

3.11 CULTURAL RESOURCES

Section 3.11 provides a summary of the general condition and character of cultural resources on Tinian and Pagan. The region of influence for cultural resources, which is equivalent in this case to the area of potential effect under the National Historic Preservation Act, includes the land and waters of Tinian and Pagan (out to a distance of 1,000 feet [300 meters]; the distance is based on the footprint of amphibious training under the proposed action), because of ground disturbance caused by construction, training activities, and maintenance operations associated with the no-action alternative and proposed action alternatives that have the potential to impact cultural resources. Indirect impacts to cultural resources may result from access restrictions to certain types of resources, inadvertent disturbance due to an increase in population, or soil erosion from land-clearing activities.

Currently, Department of Defense actions within this area are covered by two Programmatic Agreements—one for military training activities relating to the Mariana Islands Range Complex EIS/OEIS (DoN 2010a) and one for the Guam and CNMI Military Relocation EIS (DoN 2010b) to establish four ranges on Tinian.

3.11.1 Definition

Cultural resources are defined as the collective evidence of past human activities and accomplishments, and typically include archaeological resources, architectural properties, and traditional cultural properties. These terms are defined below.

- **Archaeological Resources:** Those areas or locations (sites) where human activity measurably altered the earth or left deposits of physical remains, such as *latte* or pottery.
- **Architectural or Built Properties:** Those standing buildings, dams, canals, bridges, and other structures which have historic, engineering, or aesthetic significance.
- **Traditional Cultural Properties:** A specific type of historic property that is often classified as a site. They usually consist of landscapes with a defined overlay of traditional cultural significance derived from associations with cultural practices and beliefs of a living community that are rooted in its history, and are important in maintaining the continuing cultural identity of the community. Traditional cultural properties may include sites carrying religious importance or have ceremonial significance.

Under the National Historic Preservation Act, a historic property is a particular type of cultural resource defined as a district, site, building, structure, or object that meets the specific criteria of the National Register of Historic Places. Under NEPA, impacts to historic properties and other resources of cultural importance are evaluated. Examples of other resource types include: cultural practices, cemeteries, memorials, sacred sites, medicinal plants, or other resources that hold special traditional, religious, or cultural significance.

3.11.2 Regulatory Framework

A brief listing of the regulatory framework governing cultural resources follows and is described in greater detail in Appendix N, *Cultural Resources Technical Memo*. A complete listing of applicable regulations is provided in Appendix E, *Applicable Federal and Local Regulations*.

- Abandoned Shipwreck Act, 43 U.S. Code § 2101-2106
- Historic Sites Act, 16 U.S. Code § 461-467
- National Historic Preservation Act, 54 U.S. Code 300101 et seq.
- Sunken Military Craft Act of 2004, 10 U.S. Code 113-118
- Determinations of Eligibility for Inclusion in the National Register of Historic Places (36 CFR 63)
- National Historic Landmarks Program (36 CFR 65)
- Curation of Federally-Owned and Administered Archeological Collections (36 CFR 79)
- Protection of Historic Properties (36 CFR 800)
- Preservation of American Antiquities (43 CFR 3)
- Executive Order 11593, Protection and Enhancement of the Cultural Environment
- Executive Order 13287, Preserve America

