apologizes to Native Hawaiians on behalf of the people of the United States for the overthrow of the Kingdom of Hawaii on January 17, 1893 with the participation of agents and citizens of the United States, and the deprivation of the rights of Native Hawaiians to self-determination;
- (4) expresses its commitment to acknowledge the ramifications of the overthrow of the Kingdom of Hawaii, in order to provide a proper foundation for reconciliation between the United States and the native Hawaiian people; and
- (5) urges the President of the United States to also acknowledge the ramifications of the overthrow of the Kingdom of Hawaii and to support reconciliation efforts between the United States and the Native Hawaiian people. (Public Law 103-150, 107 Stat. 1513)

## Nineteenth Century Context

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The nineteenth century historic context presents a general framework for understanding the cultural resources of the Monarchy period in Hawaiian history. This section summarizes the nineteenth century history of the islands, focusing on some of the critical factors that resulted in a transformation of the Hawaiian landscape. These factors include: the finalization of the inter-island wars that culminated in Kamehameha's unification of the islands, the effects of westernization on settlement and land use (primarily through the introduction of new economies, such as ranching, commercial agriculture, and new technologies), and especially by the drastic change in the concept of land ownership brought about by the mid-nineteenth century Māhele.

### Background

The 1800s served as a transformative period for Hawaiʻi. The final battles of the Inter-Island Wars were fought in 1802, with the complete consolidation of power in Kamehameha I's Kingdom by 1810. Given the shifting balance of power within and between the Hawaiian Islands the court of Kamehameha I moved many times during his reign from Hawaiʻi to Oʻahu, where he first settled at Waikīkī and then moved to Honolulu then back to Hawaiʻi Island before his death. The capitol later shifted to Maui before moving back to Honolulu in 1845.

In the aftermath of Kamehameha's death in 1819, the traditional kapu system was overthrown and abandoned. The rebellious factions tended to blame foreign influence and change. These influences and

changes would become exacerbated following the arrival of missionaries in 1823. The missionaries held a precarious place in Hawaiian society having been welcomed by the Hawaiian chiefs, accepted by the rulers, and yet would become generally distrusted. The relationships between Hawaiians and westerners devolved over the century, becoming precarious in the mid to late nineteenth century.

During the first half of the century, the intensification of commercial agriculture resulted in new waves of immigrants. The change in the land tenure system in 1848 (the Māhele) served as a significant turning point in Hawaiian land ownership. The new system provided for western style individual fee land ownership that encouraged western-style development of agricultural business, further impacting Hawaiian lifestyles and land use.

The physical landscape of the islands was inexorably transformed. The introduction of cattle to Hawai'i in the late 1700s had a horrific effect. With a kapu in place for the first decade, cattle were allowed to range free, and subsequently ran amok in native gardens and across the native forests (see discussion below). The sandalwood trade of the first three decades of the nineteenth century had an equally devastating effect on the landscape. Used for wood and incense in China, the supply of sandalwood was soon stripped from the mountains. The need for firewood in urban areas and as part of the whaling industry had similar impacts. Frequent forest burning and cutting in the relentless quest for sandalwood (*'iliahī*) (Chamberlain 1957, Kirch and Sahlins 1992) and firewood (Cuddihy and Stone 1990), combined with the effects of free-ranging cattle and use of bark in tanning hides, resulted in massive deforestation and erosion. Commercial agriculture in the second half of the century spread sugarcane, pineapple, and other cash crops across the landscape (Kirch and Sahlins 1992).

In the first half of the nineteenth century, the Hawaiian government moved from a highly stratified political order dominated by island and inter-island kings, to a constitutional monarchy reflecting a restructuring of the Hawaiian political order within a western framework. During this transition, several changes took place, including Kamehameha's complete unification of the islands, the rejection of the kapu system, and the premiership of Ka'ahumanu (Seto Levin 1968). By the mid-century, the Māhele had introduced fee simple land ownership, which further encouraged westerners to develop agricultural lands and encouraged Hawaiians to seek income from their land. The century ended with the overthrow of the monarchy and eventual annexation by the U.S. government (Kirch and Sahlins 1992).

## Land Changes

Due to an increase in Euro-American immigration, together with western economic and land use practices, the local landscape was significantly affected. Natural resources of the islands were sometimes commercialized to devastating effect on both the resource and the Hawaiian population. Some of the most notable examples are sandalwood, timber for firewood, *pulu*, and native birds (Chamberlain 1957, Ellis 1963, Kuykendall 1938, Glidden 1998, Olson 1941).

In the first half of the nineteenth century Hawai'i was introduced to westernized commercial crops such as Irish potatoes and western vegetables. Many of these crops were grown to supply passing ships, especially whaling ships. For a brief period, crops were exported to California to support the gold rush. During the second half of the century the sugar industry took root. The town of Hilo on Hawai'i Island became the islands' second largest city as a result of the sugar industry on the Hilo-Hāmākua coast.

In 1793, Captain George Vancouver introduced cattle to Hawai'i and Kamehameha immediately instituted a kapu on the animals for a period of ten years. The animals became a serious problem as they survived and reproduced handsomely in the wild. Bullock hunting began in the early 1800s, and by the 1820s, it was an industry, with commodities of hides and tallow for local use and export, and salted and barreled beef for the growing provisioning trade related to Pacific whaling (Kirch and Sahlins 1992). On the Island of Hawai'i, the processing of cattle mostly took place in the Waimea region, but Hilo also saw substantial

trade in hides, jerked meat, and tallow (McEldowney 1979). During the period of 1815-1848, the emphasis in cattle management was on hunting the animals as if they were wild animals and not on animal husbandry. Vaqueros from Mexico were brought to Hawai'i to hunt the cattle for the Crown and teach Hawaiians cattle management techniques. Management policy during this period was largely based on the traditional Hawaiian management of wild resources through the use of *kapu*. The government continued to appoint individuals to manage the government cattle in the area through the 1850s. After managing fish ponds for Kamehameha I and later hunting bullocks for the Crown, John Palmer Parker established a cattle ranch in Puu Kapu Ahupua'a in 1847 (Bergin 2004, Maly and Maly 2002).

Like cattle, goats and sheep were introduced to Hawai'i in the late eighteenth/early nineteenth centuries and, in some instances, became a serious threat to the health of the island environment. Following the Mahele, companies were established that managed the feral cattle, sheep and goats. Some, like Parker's operation, were based on privately owned land while others depended upon land leased from the Government, the King, and private landowners. All operations had some leased lands due to the requirements of cattle grazing. Most of the operations managed several different types of animals, although the Humu'ula Sheep Company focused on sheep. Global events influenced the fortunes of the operations, including the American Civil War which created a demand for wool from the Northern States and the collapse of the whale oil market in 1864 that led to the demise of the whaling fleet. The Waimea Grazing and Agriculture Company, established in 1861, was significantly affected by the collapse of the whale oil market and sold its final assets in 1877 after a severe drought.

## **Volcano Tourism**

In the nineteenth century, the Kilauea summit region became a popular tourist site. The volcano region was visited as early as the 1820s by western missionaries and Navy crew (Olson 1941) and quickly became a destination for sightseers, explorers, and scientists. As tourism developed in the region, the old Hawaiian trail from Kau to Hilo was transformed from a well-worn path to a road, and by 1894 an improved road from Hilo to the volcano was completed (Olson 1941).

The area of Kilauea was proposed as a national park as early as 1903, and in 1910 the territorial governor expressed official interest in the park's formation (Apple 1954). In 1916, a congressional bill was passed that defined the boundaries of the National Park, but allowed only the acquisition of territorial lands. KMC was also established in 1916. In 1920, Congress authorized the military acquisition of the private lands (U.S. Congress 1920). As a result, in October 1921, the Army took control of KMC and it became the first U.S. Army installation on the island, with the primary purpose of providing rest and recreation facilities for Army personnel.

## **Urbanization**

In the early nineteenth century, Hilo became a small center of Hawaiian political and economic realms. Like Honolulu, it had a protected harbor in which foreign vessels could safely anchor. During the height of the whaling period, it was the third most frequented port-of-call (after Honolulu and Lahaina) for food resupply and firewood (Kirch and Sahlins 1992). After the sugar industry developed, the town grew to be the second largest in the islands, acting as a business hub for the numerous plantations along the Hilo-Hamakua coast as well as a transport center for incoming supplies and equipment and outgoing crops. Although not as prominent, Kawaihae served as a major shipping point on the leeward coast (Duperrey 1819).

Army installations in these urban areas include the Keaukaha Military Reservation in Hilo and Kawaihae Military Reservation at Kawaihae. The Keaukaha facility is managed by the National Guard and is not addressed in this document.

## Land Use Changes

In the mid-nineteenth century, the Hawaiian population was greatly diminished by disease, low birth rates, and outmigration. Commoners who were awarded family lands struggled to hold on to their property. These circumstances encouraged the fee simple ownership and the Māhele. In 1845, the Hawaiian government began changing land tenure that eventually instituted private, fee simple ownership of land. The Māhele of 1848 divided all lands in the islands among the King (Crown Lands), the government (Government Lands), and 245 chiefs (Māhele Lands) (Banner 2005, Kirch and Sahlins 1992). Each relinquished their rights to the others' lands. A government resolution in 1849 allowed commoners to make claims to lands that they used. In 1850, foreigners were given the right to own land (Banner 2005).

These property changes are manifested in the landscape and can be seen in the house lots (often walled), agricultural fields, house gardens, and boundary markers that are directly linked to claims and testimonies of the Land Commission and the Boundary Commission (Banner 2005, U.S. Congress 1920, Kirch and Sahlins 1992).

With the transition to private land ownership, delineation of boundaries became critical. Land boundaries were established by survey, but during the Māhele there were no established reference points on which to base surveys. In 1870, the Kingdom of Hawai'i established the Hawai'i Government Survey to construct a correct general map of the Kingdom, to permanently fix with the greatest possibly accuracy a large number of points of reference for use in local surveys, and to produce a map of each district to give an exact representation of the contents and boundaries of its principal subdivisions. The Hawai'i Government Survey pursued these goals until the islands were annexed by the United States in 1898. The Survey established a geodetic grid across the main islands of the archipelago that provided accurate reference points for subsequent surveys.

## Twentieth Century Context

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The Twentieth century context, between 1900 and 1989, is largely an extension of the changes that began in the Nineteenth century. With significant changes in land ownership and use stemming from the Māhele of 1848, large tracts of land were converted for specific agriculture and ranching enterprises in the form of plantations. As these industries continued to flourish during the first half of the twentieth century, plantation and ranch owners sought cheap immigrant labor to support the growing agricultural businesses. For instance, pineapple production expanded from 2,000 cases in 1903 to 12,808,000 cases in 1931, while sugar exports rose from 289,500 short tons in 1900 to 939,300 short tons in 1930.

In the 20<sup>th</sup> century, cattle became more valuable for their meat than for tallow and hides. Ranchers imported stock to improve the meat, and took steps to improve the fodder available to the cattle through range management and the introduction of grasses. Management techniques changed the nature of the landscape. The diverse ethnic groups that worked on the ranches contributed to the development of the unique Hawaiian *paniolo* culture. Technological changes throughout the 20<sup>th</sup> century continued to change the way in which ranch operations were conducted, as well as the nature of the infrastructure. Global market changes also affected the operation of ranches on Hawai'i Island.

## Military Context

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The military historic context presents a framework for understanding the cultural resources of twentieth-century Hawai'i, emphasizing the presence of the U.S. Army on the islands. A primary model for the context is R. Goodwin and Associates, Inc. (1995).

## **Prelude to the Army in Hawai'i**

In 1872, Major General John M. Schofield, Commander of the Army Division of the Pacific, came to Hawai'i on a mission to evaluate the defense possibilities of various Hawaiian ports (Alvarez 1982). Recognizing the potential importance of Pu'uloa Lagoon as a harbor that could be inexpensively and effectively defended, he recommended that it be developed as a military base. In the Reciprocity Treaty of 1876, the Hawaiian government granted the United States permission to develop the harbor in exchange for allowing the duty-free import of Hawaiian sugar to United States markets. The Hawaiian monarchy was overthrown in 1893, and four years later in 1897, the U.S. was given exclusive use of Pu'uloa. The Navy named it Naval Station, Honolulu in 1899, then Naval Station, Hawai'i by 1901. The name 'Pearl Harbor' came into use after 1908 (Livermore 1944).

## **Hawai'i in the Progressive Era (1890-1918)**

The Hawaiian monarchy was overthrown and the subsequent republican government appealed to the U.S. for annexation, eventually succeeding in August 1898. In the late nineteenth and early twentieth century, the U.S. became embroiled in international politics as other countries began testing their military, political, and economic strengths. The newly-annexed Hawaiian Islands appeared to be a boon to the U.S. as a strategically located site in the Pacific.

Four days after annexation in 1898, the 1st New York Volunteer Infantry Regiment, the 3rd Battalion, and the 2nd U.S. Volunteer Engineers arrived in Hawai'i and set up a temporary camp called Camp McKinley at the foot of Diamond Head (Addleman (Lt) 1946). The following year, regular Army troops encamped at Camp McKinley, and support elements established offices in nearby Honolulu. By the end of the century, U.S. forces were bolstered by a Depot Quartermaster Office and two batteries of the 6th Artillery Regiment (Addleman (Lt) 1946). According to Linn (1996, 1997) between 1899 and 1902, Army troop numbers in Hawai'i grew from "a handful of engineers" to over 8,000 soldiers. The principal mission of the U.S. Army in Hawai'i was the defense of the naval base at Pearl Harbor, which was established in 1901.

## **World War I**

In Hawai'i, participation in the Great War meant that most of the regular Army departed for Europe by the end of 1917, leaving empty posts in need of caretakers. The Hawaiian National Guard took on the role, entering Federal service at Schofield Barracks and Fort Shafter as the 1st and 2nd Hawaiian Infantry Regiments. The regiments were garrisoned at Schofield Barracks and Fort Shafter from October 1918 to April 1919 (Addleman (Lt) 1946). What is now known as the Kilauea Military Camp (KMC) was established on Hawaii Island in 1916, for training and recreational purposes (Tomonari-Tuggle and Slocumb 2000). The KMC initially consisted of three buildings, constructed by Companies B and E of the Twenty-fifth Infantry Regiment. During their time establishing the camp the Company also constructed the Mauna Loa Trail on Kilauea Volcano (Hoverson 2015).

With the Armistice signed in 1918, the National Guard remained at Schofield Barracks until replaced by the returning regular Army. The Guard spent the post-Armistice period at maintenance and beautification projects, mainly on O'ahu (Addleman (Lt) 1946).

## **The Inter-War Period**

The Inter-War period represented a significant era in the developmental history of Army bases in Hawai'i, namely Schofield Barracks and Wheeler Army Airfield. Both bases saw widespread building campaigns that created the building stock and landscapes that exist to this day.

In the 1920s, the Army experimented with new technologies and re-evaluated old ones, with significant effects on posts in Hawai'i. This decade saw the birth of the Army Air Corps and the increased changes to military lands on the islands.

In the early 1920s, the Army's organizational structure evolved. The National Defense Act of 1920 replaced the Army's geographically based departments with nine corps areas, as well as comparable departments in the overseas possessions of Panama, Hawai'i, and the Philippines. In 1921, a new unit, the Hawaiian Division, was established at Schofield Barracks. At the time, it was the only complete division in the Army (Meeken 1974).

In 1921, the Artillery District of Hawai'i was re-designated Hawaiian Coast Artillery District, and its headquarters was moved from Fort Ruger, Diamond Head Crater on O'ahu, first to the Alexander Young Hotel in Honolulu, and then shortly after to Fort Shafter. Fort Ruger was re-organized as a subordinate command, Coast Defenses of Honolulu (Meeken 1974).

Although budgetary restraints were placed on military services in general during this period, Hawai'i's location made it an exceptional site for Pacific defense and allowed for increased funding. One of the treaties signed after World War I was the Limitations of Armament Treaty of 1921, which prohibited the building of new U.S. military defenses west of Hawai'i. Because of this, Pearl Harbor and the associated Army facilities took on ever-increasing importance in terms of Pacific strategy and national defense (Conn, Engelman, and Fairchild 1964, Alvarez 1982).

In October 1921, the Army took control of Kīlauea Military Camp on the north edge of Kīlauea Crater and it became the first U.S. Army installation on the island, with the primary purpose of providing rest and recreation facilities for Army personnel. On the Island of Hawai'i, a new Army command, the District of Hawai'i, was created with authority over the entire island, except for Kīlauea Military Camp, which was considered a separate post command. Headquarters for the new district was in the Hilo Armory.

In the 1930s with the rise of German and Japanese threats, U.S. military strategists viewed Hawai'i as a major defensive site. The development of effective aircraft carriers, with the increased potential for air attacks, prompted the Army to strengthen its anti-aircraft defenses. Both fixed and mobile anti-aircraft stations were set up throughout the islands (Alvarez 1982).

In 1937 with the beginning of the Sino-Japanese War, Hawai'i saw an increase in defense mobilization. By the eve of America's entry into World War II, the military's presence dominated the Islands and served as the largest source of income and employment and by 1940, approximately 48,000 troops were stationed in the Islands (Farber and Bailey 1996, McGregor 2007).

## **World War II (1941-1945)**

On the morning of December 7, 1941, Japanese planes swept over the islands in a surprise attack with most damage occurring at Pearl Harbor, Hickam Field, and Wheeler Field and incidental damage to other installations (Allen 1950).

In the aftermath of the attack, Hawai'i shifted to a state of continuous emergency. For a year and a half, the threat of invasion weighed heavily on everyone's minds, with troops remaining on defensive alert. The Army declared martial law and used this authority to expand military control into all parts of the islands. Beach positions were strengthened with trenches, gun positions, pillboxes, and rolls of barbed wire.

## **Mobilization**

During the war, Hawai'i played a crucial role as the advanced base for the Pacific War and served as a base of operations for military staging, supply, and casualty evacuation, as well as headquarters for numerous Federal agencies and construction firms doing government work in forward areas (Allen 1950, Van Tillburg 2003).

Beginning in 1941, before the surprise attack on Pearl Harbor, the U.S. Military had established an infantry headquarters in the Pu'ukapu area of Waimea, Hawai'i Island. The military presence would expand rapidly after the United States' formal entry into the war, becoming one of the largest complexes of joint military camps and training bases in the Pacific, though they were largely utilized by the Marine Corps. (Bergin 2004, Brundage 1971).

Construction during the initial phase of the war focused on defensive facilities, including a build-up of coastal defenses. This buildup of defensive facilities included the construction of Saddle Road on Hawai'i Island. Another critical component in logistical planning was dealing with the large numbers of civilian workers who came to Hawai'i during the war. Military construction projects required more workers than were locally available and more contractors were introduced to the Islands (Allen 1950).

In 1942, U.S. victory at the battle of Midway increased military activity and troops poured into the islands en route to the western Pacific. Within the first six months of the war, 135,000 troops were stationed in Hawai'i. Jungle training and coordinated Army-Navy amphibious landings were practiced in anticipation of the island-hopping battle strategy of the western Pacific. Hawai'i served as an invaluable training ground for the amphibious and jungle warfare which characterized the Pacific fighting (Allen 1950).

On the Island of Hawai'i, training camps at the north end of the island were connected to Hilo by the Army-built Saddle Road (then known as Kaūmana Road). Older residents of the Waimea area recall a small training camp of tents at Camp Pōhakuloa, and tank maneuvers and artillery practice in the Saddle Region (Langlas, Wolforth, and Head 1999). In 1943 the Parker Ranch leased nearly 123,000 acres of land were leased to the U.S. War Department for training in the Waimea and Waikoloa areas, most of which would be designated the Waikoloa Maneuver Area. The main cantonment, originally named Camp Waimea, was later named Camp Tarawa after the 5<sup>th</sup> Marine Division replaced the 2<sup>nd</sup> Marine Division following the Battle of Tarawa. Camp Tarawa became the largest U.S. Marine training facility in the Pacific Theater (Escott 2008, Clark et al. 2014).

In late 1944 and early 1945, as American forces moved closer to Japan, military headquarters shifted west as well (Allen 1950). In November 1944, the Army's 7th Air Force moved to Saipan, leaving only a wing to defend Hawai'i. Two months later, the Navy's Commander-in-Chief, Pacific Ocean Areas (CINCPAC), moved his headquarters from Pearl Harbor to Guam (Allen 1950).

Wartime development at Hawai'i installations saw construction wherever space was available. Buildings were expanded and remodeled to meet intensified wartime needs and Hawaiian infrastructure became a priority.

### **The Post-War Years (1946-1989)**

After the Japanese surrender on September 2, 1945, the U.S. Army went quickly from full wartime mobilization to demobilization and severe cutbacks in funding. Much of the land that the Army acquired in 1941 was no longer needed, and several posts were considered for closure. In 1948, seacoast artillery was declared obsolete and all guns in the U.S., including those at coastal defenses in Hawai'i, were scrapped. In 1949, funding restrictions placed many Army installations on stand-by status, with Army activities in Hawai'i limited primarily to the major posts on O'ahu (Allen 1950). The Waikoloa Maneuver Area and Camp Tarawa were also slowly released from military control, with the final use permit expiring in 1954 (Escott 2008, Clark et al. 2014). This is in contrast to land acquisitions for National Guard training by Gubernatorial Executive Order and several land leases, which would eventually become PTA (Langlas, Wolforth, and Head 1999).

On July 25, 1950, the U.S. became involved in the Korean War. All military resources in the Hawaiian Islands, including Wheeler Field that had been put in caretaker status, were placed on full alert. As in



World War II, Hawaiian posts were used for training replacement troops. In 1951, the Hawaiian Infantry Training Center was established at Schofield Barracks (Belt Collins Hawaii with Mason Architects/International Archaeological Research Institute 2000). In 1953, the conflict ended with the signing of an armistice that restored pre-war conditions on the Korean peninsula.

In 1956, a large parcel on the saddle between Mauna Kea and Mauna Loa on the Island of Hawai'i was acquired through Gubernatorial Executive Order and leases. Bradshaw Army Airfield (BAAF) was built at the same time (Langlas et al. 1997). As a result of the Hawai'i Admissions Act of 1959 (Public Law 86-3-Mar. 18, 1959), federal agencies were required to identify all lands that were needed. As a result of these efforts, 84,000 acres of the PTA were retained by Presidential Executive Order 11167, 65 year leases were signed with the State for 22,971 acres, and the Cantonment, BAAF, and a portion of the land south of the Old Saddle Road were retained by the Army under the existing Gubernatorial Executive Order.

In the mid-1960s, the U.S. became embroiled in a regional conflict in Southeast Asia. American participation in the Vietnam War continued until 1975, with a peak in 1969 when over 543,000 troops were stationed in Southeast Asia. War-related preparations on the Island of Hawai'i took place near KMC (Tomonari-Tuggle and Slocumb 2000). In June 1964, the U.S. Army was granted a permit from the State Department of Land and Natural Resources to conduct meteorological and tracer tests in the 'Ōla'a Forest Reserve near KMC. In January 1966, another 1,144 acres in the upland region was leased for additional experiments, including a "Jungle and Environmental Test Site" which was said to be used to test clothing, equipment, and munitions for possible use in Vietnam.

### **Army Reorganization**

The Army reorganized several times following World War II. In 1947, the Department of Defense was created as a unifying umbrella organization for the armed forces. At the same time, the U.S. Air Force was established and was seen as the primary service that would be capable of delivering nuclear weapons; the Army was assigned responsibilities for "conducting land warfare, providing troops for occupation duty, and providing for air defense units" (U.S. Army Environmental Center 1998).

In 1952, the Armed Forces Reserve Act placed the Army Reserve as a distinct entity within the Army structure. In 1955, the Army activated the Continental Army Command (CONARC). Commands were divided among subordinate numbered armies that were organized geographically. Most of the CONARC installations focused on manning or training Army forces for ready deployment anywhere in the world.

In 1962, the Army underwent a significant reorganization. The technical services were abolished and their functions assigned to new agencies (U.S. Army Environmental Center 1998). The most important of these agencies was the Army Materiel Command, which reorganized the logistical functions of the technical services along functional lines. Other commands included the Army Air Defense Command, Strategic Communications Command, and Military Traffic and Terminal Service.

In 1973, the Army carried out further reorganization. CONARC and the Combat Developments Command was replaced by Forces Command (FORSCOM) and Training and Doctrine Command (TRADOC), both commanded by four-star generals (U.S. Army Environmental Center 1998). The Army placed a renewed emphasis on training in creating TRADOC, which assumed responsibility for all Army branch schools, as well as all training organizations. FORSCOM was responsible for fighting units and the supporting structure that functioned within a theater of operations; and U.S. Army Pacific (USARPAC) was formed as a comparable command with authority in Alaska, Hawai'i, and the Pacific islands.

## 3. CULTURAL RESOURCES OVERVIEW

### 3.1. Categories of Cultural Resources at USAG-Pōhakuloa

This section details the categories of cultural resources as defined in legal authorities, and the responsibilities set out in those authorities. AR 200-1 acknowledges multiple sources of legal responsibilities that define cultural resources, including the following:

- **Historic properties** as established by NHPA
- **Archeological resources** as defined by ARPA
- **Sacred sites** as defined in EO 13007 to which access is afforded under AIRFA
- **Archaeological Collections and associated records** as defined in 36 CFR §79
- **Cultural Items** as defined in NAGPRA

The laws place different (though often similar) responsibilities upon federal agencies with respect to each type of cultural resource. USAG-Pōhakuloa is responsible for carrying out the requirements of all of these laws on Hawai'i Island for the Army, and the Garrison Commander is the federal agency official as defined in each law per AR 200-1. A single property may simultaneously qualify as a cultural resource under multiple authorities. As an example, an archaeological site may be simultaneously a historic property under NHPA, an archaeological resource under ARPA, a sacred site under AIRFA, and contain cultural items as defined by NAGPRA.

**Historic property**, as defined by NHPA (54 U.S.C. § 300101 et seq), is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP), as maintained by the Secretary of the Interior. This term also 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 that also satisfies National Register criteria (Department of the Army 2007).<sup>3</sup>

As per 36 CFR §60.3 buildings, districts, objects, sites, and structures are defined as follows:

- **Building.** A building is created principally to shelter any form of human activity, such as a house, barn, church, hotel, or similar construction. Building may also be used to refer to a historically related complex such as a courthouse and jail, or a house and barn.
- **District.** A district is a geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history.
- **Object.** An object is a material thing of functional, aesthetic, cultural, historical or scientific value that may be, by nature or design, movable yet related to a specific setting or environment.
- **Site.** A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historical or archeological value regardless of the value of any existing structure.
- **Structure.** The term structure is used to distinguish from buildings those constructions made usually for purposes other than human shelter, such as a bridge, tunnel, earthworks, railroad grade, or similar construction. A structure may also be an engineering project large in scale.

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<sup>3</sup> The reader should be aware that the definition of “historic property” in the law of the State of Hawai'i is similar but a bit different from the definition in NHPA. In some situations the difference can lead to unintended confusion.

**Archaeological resource**, as defined by Section 3(1) of ARPA (16 U.S.C. 470bb[1]), includes “Any material remains of human life or activities that are at least 100 years old and that are of archaeological interest.” Archaeological resources as defined by ARPA may also be cultural resources with independent protections from other laws such as the NHPA or NAGPRA. An archaeological site may well qualify as a cultural resource because it contains archaeological resources of interest, but still not qualify for the NRHP as an historic property. In such cases, the site may be protected from unauthorized removal of artifacts, but not be afforded consideration when in the path of proposed construction.

**Sacred site** is defined in EO 13007 as “any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.” This Executive Order envisions discrete locations on federal lands identified by authoritative representatives as sacred by virtue of established religious significance or ceremonial use, rather than addressing a generalized sense of sacredness throughout the landscape. Also, AIRFA (42 USC §1996) protects access to, and use of, these sites by those practicing a traditional religion, to the extent practicable, and not clearly inconsistent with the military mission.

**Archaeological collections and associated records**, as defined under 36 CFR §79: Curation of Federally Owned and Administered Archaeological Collections, include collections of material remains, such as artifacts, objects, specimens, and other physical evidence, that are excavated or removed during a survey, excavation, or other study of a prehistoric or historic resource. The regulations at 36 CFR §79 specify in detail the levels of care an agency must continue to provide for these permanent collections. ARPA clearly designates archaeological collections and the associated records as subject to continuing stewardship responsibilities by federal agencies. The regulations incorporate responsibilities for long term care of archaeological collections derived from other statutes as well.

**Cultural Items.** According to Section 2(3) of NAGPRA (25 U.S.C. 3001[3]), cultural items include human remains, associated and unassociated funerary remains, sacred objects, and objects of cultural patrimony. These types of cultural items can, and often are, found within archaeological sites. NAGPRA outlines a specific process to determine ownership of NAGPRA cultural items that are presently in the possession of, or under the control of, museums and Federal agencies, but ultimately NAGPRA cultural items belong to the closest culturally affiliated lineal descendant(s).

**National Historic Landmark (NHL)**, as defined by 36 CFR §65.3(h), is a district, site, building, structure, or object possessing national significance in American history, archeology, architecture, engineering, or culture. The Secretary of the Interior designates an NHL under authority from the Historic Sites Act of 1935. When the Secretary of the Interior designates an NHL, it is automatically also considered to be a historic property for purposes of the NHPA and listed on the National Register of Historic Places as of the date of its NHL designation.

## Historic Status Codes

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In accordance with EO 13287, the Department of the Army maintains data and information systems on federal real property that includes cultural resource data fields for historic real property assets. The DoD has adopted the following Historic Status Codes which are attributes of the official Department of the Army Real Property database of record. Each assigned code should be substantiated by documents

coordinated with State Historic Preservation Office or the National Park Service with respect to the current status of each facility with respect to the NRHP and criteria of eligibility.

**Table 12: Historic Status Codes**

| <b>Historic Status Code</b> | <b>Definition</b>   | <b>Description</b>  |
|-----------------------------|---|---|
| <b>NHLI</b>                 | Individual National Historic Landmark                     | A facility that is individually listed on the NRHP and has further been declared to be a NHL by the Secretary of the Interior due to its prominent importance in our Nation's history.  |
| <b>NRLI</b>                 | Individual National Register Listed                       | A facility that has been individually determined to meet the NRHP criteria of eligibility, and has been formally listed in the NRHP by the Keeper of the National Register.   |
| <b>NREI</b>                 | Individual National Register Eligible                     | A facility that is individually determined to meet the NRHP criteria of eligibility, but had not gone through the formal nomination process.  |
| <b>NCE</b>                  | Non-Contributing Element of a NHL or NRHP District        | Facilities within the designated boundaries of a NHL District or NRHP-listed or NRHP-eligible district that have been evaluated and determined not to contribute to the historic or architectural significance of the district.   |
| <b>DNE</b>                  | Determined Not Eligible for Listing                       | A facility that has been evaluated using the NRHP criteria and is determined not to meet any of the requirements for eligibility.   |
| <b>DNR</b>                  | Designation Rescinded                                     | A facility formerly classified as NHLI/NHLC/NREI/NREC which has been determined by the Keeper to lack integrity to remain a historic property. The formal removal process of NREI/NREC properties involves the review, approval, and signature of the FPO and the SHPO.   |
| <b>NHLC</b>                 | Contributing Element of a NHL District                    | An individual facility that is identified as a contributing element of a district listed on the NRHP and also designated a NHL district by the Secretary of the Interior.   |
| <b>NRLC</b>                 | Contributing Element of a NRHP Listed Historic District   | An individual facility that is identified as a contributing element of a larger historic district formally listed on the NRHP.  |
| <b>NREC</b>                 | Contributing Element of a NRHP Eligible Historic District | An individual facility that is identified as a contributing element of a larger district determined eligible for listing on the NRHP.   |
| <b>ELPA</b>                 | Eligible for the purposes of a Program Alternative        | An individual facility that is treated as eligible for listing in the NRHP by consensus of the Federal Preservation Officer, State Historic Preservation Officer and Advisory Council on Historic Preservation during the development of a program alternative as defined in 36 CFR 800.14. Examples include Capeheart-Wherry Housing, Cold War era Unaccompanied Personnel Housing, and World War II and Cold War era Ammo Storage Facilities. |
| <b>NEV</b>                  | Not Yet Evaluated   | A facility that has not yet been evaluated for historic status.   |

### 3.2. General Overview of Cultural Resources Inventory at USAG-Pōhakuloa

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USAG-Pōhakuloa has direct responsibility primarily for archaeological sites within the Army jurisdiction on Hawai'i Island, but manages other resource types as required. USAG-HI provides support for management of historic buildings and districts within Army jurisdiction on the Island of Hawai'i.