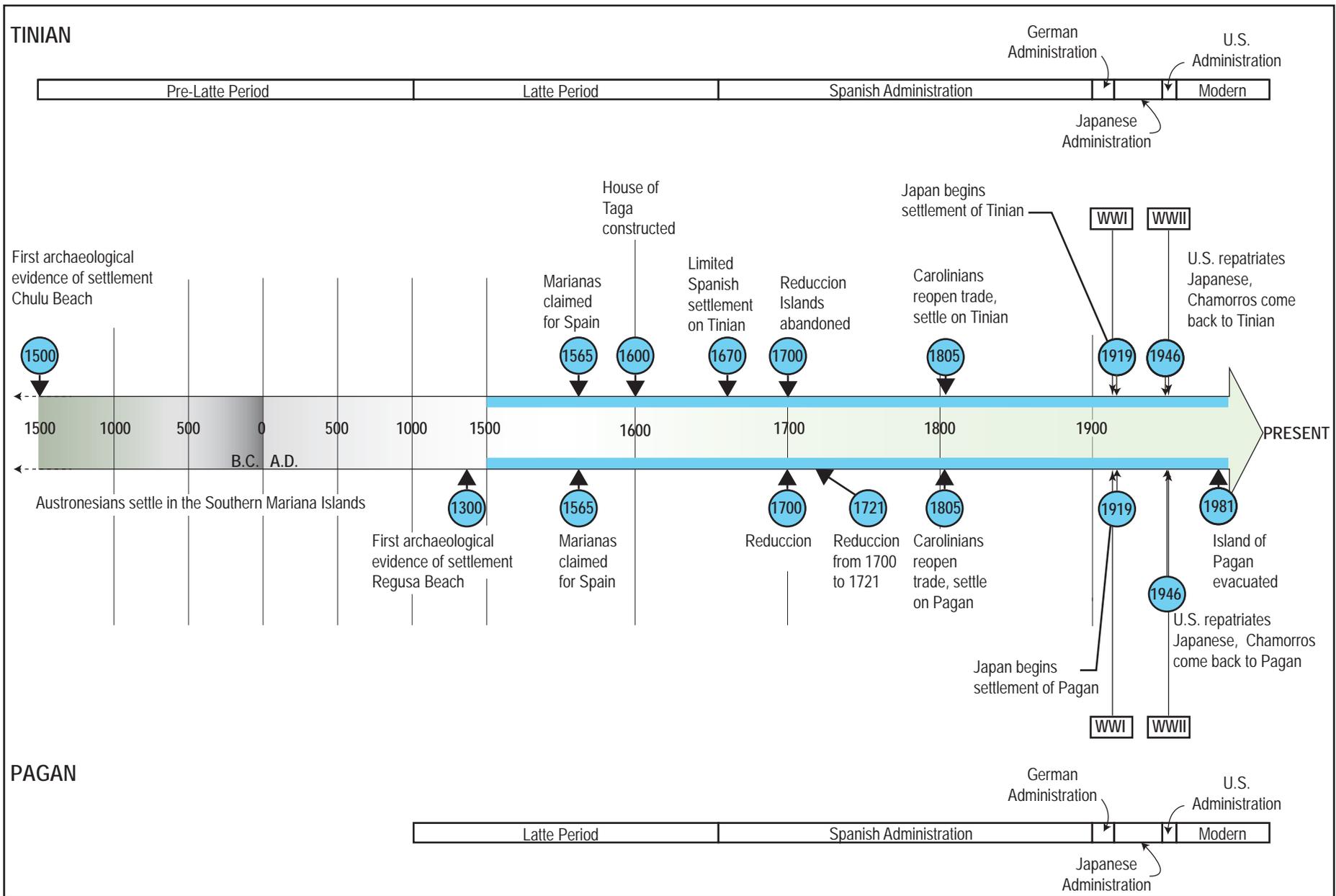
3.11.3 Methodology

The process for identifying and evaluating historic properties is established under the National Historic Preservation Act and other laws and regulations. National Historic Preservation Act Section 106 regulations direct federal agencies to make reasonable and good faith efforts to identify historic properties (36 CFR § 800.4(b)(1)) in regards to a proposed action. Agencies are to take into account past planning, research and studies; the magnitude and nature of the action and the degree of federal involvement; the nature and extent of potential effects on historic properties; and the likely nature and location of historic properties within areas that may be affected.

For this EIS/OEIS, the DoN used a combination of methods (i.e., archival research, ground surveys, archaeological and architectural surveys, ethnography and oral histories) to identify historic properties and other cultural resources described in [Section 3.11.1, Definition](#), and analyze potential impacts for each alternative. The DoN reviewed previous studies to identify existing information on historic properties and resources of cultural importance within the area of potential effect and identified the locations that would require additional study. Additional surveys and archival and oral history studies were conducted as part of this EIS/OEIS.

3.11.4 Tinian

The Tinian region of influence includes the Military Lease Area and adjacent submerged lands, and improvement areas north of Tinian International Airport, at the Port of Tinian, and access roads from the Port of Tinian to the Military Lease Area. A summary of the prehistory and history of Tinian is included in Appendix N, *Cultural Resources Technical Memo*. A general timeline of major historic events is included in [Figure 3.11-1](#).



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Figure 3.11-1 Major Historic Events for Tinian and Pagan

3.11.4.1 Previous Cultural Resource Studies and Recorded Resources

3.11.4.1.1 Military Lease Area

Our analysis identified 52 cultural resource investigations in the Military Lease Area, north of Tinian International Airport, and the Port of Tinian improvements area. These include archaeological assessments, Phase I surveys, Phase II testing, data recovery excavations, architectural surveys, and traditional cultural property studies, as well as a cultural landscape study. Testing and/or intensive excavation have been part of nine major studies. Extensive research of archives in the U.S., Japan, and Micronesia, including references to collections of historical maps and photographs, supplemented the intensive excavation. Appendix N, *Cultural Resources Technical Memo*, provides specific detail on these studies and the resources recorded.

Approximately 98% of the Military Lease Area has been surveyed for archaeological resources with only a portion of the property leased by the International Broadcasting Bureau on the western side of the island, yet to be surveyed. Previous studies identified 356 archaeological sites; of these, 2 are listed in the National Register of Historic Places (North Field National Historic Landmark and the Unai Dankulo petroglyphs) and 319 are considered eligible for listing in the National Register of Historic Places. These include Pre-Contact *latte* sites; most of the Japanese Administration sites such as shrines, defensive caves, farmsteads, and internment camps; World War II sites; and petroglyphs. There are no intact buildings within the Military Lease Area that retain architectural integrity. There are only remnant structures associated with pre-war Japanese farmsteads and World War II Japanese and American military structures. As such, these structures are considered archaeological resources.

North Field, the landing beaches, and Ushi Point were collectively designated a National Historic Landmark for their role in World War II. The landmark comprises structures and structural remains, four runways and sites used to assemble and load the atomic bombs that were dropped on Hiroshima and Nagasaki ([Figure 3.11-2](#)). As defined by the National Register nomination form (Thompson 1984), the National Historic Landmark boundaries include 26 recorded archaeological sites; however only a few of the features within the National Historic Landmark are considered to be contributing features to the Landmark ([Table 3.11-1](#)). The entire National Historic Landmark is within the area of potential effects and impacts to any contributing features of the National Historic Landmark would be considered an impact the integrity of the National Historic Landmark over all.

Table 3.11-1. Contributing Features to the North Field National Historic Landmark

<i>Contributing Feature</i>	<i>Site Number</i>
Landing Beach White 1	TN-1-0074 (landing beach only)
Landing Beach White 2 and Japanese Pillbox	TN-5/6-0016
North Field Runways, Taxiways, and Service Aprons	TN-6-0364 and TN-6-0402
Air Operations Building	TN-6-0364
Two Air Raid Shelters	
Japanese Service Apron	
Air Administration Building	