All of the types of historic properties discussed in Section 3.1 are found on Army installations on Hawai'i Island (see Appendix D for USAG-Pōhakuloa Inventory). Historic properties at USAG-Pōhakuloa include sites, buildings and structures. Archaeological sites, both those that are historic properties and archaeological resources as defined in ARPA, include habitation sites, resource procurement sites, trails, animal control features, and shrines. The sites date to the pre-contact Hawaiian period as well as the post-Contact period during which Hawaiian culture was changing with the influence of Western culture and other contacts. There are also archaeological sites and structures related to 19<sup>th</sup> and early 20<sup>th</sup> century activities including ranching and land survey within PTA.

**Archaeological Sites.** The inventory of archaeological sites on Hawai'i Island Army installations includes 1,198 archaeological sites with descriptive documentation on file, all located at PTA. Of these, 39 are listed on the NRHP or have been formally determined eligible with concurring opinion from SHPD and 11 sites are considered eligible. Another 326 have been determined NOT eligible for the NRHP, with over 822 still in need of a formal evaluation. It is Army policy (AR 200-1: 6-4(9)) to treat known but unevaluated properties "as if" eligible until a formal evaluation is made.

No archaeological sites with Traditional Hawaiian associations have been identified within the PTA Cantonment area, at KMC, or at Kawaihae Military Reservation. All of the sites with Traditional Hawaiian associations are found in the training areas within PTA. SHPD has concurred in consultation that it is unlikely that subsurface archaeological deposits will be found within the PTA Cantonment and BAAF areas. This determination was made on the basis of documentation of subsurface excavations throughout the area. Subsurface monitoring of excavations at KMC has also failed to produce any stratified archaeological deposits. Kawaihae Military Reservation is built on fill, and although it is located in close proximity to significant cultural resources none are within the boundaries of the installation.

The area used for military training at PTA is divided into 23 training areas of varying sizes, a high hazard Impact Area, and the KMA. Most of the area is made up of relatively recent Mauna Loa lava flows with very little soil development and few sedimentary deposits. The northern portion of PTA, generally north of the Impact Area and Training Areas 21 and 22 including the KMA and the Cantonment area, consists of Mauna Kea ash deposits and soils that developed on them. In the rough Mauna Loa volcanics, modification of the landscape is minimal due to the difficulty of developing the lava. Recent developments have utilized modern construction equipment that has a greater impact on the lava. Due to the nature of the landscape, archaeological sites may be found within many of the developed areas throughout the training areas. Since the implementation of NHPA, there has been an effort to avoid archaeological sites during range construction, either shifting the range to avoid rich archaeological sites or building the range around the sites. The areas with Mauna Kea deposits are much more malleable, and show the effects of years of ranching and subsequent military activities. KMA was part of a ranch for more than 100 years before it was purchased by the Army, and ranch management included the use of bulldozers and chain dragging to install infrastructure and manage the landscape, in addition to more than 100 years of cattle grazing. This has resulted in very few traditional Hawaiian archaeological sites in the KMA.

**Sacred Sites.** No sacred sites, as defined by AIRFA and EO 13007, have been designated at any of the installations on Hawai'i Island as of November 2016.

**Historic Buildings, Structures, and Objects.** USAG-HI provides the expertise of qualified architectural historians toward the management of 400 buildings at PTA, and the nearly 100 buildings and structures contributing to the character of the KMC on Hawai'i Island.<sup>4</sup> The identified historic buildings at KMC span construction dates from 1916 through 1953, and at PTA 1955 through 1964. Approximately two-thirds of these buildings at PTA were determined eligible for the purposes of the Cold War Era Unaccompanied Personnel Housing (UPH) Program Comment (see ICRMP Section 6.4).

**Historic Districts.** USAG-HI supports management of buildings at the historic district of Kilauea Military Camp on Hawai'i island. KMC is located within Hawai'i Volcanoes National Park, and SHPD concurred with the eligibility of the district on 8 October 1996.

**Curation Facility.** USAG-Pōhakuloa operates a curation facility, located within PTA, through a cooperative agreement with the Research Corporation, University of Hawai'i. The care and conservation of artifacts and historical documents in accordance with *36 CFR Part 79: Curation of Federally Owned and Administered Archaeological Collections* is the responsibility of the Garrison Commander, assisted by the PCSU-PTA Cultural Resources Curation Specialist assigned to the curation facility at PTA with oversight provided by the USAG-Pōhakuloa CRM. The collection includes both the physical items recovered through archaeological investigations on lands within Army jurisdiction and the associated records and information related to them. The information management is extremely important for preserving the value of the collection for future research and for interpretation or educational uses (See Appendix B for *Cultural Resources Material Remains and Associated Records Curation Standards*). USAG-HI has completed NAGPRA inventories and repatriation of cultural items that were found in the USAG-Pōhakuloa collections.

## **Cultural Items.**

### ***Burial Features in archaeological sites***

Some of the archaeological sites have confirmed burial features of Native Hawaiian origin, *iwi kupuna*, within them. These known burial features are cultural items as defined by NAGPRA. Any planned disturbance of these features would require prior compliance with the provisions of NAGPRA, and any inadvertent disturbance would require compliance with the NAGPRA provisions for inadvertent discovery. The precise location of known burial features is considered sensitive information not generally shared publicly.

### ***Re-burial features in situ or near situ***

Some past undertakings have discovered or disturbed burial features, *iwi kupuna*, with consultations for treatment resulting in re-interments at or near the original places of discovery. The precise locations of these re-burials are considered sensitive information not generally shared publicly.

### ***Re-burial crypt***

Some *iwi kupuna* have been reinterred after consultations in a crypt in a natural lava tumulus at PTA, in accordance with commitments made during consultations. The precise location of the crypt is not generally shared publicly.

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<sup>4</sup> Note: NPS claims 103 contributing resources, 42 non-contributing, and 2 "undetermined" within the KMC district. These numbers do not match Army real property records that show 79 contributing or eligible, 42 non-contributing, and 2 yet to be evaluated.

## Informational challenges

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The cultural resources inventory at USAG-Pōhakuloa, while generally well ordered, has some aspects that need attention and improvement during the course of the next planning cycle. Analysis of available inventory information during the development of this document revealed some circumstances with respect to inventory that impede good cultural resources management and which can be improved during the ICRMP implementation cycle.

1. A large percentage of possible historic properties, primarily archaeological sites, are unevaluated. Since the Army regulations require treating unevaluated properties as if eligible, the unevaluated status of these properties may be resulting in diversion of staff time and Garrison fiscal resources to accommodate these properties during the planning and implementation of undertakings.
2. For the archaeological site inventory, there is a need to re-validate the reported site locations, adequacy of current site descriptions, and attributed site types, especially for sites documented in older archaeological survey reports.
3. For all classes of cultural resources, the DPW GIS under development within the Planning Division offers the best long-term prospect for sharing cultural resources inventory information quickly and reliably with planners and project proponents. The re-organization of existing inventory information and validation of information consistent with GIS Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) is a priority need for the program, and is in progress. A well-developed GIS application should be a primary method for integrating cultural resources inventory information with other Garrison plans. It will also support production of more informative maps for communications with consulting parties.

Appendix D has a list of known archaeological sites, a list of buildings and structures with any of the positive historic status codes, and a list of buildings and structures that are 50 years of age or older, but still not evaluated. These lists are the best available as of December 2016. The inventory information frequently changes as new areas are surveyed, sites or buildings are evaluated, or as corrections are made with new information in hand. Proponents planning new undertakings are strongly advised to confer with the Cultural Resources Section for current information rather than rely solely on the lists in the Appendix.

## 3.3. Cultural Resources Inventory

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### Archaeological Resources

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#### Past Research

Archaeological surveys at PTA began in 1977 with a reconnaissance survey by the Bishop Museum to identify archaeological sites on Army controlled lands in Hawai'i (Rosendahl 1977). Ten archaeological sites were identified at PTA, primarily through informant testimony. No sites were identified at KMC or Kawaihae Military Reservation. Surveys at PTA in the 1980s began to identify substantially more sites, and recognition of the types of sites present in the area has increased since that time.

Archaeological surveys in the 1980s identified lava tube habitation sites in two areas on the western side of PTA (Haun 1986, Athens and Kaschko 1989). One of these sites was listed on the NRHP, and 13 others were determined eligible for the NRHP. Surveys also identified trails, cairns, terraces, platforms, mounds and a volcanic glass source area. Archaeological surveys in the 1990s and early 2000s along Red Leg Trail on the eastern side of PTA identified similar sites, with the addition of *pāhoehoe* pits and more extensive

volcanic glass source areas (Reinman and Pantaleo 1998b, Williams 2002, Williams, Reinman, and Nees 2002). Surveys during this time were also conducted in training areas on State leased land on the north side of the Impact Area, and additional survey on the western side of PTA (Reinman and Pantaleo 1998a, Reinman and Schilz 1999). These surveys identified additional lava tube habitation sites. Archaeological surveys for the proposed routes of Saddle Road improvements, which passes through lands controlled by USAG-Pōhakuloa, identified pre-contact complex sites incorporating surface features with lava tube shelters, lava tube habitation sites, as well as historic-era ranching walls and fence lines (Welch 1993, Langlas, Wolforth, and Head 1999). These surveys also identified recent military sites built from local rock.

The stationing of a Stryker Brigade in Hawai'i in the early 2000s prompted additional archaeological surveys of Army controlled areas that had been used for training since the mid-20<sup>th</sup> century as well as privately owned land that had been used for military training during World War II and/or periodically in subsequent years (Roberts, Robins, and Buffum 2004). Surveys across the State leased lands and along Red Leg Trail relocated previously identified sites and identified surface features, increasing the number of sites identified but not generally the type. Many of these surface features such as wall alignments and cairns with sticks were identified as recent military sites built by units training at PTA. The purchase of the Ke'āmuku parcel in 2006 for maneuver training added a significant number of sites and increased diversity of ranching features to the inventory, both archaeological sites and structures.

Most archaeological surveys at PTA are conducted in response to a NHPA Section 106 undertaking, but some Section 110 surveys have also been conducted. PTA is not high altitude, but the elevation requires acclimatization for field workers. Most areas are remote, requiring substantial travel time to reach them once the crew is at PTA. The *ʻaʻā* and *pāhoehoe* lava flows are not easy to walk across, and are wearing on the crew members. These factors contribute to the expense and time required to conduct archaeological surveys at PTA. 61,892 acres outside of the high hazard impact area remain to be surveyed at PTA, primarily in remote areas that are not used for training. Survey is conducted in portions of the Impact Area as areas are reclaimed for ranges and other training infrastructure.

### **Pōhakuloa Training Area (PTA)**

As of 30 September 2016, PTA contains 1,198 known archaeological sites. Thirty-nine sites have been determined eligible for the NRHP. Of the eligible sites, 5 are related to 19<sup>th</sup> and 20<sup>th</sup> century contexts, 32 are Traditional Hawaiian sites, 1 is protohistoric, and the period of significance for the one remaining site is not yet identified. Known archaeological sites at PTA represent a diverse range of Native Hawaiian site types, including caves, enclosures, lithic scatters, C-shaped shelters, shrines, platforms, and trails. One site is listed on the NRHP (Bobcat Trail Habitation Cave, site 50-10-30-5004), which spans the Traditional Hawaiian and 19<sup>th</sup> Century periods at a minimum. The Bobcat Trail Habitation Cave is listed on the NRHP under Criterion D for its research potential associated with Hawaiian culture and lifeways (Rosendahl 1983). Of the known sites, 326 have been determined not eligible, and 822 are unevaluated. Of the unevaluated sites, 89 are 19<sup>th</sup> or 20<sup>th</sup> century sites, 364 are Traditional Hawaiian sites, two span the Traditional Hawaiian and historic-era contexts, two are recent, and a period of significance has not been identified for 365. No archaeological sites have been identified in the PTA Cantonment or Bradshaw Army Airfield (BAAF). Portions of both areas have been surveyed, and subsurface monitoring in both areas has failed to identify any stratified archaeological deposits.

To date approximately 20% of the PTA High Hazard Impact Area has been surveyed, and approximately 50% of the area outside the Impact Area has been surveyed for cultural resources.

### **Kawaihae Military Reservation**

Kawaihae Military Reservation consists of landfill area, therefore archaeological sites are not anticipated. In 2001, these findings were confirmed by archaeologists, Cox and Zulick, who visited the installation and



found that no archaeological remains were located within the Army-controlled portion of Kawaihae Harbor (Rosendahl 1977, Cox and Zulick 2001).

### **Kīlauea Military Camp (KMC)**

No subsurface cultural deposits have been located at KMC. Clearance surveys for the Hawai'i Volcanoes National Park identified five isolated historic period remains (including a stone walkway, an earth mound, a stone path, an L-shaped stone foundation, and a disturbed cement foundation), all were determined ineligible for nomination to the NRHP (Tomonari-Tuggle and Slocumb 2000).

## **Historic Buildings, Sites, Structures, and Districts**

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### **Pōhakuloa Training Area (PTA)**

Although the area was used by the U.S. Marines during WWII, PTA was not established until the mid-1950s. The Marines lived in tents with no established buildings. Following the War, the Hawai'i (Territorial) National Guard trained in the area until PTA was established by the Army.

To date, no historic buildings at PTA are determined eligible for the NRHP. Most of the buildings on PTA are Quonset huts dating from 1955-1958. In 2006, the ACHP published a Program Comment for the Department of Defense regarding Cold War Era Unaccompanied Personnel Housing (UPH), and the Army in turn published a historic context on *Unaccompanied Personnel Housing (UPH) During the Cold War (1946-1989)* as mitigation for any adverse effects to properties identified under the ACHP Program Comment. Seventy-eight of the buildings at PTA are considered Cold War era UPH in accordance with ACHP Program Comment and thus are not subject to further NHPA consultation or mitigation, and a consultation is underway with SHPD for the remaining buildings.

A transportation related property on Hawai'i is the Saddle Road, realigned and renamed the Daniel K. Inouye Highway. Originally built by the Army during World War II along an alignment that crossed the center of Hawai'i Island through PTA, the road was later realigned to travel along the margins of the installation.

*Bradshaw Army Airfield (BAAF)* also contains Quonset huts dating from 1958-1965 (T-302, T-303, T-351). T-303 is considered eligible for the purposes of the ACHP Program Comment regarding Cold War era UPH.

### **Kawaihae Military Reservation**

Most of the current structures on Kawaihae Military Reservation were built from 1959-1985 and consist of wharves, sea walls, offshore moors, and a dock/ramp (Cox and Zulick 2001). Six buildings and structures require evaluation to determine NRHP eligibility.

### **Kīlauea Military Camp (KMC)**

KMC is a Historic District determined eligible for listing on the NRHP for its association with the development of a recreation camp for U.S. military personnel on the Island of Hawai'i. According to National Park Service records, the Hawai'i SHPD concurred with the National Park Service determination that Kīlauea Military Camp is eligible for listing on the NRHP in 1996 (National Park Service 2006). The camp is also considered locally significant for its Plantation-style architecture using local materials and adaptation of National Park Service rustic and naturalistic design. According to a 2017 letter from the Superintendent at Hawai'i Volcanoes National Park, there are 103 contributing elements and 42 non-

contributing elements within the eligible Historic District, with two remaining buildings and structures yet to be evaluated (Orlando 2017).<sup>5</sup>

## Cultural Items

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*An Archaeological Collection Summary for Pōhakuloa Training Area: Information Provided for Compliance with the Native American Graves Protection and Repatriation Act Section 6 Summary* was completed in 1996 (U.S. Army Corps of Engineers 1996). USAG-Pōhakuloa identified and repatriated those human remains and cultural items within the Garrison's collections described in the 1996 summary. In some cases human remains, or *iwi kupuna*, were re-interred as an appropriate disposition in compliance with NAGPRA. These places are of high cultural and traditional religious value and therefore locational information is restricted in accordance with the commitments made during consultation for those actions.

## 3.4. Mission Activities and Military Impacts to Cultural Resources

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### Impacts to Historic Buildings, Structures, and Districts

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Undertakings that pose potential threats to historic architectural resources generally involve alterations to the property or the surrounding area. These include:

- Digging;
- Demolition;
- Pests and Rodents;
- Vegetation Encroachment;
- Historic Property Modifications and Maintenance can damage the property when renovations, additions, and repairs are not consistent with the historic character; and
- Deterioration can cause irreparable damage to historic materials. Buildings may also deteriorate without periodic major repairs or renovation programs for upgrading utilities and/or structural systems to current standards.

External threats and activities that can impact historic properties are:

- Natural Disasters and Accidents;
- Land Transfers, Leases, and Easements of land to federal or non-federal agencies, or the granting of land use permits, leases, licenses, or right-of-way easements are a threat to historic resources unless legal documents contain covenants providing protection;
- Loss of Historic Documents pertaining to historic properties can occur through deterioration or be lost unless inventoried and stored to prevent deterioration or permanent loss;
- Short Range Planning is heavily influenced by the Army's funding programs and priorities and can lead to project proposals that adversely affect historic properties; and
- Downsizing/Inventory Reductions can create pressure to demolish historic properties.

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<sup>5</sup> Note: NPS claims 103 contributing resources, 42 non-contributing, and 2 "undetermined" within the KMC district. These numbers do not match Army real property records that show 79 contributing or eligible, 42 non-contributing, and 2 yet to be evaluated.

## Impacts to Archaeological Resources

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Potentially adverse impacts to archaeological resources are most common on training lands. These threats include:

- Maneuver damage from wheeled and tracked vehicles;
- Vandalism and looting (either by military personnel or the public);
- Explosive ordnance;
- Target insertion;
- Excavation and earth-moving activity;
- Wildland fire operations; and
- Natural erosion processes that may be exacerbated by the above.

External threats and activities that can impact historic properties are:

- Natural Disasters and Accidents; and
- Land Transfers, Leases, and Easements of land to federal or non-federal agencies, or the granting of land use permits, leases, licenses, or right-of-way easements are a threat to historic resources unless legal documents contain covenants providing protection.

Common forms of excavation within training areas are mission-related and are implemented for purposes of tactical concealment and survivability. These include large volume excavations carried out by Combat Engineers with heavy earth moving equipment to partially or entirely conceal artillery (gun emplacements), personnel carriers and support vehicles, or for defensive purposes. Deep excavations usually accompany the construction of bunkers, shelters, and protective walls (Department of the Army 1985). Individual fighting emplacements (e.g., fox holes) are less common and less invasive. Because of the large volume of displaced earth from tactical digging operations, they can have a severe impact to the surface and subsurface archaeological record.

Another training-related threat is the unauthorized movement and use of stones to create "hasty fortifications" for tactical defensive positions. The removal or reconfiguration of stones from archaeological features destroys their integrity and may make them unrecognizable.

Apart from military training activities, there are a host of other potential threats to archaeological resources in these training areas. These include the following ground-disturbing and/or vegetation-clearing activities:

- Facilities development (site grading and improvements);
- Underground utilities construction;
- Hazardous waste remediation;
- Insertion of utility poles or fence posts;
- Vegetation grubbing;
- Landscaping;
- Unauthorized excavation of archaeological sites (looting);
- Soil investigations;
- Operation of (off-road) vehicles in unpaved areas;
- Soil contamination;
- Recreational activities, including public hunting and ATV use;
- Unexploded Ordnance Detonation; and
- Pedestrian human or animal activity (Anderson 1998).

## **Impacts to Sacred Sites**

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Adverse impacts to Sacred Sites corresponds with the above discussion on archaeological sites and inadvertent damage from military training to vandalism and looting, should any Sacred Sites be identified at the installations on Hawai'i Island.

## **Impacts to Curated Archaeological Collections and associated records**

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Curated artifact collections are typically not directly impacted by the military mission; however, they can be negatively impacted when the requirements of 36 CFR §79, Curation of Federally Owned and Administered Archaeological Collections are not followed. They may also be impacted by decisions regarding changing use of space in facilities that house the materials, as well as natural disasters and accidents.

## **Impacts to Cultural Items**

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NAGPRA cultural items may be negatively impacted when archaeological sites and/or burials are inadvertently damaged due to military training, vandalism, looting, natural disasters, or accidents. Violation of the provisions of AIRFA, ARPA, or NAGPRA may also result in adverse impacts to cultural items.

## 4. GOALS AND OBJECTIVES

The purpose behind these goals and objectives is the integration of legal requirements for Cultural Resources Management into the everyday operations of USAG-Pōhakuloa’s military mission and support activities. This ICRMP incorporates guidelines and procedures for cultural resources management into a single document to more efficiently fulfill management responsibilities.

### 4.1. Goals

- Efficiently meet USAG-Pōhakuloa’s obligations for compliance with NHPA, NEPA, NAGPRA, ARPA and other legal requirements in an efficient and effective manner consistent with DoD standards while minimizing effects on the military mission
- Ensure that current and planned installation programs, plans, and projects are integrated with cultural resources management initiatives
- Enforce Federal laws that prohibit vandalism of cultural resources on Federal properties through law enforcement, monitoring, and public awareness
- Identify and evaluate cultural resources for eligibility for inclusion in the National Register of Historic Places and maintain an up-to-date inventory of historic properties
- Avoid or minimize adverse effects to historic properties that meet eligibility criteria for inclusion in the National Register of Historic Places
- Preserve significant historic properties whenever possible and mitigate in accordance with the outcome of consultation in the long-term public interest when adverse effects cannot be avoided
- Ensure that appropriate consultation procedures are followed at the earliest planning stage of any undertaking that may affect historic properties
- Maintain a cultural resources program staff that meets the *Secretary of the Interior’s Professional Qualification Standards* (36 CFR §61)
- Maintain confidentiality regarding the nature and location of archaeological sites unless the Federal agency official determines that disclosure would further the purpose of ARPA and not create a risk of harm
- Maintain curation of archaeological collections and records, and orderly control of the technical libraries and associated records needed to support the CRM program

### 4.2. Planning Objectives

Improve coordination in compliance review of undertakings with emphasis on timely and effective coordination between proponents and the Cultural Resources Manager. Encourage use of DPW-wide GIS for more effective and reliable exchange of planning information among programs. In order to better support planning and operations within the training areas, these GIS layers should identify whether a particular survey area was searched adequately to meet the “reasonable and good faith” standard for identifying historic properties and other cultural resources should there be an undertaking planned within that area, or whether supplemental identification efforts would still be needed for major undertakings.

The locations, extent, and the important attributes of each known archaeological site also needs to be systematically compiled in GIS and maintained to provide “best available” current data for all planners within USAG-Pōhakuloa. Note that some archaeological site location data are restricted from general public dissemination. Access to this data is For Official Use Only (FOUO) and is restricted to approved Garrison personnel.

A systematic update of sensitive cultural resources area GIS maps is also necessary for prioritizing future cultural resources survey efforts and for alerting planners of potential cultural resources issues in

preliminary planning efforts. The current maps combine information from several sources, including known site locations with buffers and unsurveyed areas judged to have high probability of site occurrence.

Recent emphases in real property accounting standards within DoD have resulted in an increased emphasis on documenting SHPD concurrence regarding a particular property's eligibility for listing in the NRHP. Eligibility establishes particular standards of care and responsibility for USAG-HI, the applicability of which needs to be reflected in the real property inventory records. An agency determination without written concurrence from the SHPO is not sufficient for the accounting standard, especially for buildings, structures, and objects managed by USAG-HI. Requests for SHPD concurrence as to the eligibility of properties and sites will be a significant part of the correspondence and interaction between the Garrison and the SHPD, whether or not the subject properties are at risk of being affected by a particular project or undertaking.

It is important that Real Property information and GIS be integrated with cultural resources inventory data regarding historic buildings, structures, objects, and districts. The Garrison needs to develop adequate tracking of real property with respect to the historic status code of each real property asset. The Real Property system is designed only to record the status of "historic properties" as defined in the NHPA, but a more effective way of managing property data records for cultural resources that do not meet the definition of "historic properties" is needed.

Maintenance Plan(s) for historic buildings, structures, objects and districts outline a proactive approach to the management of historic properties. This proactive approach assists in the reduction of operating costs for historic buildings, structures, objects, and districts and ensures that all applicable regulatory laws and regulations are adhered to. The Garrison should develop Maintenance Plans for historic properties, detailing the methods for, and monitoring of, maintenance, repair, and rehabilitation of historic buildings, structures, objects, and districts.

Over the course of this plan, USAG-Pōhakuloa will improve its stewardship of important cultural resources by:

- Conducting archaeological inventory survey in areas not adequately surveyed as needed to support training and other projects and missions.
- Pro-actively consulting with Native Hawaiian Organizations and other interested parties in accord with Department of Defense and Department of the Army guidance.
- Making up-to-date cultural resources information easily accessible to planners, project proponents, and others through use of GIS and databases.
- With support from USAG-HI, evaluate previously unevaluated buildings that are 45 years old or older.
- Continuing to implement formal agreements through consultations that satisfy the regulatory requirements and streamline their implementation.
- Maintaining a comprehensive inventory and associated records for archaeological sites, historic buildings, structures, objects, and districts.
- Conducting regular education regarding cultural resources and procedures related to them for:
  - Military personnel newly assigned to USAG-Pōhakuloa
  - Planners, project proponents, and others whose programs and actions have high potential for affecting cultural resources.
  - Members of the public who are intended to benefit from historic properties and other cultural resources.
- Cultural resources protection measures are an important component of the cultural resources management program. There shall be no collection of archaeological items or artifacts except as necessary in the course of official job duties or within the terms of a valid ARPA permit. All

personnel newly assigned to USAG-Pōhakuloa shall be informed of the prohibitions against collecting archaeological items, and of the Garrison policy of enforcing these prohibitions. USAG-Pōhakuloa shall not make public information regarding the specific location of archaeological sites when such disclosure could endanger the continued integrity of the sites.

### 4.3. 5-Year Project Planning

Over the next five years, USAG-Pōhakuloa expects to have undertakings that could potentially affect historic properties. These potential undertakings include routine maintenance and operations, construction projects, natural resources management activities, and recurring training exercises. Proponents for such undertakings include USARHAW TSS, USAG-HI DPW, USAF-P DPW, U.S. Marine Corps, other tenant organizations, and training area users.

Listed below are several such projects that may be started within the next few years that USAG-Pōhakuloa is currently tracking as potentially affecting historic properties.

- Keamuku Range Roads improvements
- Access Control Points
- Aviation Gunnery Range
- Qualification Training Range
- Road Paving projects

The following is a summary of FY17 undertakings (as defined, NHPA 54 U.S.C. §300320) that may require cultural resources consultation:

**Table 13: USAG-Pōhakuloa Adjusted 1-N List, FY17**

**USAG-Pōhakuloa FY17 Adjusted 1-N List**

| 2017<br>Proposed<br>Priority | Project<br>Number | Project Description   | Installation / Location | Category                        |
|------------------------------|-------------------|---|-------------------------|---------------------------------|
| 5                            | 57417             | Ammunition Storage Facility                                   | Pohakuloa Training Area | Installation<br>Ammo<br>Storage |
| 2                            | 58273             | Keamuku Range Roads - Garrison MSR - Troop Construction       | Pohakuloa Training Area | Range road                      |
| 4                            | 62078             | Access Control Point & MP Station                             | Pohakuloa Training Area | MP Station                      |
| 1                            | 66024             | Aviation Gunnery Range  | Pohakuloa Training Area | Aerial<br>Gunnery               |
| 1                            | 76472             | TUAV Facilities (PTA)   | Pohakuloa Training Area | TUAV<br>HANGAR                  |
| 5                            | 78355             | Qualification Training Range                                  | Pohakuloa Training Area | QTR                             |
|                              | 90904             | (ADD) TT Barracks Requirement (2) PNs<br>(one area = 5 bldgs) | Pohakuloa Training Area |                                 |
|                              | 90905             | (ADD) TT Barracks Requirement (2) PNs<br>(one area = 6 bldgs) | Pohakuloa Training Area |                                 |
|                              | NEW               | (ADD) Red Leg Road Paving                                     | Pohakuloa Training Area |                                 |
|                              | NEW               | (ADD) Lava Road Paving  | Pohakuloa Training Area |                                 |
|                              | NEW               | (ADD) MPRC Road Paving  | Pohakuloa Training Area |                                 |

## 5. STANDARD OPERATING PROCEDURES

### 5.1. SOP 1: Compliance Procedures for NHPA Section 106

#### Introduction

The National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR §800, outline a systematic process for review and consideration of historic properties when planning and executing undertakings. If National Environmental Policy Act (NEPA) procedures are required, then compliance for both may occur simultaneously.

Preservation of historic properties is encouraged, but not a mandated outcome, of the Section 106 process. Instead, the Section 106 process provides for consideration of alternatives and allows the public and other stakeholders an opportunity to comment on federal undertakings that have the potential to affect historic properties. It is important that the Section 106 process be initiated early in the project planning process in order to allow sufficient consideration of a reasonable range of options.

#### Implementing Authorities

- National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. 306108)
- Section 106 implementing regulations (36 CFR §800)
- National Environmental Policy Act (42 U.S.C. §4321)
- Army regulations for implementing NEPA (32 CFR §651)
- Army Regulation 200-1: Environmental Protection and Enhancement

#### Important Concepts

##### a) Undertaking:

As defined by 36 CFR §800.16(y), an undertaking is 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; those requiring a Federal permit, license or approval; and those subject to state or local regulations administered pursuant to a delegation or approval by a Federal agency. The Cultural Resources Manager (CRM) evaluates projects and activities planned for implementation on lands owned, managed, or utilized by USAG-Pōhakuloa to determine if they meet this definition of an undertaking.

##### b) Effect:

Alteration to the characteristics of a historic property that qualify it for inclusion in, or eligibility for, the National Register of Historic Places (36 CFR §800.16(i)).

##### c) Adequate Opportunity to Comment:

- i) While the Hawai'i State Historic Preservation Division (SHPD) must be afforded a 30-day review period for most findings of effect and eligibility determinations (36 CFR §800.3(c)(4)), there is no formal timeline associated with Section 106 consultation to resolve Adverse Effects. The Army is expected to provide a reasonable amount of time and interaction with the SHPD to appropriately resolve situations of Adverse Effect (36 CFR §800.2(a)(4)).
- ii) Section 106 requires that Federal agencies offer the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on all proposed undertakings. The process defined in 36 CFR §800 provides that opportunity even though the ACHP does not directly participate in



the majority of consultations. The Army must specifically notify the ACHP of a finding of adverse effect (36 CFR §800.6(a)(1)) and offer the opportunity to participate in the consultation. The ACHP has 15-days to join in the consultation or decline participation.

Federal agencies shall also seek and consider the views of the public, as well as Native Hawaiian Organizations (NHOs), in a manner that reflects the nature and complexity of an undertaking and its effects on historic properties pursuant to 36 CFR §800.2(d)(2). In disseminating information to the public, an Agency is permitted to use existing public information portals established to comply with other planning and environmental reviews.

**d) Historic Property:**

Historic Property includes all properties that meet the criteria for listing in the National Register of Historic Places (NRHP). This determination is made by the Federal agency official, and requires SHPD concurrence.

## Standard Section 106 4-Step Process

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Army responsibilities in these regulations follow a general 4-Step sequence:

- I. Initiate Section 106 Process
- II. Identify Historic Properties
- III. Assess Effects
- IV. Resolve Adverse Effects

The steps in the process may be combined in correspondence with SHPD and consulting parties, or may be addressed individually. SHPD has 30 days to respond to each finding or determination made by the federal agency.

## Program Alternatives and Options

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The regulations allow for the development of several different kinds of alternate processes to the standard Section 106 consultation process. There are a number of these Program Alternatives in effect at USAG-Pōhakuloa (see ICRMP section 6.4). The CRM determines which existing programmatic agreements and/or program alternatives may apply to a given undertaking.

## Participants in NHPA Section 106 Process

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**a) Proponent**

The proponent is responsible for contacting the CRM ***as early as possible in the planning process***. Early involvement of the CRM is a specific requirement of the implementing regulations for NHPA, AR 200-1, and Army regulations for implementing NEPA. Timely review of proposed projects by the CRM will allow USAG-Pōhakuloa time to identify and resolve cultural resources issues in a timely and efficient manner. In many instances, it is the proponent's responsibility to program funding for cultural resources surveys, evaluations, and mitigation measures. Early identification of these needs is crucial for proper project budgeting.

Proponent responsibilities:

- Notification to the CRM of a proposed action or undertaking for review
- Participation in defining the Area of Potential Effects (APE)
- Funding and support for identification of historic properties, finding of effect, and implementation of mitigation measures incorporated into project approvals
- Supply information needed by the CRM for official correspondence

- Assure that NEPA and NHPA compliance are properly coordinated
- Assure that any restrictions or agreement stipulations are incorporated into project designs, contracts, construction inspections, SOPs, etc.
- Keep written record of Section 106 completion and any resulting conditions on the project;
- Notify CRM of any material change to the project scale, scope, design parameters, timing, or other circumstances
- Notify the USAG-HI Environmental Division Chief, USAG-Pōhakuloa CRM, and USAG-HI NEPA Program Manager when the implementation of the project is not in accord with or lacking any of the provisions upon which the Section 106 resolution depends

**b) USAG-Pōhakuloa Cultural Resources Manager (CRM)**

The CRM, representing the Garrison Commander, is responsible for facilitating Section 106 compliance and consideration of cultural resources. The CRM is responsible for oversight of the Section 106 compliance process; preparing the proper finding of effect; and for managing consultation with external agencies, organizations, and interested individuals.

CRM responsibilities:

- Review pertinent project planning documents for proposed or possible undertakings at early and subsequent stages of planning to identify cultural resource issues, applicable procedures, or needs for further information gathering, and consultations to complete Section 106 responsibilities.
- Assist proponents in defining appropriate APE for undertakings.
- Inform proponent of any known historic properties in or near the APE, and make initial assessment regarding additional identification efforts needed to support a finding of effect.
- Provide direction regarding alternative procedures and options for achieving compliance with Section 106 for projects under consideration. The CRM shall prepare the appropriate finding of effect.
- Request from proponents additional technical project information as needed for official correspondence with SHPD, the ACHP, consulting parties, or other interested parties.
- Draft official correspondence with SHPD, ACHP, consulting parties, or other interested parties.
- Coordinate consultations involving NHOs, SHPD, ACHP, other consulting parties, or other interested parties.
- Coordinate Section 106 consultation with NEPA review, as appropriate.

c) **Advisory Council on Historic Preservation (ACHP)** is an independent federal agency that promotes the preservation, enhancement, and productive use of our nation's historic resources, and advises the President and Congress on national historic preservation policy. The ACHP is composed of twenty-three statutorily designated members and a small professional staff with offices in Washington, D.C (<http://www.achp.gov/aboutachp.html>)

d) **State Historic Preservation Officers (SHPO)** administer the national historic preservation program at the State level, review National Register of Historic Places nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with Federal agencies during Section 106 review. SHPOs are designated by the governor of their respective State or territory (<http://www.achp.gov/shpo.html>). The DLNR Chair is the SHPO for the State of Hawai'i, supported by the professional staff in the State Historic Preservation Division (SHPD).

e) **Native Hawaiian Organizations** are organizations that serve and represent the interests of Native Hawaiians, have a primary and stated purpose of providing services to Native Hawaiians, and have

expertise in Native Hawaiian affairs (DoDI 4710.03). The term "Native Hawaiians" means any individual who is a descendent of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the State of Hawai'i (Public Law 103-150).

- f) **Interested Parties:** may include individuals or organizations with a demonstrated interest in the undertaking, including a legal or economic interest, or who are concerned with the undertaking's effects on historic properties (<http://www.achp.gov/apptoolkit.html>).

## Section 106 Procedure

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### I. Initiate Section 106 Process

#### **Establish the Undertaking**

Determine whether the undertaking is the type of activity that has the potential to affect historic properties, including physical changes such as modification of buildings or land disturbance, or by indirect effects of noise, vibration or visual intrusions. The proponent organization is generally responsible for ensuring that undertakings comply with Section 106 of the NHPA, for funding measures needed to establish compliance, and for ensuring that compliance documentation is part of the administrative record pertinent to the undertaking. AR 200-1 defines proponent as "the unit, element, or organization that is responsible for initiating and/or carrying out the proposed action." Proponent responsibilities with respect to environmental reviews are noted in 32 CFR §651.4(q).

#### **Identify Consulting Parties**

The Army shall identify the appropriate points for seeking public input and for notifying the public of proposed actions. The Army regularly consults with the SHPD, NHOs, individuals and organizations with expressed interest in kinds of undertakings or the areas within which the undertakings are conducted. The ACHP participates in some consultations, especially for those that have a finding of Adverse Effects. The ACHP frequently chooses not to participate unless specifically requested by one of the consulting parties or by the Army.

### II. Identify Historic Properties

#### **Defining the APE**

The APE is "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." (36 CFR §800.16(d)). The CRM is responsible for coordinating with appropriate parties to identify the APE, which include but are not limited to, the SHPD, project managers, engineers and proponents of the undertaking. The CRM may request additional documentation for the proposed project under review to accurately determine the APE. The size of the APE is of sufficient size to encompass potential direct and indirect effects.

#### **Identifying Historic Properties within the APE**

The CRM will determine whether any historic properties are already known within the APE. In consultation with SHPD as needed, the CRM will determine if further measures are needed to complete a reasonable and good faith effort to locate and document historic properties that may be affected by specified undertakings. The proponent may need to assist in providing resources to carry out the required identification measures.

AR 200-1 6-4(9), states "Treat (assume) that all historic sites are eligible (that is, off-limits) until the SHPO concurs with the federal finding of non-eligible." AR 200-1 6-4(9) further stipulates "Nominate...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.” AR 200-1 1-5(e ) identifies the Assistant Secretary of the Army for Installations and the Environment as the Army's senior policy level official for historic preservation and as the Federal Preservation Officer for oversight and coordination of Army Activities under NHPA, including approving and signing Army National Register of Historic Places nominations for Federally-owned or -controlled historic properties. Unless there is an unresolvable dispute, the eligibility of a property is settled through a determination documented by the Army, and concurrence (or no objection) from the SHPO. Disputes as to eligibility may be decided by the Keeper of the National Register within 45 days (36 CFR 63.2(d)). If the SHPO does not respond to a determination of eligibility within 30 days, the Army can proceed to assessing the effects of the undertaking.

### III. Assess Effects

The Army will review the information regarding the proposed undertaking along with the information regarding historic properties in the APE and make one of several findings. The Army will send the finding to the SHPD and other consulting parties for review. The table below summarizes the findings of effect, information that must be available to consulting parties, and administrative constraints. The Federal agency must consult with SHPD to obtain concurrence. Concerns raised by consulting parties will be taken into account by the Federal agency.

**No Historic Properties Affected (NHPA).** This finding is appropriate if the steps to identify historic properties confirm that there are no historic properties within the APE. This finding is also appropriate in the circumstance that there are historic properties within the APE, but the undertaking as proposed will not affect them (36 CFR 800.4(d)(1)). The SHPD and consulting parties should be notified of the finding and the information supporting it. If SHPD concurs with the finding or does not object within thirty days, the Army may document the response and implement the undertaking with no further responsibilities under Section 106 of the NHPA. Comments received from other consulting parties within the thirty day review period will be taken into account by the Army.

**No Adverse Effect.** This finding is appropriate in circumstances where there are historic properties within the APE but the undertaking will not adversely effect those elements that make the properties eligible for the NRHP. For some undertakings, this finding may be dependent on specified conditions that become binding commitments. A finding of No Adverse Effect may be appropriately applied to rehabilitation of historic buildings, for instance, if that rehabilitation is required to conform to the Standards for Rehabilitation promulgated by the Secretary of the Interior. Conditions attached to the undertaking must be aimed at AVOIDING adverse effect, not at mitigation of or compensation for adverse effect. The Army must notify the SHPD and consulting parties of the finding and provide the information supporting it. If SHPD concurs with the finding or there are no requests for additional information submitted within thirty days, the Army may document the response and implement the undertaking with no further responsibilities under Section 106 of the NHPA. Comments received from other consulting parties within the thirty day review period will be taken into account by the Army.

**Adverse Effect.** This finding is appropriate if the proposed undertaking will cause or is likely to cause adverse effect to one or more historic properties. Adverse Effect is a change in the character or use of a historic property and its setting that diminishes any of the aspects of integrity of the characteristics that qualify the property for the National Register of Historic Places.

**Table 14: Findings of Effect, Supporting Information, Completion of Process**

| <b>Findings of Effect, Supporting Information, Completion of Process</b> |   |  |   |   |
|--|---|--|---|---|
| <b>Army Finding</b>  | <b>Criteria</b>   | <b>Supporting Information</b>  | <b>Response period</b>  | <b>Completion or Resolution</b>   |
| <b>No Historic Properties Affected</b><br><br><b>NHPA</b>                | Either No historic properties in APE OR Historic Properties present but not affected by undertaking   | <ul style="list-style-type: none"> <li>• Description of Undertaking;</li> <li>• APE;</li> <li>• Steps taken to Identify Historic Properties</li> <li>• Basis for Finding no historic properties, or no effects to historic properties</li> </ul> 36 CFR 800.11(d)  | 30 days for SHPD respond once complete information is received. If additional information is requested, there are no longer set timelines. Consulting parties must respond within 30 days in order to have their comments considered. | Letter of concurrence from SHPD, or MFR documenting no timely response    |
| <b>No Adverse Effect</b><br><br><b>NAE</b>                               | Historic Properties present or likely within the APE, but the undertaking will not cause adverse effects; or conditions imposed on the undertaking successfully AVOID adverse effect (often rehabilitation of historic buildings consistent with Secretary of the Interior's Standards) | <ul style="list-style-type: none"> <li>• Description of undertaking;</li> <li>• APE;</li> <li>• Steps taken to Identify Historic Properties;</li> <li>• Description of the Historic Properties, including the characteristics that qualify them for the NRHP.</li> <li>• Explanation of how the Criteria of Adverse Effect were found applicable or not applicable (including conditions to avoid, minimize or mitigate Adverse Effects)</li> <li>• Summaries of the views of consulting parties and the public.</li> </ul> 36 CFR 800.11(e) | 30 days for SHPD respond once complete information is received. If additional information is requested, there are no longer set timelines. Consulting parties must respond within 30 days in order to have their comments considered. | Letter of concurrence from SHPD, or MFR documenting no timely objections. |

| Findings of Effect, Supporting Information, Completion of Process |   |  |  |  |
|---|---|--|--|--|
| <b>Adverse Effect</b><br><br><b>AE</b>                            | Historic Properties present; at least one will suffer unavoidable adverse effects | <ul style="list-style-type: none"> <li>• Description of undertaking;</li> <li>• APE;</li> <li>• Steps taken to Identify Historic Properties;</li> <li>• Description of the Historic Properties, including the characteristics that qualify them for the NRHP.</li> <li>• Explanation of how the Criteria of Adverse Effect were found applicable or not applicable (including conditions to avoid, minimize or mitigate Adverse Effects)</li> <li>• Summaries of the views of consulting parties and the public.</li> </ul> 36 CFR 800.11(e) |  | Completion by implementing MOA, or by requesting ACHP formal comments after terminating unsuccessful consultations |
| <b>Consultations to Resolve Finding of Adverse Effect</b>         |   |  | No Formal time limit. Consultations continue until successful agreement (MOA) or one party terminates. | Completion by implementing MOA, or by requesting ACHP formal comments after terminating unsuccessful consultation  |

#### IV. Resolve Adverse Effects

If the Army in consultation with SHPD determines that the undertaking will result in a finding of adverse effect to an historic property, then the CRM consults with the SHPD on behalf of the Garrison Commander (GC), including the project proponent and other consulting parties in reviewing project alternatives to avoid, minimize, and/or mitigate the adverse effects. The goal of this consultation is to resolve adverse effects.

The following list provides some examples of adverse effects:

- Physical destruction, demolition, or damage to all or part of an historic property;
- Alterations to the property that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR §68). Alterations may include: restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, 9/11 Security Improvements, installation of green energy technology, and provisions for handicapped accessibility;
- Relocation of the property;
- Change in the property's use or physical features that alter the setting;

- Neglect of the property that leads to deterioration (except when the neglect and deterioration are recognized qualities of the property's religious and cultural significance to an indigenous organization);
- Transfer or lease 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;
- Introduction of visual, atmospheric, or audible elements that indirectly affect the integrity of historic property, such as elimination of open space or a scenic view and/or introduction of a visual element that is incompatible, out of scale, in great contrast, or out of character with the surrounding area; and
- Cumulative impacts in the past, present, and reasonably foreseeable future, which may be individually minor but collectively significant.

#### **Consulting to Resolve Adverse Effects**

For projects in which the finding of adverse effect cannot be avoided, the CRM initiates consultations to resolve adverse effects. The Army will notify the ACHP of the finding of adverse effect and invite the ACHP to participate in consultations. The Army consults with SHPO and other consulting parties to reach agreement on measures to resolve the adverse effects. Successful consultations will be documented in a Memorandum of Agreement (MOA).

The IMCOM and U.S. Army Environmental Command (USAEC) must review and approve a draft of the MOA to assure legal and technical sufficiency and consistency with Department of the Army policy. This review and approval must be completed before the Garrison Commander signs the MOA as the Agency Official for the Army. When all signatory parties sign the MOA and a copy of the executed MOA is sent to the ACHP and the signatory parties, then Section 106 is complete. The MOA is a legally binding document.

The project proponent is responsible for ensuring its activities are implemented as stipulated in the signed MOA (or other agreement document), ensuring that the stipulations are properly incorporated into subsequent contracts, project management inspections, budgets, and performance schedules. The project proponent will provide the CRM with evidence that the agreed upon stipulations have in fact been properly incorporated in project implementation documents. If project proponents find that any aspect of the project is not implemented in accordance with the binding stipulations, the proponent must promptly notify the USAG-HI Environmental Division Chief, USAG-HI NEPA Program Manager, and USAG-Pōhakuloa CRM for review and consideration, and may be subject to further Section 106 review and consultation.

#### **Terminating Consultation**

If the USAG-Pōhakuloa GC, SHPD, and ACHP (if participating) fail to agree on how to resolve adverse effects, the parties may terminate consultation. If termination occurs, the ACHP will submit its final advisory comments within 45 days to the Secretary of the Army as Head of the Federal Agency, and the Army must take into account the ACHP's comments in reaching a final decision on the undertaking. The Army shall prepare a summary of the final decision on the undertaking that documents the rationale for the decision and evidence that the Army considered the comments from the ACHP. This final decision document will be reviewed by IMCOM and ACSIM and then submitted to the ACHP and other consulting parties.

## **Coordinating the NEPA Process with NHPA Section 106 Regulations**

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The CRM may use the process and documentation required for the preparation of an Environmental Assessment (EA) or Environmental Impact Statement (EIS) to comply with Section 106 in lieu of the procedures set forth in this SOP and stipulated in 36 CFR § 800.3-800.6; however, the SHPD and ACHP must be notified when USAG-Pōhakuloa intends to combine NEPA and Section 106. When combining NEPA and Section 106, Federal agencies should consider their Section 106 responsibilities early in the NEPA process, and plan their public participation, analysis, and review so they can meet the purposes and requirements of both statutes. In coordination with the NEPA program manager, the CRM ensures that preparation of an EA or EIS includes proper scoping, identification of historic properties, assessment of effects upon them, and consultation leading to resolution of any adverse effects.

## **Guidance for National Historic Landmarks**

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NHPA Section 110(f) (54 U.S.C. 306107) requires the Army to undertake planning and actions to minimize harm to National Historic Landmarks (NHLs) and provide reasonable opportunity for the ACHP to comment on undertakings that adversely affect NHLs. When an undertaking affecting an NHL requires consultation, the CRM, acting on behalf of the GC, will notify the National Park Service (NPS) and invite the NPS to participate in the consultation if the proposed undertaking may result in a finding of adverse effect pursuant to 36 CFR 800.10(c).

## **Guidance for consideration of places with religious and cultural significance for Native Hawaiian Organizations**

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Places of cultural and religious significance to a NHO may be accorded certain standing and consideration. NHPA Section 106 (36 CFR §800) requires Federal agencies to consult with NHOs in order to identify properties of traditional religious and cultural importance that may be affected by a proposed undertaking and to gather information from NHOs about these properties while also acknowledging that “Indian tribes and NHOs possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them” (36 CFR § 800(4)(c)(1)). Properties of religious and cultural importance to NHOs will be evaluated for NRHP eligibility and effects of the undertaking as outlined above.



## 5.2. SOP 2: Identify and Evaluate Historic Properties

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### Introduction

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NHPA requires the Army to identify and evaluate buildings, structures, objects, districts, and sites under the agency's jurisdiction or control, or that may be affected by agency actions that are eligible for listing in the NRHP. Priorities for surveys at USAG-Pōhakuloa are determined annually based on available funding, projected mission impacts, and proposed undertakings.

### Implementing Regulations

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- NHPA (54 U.S.C. 306101(a) and 306102)
- National Register of Historic Places (NRHP) (54 U.S.C. 302101)
- Secretary of the Interior's Professional Qualification Standards (36 CFR §61)
- AR 200-1: Environmental Protection and Enhancement

### Important Concepts

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The goal of **identification** is to establish whether the area inspected contains the types of properties that may be eligible for the NRHP.

The purpose of **evaluation** is to collect sufficient information about identified properties to determine if they are eligible for the NRHP, including identification of the characteristics that contribute to eligibility and the condition and integrity of those characteristics. Evaluation leads to a determination of eligibility (DOE). USAG-Pōhakuloa uses the information provided by surveys to make formal determinations of eligibility for the NRHP which are submitted to SHPD for concurrence. Evaluation requires an assessment of collected data against the NRHP Criteria. Priority for evaluations is determined by projected mission impacts and anticipated undertakings.

### NRHP Criteria

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To be eligible for the NRHP, a property must be significant in American history, architecture, archeology, engineering, or culture. The property must meet one or more of the four National Register criteria:

**Criterion A:** Associated with events that have made a significant contribution to the broad patterns of our history; or

**Criterion B:** Associated with the lives of significant persons in our past; or

**Criterion C:** 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

**Criterion D:** Yield or may be likely to yield, information important in history or prehistory.

The property must also possess integrity of location, design, setting, materials, workmanship, feeling, and/or association.

To date, most of the resources identified at PTA have been archaeological sites. USAG-Pōhakuloa maintains an Access Inventory database of eligible and non-eligible archaeological sites and other properties (see Appendix D for USAG-Pōhakuloa Inventory). Locations of archaeological sites are maintained in a GIS. Hard copy site files are also maintained in the USAG-Pōhakuloa Cultural Resources Section. This inventory includes other property types, such as structures, for inventory purposes. Historic

building information is maintained by USAG-HI Real Property Office and tracked in GFEBS and other Real Property databases (see Appendix D for USAG-Pōhakuloa Inventory).

## **Procedures**

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Specific procedures for identification and evaluation surveys are determined by the nature of the resource and the purpose of the survey. For most property types, particularly archaeological sites, minimum information collected for evaluation of each property should include time period, function, ethnic affiliation, location (coordinates, map), measured area of property, boundaries and justification for boundaries, property description including condition and integrity, representative photographs, and a scaled site plan map. This minimum information was not consistently collected for all sites tracked in the USAG-Pōhakuloa Inventory, and in some cases additional documentation may be required. Specific site documentation requirements are established in the work plans developed for each project.

### **5.3. SOP 3: Unanticipated Discovery of Historic Properties and Inadvertent Discovery of Human Remains and/or Cultural Items**

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#### **Introduction**

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The USAG-Pōhakuloa Cultural Resources Section is engaged in continual efforts to survey and inventory Army lands; however, in the daily conduct of Army operations at USAG-Pōhakuloa, there is always the possibility of discovering previously unknown or unidentified cultural resources. Erosion by wind or water may also result in the unanticipated discovery of historic properties and/or human remains and cultural objects.

The appropriate response to an unanticipated or inadvertent discovery varies depending on the circumstances of the discovery, and the manner in which the activity leading to the discovery may have incorporated advance planning for discoveries in its implementation. The most important of these factors include:

- Whether the activity has a formal agreement in place with stipulations addressing discoveries
- Whether the activity has a formal agreement in place, but without specific stipulations addressing discoveries.
- Whether the discovery includes cultural items as defined by NAGPRA
- Whether the discovery includes human remains or other circumstances that require attention from law enforcement personnel
- Whether there is no activity or undertaking in place that leads to the discovery.

The CRM should be involved in the planning of undertakings in order to assess the potential for the discovery of Native Hawaiian burials and archaeological sites and to assure that appropriate measures to respond to such discoveries have been incorporated into the approvals and implementation plans for those undertakings. The CRM should also be identified as a point-of-contact to be notified immediately if human remains, archaeological deposits, or other culturally significant materials are inadvertently discovered on installation property.

#### **Laws, Implementing Regulations, and Guidance**

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- National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. 306108) and Section 106 implementing regulations (36 CFR §800)
- Native American Graves Protection and Repatriation Act (25 U.S.C §3001-3013) and implementing regulations (43 CFR §10)
- American Indian Religious Freedom Act (42 U.S.C. § 1996-1996a)
- Archaeological Resources Protection Act (16 U.S.C. § 470aa-470ll) and implementing regulations (43 CFR §7)
- National Environmental Policy Act (42 U.S.C. § 4321-4370c) and Army regulations for implementing NEPA (32 CFR §651)
- DoD Instruction 4710.03: Consultation with Native Hawaiian Organizations (NHOs)
- AR 200-1: Environmental Protection and Enhancement

Each statute mandates compliance with independent requirements; therefore it is important to remember that compliance with one statutory requirement may not satisfy all requirements.

## Important Concepts

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**Historic property**, as defined by NHPA (54 U.S.C. §300101 et seq), is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP).

**Archaeological resource**, as defined by Section 3(1) of ARPA (16 U.S.C. 470bb[1]), includes “Any material remains of human life or activities that are at least 100 years old and that are of archaeological interest.”

**Cultural item**. According to Section 2(3) of NAGPRA (25 U.S.C. 3001[3]), cultural items include human remains, associated and unassociated funerary remains, sacred objects, and objects of cultural patrimony.

**Inadvertent discovery** is the unanticipated encounter or detection of human remains, funerary objects, sacred objects, or objects of cultural patrimony found under or on the surface of Federal or tribal lands pursuant to section 3 (d) of NAGPRA (43 CFR §10.2 (g)(4)).

**Unanticipated discovery**, as defined by 36 CFR §800.6(c)(6), is the “subsequent discovery or identification of additional historic properties affected by the undertaking.”

**Post-review discovery** occurs when historic properties are discovered, or when unanticipated effects on historic properties occur, after the section 106 process is complete without establishing a process pursuant to 36 CFR §800.14(b) that governs actions to be taken if and when historic properties are discovered during the implementation of an undertaking (36 CFR §800.13).

## ARPA and NAGPRA Statements for inclusion with Permits, Leases, and Contracts

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The following clauses shall be included in all contracts executed on Hawai‘i Island that have the potential to affect historic properties, archaeological resources or cultural items:

“It is a felony offense, punishable by a fine up to \$20,000 and imprisonment for up to one year, for any person who attempts to or excavates, removes, damages, or otherwise alters or defaces any resources located on [name of installation], or for any person to offer to or sell, purchase, transport, or receive any resource which was excavated or removed from Federal lands (Archaeological Resources Protection Act, 16 U.S.C. 470aa-470mm).”

- a. “If previously unidentified historical, archaeological, or cultural resources are found during construction operations, the contractor shall immediately suspend work in the area of the discovery and provide telephone notification to the agency official or their representative and to the USAG-Pōhakuloa Directorate of Public Works Environmental Division, Cultural Resources Manager (808-436-4280). The contractor must follow-up with written confirmation of the discovery to those same parties as soon as possible. Resources covered by this provision include, but are not limited to: human burials or skeletal remains; petroglyphs; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, stone paving, walls, or other constructed features; any indication of habitation, agriculture, or other human activities. The contractor shall not alter or disturb any discovery and shall cease all activities that may result in impact to or the destruction of discovered resources. The contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.”

## Procedures

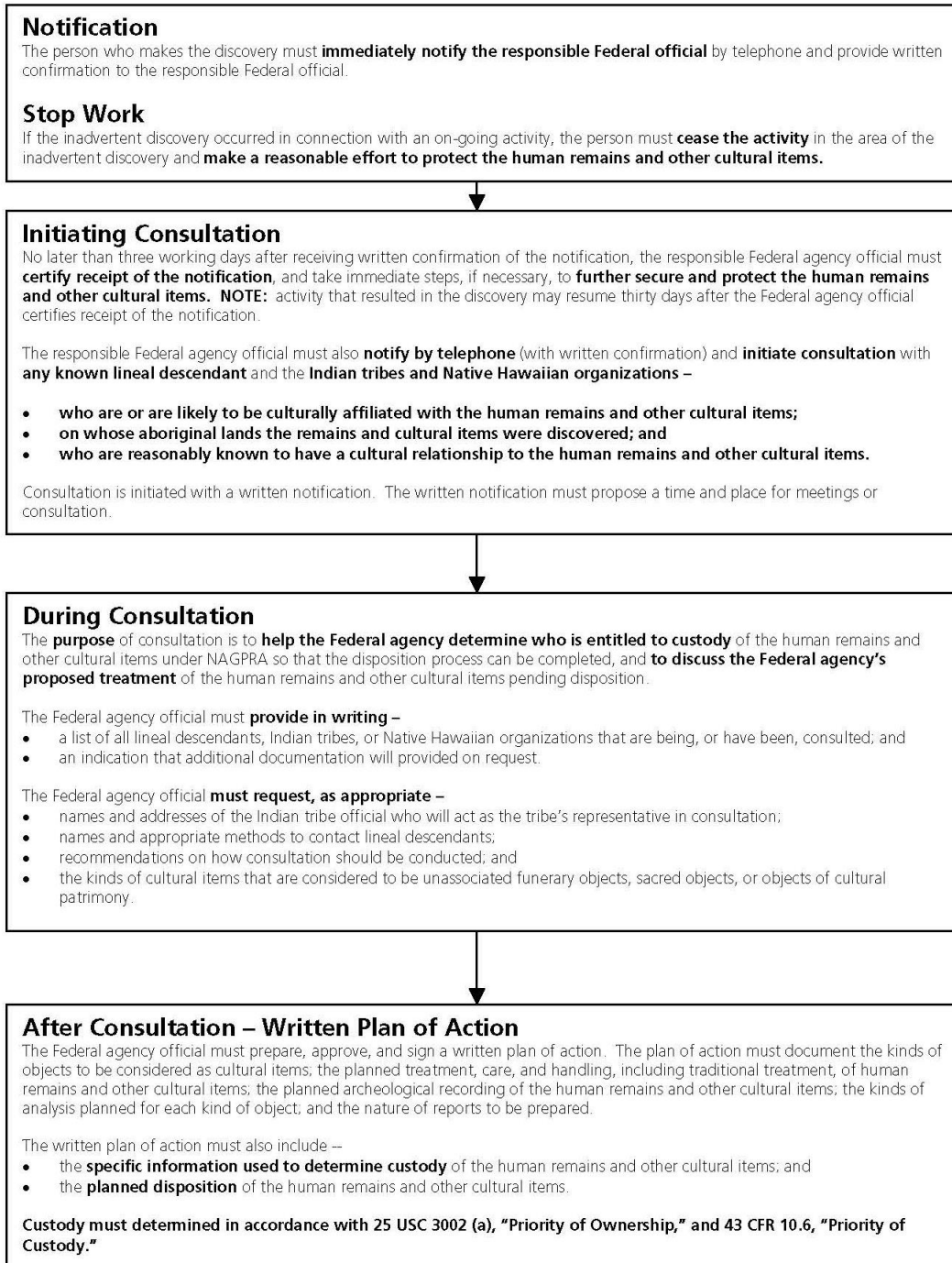
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- I. **Discovery.** In the event that artifacts, human remains, bottles, rock carvings or paintings, tools, structures or portions thereof, graves or other archaeological resources not previously known are identified in the course of an activity, the discoverer shall immediately cease activity in the vicinity of the find, secure the area to ensure that no additional harm comes to the find, and notify the USAG-Pōhakuloa CRM.
- II. **Preliminary Assessment, Protection, and Verification.** When notified of an inadvertent discovery of human remains or other cultural items, the proponent, CRM, and/or USAG-Pōhakuloa Department of Army Police and Criminal Investigation Division (CID) will determine if the remains are:
  - 1) **Associated with a recent crime scene:** If, upon examination by the Army Police and CID, the remains appear to be human and associated with a crime scene, then all activity will cease within an area reasonably needed to protect the site pending further investigation.
  - 2) **Remains are of Native Hawaiian origin:** If the remains are determined to be Native Hawaiian and not associated with a crime, the CRM must make a written field evaluation of the circumstances of the discovery, the condition and contents of the burial, including any associated artifacts, the primary context of the remains and any artifacts, and their antiquity and significance (see *Figure 1: National NAGPRA Guidance for Inadvertent Discoveries on Federal Lands*).
  - 3) **Remains are identified as non-human:** If the remains are determined to be non-human, then the CRM will determine if archaeological contexts are present that need to be evaluated pursuant to the NHPA.
  - 4) **Agreements:** If the activity that discovered the find has an applicable agreement document executed in accordance with Section 106 and/or NAGPRA, the Army shall follow the stipulations for Inadvertent or Unanticipated Discoveries established in those agreement documents.
  - 5) **No Agreements:** If the activity that discovered the find does not have an applicable agreement document, then USAG-Pōhakuloa (or USAG-HI) will follow the requirements of 43 CFR § 10.4 and 36 CFR § 800.13 for post-review discovery, as appropriate.
- III. **Resumption of Activity.** The activity that resulted in the inadvertent discovery of Native Hawaiian human remains or cultural objects may
  - 1) resume thirty (30) days after certification by the GC of the receipt of the notification sent by the CRM; or
  - 2) activity may resume if the treatment is documented in a written binding agreement between the installation and affiliated NHOs that adopts a plan for stabilization and protection of the site with no removal of human remains and cultural objects, excavation or removal of the human remains or cultural objects, or their disposition to lineal descendants or NHOs with priority of custody.

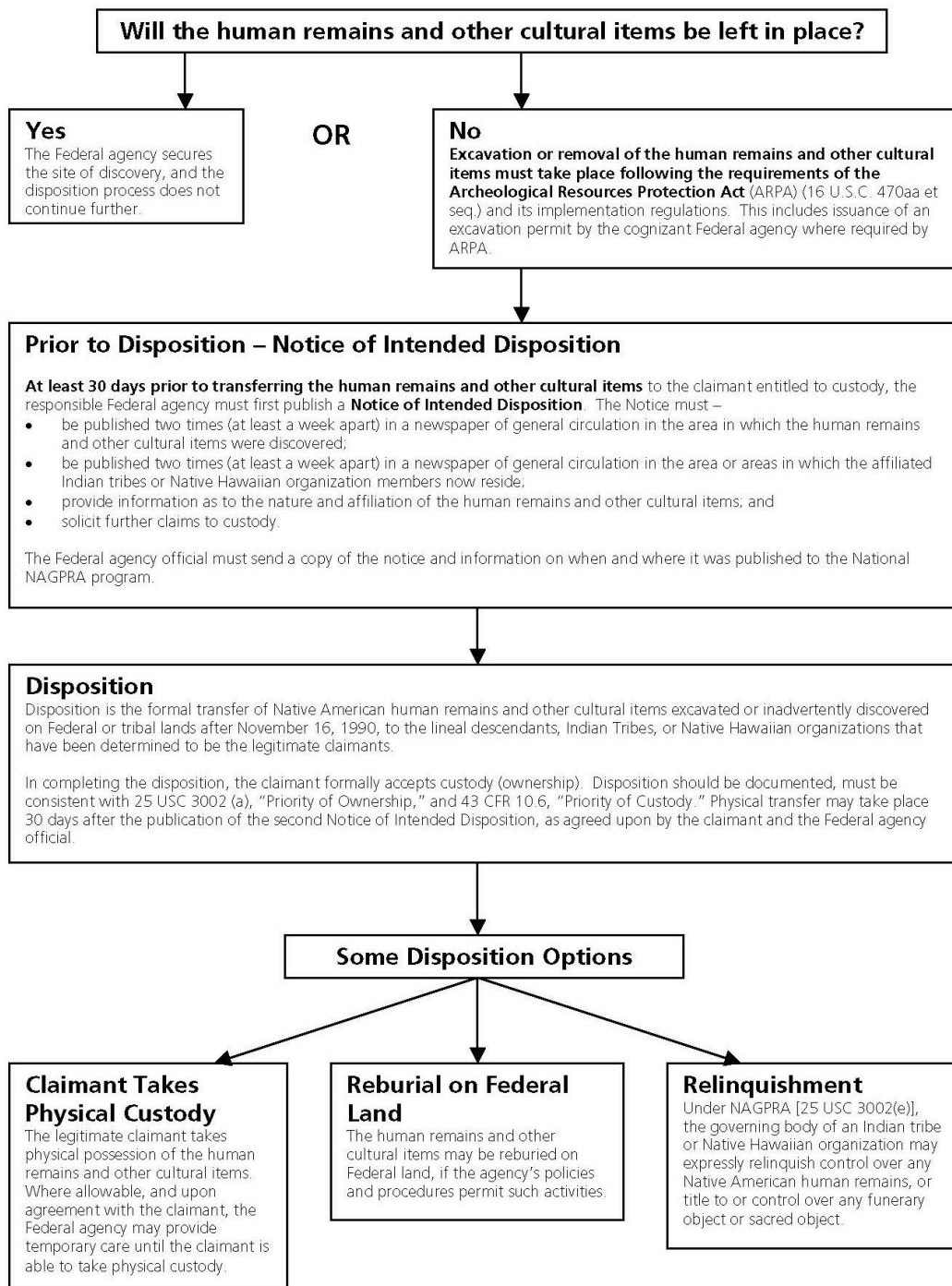
**Table 15: National NAGPRA Guidance for Inadvertent Discoveries on Federal Lands**  
**([https://www.nps.gov/nagpra/TRAINING/Intentional\\_Excavations.pdf](https://www.nps.gov/nagpra/TRAINING/Intentional_Excavations.pdf))**

## Inadvertent Discoveries on Federal Lands After November 16, 1990

An *inadvertent* discovery is one for which no plan of action was developed prior to the discovery.



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## 5.4. SOP 4: Emergency Situations

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### Introduction

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This SOP describes a framework to ensure protection of cultural resources from unnecessary damage and emergency procedures in the event of an emergency situation, such as a major natural disaster or imminent threat.

### Laws and Implementing Regulations

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- National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. 306108) and Section 106 implementing regulations (36 CFR §800)
- Archaeological Resources Protection Act (16 U.S.C. § 470aa-470ll) and implementing regulations (43 CFR §7)
- Secretary of the Interior's Standards for Treatment of Historic Properties (36 CFR §68)
- Waiver of Federal Agency Responsibilities Under Section 110 of the National Historic Preservation Act (36 CFR §78)
- AR 200-1: Environmental Protection and Enhancement

### Important Concepts

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**Emergency situations**, as defined by 36 CFR §800, allows for expedited review in the event of a disaster or emergency declared by the President, the Governor of a State, or another immediate threat to life or property where the agency has not developed procedures in advance.

USAG-Pōhakuloa will exercise feasible and prudent precautions to avoid and reduce the risk of damage to historic properties in the event of emergency responses. In cases where a historic property sustains damage as a result of those responses, the incident shall be reported and a reasonable effort shall be made to identify the responsible parties, if any, and to repair or replace the damaged resource or to mitigate the damage.

The project proponent or discoverer of the damaged historic properties is responsible for notifying the CRM immediately.

### Emergencies

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No requirement of this or any other SOP shall be used to delay immediate actions that are required in an emergency to protect health and human safety or avoid substantial loss of property. "Emergency" is defined here as an immediate and imminent threat to life, health, or property (36 CFR § 800.12).

In cases where it is determined by the onsite Federal Agency head, or designee, that an emergency exists, as defined above, all reasonable and prudent efforts shall be made to avoid or minimize harm to historic properties that may be caused by the implementation of emergency actions (36 CFR §78.3). In this case, a "Federal Agency Head" is defined as the highest administration official, or designee, representing the Federal agency during an emergency (36 CFR §78.2).

According to 36 CFR §800.12(d), rescue and salvage operations conducted in response to an immediate threat to life or property are exempt from the provisions of NHPA Section 106. Expedited review, where possible, is provided for in 36 CFR § 800.12 for undertakings initiated within 30 days of the declaration of an emergency by the appropriate authority. The agency may request an extension of the period of applicability for emergency procedures from the Council, or must consult with the SHPD under the normal



process outlined in 36 CFR § 800.3 through 800.6. Once an emergency has been identified, the Federal Agency head or designee shall notify the CRM as soon as possible. The CRM shall assess potential impacts to cultural resources, work with responders to avoid and protect cultural resources as possible, and ensure that the requirements of 36 CFR § 800.12 are followed if no prior plan is in place.

The requirements of Section 110 of the NHPA (54 U.S.C. 306101(a)) are likewise waived in the event of an emergency as follows:

“When a Federal Agency Head determines, under extraordinary circumstances, that there is an imminent threat of a major natural disaster or an imminent threat to national security such that an emergency action is necessary to the preservation of human life or property, and that such emergency action would be impeded if the Federal agency were to concurrently meet its historic preservation responsibilities under section 110 of the Act, that Federal Agency Head may immediately waive all or part of those responsibilities...” (36 CFR §78.3).

During an emergency situation when immediate repairs or building modifications are required, emergency work should be temporary and removable in case the work does not conform to the Secretary of the Interior’s Standards (36 CFR §68). Ideally, the CRM is notified before any replacement work takes place to evaluate the proposed changes and determine the necessary documentation requirements, if any. If changes to any elements of a historic building are unavoidable, the implementing activity must document the original condition and materials of the affected building elements with drawings, photographs, and written descriptions. Upon completion of all such work, the proponent will submit a brief written report to the CRM that describes the nature and location of the emergency repair or replacement.

## 5.5. SOP 5: NAGPRA: Planned Activities and Comprehensive Agreements

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### Introduction

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USAG-Pōhakuloa must comply with the Native American Graves Protection and Repatriation Act (NAGPRA) when planning intentional excavations or archaeological activities that are likely to disturb cultural items. NAGPRA requires that Native Hawaiian human remains, associated funerary objects, sacred objects, and objects of cultural patrimony be excavated or removed only after consultation with lineal descendants or potentially affiliated Native Hawaiian organizations that have priority of custody over these items.

### Implementing Regulations

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- Native American Graves Protection and Repatriation Act (NAGPRA), ((25 U.S.C §3002 (3)(c)), 43 CFR §10)
- DoD Instruction 4710.03: Consultation with Native Hawaiian Organizations
- National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. 306108) and Section 106 implementing regulations (36 CFR §800)

### Important Concepts

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**Intentional excavation** is defined in 43 CFR §10.2(g)(3) as “the planned archeological removal of human remains, funerary objects, sacred objects, or objects of cultural patrimony found under or on the surface of Federal or tribal lands.”

#### **Planned activity likely to disturb cultural items**

The term “planned activity likely to disturb cultural items” encompasses any activity that has the potential to discover or disturb cultural items as defined by NAGPRA (Deputy Federal Preservation Officer 2016). It is not limited to excavations intended for archaeological purposes, though it may encompass those as well.

If a planned activity is also subject to NHPA Section 106, then consultation and any subsequent agreements under NHPA should be coordinated with the requirements of NAGPRA (43 CFR §10.3(c)(2) and §10.5). Compliance with NAGPRA does not absolve a federal agency from its responsibilities under NHPA or vice versa.

### Intentional Excavation

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Before issuing any approvals or permits for excavations that are likely to result in the discovery of Native Hawaiian human remains or cultural objects, the CRM must provide proper written notification to the NHOs that are likely to be culturally affiliated. This notice must describe the planned activity, its general location, the basis for the determination that human remains and cultural objects may be encountered during excavation, and the basis for the determination of likely custody pursuant to 43 CFR §10.6.

### Treatment and Disposition: Native Hawaiian Human Remains

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The treatment and disposition of any Native Hawaiian human remains and cultural items recovered from USAG-Pōhakuloa lands shall be determined in consultation with lineal descendants or culturally affiliated NHO(s) as required by 25 U.S.C. §3002 (3)(a), 43 CFR §10.3(2) and §10.4(d)(iv).

- The treatment, stabilization and protection regarding Native Hawaiian human remains and cultural items encountered during planned archaeological excavations are developed before the commencement of the project. Culturally affiliated NHOs are notified in writing regarding proposed consultation.
- An organization that wishes to make a claim of ownership of human remains or cultural items must be able to demonstrate an affiliation by a preponderance of evidence according to the criteria for the priority of custody specified in 25 U.S.C. §3002 (3)(a) and 43 CFR §10.6.
- The determination of an appropriate disposition for the human remains and/or cultural items shall be determined in consultation with lineal descendants or culturally affiliated NHOs.

Upon request, sacred objects and objects of cultural patrimony shall be returned where (a) The requesting party is the direct lineal descendant of an individual who owned the sacred object; (b) The requesting NHO can show that the object was owned or controlled by the organization; and/or (c) The requesting NHO can show that the sacred object was owned or controlled by a member thereof.

Prior to the disposition of human remains and cultural items to the lineal descendants or culturally affiliated NHO(s), USAG-Pōhakuloa must publish notices of the proposed disposition in local newspapers where the human remains and cultural objects were discovered and where lineal descendants or affiliated Native Hawaiian(s) currently reside.

If a single, legitimate claimant cannot be identified, consultation shall continue with the consulting organizations to consider possible alternatives for affiliation, treatment, and disposition.

Each restoration and reinternment shall require that USAG-Pōhakuloa provide an opportunity for appropriate Native Hawaiian religious ceremony or ceremonies pursuant to the American Indian Religious Freedom Act (AIRFA) [42 U.S.C. §1996-1996a], to the extent that is safe and feasible to do so.

The resolution of treatment and disposition issues must be documented in a written Plan of Action (POA) or Comprehensive Agreement (CA), pursuant to 43 CFR §10.3(2), 10.4(d)(2), and 10.5(e),(f) and Final Rule §10.7.

### **NAGPRA Plan of Action (POA) or Comprehensive Agreement (CA)**

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“Under the NAGPRA regulations (43 C.F.R. 10.3 and 10.5), a Federal agency must prepare, approve, and sign a POA if the agency intends to excavate or remove, or leave in place NAGPRA cultural items when these cultural items are exposed or are found already exposed, and does not wish for activity in the area of the exposed cultural items to halt. Excavating or removing, or leaving in place cultural items under a POA is known as an "intentional excavation." Exposing or finding already-exposed cultural items without a POA is known as an "inadvertent discovery." When a discovery occurs, any activity taking place in the area of the discovery must cease for 30 days. Under the regulations at 43 C.F.R. 10.4, the responsible agency official must initiate consultation on a discovery pursuant to section 10.5 of the regulations. Consultation, in turn, must result in an approved and signed POA (43 C.F.R. 10.5(e)). The regulations provide no exceptions to this rule. Thus, the agency must prepare, approve, and sign a POA even if no on-going activity is to occur. A POA must, at minimum, comply with the requirements at section 10.3(b)(1) of the regulations (which governs an "intentional excavation"). Following the effective date of the POA, exposing or finding already-exposed cultural items within the geographical area covered by the POA will be an "intentional excavation," and will be excavated or removed, or left in place according to the terms of the POA” (National NAGPRA 2003).

Under 43 CFR §10.5, Federal agencies are encouraged to develop CAs where any undertaking or action on agency lands may affect NAGPRA cultural items. The purpose of these agreements is to address Army

activities that could result in the intentional excavation or inadvertent discovery of human remains or other NAGPRA items. The CA will describe procedures for consulting with NHOs to determine custody, treatment, and disposition, thereby reducing project delays in the event of an inadvertent discovery.

Consultation is documented by (1) a written POA in accordance with 43 CFR §10.5(e) signed by the GC, or (2) a CA in accordance with 43 CFR §10.5(f) signed by the GC and official representatives of affiliated NHOs. Excavation or removal of cultural items may only proceed after consultation with lineal descendants or potentially affiliated NHO.

## **Dispute Resolution**

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Should any interested organization make a conflicting claim of cultural affiliation or dispute the methods of treatment or disposition of human remains and/or cultural objects as delineated herein, the GC shall notify the IMCOM—HQ and the USAEC. USAG-Pōhakuloa will continue consultation with the disputing parties, suggest that the disputing parties seek resolution among themselves, or refer the matter to the NAGPRA Review Committee in accordance with 43 CFR §10.17(b).

## 5.6. SOP 6: Archaeological Resources Protection Act of 1979 Compliance Process

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### Introduction

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This SOP describes procedures for compliance with the Archaeological Resources Protection Act of 1979 (ARPA) and the final uniform regulations issued by the Department of Defense (32 CFR §229). ARPA protects archaeological sites and resources on public and tribal lands and describes what activities are considered violations of this regulation. ARPA also outlines the process of acquiring a permit for conducting archaeological research on, and conditions for removing artifacts from, these lands.

The law makes it a Federal felony for persons to excavate, remove, damage or otherwise deface any resource located on Federally-owned lands. The sale, purchase, or transfer of artifacts obtained in violation of the law is also a felony. The regulations contain definitions and guidelines for the enforcement of the act and set forth procedures and standards for the issuance of permits that are held as exceptions to the act.

### Laws and Implementing Regulations

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- Archaeological Resources Protection Act of 1979 (ARPA), Public Law 96-95; (93 Stat.721; 16 U.S.C. §470aa-II)
- Protection of Archaeological Resources: uniform regulations issued by the Department of Defense (32 CFR §229)

### Important Concepts

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- a) **Archaeological Resource:** ARPA and the implementing regulations define “archaeological resource” as any material remains of human life or activities that are at least 100 years of age and that are of archaeological interest (32 CFR §229.3(a)).
- b) **Federally owned lands:** ARPA defines “public lands” as those lands in which fee title is held by the United States (32 CFR §229.3(d)). At USAG-Pōhakuloa, Federally owned lands includes the lands assigned to the Army by Executive Order and purchased in fee simple, but does not apply to State leased lands.
- c) Investigation of looting or vandalism of an archaeological site requires a systematic examination of the crime scene by both a law enforcement investigator and a professional archaeologist, whether the matter is handled criminally or civilly. A law enforcement officer is responsible for investigating violations of the law and, therefore, directs the archaeological crime scene investigation process. The archaeologist provides forensic expertise on archaeological resources for the crime scene investigation, and may be requested to assist in other activities, such as taking the crime scene photographs, helping with the crime scene sketch, or providing assistance in collecting the archaeological evidence. In cases where proof may be insufficient to obtain a criminal conviction under the Act, or where deemed otherwise advisable, USAG-Pōhakuloa, after coordination with the Office of the Staff Judge Advocate (OSJA), may choose to assess a Civil Penalty under the provisions of 32 CFR §229.15. This procedure is particularly applicable to violations of the excavation permit provisions to prevent damage to known archaeological sites.

### ARPA Permit Procedures

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Under 32 CFR §229 and AR 200-1, any person may apply for a permit to excavate and/or remove archaeological resources from public lands. While AR 200-1 designates the Garrison Commander as the

federal land manager for purposes of ARPA, in practice the ARPA permit is also considered a real property transaction under the jurisdiction of the Army Corps of Engineers, District Engineer.

- ARPA prohibits anyone from excavating or removing an archaeological resource from Federal land or Indian land without a permit from the appropriate land management agency.
- The CRM, on behalf of the Garrison Commander (GC), shall consult with Native Hawaiian organizations (NHOs) in order to identify and locate archaeological sites of traditional religious and cultural importance, and notify NHOs of any ARPA permit that has the potential to affect these sites.
- Army activities should also be coordinated with legislative mandates found in the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act, (NAGPRA), and the National Environmental Policy Act (NEPA).
- While the legislation specifies Indian tribes, consultation is not necessarily restricted to Indian tribes and can include Alaska Native villages and NHOs.

Once the Army issues an ARPA permit, the permit holder is responsible for all conditions set forth in related documents such as a NAGPRA Plan of Action (POA) or Memorandum of Agreement (MOA) pertaining to the methods and techniques approved for the excavation. Excavation may be monitored for compliance by the CRM, NHOs, or other authority. Failure to comply with permit stipulations can result in revocation of the permit and prosecution under the law.

### **Procedures for ARPA Violation (unpermitted excavations)**

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An ARPA investigation begins when an Army official first suspects or discovers a violation, or receives a report of such from a third party. Information provided by a witness should include a signed narrative statement describing the exact location, specific activity, people and any vehicles involved. Witnesses to suspected criminal activity should contact the Federal law enforcement officer and the CRM. Upon notification of suspected criminal activity, both a Federal law enforcement official and the CRM should visit the suspected crime scene as soon as possible.

Garrison law enforcement personnel, Criminal Investigation Division (CID), Office of the Staff Judge Advocate (OSJA), and the USAG-Pōhakuloa Cultural Resources Section should ensure that there are personnel in each of these capacities that have received training in the technical procedures for effective investigation, documentation, and prosecution of ARPA violations.

## 5.7. SOP 7: Native Hawaiian Consultation

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### Introduction

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Native Hawaiian consultation is defined in DoDI 4710.03 as “seeking, discussing, and considering the views of other participants and, when feasible, seeking a mutually acceptable understanding regarding the matters at hand” and giving that information serious consideration in the decision-making process. “Consultation is most effective when conducted in the context of an ongoing relationship, the DoD Components are encouraged to, insofar as practicable, establish and maintain relationships with NHOs separate from consultations related to specific actions” (DoDI 4710.03, Enclosure 3, 1.(c)). The U.S. Army Hawai’i Covenant with Native Hawaiians specifically states that the U.S. Army Hawai’i is “committed to: Providing proactive dialog with Native Hawaiians to ensure the meaningful exchange of information and to enable sound, informed decisions by the Army that respects the legacy of the Native people of Hawai’i while meeting the mission and goals of the Army.”

### Laws, Implementing Regulations, and other guidance

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- Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C §3002 (3)(c), 43 CFR §10.3
- National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. 306108) and Section 106 implementing regulations (36 CFR §800)
- Archaeological Resources Protection Act (ARPA) (16 U.S.C. §470aa-470mm)
- American Indian Religious Freedom Act (AIRFA) (42 U.S.C. §1996)
- DoD Instruction 4710.03: Consultation with Native Hawaiian Organizations (NHOs)
- U.S. Army Hawai’i Covenant with Native Hawaiians (<https://www.garrison.Hawai’i.army.mil/hawaiiancovenant/NativeHawaiianCovenant.pdf>)

### Important Concepts

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Consultations are effective when established as on-going relationships (DoD Instruction 4710.03).

Native Hawaiians and NHOs have not been granted recognition as governments by the United States. However, Congress has formally provided the right of Native Hawaiians to be consulted on decisions affecting cultural resources in a number of Federal statutes, including the Native American Graves Protection and Repatriation Act (NAGPRA) and the National Historic Preservation Act (NHPA). Consultation with Native Hawaiians and NHOs is a mandate under these two statutes.

### Confidentiality

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The NHPA and the ARPA contain provisions to protect culturally sensitive information that may be shared during consultations from general public disclosure. Federal requirements under the Freedom of Information Act (FOIA) (5 USC §552) may require the Army to make available consultation documents upon request. USAG-Pōhakuloa will protect culturally sensitive information from public disclosure as requested by the disclosing NHO, to the extent consistent with other legal obligations.

### Timing and Process

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It is important to develop a consultation schedule that affords NHOs sufficient opportunity to review information and documentation provided by USAG-Pōhakuloa. Decision-making authority may not be vested in one individual, and time may be needed in order to reach consensus on a particular issue.

Consideration should extend to distance and cost of travel as well as site visits. The schedule for consultation should be developed mutually by the Army and Native Hawaiians, taking into consideration a variety of issues including: (1) the complexity of the consultation issues, (2) Army and NHOs schedule and fiscal constraints, (3) Army and NHOs standard operating procedures and protocols, and (4) statutory requirements. The consultation schedule must also fit within the overall project timetable, including fiscal, mission, and other legal constraints.



## 5.8. SOP 8: Archaeological Collections Curation and Management

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### Introduction

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In accordance with 36 CFR §79, federal agencies are mandated to preserve collections of historic and prehistoric material and associated records recovered under the authority of the Antiquities Act (54 USC §320301), the Archaeological and Historic Preservation Act (54 USC §321501), Section 110 of NHPA (54 USC §300101), or ARPA (16 USC §470aa).

### Laws, Implementing Regulations, Guidance, and policy

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- Curation of Federally Owned and Administered Archeological Collections (36 CFR §79)
- Federal Property and Administrative Services Act (40 U.S.C. §484), and its implementing regulations (41 CFR §101)
- Guidelines for the Field collection of Archaeological Materials and Standard Operating Procedures for Curation of Department of Defense Archaeological Collections (Griset and Kodack 1999)
- U.S. Army Garrison in Hawai'i Archaeological Collections Care Management Plan (ACCMP)

### Important Concepts

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The U.S. Army Garrison-Hawai'i has a curation facility at Schofield Barracks and USAG-Pōhakuloa maintains a small curation facility at PTA. These facilities provide long-term care and management of the items accessioned into the collections and of the associated records. See Appendix B for *Cultural Resources Materials Remains and Associated Records Curation Standards*.

### Collections Curation and Management Procedures

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Artifact curation facilities operate in compliance with all applicable Federal regulations, as well as all corresponding Army regulations and guidelines.

1. In accordance with 36 CFR §79, collections and associated records are available for scientific, educational, and religious uses, subject to such terms and conditions as are necessary to protect and preserve the condition, research potential, religious or sacred importance, and uniqueness of the collection. To gain access to the collections, all potential users must submit a request to the Cultural Resources Section. Any resulting exhibits and/or publications shall acknowledge USAG-Pōhakuloa, and the U.S. Army as the owner and administrator of the collections. Any resulting publications including exhibition supplementary materials shall be coordinated through the Public Affairs Office and copies of any publications, reports, or other materials provided to the USAG-Pōhakuloa CRM. All internal displays and outgoing loans of materials require execution of written loan agreements, which include written authorization of the CRM.
2. Maintenance of the storage facility, the collection, and the associated information is part of the Cultural Resources Section responsibility. Each artifact is provided with sufficient space, storage furnishings, temperature, humidity, and light levels to maximize object stability over time. Regularly scheduled monitoring of environmental controls, cleaning, and spot inventories enable the CRM to comply with 36 CFR §79.

## 5.9. SOP 9: Maintenance Procedures for Historic Buildings and Structures

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### Introduction

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Many different types and levels of undertakings can affect architectural character and appearance of historic buildings, structures and objects (for brevity referred to in this SOP as only “historic building”), from replacement of deteriorated architectural features to the rehabilitation and adaptive reuse of an entire building. Changes that are not done in a sympathetic manner can negatively impact, not only the historic building itself, but surrounding historic buildings or districts as well. This SOP provides uniform guidance for planning facilities maintenance, development, and alterations projects in or adjacent to eligible historic buildings and/or archaeological sites. These procedures may be initiated by DPW or through work requests and contracts. If NHPA Section 106 compliance is required, the CRM is involved to review the project(s) in accordance with NHPA Section 106 (see ICRMP SOP 1) and provide input on project alternatives and/or mitigation options when necessary.

### Laws, Implementing Regulations, and guidance

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- The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (see 36 CFR §68)
- National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. 306108) and Section 106 implementing regulations (36 CFR §800)
- AR 200-1: Environmental Protection and Enhancement

### Important concepts

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To aid Federal agencies, the National Park Service developed The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Weeks and Grimmer 1995). The Secretary of the Interior’s Standards are general in nature, but address issues as diverse as materials, architectural features, interiors, setting (district/neighborhood), and special considerations, such as additions, energy conservation, handicapped accessibility, and fire/life safety.

The Secretary of the Interior’s Standards (36 CFR §68) are comprised of four distinct but interrelated approaches to the treatment of historic properties—Preservation, Rehabilitation, Restoration, and Reconstruction. **Preservation** (Section 1.4.1) focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved through time. It requires retention of the greatest amount of historic materials, form, and features. **Rehabilitation** (Section 1.4.2) acknowledges the need to alter or add to a historic property to meet continuing or changing uses and mission needs while retaining the property's historic character. **Restoration** (Section 1.4.3) is undertaken to depict a property at a particular period of time in its history. It does this by preserving materials from the period of significance and removing materials from other periods. Finally, **Reconstruction** (Section 1.4.4), recreates non-surviving portions of a property with new materials, primarily for interpretive purposes.

### General Guidelines

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The maintenance and repair of historic buildings requires an understanding and appreciation of the historic context of the property, knowledge of its original materials and finishes, and a program of regular maintenance that includes proper repair and preventative maintenance procedures. The improper

application of new materials in a historic building or the improper maintenance of existing historic materials can detract from the historic appearance and diminish historic integrity.

When maintaining or repairing historic buildings, consider these general guidelines:

**a) Conservation of existing original and historic materials.**

The integrity of a historic building depends on the survival of its original form, structural system, and historic materials. Removal or alteration of any historic elements should be avoided, and the existing materials should be preserved through proper care and maintenance. This includes protection from natural deterioration through periodic evaluation and preventive maintenance.

**b) Replacement in kind.**

Missing historic elements shall be replaced in kind, and damaged or altered historic elements shall be repaired in kind. This includes doors, windows, screens, canec panels, and railings. The original state of missing, damaged, or altered elements and materials can usually be determined from original drawings and historical photographs, and logical conclusions drawn from the existence of similar structures from the same era.

**c) Removal of non-historic additions or elements.**

Non-historic additions or elements reduce the historic integrity of the building/structure. These include shed and roof additions; the installation of jalousie windows in place of screens, lattice, casement, or double-hung windows; and the introduction of non-compatible elements. While it is recognized that modern equipment such as kitchen appliances, bathroom fixtures, lighting, etc. are necessary for human comfort and productivity, these elements must be selected so that their style, color, and shape do not detract from the historical nature of the building. Any existing equipment that is not compatible with a historic building should be removed and replaced with historically compatible equipment. When non-conforming doors, windows, railings, and other exterior architectural features reach the end of their useful life, they should be replaced with historically accurate or compatible elements.

## 6. IMPLEMENTING THE ICRMP

DoDI 4715.16 requires that the ICRMP “be thoroughly integrated with other installation plans, including but not limited to the installation master plan, the facilities maintenance plan, training and range area management plans, natural resources management plans, mobilization and deployment plans, and information management systems.”

The CRM plays a primary role in implementation of this ICRMP. In fulfillment of this role, the CRM coordinates compliance with historic preservation laws and Army regulations on behalf of the Garrison Commander. The CRM also coordinates with users, interested parties, and the public to ensure compliance with NHPA, NAGPRA, and ARPA, among other laws. In addition, the CRM coordinates consultation with interested parties to address management concerns that affect the ability of USAG-Pōhakuloa to comply with historic preservation laws and regulations.

Implementing the ICRMP promotes:

- Informed decisions regarding cultural resources by USAG-Pōhakuloa personnel in many programs;
- More effective and efficient management of cultural resources;
- Compliance with public laws, regulations, and other binding commitments;
- Support of the military mission; and
- Consistency in application of cultural resources management principles.

### 6.1. Cultural Resources Implementation Objectives

The Cultural Resources Implementation objectives include all of the tasks required to plan, organize, and implement the Cultural Resources Management program at USAG-Pōhakuloa. Included in this list are identified data gaps. Implementation objectives for the Cultural Resources Section include the following:

1. Improve coordination in compliance review of undertakings with emphasis on timely and effective coordination between proponents and the CRM. Encourage use of DPW-wide GIS for more effective and reliable exchange of planning information among programs.
  - USAG-Pōhakuloa needs to ensure accurate inventory records regarding cultural resources to accommodate quick and accurate communications with project planners and proponents, Department of the Army and DoD, and SHPD. Efforts in recent years to validate the information regarding identified sites have improved the USAG-Pōhakuloa inventory.
2. Complete reasonable and good faith archaeological and cultural resources surveys of the training areas as needed to support training and other projects and missions.
  - To date, approximately 20% of the PTA High Hazard Impact Area has been surveyed for cultural resources, and approximately 50% of the area outside the Impact Area has been surveyed, leaving 61,892 acres to be surveyed at PTA.
3. Compile and validate cultural resources spatial data in SDSFIE-compliant GIS application.
  - Older archaeological survey reports do not provide the same level of documentation as more recent reports. The re-organization of existing inventory information and validation of information consistent with the Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) is a priority need for the program, and is in progress.
4. With support from USAG-HI, complete the evaluation of buildings and structures 50 years of age or older and update the NRHP Historic Status code in GFEBS and RPLANS.

- As of December 2016, there were a total of 248 buildings and structures over 50 years old in the RPLANS database. Of these, 150 buildings and structures still required evaluation to determine National Register eligibility for update in GFEBS and RPLANS.
5. Compile and validate NRHP Historic Status codes for existing RPLANS listed assets
  6. Develop Programmatic Agreements with SHPD for routine training activities in training areas.
    - Programmatic Agreements under NHPA can provide a customized section 106 compliance process for routine activities. A Programmatic Agreement for considering effects and treatment of historic buildings and structures at KMC could reduce the paperwork between USAG-Pōhakuloa, USAG-HI, and external agencies, but still provide appropriate preservation outcomes for the historic properties.
  7. Provide information about the USAG-Pōhakuloa Cultural Resources Section to the PAO for inclusion on publically available websites. Website(s) should include information about cultural resources, the program, and policies, as well as current updates on major projects under review and information supporting consultations.
  8. Maintain an active public outreach program, especially serving military personnel, through brochures, trifold, posters, access to historic properties, articles in Hawaii Army Weekly and Environmental Bulletin, and outreach activities involving other state agencies and private organizations, schools, and the Native Hawaiian community.
  9. Pro-actively consult with Native Hawaiian Organizations and other interested parties in accordance with Department of Defense and Department of the Army guidance.
    - The Army controls more lands than any other military department in Hawai'i, encompassing a much greater diversity of circumstances, cultural resources, and cultural resources issues. Consultations with NHOs require sustained on-going attention and relationship building. USAG-Pōhakuloa will have many separate projects at different stages of consultation at all times and may receive conflicting opinions and advice from different NHOs. Adequate and effective consultations with NHOs are of crucial importance to successful support of the mission at USAG-Pōhakuloa.
  10. Promote development of a Comprehensive Agreements under NAGPRA
    - Plans of Action or Comprehensive Agreements under NAGPRA could bring consistency and order into future occurrences of both inadvertent discoveries or disturbances of *iwi kupuna* during planned activities.
  11. Curation of archaeological collections and records, and orderly control of the technical libraries and associated records needed to support the CRM program (see Appendix B for curation standards).
    - Upgrades to the PTA curation facility will ensure the facility meets the requirements of 36 CFR §79 and the *Guidelines for the Field Collection of Archaeological Materials and Standard Operating Procedures for Curation of Department of Defense Archaeological Collections* (Griset and Kodack 1999), which includes adequate fire detection and suppression, security protection, environmental controls, and integrated pest management.
  12. Create and maintain a records management system for historic properties, Section 106 files, and contractual documents identified on Garrison controlled lands.
  13. Fully integrate ICRMP actions into INRMP, Master Planning, and USARHAW TSS range plans.

## 6.2. Reporting

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USAG-Pōhakuloa is responsible for submitting reports for funding requirements, funding work plans, and environmental quality status, among others.

Recent emphases in real property accounting standards within DoD have resulted in an increased emphasis on documenting SHPD concurrence with respect to eligibility evaluations to determine whether a particular property is or is not eligible for the NRHP. Eligibility establishes particular standards of care and responsibility for the Garrison, the applicability of which need to be reflected in the real property inventory records of the Garrison. Should there be a determination that a property is NOT eligible for the NRHP, the non-applicability of those standards to the specific property also needs to be supported with written documentation. An agency determination without written concurrence from the SHPD is not sufficient for the accounting standard, especially for buildings, structures, and objects managed by the Garrison. Requests for SHPD concurrence as to eligibility will be a significant part of the correspondence and interaction between the Garrison and the SHPD, whether or not the subject properties are at risk of being affected by a particular project or undertaking.

## 6.3. Cooperative Agreements

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AR 200-1 directs that, where applicable, an installation should enter into Cooperative Agreements (CAs) with state and federal conservation agencies for the preservation and stewardship of cultural resources in accordance with the following authorities:

- (1) Economy Act, 31 USC. 1535, authorizes the Army to issue orders to other federal agencies to provide goods or services, so long as the order is in the best interests of the government, is cheaper or more convenient than procurement under contract, and does not conflict with another agency's authority.
- (2) Title 10 USC. Section 2684 authorizes the Army to enter into CAs with states, local governments, or other entities for the preservation, maintenance, and improvement of cultural resources on military installations and for the conduct of research regarding cultural resources on installations. (National Defense Authorization Act for Fiscal Year 1997, Pub. L. No. 104-201, 110 Stat. 2422, Section 2862 (1996), adding section 2684 to Chapter 159 of Title 10 of the United States Code.).
- (3) Agreements (e.g., MOUs and CAs) have been established between the DoD, other federal agencies and non-profit organizations, which provide arrangements for DoD components to enter into implementing agreements with such agencies and organizations for the attainment of mutual conservation objectives. Garrison Commanders, utilizing relevant and appropriate statutory authority, as set forth above, may develop and sign implementing Interagency Agreements or CAs with said entities. All Interagency Agreements and CAs entered into in accordance with the provisions of this section must receive technical and legal review prior to the Garrison Commander's signature.

## 6.4. NHPA Section 106 Agreements

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Programmatic Agreements (PAs), Memoranda of Agreement (MOAs), and Advisory Council on Historic Preservation Program Comments executed pursuant to Section 106 of the NHPA and its implementing regulations at 36 CFR §800 are legally binding agreements that set forth how the Army will satisfy its responsibilities in the event of an Army undertaking that will affect specific historic properties and property types. The following Agreements and Program Comments are applicable for USAG-Pōhakuloa:

**Table 16: NHPA Section 106 Agreements**

| Agreement   | Scope   | Initial Date | Expiration Date               | Notes   |
|---|---|--------------|-------------------------------|---|
| <b>Nationwide Agreements and Program Comments applicable to USAG-Pōhakuloa</b>  |   |              |                               |   |
| Program Comment for Cold War Era Unaccompanied Personnel Housing  |   | 2007         | none                          |   |
| Program Comment for Cold War Era Ammunition Storage Facilities  |   | 2007         | none                          |   |
| Program Comment for Rehabilitation Treatment Measures   |   | 2008         | 1 Nov 2018 unless extended    |   |
| <b>Programmatic Agreements applicable to USAG-Pōhakuloa</b>   |   |              |                               |   |
| Programmatic Agreement for the Development and Construction of the Infantry Platoon Battle Course at Pōhakuloa Training Area  | Stipulates actions in design, pre-construction, and construction phases of the project, and annual reporting. | 6/26/2013    |                               |   |
| Amendment to IPBC PA  | Restructures some deadlines for actions.  | 2015         | 2021                          |   |
| Programmatic Agreement for Army Transformation of the 2 <sup>nd</sup> Brigade, 25 <sup>th</sup> Infantry Division (Light) to a Stryker Brigade Combat Team (SBCT)   | Covers 28 individual projects on PTA and O'ahu.   | 2004         | 2010                          |   |
| Amendment to SBCT PA  | extends date  | 2010         | 12/31/2015                    |   |
| 2 <sup>nd</sup> Amendment to SBCT PA  | extends date  | 2015         | 21/31/2017                    |   |
| <b>NAGPRA Agreements</b>  |   |              |                               |   |
| Native American Graves Protection and repatriation Act Plan of Action For the Disposition And Treatment of Human Remains At Site T-092812-02, Ka'ohe Ahupua'a, Hamakua District, Pōhakuloa Training Area, Hawai'i Island, Hawai'i |   | 24-Sep-2015  |                               |   |
| <b>Other Agreements</b>   |   |              |                               |   |
| Marine use of MV22 and H-1 in Hawai'i   |   | July 2012    | 2022 unless completed earlier | Army is Invited Signatory. Marines to use some Army Landing Zones. Will survey some for extra area. |
| KMC special use agreement   |   | 1996         | 31-Aug-2021                   | National Park Service retains ownership of KMC  |

## **6.5. Organizational Enhancement, Roles and Responsibilities**

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### **Installation Integration**

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The primary users of the ICRMP at the activity level are USARHAW and DPW. However, there are numerous project proponents in the Major Support Commands (MSCs) that must be made aware of the compliance requirements associated with their activities and their potential impacts on cultural resources. These include Brigade Commanders, Battalion Commanders, and the Provost Marshal (PM). The Command level, USAG-Pōhakuloa, also has a vested interest in the ICRMP since the Garrison Commander is responsible agency official for the ICRMP. Special staff of the Command level, such as the Public Affairs Office (PAO) and the Office of the Staff Judge Advocate (OSJA) often play a lead role as liaison with interested parties from the surrounding community and outside agencies.

Many offices that require cultural resources integration fall under DPW, who is responsible for managing roads, buildings, and natural and cultural resources at USAG-P. DPW maintains and manages land to conserve biodiversity and ensure that the installation complies with federal and state environmental laws and regulations. DPW is responsible for implementing both ICRMPs and Integrated Natural Resources Management Plans (INRMPs).

Jointly with USAG-HI, USAG-Pōhakuloa DPW requires that all major activities (at all levels and scales, such as training exercises, construction and demolition, and other actions) that could potentially impact the environment be assessed prior to commencement of the action. The objectives for program managers to determine and rate the impacts within their programs, both positive and negative, are provided by various annual monitoring and reporting mechanisms. The primary concern is to ensure that the Cultural Resources Section supports the USAG-Pōhakuloa mission, vision, and goals.

### **Command Support**

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AR 200-1 defines the role of the Garrison Commander (GC), the responsibilities of the Cultural Resources Management program, and the requirement from DoDI 4715.16 to complete an ICRMP. Together, these elements create a framework for managing cultural resources at the installation level and support the Army in addressing its need for a comprehensive cultural resources management program. Therefore, the effective management of cultural resources, as exemplified by the development and Garrison-wide acceptance of this ICRMP, follows from federal laws, Army regulations, and from Federal Standards and Guidelines for federal historic preservation programs.

### **Cultural Resource Organization**

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The CRM is delegated cultural resources management responsibility by the USAG-Pōhakuloa Commander to provide day-to-day management of cultural resources, help ensure that all installation activities are in compliance with applicable cultural resource requirements, serve as a liaison between all persons involved with the implementation of the ICRMP, write the ICRMP or develop its Statement of Work, and implement the ICRMP's Standard Operating Procedures in support of the overarching DPW EMS Program.

USAG-Pōhakuloa Cultural Resources staff is responsible for Cultural Resources Management operations to include Section 106 consultation and development of agreement documents (where applicable); NAGPRA consultation; ARPA implementation; development, submittal, and implementation of budgets; maintenance of a GIS database for Hawai'i Island Army facilities; and maintenance of an on-site curation facility and required data. Under legal requirements of NHPA, NAGPRA, and ARPA, among others, the CRM



must review planned projects for potential adverse impacts on cultural resources. In so doing, the CRM routinely furnishes information and professional advice to DPW staff, tenants, and users so that planned activities may avoid adverse effects to cultural resources.

USAG-Pōhakuloa Cultural Resources staff will compile all required information for data calls and other information requests from higher headquarters. USAG-HI will compile required data for Hawai'i to forward to higher headquarters. USAG-HI will provide support for consultations, maintain a joint PastPerfect database to track curation assets, and will provide additional staff to USAG-Pōhakuloa in completing critical actions, if needed (OPORD 48-10 2010).

## Staffing

The USAG-Pōhakuloa CRM fulfills a range of responsibilities assigned in AR 200-1, and the ICRMP supports the execution of these responsibilities. The CRM is the Army civilian employee assigned by USAG-Pōhakuloa Garrison Commander to provide oversight and direction to the Cultural Resources Section staffed by professionally qualified personnel, who conduct project review, public education, and inventory information management, among other tasks. Full implementation of this ICRMP requires full-time cultural resources positions with technical assistance provided by partners, cooperators, and contractors.

In order to meet USAG-Pōhakuloa's regulatory responsibilities, the CRM will ensure consideration of cultural resources during the planning and implementation of the installation's programs, undertakings, and actions that have the potential to affect historic properties (NHPA Section 106). USAG-Pōhakuloa's Cultural Resources Section also supports the installation's responsibilities pursuant to NHPA, ARPA, NAGPRA, and a suite of other cultural resources statutes, regulations, and guidelines. The CRM coordinates with stakeholders across the installation to assist the GC in meeting these regulatory responsibilities.

## Qualifications

Pursuant to Section 112 of NHPA, agency personnel or contractors responsible for historic properties analysis must meet qualifications standards established by the Office of Personnel Management in consultation with the Secretary of the Interior. These are *The Secretary of the Interior's Professional Qualification Standards*, defined in 36 CFR §61. Historic properties management activities discussed in this ICRMP must be conducted and/or supervised by cultural resources management professionals with the minimum qualifications that meet the standards for the appropriate discipline.

## Training

Interdisciplinary training is essential for DoD Cultural Resources Managers and staff to address practical job disciplines, statutory compliance requirements, applicable regulations, and current professional qualification standards. It is important for the Cultural Resources Management staff to be knowledgeable in the issues affecting cultural resources and how these issues may affect USAG-Pōhakuloa's mission.

Cultural resources management training is supported for both Army and Cooperative Agreement staff to include Naval Civil Engineer Corps Officers School (CECOS) courses on various aspects of cultural resources management, IMCOM funded cultural resources sessions, and occasional other training opportunities.

Current training requirements may include the following:

- 24 hours annually for CRM staff to maintain and increase skills and capabilities.
- The Department of Army police force within the Garrison shall include officers trained in the requirements and techniques needed for successful response and investigation of all applicable federal and State laws and regulations as part of the College-Level Exam Program (CLEP) for all law enforcement personnel assigned to support environmental programs (see DoDI 5525.17). These include, but are not limited to, training with respect to enforcement of ARPA violations.

- The Criminal Investigation Division (CID) shall include investigators trained in the requirements and techniques needed for successful documentation and prosecution of violations of all applicable federal and State laws and regulations. These include, but are not limited to, training with respect to enforcement of ARPA violations.
- The Office of the Staff Judge Advocate (OSJA) shall ensure that attorneys providing opinions and advice on cultural resources issues have training and experience with respect to cultural resources legal topics. 40 hours annual training is specified for OSJA attorneys in CR related requirements as part of CLEP for the attorneys assigned to support environmental programs.

## **Public Involvement, Outreach, and Educational Materials**

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Outreach is another foundational component of cultural resources implementation. The Cultural Resources Section integrates outreach efforts through the conservation webpage, conservation newsletter, and other outreach events. Likewise, Federal and Army regulations require that interested members of the public have an opportunity to be involved in consultations and in the decision-making processes concerning historic preservation and environmental management efforts.

The purpose of NHPA envisions public benefits from the continuing presence of historic properties in communities. In many instances, that intended benefit would entail an opportunity to see and appreciate historic properties in their settings. This opportunity is not always available on military installations due to security considerations, safety considerations within training ranges, or schedules for required training activities. Thus, opportunities for the public to learn the histories associated with historic properties would provide some public benefit, as intended by the NHPA. One important public constituency for information regarding historic and cultural places within the Garrison is the military and military dependents currently assigned to Hawai'i. Many of USAG-Pōhakuloa's cultural resources may serve to instill knowledge and pride in the military history and traditions connected to properties in Hawai'i for those who serve here. Cultural resources can help foster a greater understanding and appreciation of the unique history and traditions of the larger community.

USAG-Pōhakuloa shares information with the public regarding the cultural resources program and the cultural resources under its stewardship as required. USAG-Pōhakuloa engages the public as a partner, as well as the intended beneficiary of the program. Public input on the general character of the program and public views regarding the known resources helps inform the Cultural Resources Section in its management goals and objectives. The public may offer valuable insights as to the ways in which various cultural resources convey or embody value. The public may also offer ideas regarding appropriate means through which USAG-Pōhakuloa may balance care for the resources with the demands of mission support.

## **Public Involvement Directives**

A number of legal authorities devote specific direction to the inclusion of interested members of the public in the planning of projects, actions, or undertakings that might affect cultural resources. According to DoDI 4715.16, it is DoD policy to consult in good faith with internal and external stakeholders and promote partnerships to manage and maintain cultural resources, and provide for public access to cultural resources, as appropriate. Both NEPA and NHPA specifically direct federal agencies to begin assessing cultural resources issues as early as possible in the process of planning actions or undertakings. Project-specific consultations arise as part of NHPA Section 106, in consideration of applications for an ARPA permit, from projects or actions that may affect Cultural Items as defined in NAGPRA, from inadvertent discoveries of archaeological resources or cultural items, and from actions that could affect access or use of sacred places. ARPA likewise requires a program for public awareness of the significance of archaeological resources and the need to protect them (16 USC 470 §10(c)).

## **Participation in Defining Program Alternatives and Agreements**

Many of the cultural resources laws and regulations allow the basic compliance procedures to be customized or streamlined through agreements of broader application than the project-by-project generic procedures. More general and customized procedures can be established to provide orderly responses to situations known to recur, or to properly coordinate a particularly large or complex undertaking. The NHPA implementing regulations offer a number of “program alternatives” (36 CFR 800.14) to federal agencies. NAGPRA encourages adoption of Comprehensive Agreements that can govern responses to recurring situations. In order to establish these agreements for tailored procedures, there must be open-ended consultations with the parties signing the agreements, and with other interested parties and individuals.

## **Ongoing Relationships**

DoD policy (DoDI 4710.02) establishes that consultation with Native Hawaiian Organizations should take place in the context of an on-going relationship, and not be based on project-by-project consultations only. The directives from DoD view maintaining an active, ongoing relationship with NHOs as crucial to producing outcomes that better support military mission needs while also meeting the stewardship responsibilities in cultural resources requirements.

USAG-Pōhakuloa should maintain consultative relationships continuously rather than as a project specific duty. This is a best management practice and consistent with the DoD policy and guidance. There should be periodic effort to maintain communications and exchange of information with those whose interests are in traditional Hawaiian sites, historic architecture, military history in Hawai‘i, Cold War properties, or any other interests in the cultural resources managed by the Garrison.

## **6.6. Financial Management and Funding**

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Another significant component of USAG-Pōhakuloa Cultural Resources Management program is financial management. Financial management consists of funding, budgeting, and contracting. These three components all are extremely important to USAG-Pōhakuloa’s ability to implement this plan. This section of the plan assists in the development of funding requests and projections for many aspects of cultural resources program implementation.

IMCOM policy for use of environmental funds for cultural resources activities is issued in annual funding guidance. The funding guidance specifies projects and activities that are not eligible for environmental funding. Projects and activities that are not eligible for environmental funding include repair, maintenance, and rehabilitation of historic properties (including National Register-eligible and listed buildings, structures, sites, objects, landscapes, districts, and cemeteries). Even in cases where repair, maintenance, and rehabilitation activities are stipulated and required in NHPA Section 106 PAs or MOAs, such activities remain not eligible for environmental funds and must be supported through other fiscal sources.

Tenant organizations and other proponents are responsible for securing funding for their environmental requirements through their major commands unless other agreements have been made in their MOU/ISSA with the host installation (AR 200-1, 15-1). Tenants have a joint responsibility (along with the host installation), for ensuring that environmental reporting requirements are met.

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## 8. APPENDICES

### 8.1. APPENDIX A: LIST OF ACRONYMNS

|                     |   |         |   |
|---------------------|---|---------|---|
| 25 <sup>th</sup> ID | 25th Infantry Division                                  | CEPOD   | U.S. Army Corps of Engineers,<br>Pacific Ocean Division         |
| AAF                 | Army Airfield   | CEQ     | Council on Environmental Quality                                |
| ACCMP               | Archaeological Collections Care<br>Management Plan      | CEX     | Technical Center of Expertise (U.S.<br>Army Corps of Engineers) |
| ACHP                | Advisory Council on Historic<br>Preservation            | CERL    | Construction Engineering Research<br>Laboratory                 |
| ACSIM               | Assistant Chief of Staff for<br>Installation Management | CFR     | Code of Federal Regulation                                      |
| A.D.                | anno Domini   | CFSC    | Community and Family Support<br>Center                          |
| ADP                 | Area Development Plan                                   | CID     | Criminal Investigation Division                                 |
| ADEP                | Area Development Execution Plan                         | CINCPOA | Commander-in-Chief, Pacific Ocean<br>Areas                      |
| AE                  | Adverse Effect  | CLEP    | College-Level Exam Program                                      |
| AFB                 | Air Force Base  | CLR     | Cultural Landscape Report                                       |
| AHPA                | Archaeological and Historic<br>Preservation Act of 1974 | CMTC    | Citizens Military Training Camp                                 |
| AIRFA               | American Indian Religious Freedom<br>Act                | COE     | Corps of Engineers  |
| AMC                 | Army Medical Center                                     | CONARC  | Continental Army Command  |
| AMR                 | Āliamanu Military Reservation                           | CRM     | Cultural Resources<br>Manager/Management                        |
| AOR                 | Area of Responsibility                                  | CS      | Combat Support  |
| APE                 | Area of Potential Effect                                | CSA     | Chief of Staff, Army  |
| AR                  | Army Regulation   | CSS     | Combat Service Support  |
| ARPA                | Archaeological Resources<br>Protection Act of 1979      | CX      | Categorical Exclusion   |
| ARTEP               | Army Training and Evaluation<br>Program                 | CZMA    | Coastal Zone Management Act of<br>1972                          |
| asl                 | above sea level   | DA      | Department of the Army  |
| ATV                 | All-Terrain Vehicle                                     | DCA     | Directorate of Community Activities                             |
| AVN BDE             | Aviation Brigade  | DCO     | Deputy Commanding Officer                                       |
| AWCF                | Army Working Capital Fund                               | DEH     | Directorate of Engineering and<br>Housing                       |
| AWS                 | Aircraft Warning System                                 | DEIS    | Draft, Environmental Impact<br>Statement                        |
| BAAF                | Bradshaw Army Airfield                                  | DHEW    | Department of Health, Education &<br>Welfare                    |
| BAX                 | Battle Area Complex                                     | DHS     | Directorate of Health Services                                  |
| BDE                 | Brigade   | DISCOM  | Division Support Command  |
| BPP                 | Building Preservation Plan                              | DIVARTY | Division Artillery Group  |
| CA                  | Comprehensive Agreement                                 | DLNR    | Department of Land and Natural<br>Resources, State of Hawai'i   |
| CACTF               | Combined Arms Collective Training<br>Facility           | DMR     | Dillingham Military Reservation                                 |
| CALFEX              | Company-Level Combined Arms<br>Live Fire Exercise       | DoD     | Department of Defense   |
| CCC                 | Civilian Conservation Corps                             | DoDI    | Department of Defense Instruction                               |
| CDR                 | Commander   | DOE     | Determination of Eligibility                                    |
| CECOS               | Civil Engineer Corps Officers School                    |         |   |

|           |   |           |   |
|-----------|---|-----------|---|
| DOI       | Department of the Interior  | HAR       | Hawai'i Administrative Rules                  |
| DPTMS     | Directorate of Plans, Training, Mobilization, and Security              | HAVO      | Hawai'i Volcanos National Park                |
| DFMWR     | Directorate of Family and Morale, Welfare, and Recreation               | HBPP      | Historic Building Preservation Plan           |
| DPW       | Directorate of Public Works   | HDOT      | Hawai'i Department of Transportation          |
| DRM       | Directorate of Resource Management                                      | HIARNG    | Hawai'i Army National Guard                   |
| DSCENGR   | Deputy Chief of Staff for Engineering (USARPAC)                         | HIBC      | Hawai'i Island Burial Council                 |
| DUSD(ES)  | Deputy Under-Secretary for Defense (Environmental Security)             | HLMP      | Historic Landscape Management Plan            |
| EA        | Environmental Assessment  | HMA       | Hawai'i Motor Sports Association              |
| EDRE      | Emergency Deployment Readiness Exercise                                 | HMR       | Helemano Military Reservation                 |
| EIS       | Environmental Impact Statement  | HPP       | Historic Preservation Plan                    |
| EMS       | Environmental Management System   | HQDA      | Headquarters, Department of the Army          |
| ENV       | Environmental Division  | HQIS      | Headquarters Installation Information System  |
| EO        | Executive Order   | HRS       | Hawai'i Revised Statute                       |
| EPAAS     | Environmental Performance Assessment and Assistance System              | HAS       | Historic Sites Act of 1935                    |
| ERA       | Emergency Relief Act  | HSR       | Historic Structure Report                     |
| EPR       | Environmental Program Requirements                                      | IAW       | in accordance with                            |
| EQR       | Environmental Quality Report  | ICAR      | Installation Corrective Action Plan           |
| ERDC      | Engineer Research and Development Center                                | ICRMP     | Integrated Cultural Resources Management Plan |
| FDR       | Fort DeRussy Military Reservation                                       | IMCOM     | Installation Management Command               |
| FEWR      | Facilities Engineering Work Request (DA Form 4283)                      | IMCOM-HQ  | Installation Management Command-Headquarters  |
| FHPO      | Federal Historic Preservation Officer                                   | IMCOM-PAC | Installation Management Command-Pacific       |
| FOIA      | Freedom of Information Act  | INRMP     | Integrated Natural Resources Management Plan  |
| FONSI     | Finding of No Significant Impact  | IPB       | Installation Planning Board                   |
| FORSCOM   | Forces Command  | IPBC      | Infantry Platoon Battle Course                |
| FOUO      | For Official Use Only   | IRB       | Installation Review Board                     |
| FR        | Federal Register  | ISSA      | Inter-Service Support Agreement               |
| FRA       | Federal Records Act   | ITAM      | Integrated Training Area Management           |
| FSK       | Field Station Kunia   | JOTC      | Jungle Operations Training Center             |
| FSMR      | Fort Shafter Military Reservation                                       | KAS       | Kīpapa Ammunition Storage Site                |
| GC        | Garrison Commander  | KLOA      | Kawailoa Training Area                        |
| GFEBs     | General Fund Enterprise Business Systems                                | KMA       | Ke'āmuku Maneuver Area                        |
| GIS       | Geographic Information Systems  | KMC       | Kilauea Military Camp                         |
| HABS/HAER | Historic American Buildings Survey/Historic American Engineering Record | KTA       | Kahuku Training Area                          |
|           |   | LCTA      | Land Condition Trends Analysis                |
|           |   | LCVP      | Landing Craft, Vehicles and Persons           |
|           |   | LDP       | Landscape Development Plan                    |
|           |   | LLC       | Limited Liability Corporation                 |

|        |  |        |   |
|--------|--|--------|---|
| LRAM   | Land Rehabilitation and Maintenance                                      | OCONUS | Outside the Continental United States             |
| LZ     | Landing Zone   | OHA    | Office of Hawaiian Affairs                        |
| Lt.    | Lieutenant   | OIBC   | O‘ahu Island Burial Council                       |
| MAB    | Mokulēia Army Beach  | OMA    | Operations and Maintenance, Army                  |
| MACOM  | Major (Army) Command/Major Command                                       | OPLAN  | Operational/Operations Plan                       |
| MAR    | Maintenance and Repair Program   | OPORD  | Operation Order                                   |
| MCA    | Military Construction, Army  | ORLC   | O‘ahu Railway and Land Company                    |
| MCX    | Mandatory Center of Expertise (U.S. Army Corps of Engineers)             | OSJA   | Office of the Staff Judge Advocate                |
| MCRD   | Marine Corps Recruit Depot   | PA     | Programmatic Agreement                            |
| MEDCOM | Army Medical Command   | PAO    | Public Affairs Office/Officer                     |
| METLs  | Mission Essential Tasks  | PARC   | Pililā‘au Army Recreation Center                  |
| MKS    | Mauna Kapu Communication Station Site                                    | PBCUA  | Public Buildings Cooperative Use Act              |
| MMR    | Mākua Military Reservation   | PBSB   | PTA-Based Support Battalion                       |
| MOA    | Memorandum of Agreement  | PM     | Provost Marshall                                  |
| MOU    | Memorandum of Understanding  | PMOA   | Programmatic Memorandum of Agreement              |
| MOUT   | Military Operations in Urban Terrain                                     | POA    | Plan of Action                                    |
| MR     | Military Reservation   | POD    | Pacific Ocean Division, USACE                     |
| MSCs   | Major Support Commands   | POM    | Program Objective Memorandum                      |
| MWR    | Morale, Welfare, and Recreation  | PTA    | Pōhakuloa Training Area                           |
| N/A    | Not Applicable   | PTSD   | Post Traumatic Stress Disorder                    |
| NAE    | No Adverse Effect  | PWA    | Public Works Administration                       |
| NAGPRA | Native American Graves Protection and Repatriation Act of 1990           | PZ     | Pickup Zone                                       |
| NEPA   | National Environmental Policy Act of 1969                                | RCS    | Report to Congress                                |
| NEV    | Not Evaluated  | RCUH   | Research Corporation of the University of Hawai‘i |
| NHL    | National Historic Landmark   | RDH    | Range Division-Hawai‘i                            |
| NHO    | Native Hawaiian Organization   | REC    | Record of Environmental Consideration             |
| NHPA   | National Historic Preservation Act of 1966                               | RFRA   | Religious Freedom Restoration Act                 |
| NHPA   | No Historic Properties Affected  | ROA    | Record of Availability                            |
| NOAA   | National Oceanic and Atmospheric Administration                          | ROD    | Record of Decision                                |
| NOI    | Notice of Intent   | ROI    | Region of Influence                               |
| NPS    | National Park Service  | RPLANS | Real Property Planning and Analysis System        |
| NR     | National Register (also called the National Register of Historic Places) | RPMP   | Real Property Master Plan                         |
| NREC   | Contributing Element of a National Register Eligible District            | RSC    | Regional Support Command                          |
| NRHP   | National Register of Historic Places (also called the National Register) | RTLTP  | Range and Training Land Program                   |
| O&M    | Operation and Maintenance  | SALT   | Strategic Arms Limitation Treaty                  |
|        |  | SBCT   | Stryker Brigade Combat Team                       |
|        |  | SBER   | Schofield Barracks East Range                     |
|        |  | SBMR   | Schofield Barracks Military Reservation           |
|        |  | SBSR   | Schofield Barracks South Range                    |
|        |  | SBWR   | Schofield Barracks West Range                     |

|           |  |
|-----------|--|
| SDSFIE    | Spatial Data Standards for Facilities, Infrastructure, and Environment |
| SHPD      | State Historic Preservation Division, DLNR                             |
| SHPO      | State Historic Preservation Office/Officer                             |
| SOI       | Secretary of the Interior  |
| SOP       | Standard Operating Procedure   |
| STARCOM   | Strategic Army Communications Network                                  |
| SUP       | Special Use Permit   |
| TAMC      | Tripler Army Medical Center  |
| TBD       | To Be Determined   |
| TCP       | Traditional Cultural Property  |
| THPO      | Tribal Historic Preservation Officer                                   |
| TMC       | Tripler Medical Center   |
| TRADOC    | U.S. Army Training and Doctrine Command                                |
| TSS       | Training Support System  |
| UPH       | Unaccompanied Personnel Housing  |
| U.S.      | United States  |
| USACE     | U.S. Army Corps of Engineers   |
| USACERL   | U.S. Army Construction Engineering Research Laboratory                 |
| USAEC     | U.S. Army Environmental Command  |
| USAG      | U.S. Army Garrison   |
| USAG-HI   | U.S. Army Garrison - Hawai'i   |
| USARHAW   | U.S. Army, Hawaii  |
| USARPAC   | U.S. Army, Pacific   |
| USASCH    | U.S. Army Support Command, Hawai'i                                     |
| USC       | United States Code   |
| USCINCPAC | Headquarters, Commander in Chief, U.S. Pacific Command                 |
| USPACOM   | U.S. Pacific Command   |
| VA        | Veterans Affairs   |
| WAAF      | Wheeler Army Airfield  |
| WARC      | Waianae Army Recreation Center   |
| WPA       | Works Progress Administration  |
| WWI       | World War I  |
| WWII      | World War II   |



## **8.2. APPENDIX B: USAG-HI DPW ENV CULTURAL RESOURCES MATERIAL REMAINS AND ASSOCIATED RECORDS CURATION STANDARDS, IMPLEMENTED BY USAG-PŌHAKULOA**

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### **USAG-HI DPW ENV Cultural Resources**

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#### **Material Remains Curation Standards**

The following standards are applicable to all material remains generated from this contract:

- I. A collection shall have an item-level inventory of all material remains.
  - a) The inventory should be in both hard copy and electronic form.
  - b) An explanation of the cataloging system must accompany the inventory.
  - c) An inventory of any specimens or samples discarded in the lab shall be submitted as a separate file, along with the reason(s) for discard.
- II. Artifacts and samples must be appropriately cataloged and secured according to state and federal standards. Artifacts, with the exception of those needing specialized analysis, shall be cleaned.
- III. Artifacts and other material remains shall be catalogued with their primary containers labeled to include appropriate governmental jurisdiction site numbers and provenience. Items can be grouped by material type, placed in bags with the exterior permanently labeled, and a Mylar strip or acid-free paper label containing all appropriate provenience information placed within the bag.
  - a) In most cases, artifacts and other material remains shall be stored in polyethylene, zip-lock plastic bags.
  - b) Natural fiber cloth bags are an acceptable alternative, provided they can be securely closed and labeled with the appropriate information, including provenience.
- IV. All artifacts and material remains shall be organized by sequential bag number and placed in archivally-stable storage boxes. Each box should have a specimen/object inventory enclosed, be organized by project, and be in excellent condition.
  - a) Material remains shall be housed by provenience when possible. Materials may also be submitted in the analytical categories used for analysis and reporting, following the sequential numbers within each category.
  - b) If more than one layer is to be included in the box, a tray, or similar separation must be used to prevent the crushing of material. Fragile items requiring special, archivally-stable packaging may be placed within the same box as other material, if the secondary container provides adequate protection.
  - c) The boxes should be labeled on their exterior surface with the Contractor name, contract number, project name, and site(s). It is preferred that each box have a clear invoice label holder containing the box label.
  - d) Each box shall contain an itemized inventory listing of its contents keyed to a master inventory of the collection.

# USAG-HI DPW ENV Cultural Resources

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## Associated Records Curation Standards

The following standards are applicable to all associated records generated from this contract:

### **I. There shall be an inventory of all associated records in both hard copy and electronic form.**

### **II. Field Documentation**

Includes but is not limited to: field notes, site forms, sketches, field bag lists, and photo documentation.

- 1) An archivally-stable hard copy of all original field documentation is required.
  - a) Pertinent digital images, including images used in the report, must also be submitted as 4"x6" photographic prints (or digital equivalent).
- 2) An electronic copy of all field documentation stored on archival CD or DVD shall be submitted. File specifications may vary depending on task order but the following can be used as guidelines:
  - a) Photographic prints generally shall be scanned at a minimum resolution of 4,000 pixels across the longest dimension, 24-bit, TIFF format.
  - b) Electronic, born digital, images shall be submitted at minimum 3 MB, TIFF files. Alternative acceptable file types are RAW and JPEG2000.
  - c) Other records shall be scanned at a minimum of 200 PPI (pixels per inch) at original size. Preferred file format is PDF/A.
- 3) Each collection shall contain original photographs and a photograph catalog.
  - a) Photographic materials shall be organized by film type (e.g., roll film, sheet film, 35mm slides, prints, digital, etc.) and in chronological sequence.
  - b) All photographic materials shall be stored in archivally-stable containers, such as archival photo sleeves, or in consultation with the Cultural Resources Manager.
  - c) Photographic prints shall be marked on the reverse side in pencil with corresponding photo log title information or a unique inventory number keyed to a photo catalog.

### **III. Laboratory Documentation**

Includes but is not limited to: lab metrics, lab testing reports, lab notes, applied artifact cleaning and conservation techniques, and lab discard records.

- 1) All original laboratory records and analysis reports are required.
- 2) Additionally, an electronic copy of all records, scanned at a minimum of 200 PPI, at original size, and stored on archival CD or DVD shall be submitted.
  - a) The Master Artifact/Sample Catalogue must be included.
  - b) A list of conserved objects along with a description of the techniques applied to objects during cleaning, preservation, and/or analyzing shall accompany the collection. The list shall also indicate if any objects require future conservation treatment or testing.

## IV. Maps and Archival Research

All pertinent maps used and generated by this contract shall be considered part of the collection. This includes, but may not be limited to, USGS maps, regional and project area maps, site survey and excavation maps, collection grid maps, and excavation unit profiles and plans.

- 1) These pertinent maps shall be listed within the inventory of associated records.
- 2) Project location, USGS, and regional maps shall also be required to be submitted electronically in a format that shall be specified in each task order or in consultation with the Cultural Resources Manager.

The following definitions are applicable to the terms used in the curation standards:

- The term **“archival quality”** is a term used to designate materials or products that are permanent, durable, and/or chemically stable, and, therefore, can be safely used for preservation purposes.
- **“Archivally-stable”** material for records means lignin-free and acid-free. Archivally-stable boxes are lignin-free, acid-free, and buffered. Artifact bagging should be done with archive quality plastic bags, 4 millimeters in thickness. Plastics safe for archival storage include: Mylar, polypropylene, and polyethylene.

### **8.3. APPENDIX C: USAG-Pōhakuloa Cultural Resources Inventory**

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## APPENDIX C.1: USAG-Pōhakuloa Archaeological Site Inventory

### Archaeological Site Inventory

1-Jun-2017

| Site ID      | Location    | Age Affiliation | NRHP Status   |
|--------------|-------------|-----------------|---------------|
| T-031408-01  | Impact Area | Unknown         | Cons Eligible |
| 29019        | Impact Area | Prehistoric     | Eligible      |
| 29021        | Impact Area | Prehistoric     | Eligible      |
| 29022        | Impact Area | Prehistoric     | Eligible      |
| 29023        | Impact Area | Prehistoric     | Eligible      |
| 29809        | Impact Area | Prehistoric     | Eligible      |
| 30584        | Impact Area | Prehistoric     | Eligible      |
| 30586        | Impact Area | Prehistoric     | Eligible      |
| 30587        | Impact Area | Prehistoric     | Eligible      |
| 30588        | Impact Area | Prehistoric     | Eligible      |
| 30589        | Impact Area | Prehistoric     | Eligible      |
| 30590        | Impact Area | Prehistoric     | Eligible      |
| 29018        | Impact Area | Protohistoric   | Eligible      |
| 29024        | Impact Area | Unknown         | Eligible      |
| GTS-2228-073 | Impact Area | Unknown         | Not Eligible  |
| GTS-2228-092 | Impact Area | Unknown         | Not Eligible  |
| GTS-2228-123 | Impact Area | Prehistoric     | Not Eligible  |
| GTS-2228-124 | Impact Area | Prehistoric     | Not Eligible  |
| GTS-2247-125 | Impact Area | Prehistoric     | Not Eligible  |
| T-010411-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-011311-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-012612-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-012711-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-012712-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-020311-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-022211-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-022211-02  | Impact Area | Prehistoric     | Not Eligible  |
| T-022211-03  | Impact Area | Prehistoric     | Not Eligible  |
| T-022211-04  | Impact Area | Prehistoric     | Not Eligible  |
| T-022211-05  | Impact Area | Prehistoric     | Not Eligible  |
| T-022211-06  | Impact Area | Prehistoric     | Not Eligible  |
| T-022311-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-022511-02  | Impact Area | Prehistoric     | Not Eligible  |
| T-030111-02  | Impact Area | Prehistoric     | Not Eligible  |
| T-030111-04  | Impact Area | Prehistoric     | Not Eligible  |
| T-030111-06  | Impact Area | Prehistoric     | Not Eligible  |
| T-030211-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-030311-01  | Impact Area | Prehistoric     | Not Eligible  |
| T-030311-02  | Impact Area | Prehistoric     | Not Eligible  |
| T-030311-03  | Impact Area | Prehistoric     | Not Eligible  |
| T-030311-04  | Impact Area | Prehistoric     | Not Eligible  |
| T-030311-05  | Impact Area | Prehistoric     | Not Eligible  |
| T-030311-06  | Impact Area | Prehistoric     | Not Eligible  |
| T-030311-07  | Impact Area | Prehistoric     | Not Eligible  |

| Site ID     | Location    | Age Affiliation | NRHP Status  |
|-------------|-------------|-----------------|--------------|
| T-030311-08 | Impact Area | Prehistoric     | Not Eligible |
| T-030411-01 | Impact Area | Prehistoric     | Not Eligible |
| T-032911-01 | Impact Area | Prehistoric     | Not Eligible |
| T-032911-02 | Impact Area | Prehistoric     | Not Eligible |
| T-032911-03 | Impact Area | Prehistoric     | Not Eligible |
| T-032911-04 | Impact Area | Prehistoric     | Not Eligible |
| T-032911-05 | Impact Area | Prehistoric     | Not Eligible |
| T-032911-06 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-01 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-02 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-03 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-04 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-05 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-06 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-07 | Impact Area | Prehistoric     | Not Eligible |
| T-033011-08 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-01 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-02 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-03 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-04 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-05 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-06 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-07 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-08 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-10 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-12 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-13 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-14 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-15 | Impact Area | Prehistoric     | Not Eligible |
| T-040111-16 | Impact Area | Prehistoric     | Not Eligible |
| T-040611-01 | Impact Area | Prehistoric     | Not Eligible |
| T-040611-02 | Impact Area | Prehistoric     | Not Eligible |
| T-040811-01 | Impact Area | Prehistoric     | Not Eligible |
| T-041911-01 | Impact Area | Prehistoric     | Not Eligible |
| T-041911-02 | Impact Area | Prehistoric     | Not Eligible |
| T-041911-03 | Impact Area | Prehistoric     | Not Eligible |
| T-041911-04 | Impact Area | Prehistoric     | Not Eligible |
| T-042011-01 | Impact Area | Prehistoric     | Not Eligible |
| T-042011-02 | Impact Area | Prehistoric     | Not Eligible |
| T-093010-01 | Impact Area | Prehistoric     | Not Eligible |
| T-100510-01 | Impact Area | Prehistoric     | Not Eligible |
| T-100610-02 | Impact Area | Prehistoric     | Not Eligible |
| T-100610-03 | Impact Area | Prehistoric     | Not Eligible |
| T-100610-04 | Impact Area | Prehistoric     | Not Eligible |
| T-100710-01 | Impact Area | Prehistoric     | Not Eligible |
| T-100710-02 | Impact Area | Prehistoric     | Not Eligible |
| T-100710-03 | Impact Area | Prehistoric     | Not Eligible |
| T-100710-04 | Impact Area | Prehistoric     | Not Eligible |

| Site ID      | Location    | Age Affiliation | NRHP Status  |
|--------------|-------------|-----------------|--------------|
| T-100710-05  | Impact Area | Prehistoric     | Not Eligible |
| T-100810-01  | Impact Area | Prehistoric     | Not Eligible |
| T-100810-02  | Impact Area | Prehistoric     | Not Eligible |
| T-100810-03  | Impact Area | Prehistoric     | Not Eligible |
| T-100810-04  | Impact Area | Prehistoric     | Not Eligible |
| T-101910-01  | Impact Area | Prehistoric     | Not Eligible |
| T-101910-02  | Impact Area | Prehistoric     | Not Eligible |
| T-102010-01  | Impact Area | Prehistoric     | Not Eligible |
| T-102010-02  | Impact Area | Prehistoric     | Not Eligible |
| T-102110-02  | Impact Area | Prehistoric     | Not Eligible |
| T-102110-03  | Impact Area | Prehistoric     | Not Eligible |
| T-102210-05  | Impact Area | Prehistoric     | Not Eligible |
| T-102210-06  | Impact Area | Prehistoric     | Not Eligible |
| T-102210-07  | Impact Area | Prehistoric     | Not Eligible |
| T-102510-01  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-01  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-02  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-03  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-04  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-06  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-11  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-12  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-13  | Impact Area | Prehistoric     | Not Eligible |
| T-102610-14  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-01  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-03  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-04  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-05  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-06  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-07  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-08  | Impact Area | Prehistoric     | Not Eligible |
| T-102710-11  | Impact Area | Prehistoric     | Not Eligible |
| T-102810-02  | Impact Area | Prehistoric     | Not Eligible |
| T-102810-03  | Impact Area | Prehistoric     | Not Eligible |
| T-102810-04  | Impact Area | Prehistoric     | Not Eligible |
| T-102810-05  | Impact Area | Prehistoric     | Not Eligible |
| T-102810-06  | Impact Area | Prehistoric     | Not Eligible |
| T-102810-07  | Impact Area | Prehistoric     | Not Eligible |
| T-102810-10  | Impact Area | Prehistoric     | Not Eligible |
| T-111010-02  | Impact Area | Prehistoric     | Not Eligible |
| T-120610-01  | Impact Area | Prehistoric     | Not Eligible |
| TL-102810-01 | Impact Area | Recent          | Not Eligible |
| T-040111-11  | Impact Area | UNK             | Not Eligible |
| T-102010-03  | Impact Area | UNK             | Not Eligible |
| T-102010-05  | Impact Area | UNK             | Not Eligible |
| T-102010-06  | Impact Area | UNK             | Not Eligible |
| T-102110-01  | Impact Area | UNK             | Not Eligible |
| T-102610-08  | Impact Area | UNK             | Not Eligible |

| Site ID      | Location    | Age Affiliation | NRHP Status  |
|--------------|-------------|-----------------|--------------|
| 29020        | Impact Area | Unknown         | Not Eligible |
| 30585        | Impact Area | Unknown         | Not Eligible |
| GTS-2228-004 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-005 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-006 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-011 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-012 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-013 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-014 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-015 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-016 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-018 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-019 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-029 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-030 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-031 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-034 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-035 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-036 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-037 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-038 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-039 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-040 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-041 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-042 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-044 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-045 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-046 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-047 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-048 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-049 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-050 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-051 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-052 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-053 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-054 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-055 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-056 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-058 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-059 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-060 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-061 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-062 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-063 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-064 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-065 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-066 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-067 | Impact Area | Unknown         | Not Eligible |



| Site ID      | Location    | Age Affiliation | NRHP Status  |
|--------------|-------------|-----------------|--------------|
| GTS-2228-068 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-069 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-070 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-071 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-072 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-074 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-075 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-076 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-077 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-078 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-079 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-080 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-081 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-082 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-083 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-084 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-085 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-086 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-087 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-088 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-089 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-090 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-093 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-094 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-095 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-096 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-097 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-098 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-099 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-100 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-101 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-102 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-103 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-104 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-105 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-106 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-107 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-108 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-109 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-110 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-111 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-112 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-113 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-114 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-115 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-117 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-119 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-120 | Impact Area | Unknown         | Not Eligible |

| Site ID      | Location    | Age Affiliation | NRHP Status  |
|--------------|-------------|-----------------|--------------|
| GTS-2228-121 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-122 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-126 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-127 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-128 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-129 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-130 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-131 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-132 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-133 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-134 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-135 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-136 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-137 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-138 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-139 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-140 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-141 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-143 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-144 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-145 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-146 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-147 | Impact Area | Unknown         | Not Eligible |
| GTS-2247-148 | Impact Area | Unknown         | Not Eligible |
| T-011113-01  | Impact Area | Unknown         | Not Eligible |
| T-022613-01  | Impact Area | Unknown         | Not Eligible |
| T-022613-02  | Impact Area | Unknown         | Not Eligible |
| T-022613-03  | Impact Area | Unknown         | Not Eligible |
| T-030111-01  | Impact Area | Unknown         | Not Eligible |
| T-030111-03  | Impact Area | Unknown         | Not Eligible |
| T-030111-05  | Impact Area | Unknown         | Not Eligible |
| T-040611-03  | Impact Area | Unknown         | Not Eligible |
| T-041411-01  | Impact Area | Unknown         | Not Eligible |
| T-041411-02  | Impact Area | Unknown         | Not Eligible |
| T-041411-03  | Impact Area | Unknown         | Not Eligible |
| T-041411-04  | Impact Area | Unknown         | Not Eligible |
| T-041411-05  | Impact Area | Unknown         | Not Eligible |
| T-041411-06  | Impact Area | Unknown         | Not Eligible |
| T-041411-07  | Impact Area | Unknown         | Not Eligible |
| T-041511-01  | Impact Area | Unknown         | Not Eligible |
| T-041511-02  | Impact Area | Unknown         | Not Eligible |
| T-041511-03  | Impact Area | Unknown         | Not Eligible |
| T-041511-04  | Impact Area | Unknown         | Not Eligible |
| T-041511-05  | Impact Area | Unknown         | Not Eligible |
| T-041911-05  | Impact Area | Unknown         | Not Eligible |
| T-102110-04  | Impact Area | Unknown         | Not Eligible |
| T-102110-05  | Impact Area | Unknown         | Not Eligible |
| T-102110-06  | Impact Area | Unknown         | Not Eligible |

| Site ID      | Location    | Age Affiliation | NRHP Status  |
|--------------|-------------|-----------------|--------------|
| T-102110-07  | Impact Area | Unknown         | Not Eligible |
| T-102110-8   | Impact Area | Unknown         | Not Eligible |
| T-102210-01  | Impact Area | Unknown         | Not Eligible |
| T-102210-03  | Impact Area | Unknown         | Not Eligible |
| T-102210-04  | Impact Area | Unknown         | Not Eligible |
| T-110110-01  | Impact Area | Unknown         | Not Eligible |
| T-110210-01  | Impact Area | Unknown         | Not Eligible |
| T-110210-02  | Impact Area | Unknown         | Not Eligible |
| T-110210-03  | Impact Area | Unknown         | Not Eligible |
| T-110210-04  | Impact Area | Unknown         | Not Eligible |
| T-110210-05  | Impact Area | Unknown         | Not Eligible |
| T-110310-01  | Impact Area | Unknown         | Not Eligible |
| T-110310-02  | Impact Area | Unknown         | Not Eligible |
| T-110310-03  | Impact Area | Unknown         | Not Eligible |
| T-110310-04  | Impact Area | Unknown         | Not Eligible |
| T-110310-05  | Impact Area | Unknown         | Not Eligible |
| T-110310-06  | Impact Area | Unknown         | Not Eligible |
| T-110310-07  | Impact Area | Unknown         | Not Eligible |
| T-110310-08  | Impact Area | Unknown         | Not Eligible |
| T-110310-09  | Impact Area | Unknown         | Not Eligible |
| T-110310-12  | Impact Area | Unknown         | Not Eligible |
| T-110410-02  | Impact Area | Unknown         | Not Eligible |
| T-110410-03  | Impact Area | Unknown         | Not Eligible |
| T-110910-01  | Impact Area | Unknown         | Not Eligible |
| T-111710-03  | Impact Area | Unknown         | Not Eligible |
| T-113012-01  | Impact Area | Unknown         | Not Eligible |
| T-113012-02  | Impact Area | Unknown         | Not Eligible |
| T-113012-03  | Impact Area | Unknown         | Not Eligible |
| T-113012-04  | Impact Area | Unknown         | Not Eligible |
| T-113012-05  | Impact Area | Unknown         | Not Eligible |
| T-120210-01  | Impact Area | Unknown         | Not Eligible |
| TL-111510-02 | Impact Area | Unknown         | Not Eligible |
| GTS-2228-091 | Impact Area | Unknown         | Not Eligible |
| 23466        | Impact Area | Historic        | Unevaluated  |
| 5000         | Impact Area | Historic        | Unevaluated  |
| T-102709-01  | Impact Area | Historic        | Unevaluated  |
| T-102711-01  | Impact Area | Historic        | Unevaluated  |
| T-102711-02  | Impact Area | Historic        | Unevaluated  |
| T-102711-03  | Impact Area | Historic        | Unevaluated  |
| 17148        | Impact Area | Prehistoric     | Unevaluated  |
| 17149        | Impact Area | Prehistoric     | Unevaluated  |
| 18672        | Impact Area | Prehistoric     | Unevaluated  |
| 18673        | Impact Area | Prehistoric     | Unevaluated  |
| 18679        | Impact Area | Prehistoric     | Unevaluated  |
| 21285        | Impact Area | Prehistoric     | Unevaluated  |
| 21299        | Impact Area | Prehistoric     | Unevaluated  |
| 23458        | Impact Area | Prehistoric     | Unevaluated  |
| 23463        | Impact Area | Prehistoric     | Unevaluated  |

| Site ID      | Location    | Age Affiliation | NRHP Status |
|--------------|-------------|-----------------|-------------|
| 23464        | Impact Area | Prehistoric     | Unevaluated |
| 23465        | Impact Area | Prehistoric     | Unevaluated |
| 23621        | Impact Area | Prehistoric     | Unevaluated |
| 23625        | Impact Area | Prehistoric     | Unevaluated |
| 23626        | Impact Area | Prehistoric     | Unevaluated |
| GTS-2228-020 | Impact Area | Prehistoric     | Unevaluated |
| GTS-2228-021 | Impact Area | Prehistoric     | Unevaluated |
| GTS-2228-022 | Impact Area | Prehistoric     | Unevaluated |
| GTS-2228-023 | Impact Area | Prehistoric     | Unevaluated |
| GTS-2228-024 | Impact Area | Prehistoric     | Unevaluated |
| GTS-2228-118 | Impact Area | Prehistoric     | Unevaluated |
| GTS-2247-149 | Impact Area | Prehistoric     | Unevaluated |
| T-010910-01  | Impact Area | Prehistoric     | Unevaluated |
| T-022511-01  | Impact Area | Prehistoric     | Unevaluated |
| T-051404-01  | Impact Area | Prehistoric     | Unevaluated |
| T-091312-01  | Impact Area | Prehistoric     | Unevaluated |
| T-102010-04  | Impact Area | Prehistoric     | Unevaluated |
| T-102810-01  | Impact Area | Prehistoric     | Unevaluated |
| T-111010-03B | Impact Area | Prehistoric     | Unevaluated |
| T-111010-03C | Impact Area | Prehistoric     | Unevaluated |
| T-113012-06  | Impact Area | Prehistoric     | Unevaluated |
| T-113012-07  | Impact Area | Prehistoric     | Unevaluated |
| T-113012-08  | Impact Area | Prehistoric     | Unevaluated |
| T-113012-09  | Impact Area | Prehistoric     | Unevaluated |
| T-113012-10  | Impact Area | Prehistoric     | Unevaluated |
| T-120810-01  | Impact Area | Prehistoric     | Unevaluated |
| T-120910-01  | Impact Area | Prehistoric     | Unevaluated |
| T-121610-01  | Impact Area | Prehistoric     | Unevaluated |
| T-122211-01  | Impact Area | Prehistoric     | Unevaluated |
| TL-111010-03 | Impact Area | Prehistoric     | Unevaluated |
| TL-111610-02 | Impact Area | Prehistoric     | Unevaluated |
| TL-111710-05 | Impact Area | Prehistoric     | Unevaluated |
| TL-111710-06 | Impact Area | Prehistoric     | Unevaluated |
| TL-120910-02 | Impact Area | Prehistoric     | Unevaluated |
| TL-121410-02 | Impact Area | Prehistoric     | Unevaluated |
| TL-122910-01 | Impact Area | Prehistoric     | Unevaluated |
| T-031308-01  | Impact Area | Unknown         | Unevaluated |
| 23470        | Impact Area | Unknown         | Unevaluated |
| T-011110-01  | Impact Area | Unknown         | Unevaluated |
| T-050112-01  | Impact Area | Unknown         | Unevaluated |
| T-050312-02  | Impact Area | Unknown         | Unevaluated |
| T-050912-01  | Impact Area | Unknown         | Unevaluated |
| T-050912-02  | Impact Area | Unknown         | Unevaluated |
| T-050912-03  | Impact Area | Unknown         | Unevaluated |
| T-051012-02  | Impact Area | Unknown         | Unevaluated |
| T-051012-03  | Impact Area | Unknown         | Unevaluated |
| T-051012-05A | Impact Area | Unknown         | Unevaluated |
| T-051012-05B | Impact Area | Unknown         | Unevaluated |

| Site ID      | Location    | Age Affiliation | NRHP Status |
|--------------|-------------|-----------------|-------------|
| T-051012-05C | Impact Area | Unknown         | Unevaluated |
| T-051012-05D | Impact Area | Unknown         | Unevaluated |
| T-051112-03A | Impact Area | Unknown         | Unevaluated |
| T-051112-03B | Impact Area | Unknown         | Unevaluated |
| T-051112-03C | Impact Area | Unknown         | Unevaluated |
| T-051112-05A | Impact Area | Unknown         | Unevaluated |
| T-051112-05B | Impact Area | Unknown         | Unevaluated |
| T-051512-01  | Impact Area | Unknown         | Unevaluated |
| T-051704-04  | Impact Area | Unknown         | Unevaluated |
| T-051712-01  | Impact Area | Unknown         | Unevaluated |
| T-051812-01  | Impact Area | Unknown         | Unevaluated |
| T-051812-02  | Impact Area | Unknown         | Unevaluated |
| T-051812-03  | Impact Area | Unknown         | Unevaluated |
| T-052212-01  | Impact Area | Unknown         | Unevaluated |
| T-052312-01  | Impact Area | Unknown         | Unevaluated |
| T-052412-01  | Impact Area | Unknown         | Unevaluated |
| T-053012-01  | Impact Area | Unknown         | Unevaluated |
| T-053112-01  | Impact Area | Unknown         | Unevaluated |
| T-060512-01  | Impact Area | Unknown         | Unevaluated |
| T-060712-01  | Impact Area | Unknown         | Unevaluated |
| T-070212-01  | Impact Area | Unknown         | Unevaluated |
| T-070212-02  | Impact Area | Unknown         | Unevaluated |
| T-070212-03  | Impact Area | Unknown         | Unevaluated |
| T-070212-04  | Impact Area | Unknown         | Unevaluated |
| T-091112-01  | Impact Area | Unknown         | Unevaluated |
| T-091112-02  | Impact Area | Unknown         | Unevaluated |
| T-091212-01  | Impact Area | Unknown         | Unevaluated |
| T-091212-02  | Impact Area | Unknown         | Unevaluated |
| T-091312-01  | Impact Area | Unknown         | Unevaluated |
| T-091412-01  | Impact Area | Unknown         | Unevaluated |
| T-091412-02  | Impact Area | Unknown         | Unevaluated |
| T-091812-01  | Impact Area | Unknown         | Unevaluated |
| T-091812-02  | Impact Area | Unknown         | Unevaluated |
| T-091812-03  | Impact Area | Unknown         | Unevaluated |
| T-091912-01  | Impact Area | Unknown         | Unevaluated |
| T-091912-02  | Impact Area | Unknown         | Unevaluated |
| T-091912-03  | Impact Area | Unknown         | Unevaluated |
| T-092012-01  | Impact Area | Unknown         | Unevaluated |
| T-092112-01A | Impact Area | Unknown         | Unevaluated |
| T-092112-01B | Impact Area | Unknown         | Unevaluated |
| T-092112-01C | Impact Area | Unknown         | Unevaluated |
| T-092512-01  | Impact Area | Unknown         | Unevaluated |
| T-092512-02  | Impact Area | Unknown         | Unevaluated |
| T-092812-01  | Impact Area | Unknown         | Unevaluated |
| T-092812-02A | Impact Area | Unknown         | Unevaluated |
| T-092812-02B | Impact Area | Unknown         | Unevaluated |
| T-092812-02C | Impact Area | Unknown         | Unevaluated |
| T-100212-01  | Impact Area | Unknown         | Unevaluated |

| Site ID      | Location    | Age Affiliation | NRHP Status   |
|--------------|-------------|-----------------|---------------|
| T-100212-02  | Impact Area | Unknown         | Unevaluated   |
| T-100312-01  | Impact Area | Unknown         | Unevaluated   |
| T-100312-02A | Impact Area | Unknown         | Unevaluated   |
| T-100312-02B | Impact Area | Unknown         | Unevaluated   |
| T-100412-01  | Impact Area | Unknown         | Unevaluated   |
| T-100412-02A | Impact Area | Unknown         | Unevaluated   |
| T-100412-02B | Impact Area | Unknown         | Unevaluated   |
| T-100412-02C | Impact Area | Unknown         | Unevaluated   |
| T-100912-01  | Impact Area | Unknown         | Unevaluated   |
| T-100912-02  | Impact Area | Unknown         | Unevaluated   |
| T-101212-01  | Impact Area | Unknown         | Unevaluated   |
| T-101712-01A | Impact Area | Unknown         | Unevaluated   |
| T-101712-01B | Impact Area | Unknown         | Unevaluated   |
| T-101712-02  | Impact Area | Unknown         | Unevaluated   |
| T-101712-03A | Impact Area | Unknown         | Unevaluated   |
| T-101712-03B | Impact Area | Unknown         | Unevaluated   |
| T-101712-03C | Impact Area | Unknown         | Unevaluated   |
| T-101812-01  | Impact Area | Unknown         | Unevaluated   |
| T-102512-01  | Impact Area | Unknown         | Unevaluated   |
| T-102512-02A | Impact Area | Unknown         | Unevaluated   |
| T-102512-02B | Impact Area | Unknown         | Unevaluated   |
| T-102512-02C | Impact Area | Unknown         | Unevaluated   |
| T-102512-02D | Impact Area | Unknown         | Unevaluated   |
| T-102512-02E | Impact Area | Unknown         | Unevaluated   |
| T-103112-01A | Impact Area | Unknown         | Unevaluated   |
| T-103112-01B | Impact Area | Unknown         | Unevaluated   |
| T-103112-01C | Impact Area | Unknown         | Unevaluated   |
| T-103112-02A | Impact Area | Unknown         | Unevaluated   |
| T-103112-02B | Impact Area | Unknown         | Unevaluated   |
| T-110112-01  | Impact Area | Unknown         | Unevaluated   |
| T-111912-01  | Impact Area | Unknown         | Unevaluated   |
| 23472        | KMA         | Historic        | Cons Eligible |
| 23473        | KMA         | Historic        | Cons Eligible |
| 23491        | KMA         | Historic        | Cons Eligible |
| 23496        | KMA         | Historic        | Cons Eligible |
| 23540        | KMA         | Historic        | Cons Eligible |
| 23541        | KMA         | Historic        | Cons Eligible |
| 26912        | KMA         | Historic        | Cons Eligible |
| 28530        | KMA         | Historic        | Cons Eligible |
| 28532        | KMA         | Historic        | Cons Eligible |
| T-090209-01  | KMA         | Historic        | Cons Eligible |
| 20854        | KMA         | Historic        | Eligible      |
| 20855        | KMA         | Historic        | Eligible      |
| 22933        | KMA         | Historic        | Not Eligible  |
| 23468        | KMA         | Historic        | Not Eligible  |
| T-061010-02  | KMA         | Historic        | Not Eligible  |
| T-062409-01  | KMA         | Historic        | Not Eligible  |
| 23490        | KMA         | Prehistoric     | Not Eligible  |

| Site ID     | Location | Age Affiliation | NRHP Status  |
|-------------|----------|-----------------|--------------|
| 23469       | KMA      | Recent          | Not Eligible |
| 23471       | KMA      | Recent          | Not Eligible |
| 23486       | KMA      | Recent          | Not Eligible |
| 23489       | KMA      | Recent          | Not Eligible |
| 26911       | KMA      | Recent          | Not Eligible |
| G729        | KMA      | Recent          | Not Eligible |
| G793        | KMA      | Recent          | Not Eligible |
| G797        | KMA      | Recent          | Not Eligible |
| G798        | KMA      | Recent          | Not Eligible |
| T-062509-01 | KMA      | Unknown         | Not Eligible |
| 21132       | KMA      | Historic        | Unevaluated  |
| 23467       | KMA      | Historic        | Unevaluated  |
| 23488       | KMA      | Historic        | Unevaluated  |
| 23492       | KMA      | Historic        | Unevaluated  |
| 23493       | KMA      | Historic        | Unevaluated  |
| 23494       | KMA      | Historic        | Unevaluated  |
| 23495       | KMA      | Historic        | Unevaluated  |
| 23498       | KMA      | Historic        | Unevaluated  |
| 23499       | KMA      | Historic        | Unevaluated  |
| 23500       | KMA      | Historic        | Unevaluated  |
| 23505       | KMA      | Historic        | Unevaluated  |
| 23506       | KMA      | Historic        | Unevaluated  |
| 23508       | KMA      | Historic        | Unevaluated  |
| 23509       | KMA      | Historic        | Unevaluated  |
| 23510       | KMA      | Historic        | Unevaluated  |
| 23512       | KMA      | Historic        | Unevaluated  |
| 23513       | KMA      | Historic        | Unevaluated  |
| 23514       | KMA      | Historic        | Unevaluated  |
| 23516       | KMA      | Historic        | Unevaluated  |
| 23517       | KMA      | Historic        | Unevaluated  |
| 23518       | KMA      | Historic        | Unevaluated  |
| 23519       | KMA      | Historic        | Unevaluated  |
| 23520       | KMA      | Historic        | Unevaluated  |
| 23521       | KMA      | Historic        | Unevaluated  |
| 23522       | KMA      | Historic        | Unevaluated  |
| 23524       | KMA      | Historic        | Unevaluated  |
| 23525       | KMA      | Historic        | Unevaluated  |
| 23526       | KMA      | Historic        | Unevaluated  |
| 23528       | KMA      | Historic        | Unevaluated  |
| 23529       | KMA      | Historic        | Unevaluated  |
| 23530       | KMA      | Historic        | Unevaluated  |
| 23531       | KMA      | Historic        | Unevaluated  |
| 23532       | KMA      | Historic        | Unevaluated  |
| 23533       | KMA      | Historic        | Unevaluated  |
| 23534       | KMA      | Historic        | Unevaluated  |
| 23536       | KMA      | Historic        | Unevaluated  |
| 23537       | KMA      | Historic        | Unevaluated  |
| 23538       | KMA      | Historic        | Unevaluated  |

| Site ID     | Location | Age Affiliation | NRHP Status |
|-------------|----------|-----------------|-------------|
| 23539       | KMA      | Historic        | Unevaluated |
| 23542       | KMA      | Historic        | Unevaluated |
| 23543       | KMA      | Historic        | Unevaluated |
| 23576       | KMA      | Historic        | Unevaluated |
| 23578       | KMA      | Historic        | Unevaluated |
| 23579       | KMA      | Historic        | Unevaluated |
| 23580       | KMA      | Historic        | Unevaluated |
| 23593       | KMA      | Historic        | Unevaluated |
| 23594       | KMA      | Historic        | Unevaluated |
| 23597       | KMA      | Historic        | Unevaluated |
| 23599       | KMA      | Historic        | Unevaluated |
| 23600       | KMA      | Historic        | Unevaluated |
| 23620       | KMA      | Historic        | Unevaluated |
| 27874       | KMA      | Historic        | Unevaluated |
| T-011614-01 | KMA      | Historic        | Unevaluated |
| T-011614-02 | KMA      | Historic        | Unevaluated |
| T-013114-01 | KMA      | Historic        | Unevaluated |
| T-052215-01 | KMA      | Historic        | Unevaluated |
| T-062811-01 | KMA      | Historic        | Unevaluated |
| T-062811-02 | KMA      | Historic        | Unevaluated |
| T-070811-03 | KMA      | Historic        | Unevaluated |
| T-070811-04 | KMA      | Historic        | Unevaluated |
| T-081512-01 | KMA      | Historic        | Unevaluated |
| T-111209-01 | KMA      | Historic        | Unevaluated |
| T-111209-02 | KMA      | Historic        | Unevaluated |
| T-111209-03 | KMA      | Historic        | Unevaluated |
| T-111209-04 | KMA      | Historic        | Unevaluated |
| T-121813-01 | KMA      | Historic        | Unevaluated |
| T-121813-02 | KMA      | Historic        | Unevaluated |
| 23501       | KMA      | Prehistoric     | Unevaluated |
| 23523       | KMA      | Prehistoric     | Unevaluated |
| 23527       | KMA      | Prehistoric     | Unevaluated |
| 23591       | KMA      | Prehistoric     | Unevaluated |
| 28531       | KMA      | Prehistoric     | Unevaluated |
| 23487       | KMA      | Recent          | Unevaluated |
| 23515       | KMA      | Recent          | Unevaluated |
| 22929       | KMA      | Unknown         | Unevaluated |
| 23497       | KMA      | Unknown         | Unevaluated |
| 23502       | KMA      | Unknown         | Unevaluated |
| 23503       | KMA      | Unknown         | Unevaluated |
| 23504       | KMA      | Unknown         | Unevaluated |
| 23511       | KMA      | Unknown         | Unevaluated |
| 23588       | KMA      | Unknown         | Unevaluated |
| 23592       | KMA      | Unknown         | Unevaluated |
| T-031809-01 | KMA      | Unknown         | Unevaluated |
| T-031809-05 | KMA      | Unknown         | Unevaluated |
| T-032009-02 | KMA      | Unknown         | Unevaluated |
| T-051109-01 | KMA      | Unknown         | Unevaluated |



| Site ID     | Location     | Age Affiliation | NRHP Status |
|-------------|--------------|-----------------|-------------|
| T-051209-01 | KMA          | Unknown         | Unevaluated |
| T-051209-02 | KMA          | Unknown         | Unevaluated |
| T-052108-01 | KMA          | Unknown         | Unevaluated |
| T-062811-03 | KMA          | Unknown         | Unevaluated |
| T-062811-04 | KMA          | Unknown         | Unevaluated |
| T-062911-01 | KMA          | Unknown         | Unevaluated |
| T-071911-01 | KMA          | Unknown         | Unevaluated |
|             |              |                 |             |
| 23846       | TA 1         | Historic        | Unevaluated |
| T-080206-01 | TA 1         | Historic        | Unevaluated |
| 23842       | TA 1         | Unknown         | Unevaluated |
| 23843       | TA 1         | Unknown         | Unevaluated |
| 23844       | TA 1         | Unknown         | Unevaluated |
| 23845       | TA 1         | Unknown         | Unevaluated |
| 7119        | TA 1?        | Historic        | Eligible    |
| 23452       | TA 1-17, KMA | Historic        | Eligible    |
| 23450       | TA 15        | Prehistoric     | Unevaluated |
| 23386       | TA 16        | Historic        | Unevaluated |
| 23383       | TA 16        | Prehistoric     | Unevaluated |
| 23384       | TA 16        | Prehistoric     | Unevaluated |
| 23370       | TA 17        | Prehistoric     | Unevaluated |
| 23371       | TA 17        | Prehistoric     | Unevaluated |
| 23377       | TA 17        | Prehistoric     | Unevaluated |
| 23380       | TA 17        | Prehistoric     | Unevaluated |
| 23381       | TA 17        | Prehistoric     | Unevaluated |
| 5009        | TA 17        | Prehistoric     | Unevaluated |
| 23379       | TA 17        | Unknown         | Unevaluated |
| 28584       | TA 21        | Historic        | Unevaluated |
| T-070110-02 | TA 21        | Historic        | Unevaluated |
| 18671       | TA 21        | Prehistoric     | Unevaluated |
| 18674       | TA 21        | Prehistoric     | Unevaluated |
| 18675       | TA 21        | Prehistoric     | Unevaluated |
| 18676       | TA 21        | Prehistoric     | Unevaluated |
| 21281       | TA 21        | Prehistoric     | Unevaluated |
| 21282       | TA 21        | Prehistoric     | Unevaluated |
| 21283       | TA 21        | Prehistoric     | Unevaluated |
| 21284       | TA 21        | Prehistoric     | Unevaluated |
| 21286       | TA 21        | Prehistoric     | Unevaluated |
| 21287       | TA 21        | Prehistoric     | Unevaluated |
| 21288       | TA 21        | Prehistoric     | Unevaluated |
| 21289       | TA 21        | Prehistoric     | Unevaluated |
| 21290       | TA 21        | Prehistoric     | Unevaluated |
| 21291       | TA 21        | Prehistoric     | Unevaluated |
| 21292       | TA 21        | Prehistoric     | Unevaluated |
| 21293       | TA 21        | Prehistoric     | Unevaluated |
| 21295       | TA 21        | Prehistoric     | Unevaluated |
| 21296       | TA 21        | Prehistoric     | Unevaluated |
| 21297       | TA 21        | Prehistoric     | Unevaluated |

| Site ID | Location | Age Affiliation | NRHP Status |
|---------|----------|-----------------|-------------|
| 21298   | TA 21    | Prehistoric     | Unevaluated |
| 21300   | TA 21    | Prehistoric     | Unevaluated |
| 21301   | TA 21    | Prehistoric     | Unevaluated |
| 21302   | TA 21    | Prehistoric     | Unevaluated |
| 21304   | TA 21    | Prehistoric     | Unevaluated |
| 21305   | TA 21    | Prehistoric     | Unevaluated |
| 21307   | TA 21    | Prehistoric     | Unevaluated |
| 21308   | TA 21    | Prehistoric     | Unevaluated |
| 21309   | TA 21    | Prehistoric     | Unevaluated |
| 21310   | TA 21    | Prehistoric     | Unevaluated |
| 21311   | TA 21    | Prehistoric     | Unevaluated |
| 21312   | TA 21    | Prehistoric     | Unevaluated |
| 21483   | TA 21    | Prehistoric     | Unevaluated |
| 21484   | TA 21    | Prehistoric     | Unevaluated |
| 21485   | TA 21    | Prehistoric     | Unevaluated |
| 21486   | TA 21    | Prehistoric     | Unevaluated |
| 21487   | TA 21    | Prehistoric     | Unevaluated |
| 21488   | TA 21    | Prehistoric     | Unevaluated |
| 21489   | TA 21    | Prehistoric     | Unevaluated |
| 21490   | TA 21    | Prehistoric     | Unevaluated |
| 21491   | TA 21    | Prehistoric     | Unevaluated |
| 21492   | TA 21    | Prehistoric     | Unevaluated |
| 21493   | TA 21    | Prehistoric     | Unevaluated |
| 21494   | TA 21    | Prehistoric     | Unevaluated |
| 21495   | TA 21    | Prehistoric     | Unevaluated |
| 21496   | TA 21    | Prehistoric     | Unevaluated |
| 21497   | TA 21    | Prehistoric     | Unevaluated |
| 21498   | TA 21    | Prehistoric     | Unevaluated |
| 21499   | TA 21    | Prehistoric     | Unevaluated |
| 21500   | TA 21    | Prehistoric     | Unevaluated |
| 21501   | TA 21    | Prehistoric     | Unevaluated |
| 21502   | TA 21    | Prehistoric     | Unevaluated |
| 21503   | TA 21    | Prehistoric     | Unevaluated |
| 21666   | TA 21    | Prehistoric     | Unevaluated |
| 21667   | TA 21    | Prehistoric     | Unevaluated |
| 21668   | TA 21    | Prehistoric     | Unevaluated |
| 21669   | TA 21    | Prehistoric     | Unevaluated |
| 21670   | TA 21    | Prehistoric     | Unevaluated |
| 21671   | TA 21    | Prehistoric     | Unevaluated |
| 21672   | TA 21    | Prehistoric     | Unevaluated |
| 21673   | TA 21    | Prehistoric     | Unevaluated |
| 21674   | TA 21    | Prehistoric     | Unevaluated |
| 21750   | TA 21    | Prehistoric     | Unevaluated |
| 21807   | TA 21    | Prehistoric     | Unevaluated |
| 23535   | TA 21    | Prehistoric     | Unevaluated |
| 23544   | TA 21    | Prehistoric     | Unevaluated |
| 23545   | TA 21    | Prehistoric     | Unevaluated |
| 23546   | TA 21    | Prehistoric     | Unevaluated |

| Site ID      | Location | Age Affiliation      | NRHP Status  |
|--------------|----------|----------------------|--------------|
| 23558        | TA 21    | Prehistoric          | Unevaluated  |
| 23559        | TA 21    | Prehistoric          | Unevaluated  |
| 23561        | TA 21    | Prehistoric          | Unevaluated  |
| 23622        | TA 21    | Prehistoric          | Unevaluated  |
| 24385        | TA 21    | Prehistoric          | Unevaluated  |
| 28585        | TA 21    | Prehistoric          | Unevaluated  |
| 28586        | TA 21    | Prehistoric          | Unevaluated  |
| 28587        | TA 21    | Prehistoric          | Unevaluated  |
| 28588        | TA 21    | Prehistoric          | Unevaluated  |
| 28589        | TA 21    | Prehistoric          | Unevaluated  |
| 28590        | TA 21    | Prehistoric          | Unevaluated  |
| 28591        | TA 21    | Prehistoric          | Unevaluated  |
| 28592        | TA 21    | Prehistoric          | Unevaluated  |
| 28593        | TA 21    | Prehistoric          | Unevaluated  |
| 28594        | TA 21    | Prehistoric          | Unevaluated  |
| T-031104-1   | TA 21    | Prehistoric          | Unevaluated  |
| T-031212-04  | TA 21    | Prehistoric          | Unevaluated  |
| T-032812-03  | TA 21    | Prehistoric          | Unevaluated  |
| T-032812-04  | TA 21    | Prehistoric          | Unevaluated  |
| T-041902-01  | TA 21    | Prehistoric          | Unevaluated  |
| T-041902-02  | TA 21    | Prehistoric          | Unevaluated  |
| T-041902-03  | TA 21    | Prehistoric          | Unevaluated  |
| T-061704-01  | TA 21    | Prehistoric          | Unevaluated  |
| T-062206-01  | TA 21    | Prehistoric          | Unevaluated  |
| TL-080310-01 | TA 21    | Prehistoric          | Unevaluated  |
| 21294        | TA 21    | Unknown              | Unevaluated  |
| 21303        | TA 21    | Unknown              | Unevaluated  |
| 21306        | TA 21    | Unknown              | Unevaluated  |
| 21313        | TA 21    | Unknown              | Unevaluated  |
| 21314        | TA 21    | Unknown              | Unevaluated  |
| 21315        | TA 21    | Unknown              | Unevaluated  |
| 21316        | TA 21    | Unknown              | Unevaluated  |
| 23560        | TA 21    | Unknown              | Unevaluated  |
| T-021705-01  | TA 21    | Unknown              | Unevaluated  |
| 5004         | TA 22    | Prehistoric/Historic | Listed       |
| GTS-2228-003 | TA 22    | Recent               | Not Eligible |
| GTS-2228-001 | TA 22    | Unknown              | Not Eligible |
| GTS-2228-002 | TA 22    | Unknown              | Not Eligible |
| GTS-2228-007 | TA 22    | Unknown              | Not Eligible |
| 21169        | TA 22    | Historic             | Unevaluated  |
| 5006         | TA 22    | Historic             | Unevaluated  |
| 5007         | TA 22    | Historic             | Unevaluated  |
| 5008         | TA 22    | Historic             | Unevaluated  |
| T-051613-01  | TA 22    | Historic             | Unevaluated  |
| T-062906-48B | TA 22    | Historic             | Unevaluated  |
| T-102808-01  | TA 22    | Historic             | Unevaluated  |
| T-122106-01  | TA 22    | Historic             | Unevaluated  |
| 10221        | TA 22    | Prehistoric          | Unevaluated  |

| Site ID | Location | Age Affiliation | NRHP Status |
|---------|----------|-----------------|-------------|
| 10222   | TA 22    | Prehistoric     | Unevaluated |
| 10265   | TA 22    | Prehistoric     | Unevaluated |
| 17117   | TA 22    | Prehistoric     | Unevaluated |
| 17118   | TA 22    | Prehistoric     | Unevaluated |
| 17124   | TA 22    | Prehistoric     | Unevaluated |
| 17127   | TA 22    | Prehistoric     | Unevaluated |
| 17128   | TA 22    | Prehistoric     | Unevaluated |
| 17129   | TA 22    | Prehistoric     | Unevaluated |
| 17130   | TA 22    | Prehistoric     | Unevaluated |
| 17131   | TA 22    | Prehistoric     | Unevaluated |
| 17132   | TA 22    | Prehistoric     | Unevaluated |
| 17133   | TA 22    | Prehistoric     | Unevaluated |
| 17134   | TA 22    | Prehistoric     | Unevaluated |
| 17135   | TA 22    | Prehistoric     | Unevaluated |
| 17136   | TA 22    | Prehistoric     | Unevaluated |
| 17137   | TA 22    | Prehistoric     | Unevaluated |
| 17147   | TA 22    | Prehistoric     | Unevaluated |
| 17150   | TA 22    | Prehistoric     | Unevaluated |
| 17151   | TA 22    | Prehistoric     | Unevaluated |
| 17153   | TA 22    | Prehistoric     | Unevaluated |
| 17154   | TA 22    | Prehistoric     | Unevaluated |
| 17157   | TA 22    | Prehistoric     | Unevaluated |
| 17159   | TA 22    | Prehistoric     | Unevaluated |
| 17160   | TA 22    | Prehistoric     | Unevaluated |
| 17161   | TA 22    | Prehistoric     | Unevaluated |
| 17162   | TA 22    | Prehistoric     | Unevaluated |
| 17164   | TA 22    | Prehistoric     | Unevaluated |
| 17165   | TA 22    | Prehistoric     | Unevaluated |
| 17166   | TA 22    | Prehistoric     | Unevaluated |
| 19491   | TA 22    | Prehistoric     | Unevaluated |
| 19492   | TA 22    | Prehistoric     | Unevaluated |
| 19493   | TA 22    | Prehistoric     | Unevaluated |
| 19494   | TA 22    | Prehistoric     | Unevaluated |
| 19495   | TA 22    | Prehistoric     | Unevaluated |
| 19496   | TA 22    | Prehistoric     | Unevaluated |
| 19497   | TA 22    | Prehistoric     | Unevaluated |
| 19498   | TA 22    | Prehistoric     | Unevaluated |
| 19499   | TA 22    | Prehistoric     | Unevaluated |
| 19500   | TA 22    | Prehistoric     | Unevaluated |
| 19501   | TA 22    | Prehistoric     | Unevaluated |
| 19502   | TA 22    | Prehistoric     | Unevaluated |
| 19503   | TA 22    | Prehistoric     | Unevaluated |
| 19504   | TA 22    | Prehistoric     | Unevaluated |
| 19505   | TA 22    | Prehistoric     | Unevaluated |
| 19506   | TA 22    | Prehistoric     | Unevaluated |
| 19507   | TA 22    | Prehistoric     | Unevaluated |
| 19508   | TA 22    | Prehistoric     | Unevaluated |
| 19509   | TA 22    | Prehistoric     | Unevaluated |

| Site ID     | Location | Age Affiliation | NRHP Status |
|-------------|----------|-----------------|-------------|
| 19510       | TA 22    | Prehistoric     | Unevaluated |
| 19511       | TA 22    | Prehistoric     | Unevaluated |
| 19512       | TA 22    | Prehistoric     | Unevaluated |
| 19513       | TA 22    | Prehistoric     | Unevaluated |
| 19514       | TA 22    | Prehistoric     | Unevaluated |
| 19515       | TA 22    | Prehistoric     | Unevaluated |
| 19516       | TA 22    | Prehistoric     | Unevaluated |
| 19517       | TA 22    | Prehistoric     | Unevaluated |
| 19518       | TA 22    | Prehistoric     | Unevaluated |
| 19519       | TA 22    | Prehistoric     | Unevaluated |
| 19520       | TA 22    | Prehistoric     | Unevaluated |
| 19521       | TA 22    | Prehistoric     | Unevaluated |
| 19522       | TA 22    | Prehistoric     | Unevaluated |
| 19523       | TA 22    | Prehistoric     | Unevaluated |
| 19524       | TA 22    | Prehistoric     | Unevaluated |
| 19525       | TA 22    | Prehistoric     | Unevaluated |
| 19526       | TA 22    | Prehistoric     | Unevaluated |
| 19527       | TA 22    | Prehistoric     | Unevaluated |
| 19528       | TA 22    | Prehistoric     | Unevaluated |
| 19529       | TA 22    | Prehistoric     | Unevaluated |
| 21164       | TA 22    | Prehistoric     | Unevaluated |
| 21165       | TA 22    | Prehistoric     | Unevaluated |
| 21166       | TA 22    | Prehistoric     | Unevaluated |
| 21167       | TA 22    | Prehistoric     | Unevaluated |
| 21168       | TA 22    | Prehistoric     | Unevaluated |
| 21170       | TA 22    | Prehistoric     | Unevaluated |
| 21171       | TA 22    | Prehistoric     | Unevaluated |
| 21172       | TA 22    | Prehistoric     | Unevaluated |
| 21317       | TA 22    | Prehistoric     | Unevaluated |
| 21318       | TA 22    | Prehistoric     | Unevaluated |
| 21321       | TA 22    | Prehistoric     | Unevaluated |
| 21322       | TA 22    | Prehistoric     | Unevaluated |
| 23694       | TA 22    | Prehistoric     | Unevaluated |
| 24278       | TA 22    | Prehistoric     | Unevaluated |
| 25004       | TA 22    | Prehistoric     | Unevaluated |
| C-012705-03 | TA 22    | Prehistoric     | Unevaluated |
| C-012705-04 | TA 22    | Prehistoric     | Unevaluated |
| C-012705-05 | TA 22    | Prehistoric     | Unevaluated |
| C-020107-1  | TA 22    | Prehistoric     | Unevaluated |
| C-020608-01 | TA 22    | Prehistoric     | Unevaluated |
| C-031705-01 | TA 22    | Prehistoric     | Unevaluated |
| C-031705-02 | TA 22    | Prehistoric     | Unevaluated |
| C-031705-03 | TA 22    | Prehistoric     | Unevaluated |
| C-031705-04 | TA 22    | Prehistoric     | Unevaluated |
| C-031705-05 | TA 22    | Prehistoric     | Unevaluated |
| C-031705-06 | TA 22    | Prehistoric     | Unevaluated |
| T-012307-01 | TA 22    | Prehistoric     | Unevaluated |
| T-012415-01 | TA 22    | Prehistoric     | Unevaluated |

| Site ID      | Location | Age Affiliation | NRHP Status |
|--------------|----------|-----------------|-------------|
| T-012805-02  | TA 22    | Prehistoric     | Unevaluated |
| T-012914-01  | TA 22    | Prehistoric     | Unevaluated |
| T-020305-01  | TA 22    | Prehistoric     | Unevaluated |
| T-020305-02  | TA 22    | Prehistoric     | Unevaluated |
| T-020707-01  | TA 22    | Prehistoric     | Unevaluated |
| T-020907-01  | TA 22    | Prehistoric     | Unevaluated |
| T-021908-01  | TA 22    | Prehistoric     | Unevaluated |
| T-022008-02  | TA 22    | Prehistoric     | Unevaluated |
| T-022306-01  | TA 22    | Prehistoric     | Unevaluated |
| T-041310-1   | TA 22    | Prehistoric     | Unevaluated |
| T-041410-1   | TA 22    | Prehistoric     | Unevaluated |
| T-041410-2   | TA 22    | Prehistoric     | Unevaluated |
| T-041910-1   | TA 22    | Prehistoric     | Unevaluated |
| T-041910-2   | TA 22    | Prehistoric     | Unevaluated |
| T-042010-1   | TA 22    | Prehistoric     | Unevaluated |
| T-042010-2   | TA 22    | Prehistoric     | Unevaluated |
| T-042010-3   | TA 22    | Prehistoric     | Unevaluated |
| T-042010-4   | TA 22    | Prehistoric     | Unevaluated |
| T-042110-1   | TA 22    | Prehistoric     | Unevaluated |
| T-042110-2   | TA 22    | Prehistoric     | Unevaluated |
| T-042110-3   | TA 22    | Prehistoric     | Unevaluated |
| T-042210-1   | TA 22    | Prehistoric     | Unevaluated |
| T-042910-1   | TA 22    | Prehistoric     | Unevaluated |
| T-042910-2   | TA 22    | Prehistoric     | Unevaluated |
| T-042910-3   | TA 22    | Prehistoric     | Unevaluated |
| T-043010-4   | TA 22    | Prehistoric     | Unevaluated |
| T-043094-01  | TA 22    | Prehistoric     | Unevaluated |
| T-050914-01  | TA 22    | Prehistoric     | Unevaluated |
| T-053106-01B | TA 22    | Prehistoric     | Unevaluated |
| T-053106-05B | TA 22    | Prehistoric     | Unevaluated |
| T-053106-06B | TA 22    | Prehistoric     | Unevaluated |
| T-060106-17B | TA 22    | Prehistoric     | Unevaluated |
| T-060106-23B | TA 22    | Prehistoric     | Unevaluated |
| T-062706-03B | TA 22    | Prehistoric     | Unevaluated |
| T-062706-04B | TA 22    | Prehistoric     | Unevaluated |
| T-062706-08B | TA 22    | Prehistoric     | Unevaluated |
| T-062706-17B | TA 22    | Prehistoric     | Unevaluated |
| T-062806-01  | TA 22    | Prehistoric     | Unevaluated |
| T-062806-02  | TA 22    | Prehistoric     | Unevaluated |
| T-062806-03  | TA 22    | Prehistoric     | Unevaluated |
| T-062806-04  | TA 22    | Prehistoric     | Unevaluated |
| T-062806-05  | TA 22    | Prehistoric     | Unevaluated |
| T-062806-48B | TA 22    | Prehistoric     | Unevaluated |
| T-062906-04B | TA 22    | Prehistoric     | Unevaluated |
| T-062906-33B | TA 22    | Prehistoric     | Unevaluated |
| T-081506-04  | TA 22    | Prehistoric     | Unevaluated |
| T-092304-01  | TA 22    | Prehistoric     | Unevaluated |
| T-092899-01  | TA 22    | Prehistoric     | Unevaluated |

| Site ID     | Location | Age Affiliation      | NRHP Status |
|-------------|----------|----------------------|-------------|
| T-102501-01 | TA 22    | Prehistoric          | Unevaluated |
| T-102501-02 | TA 22    | Prehistoric          | Unevaluated |
| 5005        | TA 22    | Prehistoric/Historic | Unevaluated |
| 17138       | TA 22    | Unknown              | Unevaluated |
| 17155       | TA 22    | Unknown              | Unevaluated |
| 17163       | TA 22    | Unknown              | Unevaluated |
| 21319       | TA 22    | Unknown              | Unevaluated |
| C-020305-01 | TA 22    | Unknown              | Unevaluated |
| T-010115-01 | TA 22    | Unknown              | Unevaluated |
| T-010115-02 | TA 22    | Unknown              | Unevaluated |
| T-010115-05 | TA 22    | Unknown              | Unevaluated |
| T-010115-13 | TA 22    | Unknown              | Unevaluated |
| T-010415-02 | TA 22    | Unknown              | Unevaluated |
| T-010715-01 | TA 22    | Unknown              | Unevaluated |
| T-010715-02 | TA 22    | Unknown              | Unevaluated |
| T-010815-01 | TA 22    | Unknown              | Unevaluated |
| T-010815-02 | TA 22    | Unknown              | Unevaluated |
| T-010815-03 | TA 22    | Unknown              | Unevaluated |
| T-010815-04 | TA 22    | Unknown              | Unevaluated |
| T-010915-01 | TA 22    | Unknown              | Unevaluated |
| T-011115-01 | TA 22    | Unknown              | Unevaluated |
| T-011315-01 | TA 22    | Unknown              | Unevaluated |
| T-011415-01 | TA 22    | Unknown              | Unevaluated |
| T-011415-02 | TA 22    | Unknown              | Unevaluated |
| T-011415-03 | TA 22    | Unknown              | Unevaluated |
| T-011715-01 | TA 22    | Unknown              | Unevaluated |
| T-011815-01 | TA 22    | Unknown              | Unevaluated |
| T-011915-01 | TA 22    | Unknown              | Unevaluated |
| T-011915-02 | TA 22    | Unknown              | Unevaluated |
| T-012315-01 | TA 22    | Unknown              | Unevaluated |
| T-012515-01 | TA 22    | Unknown              | Unevaluated |
| T-020304-01 | TA 22    | Unknown              | Unevaluated |
| T-020604-01 | TA 22    | Unknown              | Unevaluated |
| T-020604-02 | TA 22    | Unknown              | Unevaluated |
| T-020604-03 | TA 22    | Unknown              | Unevaluated |
| T-020604-04 | TA 22    | Unknown              | Unevaluated |
| T-020905-01 | TA 22    | Unknown              | Unevaluated |
| T-021706-01 | TA 22    | Unknown              | Unevaluated |
| T-041906-01 | TA 22    | Unknown              | Unevaluated |
| T-041906-02 | TA 22    | Unknown              | Unevaluated |
| T-041906-03 | TA 22    | Unknown              | Unevaluated |
| T-043010-1  | TA 22    | Unknown              | Unevaluated |
| T-043010-2  | TA 22    | Unknown              | Unevaluated |
| T-043010-3  | TA 22    | Unknown              | Unevaluated |
| T-043094-02 | TA 22    | Unknown              | Unevaluated |
| T-043094-03 | TA 22    | Unknown              | Unevaluated |
| T-043094-04 | TA 22    | Unknown              | Unevaluated |
| T-043094-05 | TA 22    | Unknown              | Unevaluated |

| Site ID      | Location | Age Affiliation | NRHP Status |
|--------------|----------|-----------------|-------------|
| T-050906-01  | TA 22    | Unknown         | Unevaluated |
| T-051704-03  | TA 22    | Unknown         | Unevaluated |
| T-051704-05  | TA 22    | Unknown         | Unevaluated |
| T-051704-06  | TA 22    | Unknown         | Unevaluated |
| T-051704-07  | TA 22    | Unknown         | Unevaluated |
| T-051804-01  | TA 22    | Unknown         | Unevaluated |
| T-053106-02B | TA 22    | Unknown         | Unevaluated |
| T-053106-03B | TA 22    | Unknown         | Unevaluated |
| T-053106-04B | TA 22    | Unknown         | Unevaluated |
| T-053106-07B | TA 22    | Unknown         | Unevaluated |
| T-053106-G1  | TA 22    | Unknown         | Unevaluated |
| T-053106-G2  | TA 22    | Unknown         | Unevaluated |
| T-053106-G3  | TA 22    | Unknown         | Unevaluated |
| T-053106-G4  | TA 22    | Unknown         | Unevaluated |
| T-053106-G5  | TA 22    | Unknown         | Unevaluated |
| T-060106-01B | TA 22    | Unknown         | Unevaluated |
| T-060106-11B | TA 22    | Unknown         | Unevaluated |
| T-060106-12B | TA 22    | Unknown         | Unevaluated |
| T-060106-13B | TA 22    | Unknown         | Unevaluated |
| T-060106-14B | TA 22    | Unknown         | Unevaluated |
| T-060106-15B | TA 22    | Unknown         | Unevaluated |
| T-060106-16B | TA 22    | Unknown         | Unevaluated |
| T-060106-18B | TA 22    | Unknown         | Unevaluated |
| T-060106-19B | TA 22    | Unknown         | Unevaluated |
| T-060106-20B | TA 22    | Unknown         | Unevaluated |
| T-060106-21B | TA 22    | Unknown         | Unevaluated |
| T-060106-22B | TA 22    | Unknown         | Unevaluated |
| T-060106-24B | TA 22    | Unknown         | Unevaluated |
| T-061907-01  | TA 22    | Unknown         | Unevaluated |
| T-062706-01B | TA 22    | Unknown         | Unevaluated |
| T-062706-02B | TA 22    | Unknown         | Unevaluated |
| T-062706-05  | TA 22    | Unknown         | Unevaluated |
| T-062706-05B | TA 22    | Unknown         | Unevaluated |
| T-062706-06  | TA 22    | Unknown         | Unevaluated |
| T-062706-06B | TA 22    | Unknown         | Unevaluated |
| T-062706-07B | TA 22    | Unknown         | Unevaluated |
| T-062706-08  | TA 22    | Unknown         | Unevaluated |
| T-062706-09B | TA 22    | Unknown         | Unevaluated |
| T-062706-10B | TA 22    | Unknown         | Unevaluated |
| T-062706-11B | TA 22    | Unknown         | Unevaluated |
| T-062706-12B | TA 22    | Unknown         | Unevaluated |
| T-062706-13B | TA 22    | Unknown         | Unevaluated |
| T-062706-14B | TA 22    | Unknown         | Unevaluated |
| T-062706-15B | TA 22    | Unknown         | Unevaluated |
| T-062706-16B | TA 22    | Unknown         | Unevaluated |
| T-062806-01B | TA 22    | Unknown         | Unevaluated |
| T-062806-02B | TA 22    | Unknown         | Unevaluated |
| T-062806-03B | TA 22    | Unknown         | Unevaluated |



| Site ID      | Location | Age Affiliation | NRHP Status |
|--------------|----------|-----------------|-------------|
| T-062806-04B | TA 22    | Unknown         | Unevaluated |
| T-062806-05B | TA 22    | Unknown         | Unevaluated |
| T-062806-06B | TA 22    | Unknown         | Unevaluated |
| T-062806-07B | TA 22    | Unknown         | Unevaluated |
| T-062806-08B | TA 22    | Unknown         | Unevaluated |
| T-062806-09B | TA 22    | Unknown         | Unevaluated |
| T-062806-10B | TA 22    | Unknown         | Unevaluated |
| T-062806-11B | TA 22    | Unknown         | Unevaluated |
| T-062806-12B | TA 22    | Unknown         | Unevaluated |
| T-062806-13B | TA 22    | Unknown         | Unevaluated |
| T-062806-14B | TA 22    | Unknown         | Unevaluated |
| T-062806-15B | TA 22    | Unknown         | Unevaluated |
| T-062806-16B | TA 22    | Unknown         | Unevaluated |
| T-062806-17B | TA 22    | Unknown         | Unevaluated |
| T-062806-18B | TA 22    | Unknown         | Unevaluated |
| T-062806-19B | TA 22    | Unknown         | Unevaluated |
| T-062806-20B | TA 22    | Unknown         | Unevaluated |
| T-062806-21B | TA 22    | Unknown         | Unevaluated |
| T-062806-22B | TA 22    | Unknown         | Unevaluated |
| T-062806-23B | TA 22    | Unknown         | Unevaluated |
| T-062806-24B | TA 22    | Unknown         | Unevaluated |
| T-062806-25B | TA 22    | Unknown         | Unevaluated |
| T-062806-26B | TA 22    | Unknown         | Unevaluated |
| T-062806-27B | TA 22    | Unknown         | Unevaluated |
| T-062806-28B | TA 22    | Unknown         | Unevaluated |
| T-062806-29B | TA 22    | Unknown         | Unevaluated |
| T-062806-30B | TA 22    | Unknown         | Unevaluated |
| T-062806-31B | TA 22    | Unknown         | Unevaluated |
| T-062806-32B | TA 22    | Unknown         | Unevaluated |
| T-062806-33B | TA 22    | Unknown         | Unevaluated |
| T-062806-34B | TA 22    | Unknown         | Unevaluated |
| T-062806-35B | TA 22    | Unknown         | Unevaluated |
| T-062806-36B | TA 22    | Unknown         | Unevaluated |
| T-062806-37B | TA 22    | Unknown         | Unevaluated |
| T-062806-38B | TA 22    | Unknown         | Unevaluated |
| T-062806-39B | TA 22    | Unknown         | Unevaluated |
| T-062806-40B | TA 22    | Unknown         | Unevaluated |
| T-062806-41B | TA 22    | Unknown         | Unevaluated |
| T-062806-42B | TA 22    | Unknown         | Unevaluated |
| T-062806-43B | TA 22    | Unknown         | Unevaluated |
| T-062806-44B | TA 22    | Unknown         | Unevaluated |
| T-062806-45B | TA 22    | Unknown         | Unevaluated |
| T-062806-46B | TA 22    | Unknown         | Unevaluated |
| T-062806-47B | TA 22    | Unknown         | Unevaluated |
| T-062806-49B | TA 22    | Unknown         | Unevaluated |
| T-062906-01B | TA 22    | Unknown         | Unevaluated |
| T-062906-02B | TA 22    | Unknown         | Unevaluated |
| T-062906-03B | TA 22    | Unknown         | Unevaluated |

| Site ID      | Location | Age Affiliation | NRHP Status |
|--------------|----------|-----------------|-------------|
| T-062906-05B | TA 22    | Unknown         | Unevaluated |
| T-062906-06B | TA 22    | Unknown         | Unevaluated |
| T-062906-07B | TA 22    | Unknown         | Unevaluated |
| T-062906-08B | TA 22    | Unknown         | Unevaluated |
| T-062906-09B | TA 22    | Unknown         | Unevaluated |
| T-062906-10B | TA 22    | Unknown         | Unevaluated |
| T-062906-11B | TA 22    | Unknown         | Unevaluated |
| T-062906-12B | TA 22    | Unknown         | Unevaluated |
| T-062906-13B | TA 22    | Unknown         | Unevaluated |
| T-062906-14B | TA 22    | Unknown         | Unevaluated |
| T-062906-15B | TA 22    | Unknown         | Unevaluated |
| T-062906-16B | TA 22    | Unknown         | Unevaluated |
| T-062906-17B | TA 22    | Unknown         | Unevaluated |
| T-062906-18B | TA 22    | Unknown         | Unevaluated |
| T-062906-19B | TA 22    | Unknown         | Unevaluated |
| T-062906-20B | TA 22    | Unknown         | Unevaluated |
| T-062906-21B | TA 22    | Unknown         | Unevaluated |
| T-062906-22B | TA 22    | Unknown         | Unevaluated |
| T-062906-23B | TA 22    | Unknown         | Unevaluated |
| T-062906-24B | TA 22    | Unknown         | Unevaluated |
| T-062906-25B | TA 22    | Unknown         | Unevaluated |
| T-062906-26B | TA 22    | Unknown         | Unevaluated |
| T-062906-27B | TA 22    | Unknown         | Unevaluated |
| T-062906-28B | TA 22    | Unknown         | Unevaluated |
| T-062906-29B | TA 22    | Unknown         | Unevaluated |
| T-062906-30B | TA 22    | Unknown         | Unevaluated |
| T-062906-31B | TA 22    | Unknown         | Unevaluated |
| T-062906-32B | TA 22    | Unknown         | Unevaluated |
| T-062906-34B | TA 22    | Unknown         | Unevaluated |
| T-062906-35B | TA 22    | Unknown         | Unevaluated |
| T-062906-36B | TA 22    | Unknown         | Unevaluated |
| T-062906-37B | TA 22    | Unknown         | Unevaluated |
| T-062906-38B | TA 22    | Unknown         | Unevaluated |
| T-062906-39B | TA 22    | Unknown         | Unevaluated |
| T-062906-40B | TA 22    | Unknown         | Unevaluated |
| T-062906-41B | TA 22    | Unknown         | Unevaluated |
| T-062906-42B | TA 22    | Unknown         | Unevaluated |
| T-062906-43B | TA 22    | Unknown         | Unevaluated |
| T-062906-44B | TA 22    | Unknown         | Unevaluated |
| T-062906-45B | TA 22    | Unknown         | Unevaluated |
| T-062906-46B | TA 22    | Unknown         | Unevaluated |
| T-062906-47B | TA 22    | Unknown         | Unevaluated |
| T-062906-47B | TA 22    | Unknown         | Unevaluated |
| T-063006-02B | TA 22    | Unknown         | Unevaluated |
| T-071306-01  | TA 22    | Unknown         | Unevaluated |
| T-081406-01  | TA 22    | Unknown         | Unevaluated |
| T-081406-02  | TA 22    | Unknown         | Unevaluated |
| T-081406-03  | TA 22    | Unknown         | Unevaluated |

| Site ID      | Location | Age Affiliation | NRHP Status |
|--------------|----------|-----------------|-------------|
| T-081406-04  | TA 22    | Unknown         | Unevaluated |
| T-081406-05  | TA 22    | Unknown         | Unevaluated |
| T-081506-03  | TA 22    | Unknown         | Unevaluated |
| T-082306-01  | TA 22    | Unknown         | Unevaluated |
| T-082306-02  | TA 22    | Unknown         | Unevaluated |
| T-082306-03  | TA 22    | Unknown         | Unevaluated |
| T-082306-04  | TA 22    | Unknown         | Unevaluated |
| T-082306-05  | TA 22    | Unknown         | Unevaluated |
| T-082411-01  | TA 22    | Unknown         | Unevaluated |
| T-082412-01  | TA 22    | Unknown         | Unevaluated |
| T-092210-02  | TA 22    | Unknown         | Unevaluated |
| T-100606-01  | TA 22    | Unknown         | Unevaluated |
| T-100606-02  | TA 22    | Unknown         | Unevaluated |
| T-102808-02  | TA 22    | Unknown         | Unevaluated |
| T-111912-02  | TA 22    | Unknown         | Unevaluated |
| T-111912-03  | TA 22    | Unknown         | Unevaluated |
| T-111914-01  | TA 22    | Unknown         | Unevaluated |
| T-112012-01  | TA 22    | Unknown         | Unevaluated |
| T-112014-01  | TA 22    | Unknown         | Unevaluated |
| T-112014-02  | TA 22    | Unknown         | Unevaluated |
| T-112112-02  | TA 22    | Unknown         | Unevaluated |
| T-112112-03  | TA 22    | Unknown         | Unevaluated |
| T-112112-04  | TA 22    | Unknown         | Unevaluated |
| T-112912-01  | TA 22    | Unknown         | Unevaluated |
| T-112912-02A | TA 22    | Unknown         | Unevaluated |
| T-112912-02B | TA 22    | Unknown         | Unevaluated |
| T-112912-03  | TA 22    | Unknown         | Unevaluated |
| T-113006-01  | TA 22    | Unknown         | Unevaluated |
| T-121312-01  | TA 22    | Unknown         | Unevaluated |
| TL-041910-01 | TA 22    | Unknown         | Unevaluated |
| TL-042010-01 | TA 22    | Unknown         | Unevaluated |
| TL-042010-02 | TA 22    | Unknown         | Unevaluated |
| TL-042010-03 | TA 22    | Unknown         | Unevaluated |
| TL-042110-01 | TA 22    | Unknown         | Unevaluated |
| TL-042110-02 | TA 22    | Unknown         | Unevaluated |
| TL-042110-03 | TA 22    | Unknown         | Unevaluated |
| TL-042110-04 | TA 22    | Unknown         | Unevaluated |
| TL-042110-05 | TA 22    | Unknown         | Unevaluated |
| TL-042110-06 | TA 22    | Unknown         | Unevaluated |
| TL-042110-07 | TA 22    | Unknown         | Unevaluated |
| TL-042910-01 | TA 22    | Unknown         | Unevaluated |
| TL-042910-02 | TA 22    | Unknown         | Unevaluated |
| TL-042910-03 | TA 22    | Unknown         | Unevaluated |
| TL-042910-04 | TA 22    | Unknown         | Unevaluated |
| TL-042910-05 | TA 22    | Unknown         | Unevaluated |
| TL-042910-06 | TA 22    | Unknown         | Unevaluated |
| TL-042910-07 | TA 22    | Unknown         | Unevaluated |
| 10269        | TA 23    | Prehistoric     | Eligible    |

| Site ID     | Location | Age Affiliation | NRHP Status |
|-------------|----------|-----------------|-------------|
| 10644       | TA 23    | Prehistoric     | Eligible    |
| 10645       | TA 23    | Prehistoric     | Eligible    |
| 10646       | TA 23    | Prehistoric     | Eligible    |
| 10647       | TA 23    | Prehistoric     | Eligible    |
| 10648       | TA 23    | Prehistoric     | Eligible    |
| 10649       | TA 23    | Prehistoric     | Eligible    |
| 10650       | TA 23    | Prehistoric     | Eligible    |
| 10651       | TA 23    | Prehistoric     | Eligible    |
| 10652       | TA 23    | Prehistoric     | Eligible    |
| 10653       | TA 23    | Prehistoric     | Eligible    |
| 10654       | TA 23    | Prehistoric     | Eligible    |
| 10655       | TA 23    | Prehistoric     | Eligible    |
| 10656       | TA 23    | Prehistoric     | Eligible    |
| 10657       | TA 23    | Prehistoric     | Eligible    |
| 10658       | TA 23    | Prehistoric     | Eligible    |
| 10220       | TA 23    | Prehistoric     | Unevaluated |
| 10266       | TA 23    | Prehistoric     | Unevaluated |
| 10267       | TA 23    | Prehistoric     | Unevaluated |
| 10268       | TA 23    | Prehistoric     | Unevaluated |
| 10270       | TA 23    | Prehistoric     | Unevaluated |
| 10271       | TA 23    | Prehistoric     | Unevaluated |
| 10272       | TA 23    | Prehistoric     | Unevaluated |
| 17119       | TA 23    | Prehistoric     | Unevaluated |
| 17120       | TA 23    | Prehistoric     | Unevaluated |
| 17121       | TA 23    | Prehistoric     | Unevaluated |
| 17122       | TA 23    | Prehistoric     | Unevaluated |
| 17123       | TA 23    | Prehistoric     | Unevaluated |
| 17125       | TA 23    | Prehistoric     | Unevaluated |
| 17126       | TA 23    | Prehistoric     | Unevaluated |
| 17140       | TA 23    | Prehistoric     | Unevaluated |
| 17143       | TA 23    | Prehistoric     | Unevaluated |
| 17144       | TA 23    | Prehistoric     | Unevaluated |
| 17145       | TA 23    | Prehistoric     | Unevaluated |
| 17158       | TA 23    | Prehistoric     | Unevaluated |
| 21747       | TA 23    | Prehistoric     | Unevaluated |
| 21748       | TA 23    | Prehistoric     | Unevaluated |
| 21749       | TA 23    | Prehistoric     | Unevaluated |
| T-010705-01 | TA 23    | Prehistoric     | Unevaluated |
| T-020402-04 | TA 23    | Prehistoric     | Unevaluated |
| T-020402-05 | TA 23    | Prehistoric     | Unevaluated |
| T-051502-01 | TA 23    | Prehistoric     | Unevaluated |
| T-051502-02 | TA 23    | Prehistoric     | Unevaluated |
| T-051502-03 | TA 23    | Prehistoric     | Unevaluated |
| T-051504-01 | TA 23    | Prehistoric     | Unevaluated |
| T-082984-01 | TA 23    | Prehistoric     | Unevaluated |
| T-091102-01 | TA 23    | Prehistoric     | Unevaluated |
| T-091102-02 | TA 23    | Prehistoric     | Unevaluated |
| T-091102-03 | TA 23    | Prehistoric     | Unevaluated |

| Site ID     | Location | Age Affiliation       | NRHP Status  |
|-------------|----------|-----------------------|--------------|
| T-122805-01 | TA 23    | Prehistoric           | Unevaluated  |
| 17139       | TA 23    | Prehistoric, Historic | Unevaluated  |
| 23847       | TA 3     | Historic              | Unevaluated  |
| 23854       | TA 3     | Prehistoric           | Unevaluated  |
| 23856       | TA 3     | Prehistoric           | Unevaluated  |
| T-092202-01 | TA 3     | Prehistoric           | Unevaluated  |
| T-092202-02 | TA 3     | Prehistoric           | Unevaluated  |
| T-092202-03 | TA 3     | Prehistoric           | Unevaluated  |
| T-092202-04 | TA 3     | Prehistoric           | Unevaluated  |
| T-092202-05 | TA 3     | Prehistoric           | Unevaluated  |
| T-111402-01 | TA 3     | Prehistoric           | Unevaluated  |
| T-111402-02 | TA 3     | Prehistoric           | Unevaluated  |
| T-111402-05 | TA 3     | Prehistoric           | Unevaluated  |
| T-111402-06 | TA 3     | Prehistoric           | Unevaluated  |
| 23848       | TA 3     | Unknown               | Unevaluated  |
| 23850       | TA 4     | Historic              | Unevaluated  |
| 23852       | TA 4     | Historic              | Unevaluated  |
| 22941       | TA 4     | Prehistoric           | Unevaluated  |
| 21746       | TA 4     | Unknown               | Unevaluated  |
| 23849       | TA 4     | Unknown               | Unevaluated  |
| 23851       | TA 4     | Unknown               | Unevaluated  |
| 23853       | TA 4     | Unknown               | Unevaluated  |
| 5002        | TA 5     | Historic              | Eligible     |
| 14638       | TA 5     | Prehistoric           | Eligible     |
| 19490       | TA 5     | Prehistoric           | Eligible     |
| 21351       | TA 5     | Prehistoric           | Unevaluated  |
| 21744       | TA 5     | Prehistoric           | Unevaluated  |
| 21745       | TA 5     | Prehistoric           | Unevaluated  |
| 23455       | TA 5     | Prehistoric           | Unevaluated  |
| 23456       | TA 5     | Prehistoric           | Unevaluated  |
| 23562       | TA 5     | Prehistoric           | Unevaluated  |
| 23563       | TA 5     | Prehistoric           | Unevaluated  |
| 23565       | TA 5     | Prehistoric           | Unevaluated  |
| 23566       | TA 5     | Prehistoric           | Unevaluated  |
| 23568       | TA 5     | Prehistoric           | Unevaluated  |
| 23569       | TA 5     | Prehistoric           | Unevaluated  |
| 23570       | TA 5     | Prehistoric           | Unevaluated  |
| 23571       | TA 5     | Prehistoric           | Unevaluated  |
| 23572       | TA 5     | Prehistoric           | Unevaluated  |
| 23575       | TA 5     | Prehistoric           | Unevaluated  |
| 26728       | TA 5     | Prehistoric           | Unevaluated  |
| 26729       | TA 5     | Prehistoric           | Unevaluated  |
| T-070104-01 | TA 5     | Prehistoric           | Unevaluated  |
| 5003        | TA 6     | Prehistoric           | Eligible     |
| T-020701-02 | TA 6     | Prehistoric           | Unevaluated  |
| 5001        | TA 6?    | Prehistoric           | Unevaluated  |
| 23457       | TA 7     | Prehistoric           | Eligible     |
| 23462       | TA 7     | Unknown               | Not Eligible |

| Site ID | Location | Age Affiliation | NRHP Status  |
|---------|----------|-----------------|--------------|
| 24326   | TA 7     | Unknown         | Not Eligible |
| 24327   | TA 7     | Unknown         | Not Eligible |
| 24328   | TA 7     | Unknown         | Not Eligible |

## APPENDIX C.2: USAG-Pōhakuloa Historic Facilities with an Active Historic Status Code

### USAG-P Facilities 1901-1967

#### Real Property Planning and Analysis System (RPLANS)

Headquarters Installation Information System (HQIIS) physical\_legal report, 20-December-2016

| SITE NAME           | FACILITY NUMBER | FACILITY BUILT DATE | ACQUISITION DATE | RPA NAME | RPA TYPE DESC | INTEREST TYPE CODE | HISTORIC STATUS CODE |
|---------------------|-----------------|---------------------|------------------|----------|---------------|--------------------|----------------------|
| Kilauea Mil Reserve | 10              | 1-Jul-23            | 1-Jul-23         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 11              | 1-Jul-23            | 1-Jul-23         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 12              | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 14              | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 15              | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 16              | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 17              | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 18              | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 7               | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | A0012           | 1-Jul-24            | 1-Jul-24         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 2               | 1-Jul-25            | 1-Jul-25         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 3               | 1-Jul-25            | 1-Jul-25         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 4               | 1-Jul-25            | 1-Jul-25         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 5               | 1-Jul-25            | 1-Jul-25         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 6               | 1-Jul-25            | 1-Jul-25         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 19              | 1-Jul-26            | 1-Jul-26         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 20              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 25              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 27              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 28              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 29              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 30              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 31              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 32              | 1-Jul-33            | 1-Jul-33         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 9               | 1-Jul-34            | 1-Jul-34         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 41              | 1-Jul-36            | 1-Jul-36         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 89              | 1-Jul-36            | 1-Jul-36         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 36              | 1-Jul-38            | 1-Jul-38         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 38              | 1-Jul-38            | 1-Jul-38         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 8               | 1-Jul-38            | 1-Jul-38         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 26              | 1-Jul-39            | 1-Jul-39         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 42              | 1-Jul-40            | 1-Jul-40         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 43              | 1-Jul-42            | 1-Jul-42         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 40              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 46              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 47              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 48              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 51              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 55              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 63              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 72              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 73              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 74              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 76              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 77              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 67              | 1-Jul-44            | 1-Jul-44         | -        | Building      | FEE                | NREI                 |
| Kilauea Mil Reserve | 22              | 1-Jul-45            | 1-Jul-45         | -        | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve | 24              | 1-Jul-45            | 1-Jul-45         | -        | Building      | FEE                | NREC                 |

| SITE NAME               | FACILITY NUMBER | FACILITY BUILT DATE | ACQUISITION DATE | RPA NAME               | RPA TYPE DESC | INTEREST TYPE CODE | HISTORIC STATUS CODE |
|-------------------------|-----------------|---------------------|------------------|------------------------|---------------|--------------------|----------------------|
| Kilauea Mil Reserve     | 45              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 62              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 64              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 65              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 66              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 86              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 88              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 90              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 91              | 1-Jul-45            | 1-Jul-45         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 21              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 23              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 33              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 34              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 35              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 37              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 39              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 79              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | PRIV               | NREC                 |
| Kilauea Mil Reserve     | 82              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 84              | 1-Jul-46            | 1-Jul-46         | -                      | Structure     | FEE                | NREC                 |
| Kilauea Mil Reserve     | 92              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 83              | 1-Jul-46            | 1-Jul-46         | -                      | Building      | FEE                | NREI                 |
| Kilauea Mil Reserve     | 85              | 1-Jul-47            | 1-Jul-47         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 94              | 1-Jul-47            | 1-Jul-47         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 95              | 1-Jul-47            | 1-Jul-47         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 96              | 1-Jul-47            | 1-Jul-47         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 97              | 1-Jul-47            | 1-Jul-47         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 98              | 1-Jul-47            | 1-Jul-47         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 99              | 1-Jul-47            | 1-Jul-47         | -                      | Building      | FEE                | NREC                 |
| Kilauea Mil Reserve     | 81              | 1-Jul-66            | 1-Jul-66         | -                      | Building      | FEE                | NREC                 |
| Pohakuloa Training Area | 113             | 1-Jul-55            | 1-Jul-55         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 122             | 1-Jul-55            | 1-Jul-55         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 131             | 1-Jul-55            | 1-Jul-55         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 142             | 1-Jul-55            | 1-Jul-55         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 185             | 1-Jul-55            | 1-Jul-55         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 186             | 1-Jul-55            | 1-Jul-55         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 190             | 1-Jul-56            | 1-Jul-56         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 104             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 107             | 1-Jul-57            | 1-Jul-57         | RANGE SUPPORT BUILDING | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 112             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 115             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 116             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 117             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 118             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 119             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 124             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 125             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 126             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 127             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 128             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 135             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 136             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 137             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 138             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 139             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 144             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 145             | 1-Jul-57            | 1-Jul-57         | -                      | Building      | FEE                | ELPA                 |



| SITE NAME               | FACILITY NUMBER | FACILITY BUILT DATE | ACQUISITION DATE | RPA NAME | RPA TYPE DESC | INTEREST TYPE CODE | HISTORIC STATUS CODE |
|-------------------------|-----------------|---------------------|------------------|----------|---------------|--------------------|----------------------|
| Pohakuloa Training Area | 146             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 147             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 148             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 181             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 182             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 187             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 197             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 198             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 199             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 200             | 1-Jul-57            | 1-Jul-57         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 0113A           | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 0131A           | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 196             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 221             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 222             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 223             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 224             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 231             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 232             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 233             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 234             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 235             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 236             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 241             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 242             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 243             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 244             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 245             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 246             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 251             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 252             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 254             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 255             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 256             | 1-Jul-58            | 1-Jul-58         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 225             | 1-Jul-59            | 1-Jul-59         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 220             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 270             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 271             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 272             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 273             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 274             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 275             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 276             | 1-Jul-61            | 1-Jul-61         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 195             | 1-Jul-62            | 1-Jul-62         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 280             | 1-Jul-62            | 1-Jul-62         | -        | Building      | FEE                | ELPA                 |
| Pohakuloa Training Area | 284             | 1-Jul-64            | 1-Jul-64         | -        | Building      | FEE                | ELPA                 |

## APPENDIX C.3: USAG- Pōhakuloa Historic Facilities in Need of Evaluation (NEV)

### USAG-P Facilities 1901-1967

#### Real Property Planning and Analysis System (RPLANS)

Headquarters Installation Information System (HQIIS) physical\_legal report, 20-December-2016

| SITE NAME               | FACILITY NUMBER | FACILITY BUILT DATE | ACQUISITION DATE | RPA NAME                | RPA TYPE DESC | INTEREST TYPE CODE | HISTORIC STATUS CODE |
|-------------------------|-----------------|---------------------|------------------|-------------------------|---------------|--------------------|----------------------|
| Kilauea Mil Reserve     | 201             | 1-Jul-36            | 1-Jul-36         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 202             | 1-Jul-36            | 1-Jul-36         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 219             | 1-Jul-36            | 1-Jul-36         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 226             | 1-Jul-36            | 1-Jul-36         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 203             | 1-Jul-37            | 1-Jul-37         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 104             | 1-Jul-38            | 1-Jul-38         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 106             | 1-Jul-38            | 1-Jul-38         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 211             | 1-Jul-38            | 1-Jul-38         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | A0036           | 1-Jul-38            | 1-Jul-38         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 85210           | 1-Jul-40            | 1-Jul-40         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 87210           | 1-Jul-40            | 1-Jul-40         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | A0040           | 1-Jul-40            | 1-Jul-40         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 224             | 1-Jul-41            | 1-Jul-41         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 85220           | 1-Jul-43            | 1-Jul-43         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 45210           | 1-Jul-44            | 1-Jul-44         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 68              | 1-Jul-44            | 1-Jul-44         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 70              | 1-Jul-44            | 1-Jul-44         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 71              | 1-Jul-44            | 1-Jul-44         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 78              | 1-Jul-45            | 1-Jul-45         | -                       | Building      | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 89240           | 1-Jul-45            | 1-Jul-45         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 225             | 1-Jul-46            | 1-Jul-46         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | A0085           | 1-Jul-46            | 1-Jul-46         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 100             | 1-Jul-47            | 1-Jul-47         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 107             | 1-Jul-47            | 1-Jul-47         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 80              | 1-Jul-47            | 1-Jul-47         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 81230           | 1-Jul-47            | 1-Jul-47         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | A0080           | 1-Jul-53            | 1-Jul-53         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 81260           | 1-Jul-57            | 1-Jul-57         | -                       | Structure     | FEE                | NEV                  |
| Kilauea Mil Reserve     | 93              | 1-Jul-57            | 1-Jul-57         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 59              | 1-Jul-62            | 1-Jul-62         | -                       | Building      | FEE                | NEV                  |
| Kilauea Mil Reserve     | 217             | 1-Jul-65            | 1-Jul-65         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | 218             | 1-Jul-65            | 1-Jul-65         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | A0211           | 1-Jul-65            | 1-Jul-65         | -                       | Structure     | PRIV               | NEV                  |
| Kilauea Mil Reserve     | B0080           | 1-Jul-66            | 1-Jul-66         | -                       | Building      | PRIV               | NEV                  |
| Pohakuloa Training Area | LFIL1           | 1-Jan-55            | 1-Jan-55         | -                       | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 1               | 1-Jul-55            | 1-Jul-55         | ACCESS CONTROL FACILITY | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 109             | 1-Jul-55            | 1-Jul-55         | -                       | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 110             | 1-Jul-55            | 1-Jul-55         | -                       | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 184             | 1-Jul-55            | 1-Jul-55         | -                       | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 20              | 1-Jul-55            | 1-Jul-55         | -                       | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 400             | 1-Jul-55            | 1-Jul-55         | -                       | Structure     | PRIV               | NEV                  |

| SITE NAME               | FACILITY NUMBER | FACILITY BUILT DATE | ACQUISITION DATE | RPA NAME    | RPA TYPE DESC | INTEREST TYPE CODE | HISTORIC STATUS CODE |
|-------------------------|-----------------|---------------------|------------------|-------------|---------------|--------------------|----------------------|
| Pohakuloa Training Area | 401             | 1-Jul-55            | 1-Jul-55         | -           | Structure     | PRIV               | NEV                  |
| Pohakuloa Training Area | 402             | 1-Jul-55            | 1-Jul-55         | -           | Structure     | PRIV               | NEV                  |
| Pohakuloa Training Area | 75              | 1-Jul-55            | 1-Jul-55         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 91              | 1-Jul-55            | 1-Jul-55         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 93              | 1-Jul-55            | 1-Jul-55         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 101             | 1-Jul-56            | 1-Jul-56         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 177             | 1-Jul-56            | 1-Jul-56         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 180             | 1-Jul-56            | 1-Jul-56         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 83              | 1-Jul-56            | 1-Jul-56         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 84              | 1-Jul-56            | 1-Jul-56         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 85              | 1-Jul-56            | 1-Jul-56         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 90              | 1-Jul-56            | 1-Jul-56         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 0179A           | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 106             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 108             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 120             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 129             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 140             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 149             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 17              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 179             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 188             | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 19              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 30              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 31              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 32              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 33              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 34              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 35              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 36              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 37              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 81260           | 1-Jul-57            | 1-Jul-57         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 87              | 1-Jul-57            | 1-Jul-57         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 89240           | 1-Jul-57            | 1-Jul-57         | -           | Structure     | PRIV               | NEV                  |
| Pohakuloa Training Area | 11110           | 1-Jul-58            | 1-Jul-58         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 1132A           | 1-Jul-58            | 1-Jul-58         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 1132B           | 1-Jul-58            | 1-Jul-58         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 1132C           | 1-Jul-58            | 1-Jul-58         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 161             | 1-Jul-58            | 1-Jul-58         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 253             | 1-Jul-58            | 1-Jul-58         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 302             | 1-Jul-58            | 1-Jul-58         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 82              | 1-Jul-58            | 1-Jul-58         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 11212           | 1-Jul-59            | 1-Jul-59         | -           | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 237             | 1-Jul-61            | 1-Jul-61         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 250             | 1-Jul-61            | 1-Jul-61         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 285             | 1-Jul-61            | 1-Jul-61         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 286             | 1-Jul-61            | 1-Jul-61         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 103             | 1-Jul-62            | 1-Jul-62         | -           | Building      | FEE                | NEV                  |
| Pohakuloa Training Area | 0004Z           | 1-Jul-64            | 7-Dec-11         | GREASE RACK | Structure     | FEE                | NEV                  |
| Pohakuloa Training Area | 105             | 1-Jul-64            | 1-Jul-64         | -           | Structure     | FEE                | NEV                  |

| SITE NAME               | FACILITY<br>NUMBER | FACILITY<br>BUILT<br>DATE | ACQUISITION<br>DATE | RPA<br>NAME | RPA TYPE<br>DESC | INTEREST<br>TYPE<br>CODE | HISTORIC<br>STATUS<br>CODE |
|-------------------------|--------------------|---------------------------|---------------------|-------------|------------------|--------------------------|----------------------------|
| Pohakuloa Training Area | 141                | 1-Jul-64                  | 1-Jul-64            | -           | Building         | FEE                      | NEV                        |
| Pohakuloa Training Area | 283                | 1-Jul-64                  | 1-Jul-64            | -           | Building         | FEE                      | NEV                        |
| Pohakuloa Training Area | 350                | 1-Jul-64                  | 1-Jul-64            | -           | Building         | FEE                      | NEV                        |
| Pohakuloa Training Area | 38                 | 1-Jul-64                  | 1-Jul-64            | -           | Building         | FEE                      | NEV                        |
| Pohakuloa Training Area | 41                 | 1-Jul-64                  | 1-Jul-64            | -           | Building         | FEE                      | NEV                        |
| Pohakuloa Training Area | 92                 | 1-Jul-64                  | 1-Jul-64            | -           | Building         | FEE                      | NEV                        |
| Pohakuloa Training Area | 351                | 1-Jul-65                  | 1-Jul-65            | -           | Building         | FEE                      | NEV                        |