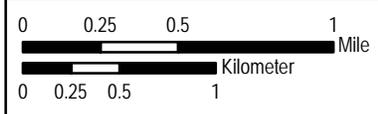
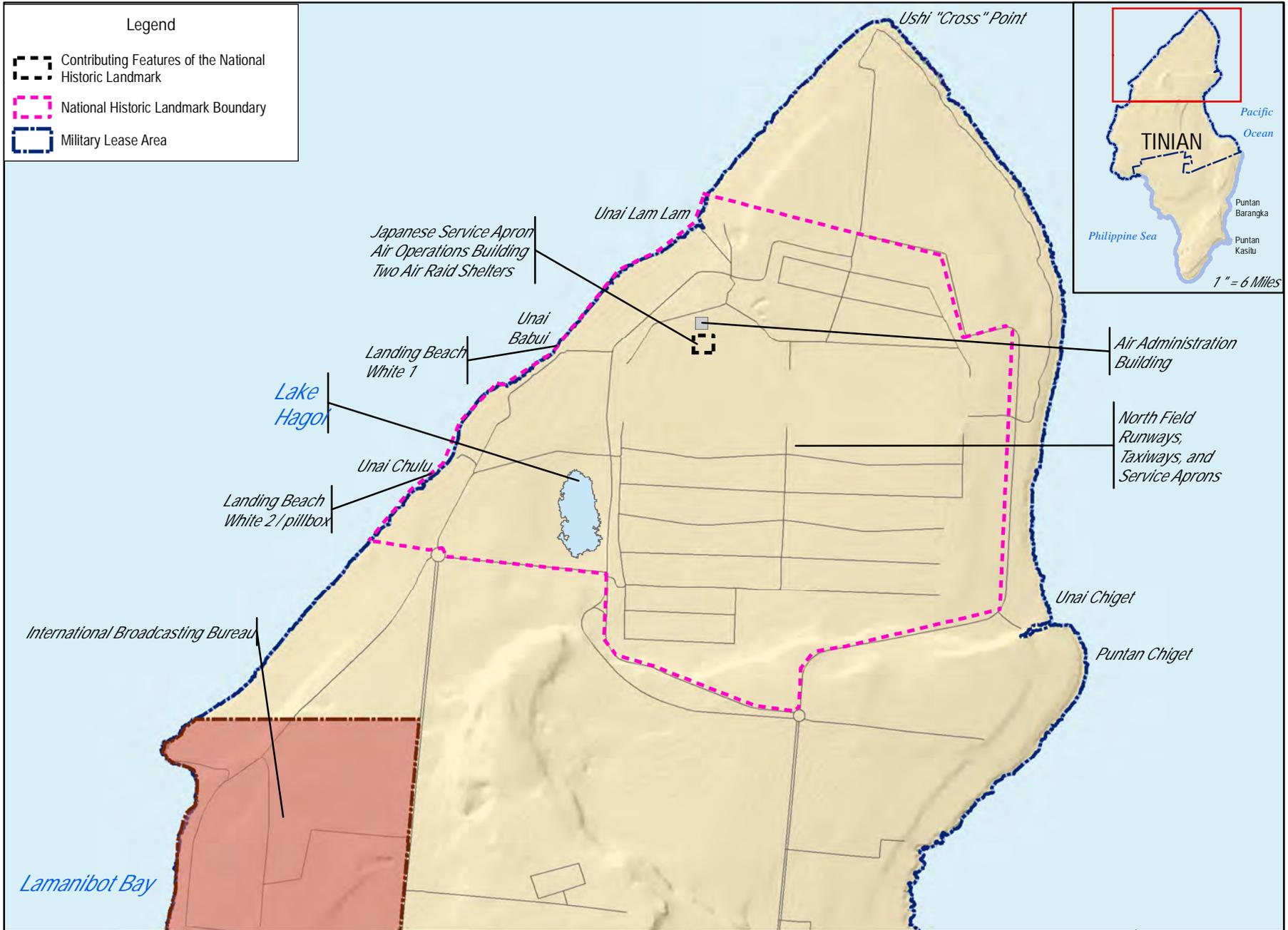


Figure 3.11-2
North Field National Historic Landmark



Potential traditional cultural properties within the Military Lease Area include three beaches: Unai Chulu, Unai Dankulo, and Unai Masalok. Based on discussions from Tinian residents, additional resources such as medicinal plants are collected by cultural practitioners from the native limestone forests within the Military Lease Area (DoN 2014a). Memorials such as the Hinode American Memorial, the Mount Lasso Shrine, the 86th Street Shrine, the NKK Shrine, and the Ushi memorial are also found in the Military Lease Area.

3.11.4.1.2 North of Tinian International Airport

All of the area north of the Tinian International Airport runways has been surveyed for archaeological resources. Within the Tinian International Airport area, two archaeological sites have been recorded that are considered eligible for listing in the National Register of Historic Places. These include one farm site from the Japanese Administration era and one World War II American military site (West Field) (Dixon and Welch 2002). The area immediately north of Tinian International Airport runways was originally constructed by the Japanese during World War II. The U.S. military expanded the airfield to provide a base to support B-29 operations against Japan in 1945.

3.11.4.1.3 Port of Tinian

Seventeen studies have been conducted at the Port of Tinian and adjacent areas (see Figure 1, Appendix N, *Cultural Resources Technical Memo*). In 2008, an architectural survey and archival study for the entire Port of Tinian, which included all structures along the wharf or quay, was conducted (Thursby 2010). Some of the port features, including the breakwater, although lacking in architectural integrity, are considered eligible for listing in the National Register of Historic Places as an archaeological site.

In 2014 and 2015, archaeological surveys of the area around the port and adjacent to 6th and 8th Avenues were completed (DoN 2014a, DoN 2015). Two sites were recorded in the proposed port improvement area and consisted of Japanese tank debris from World War II, World War II-era American Administration concrete pads, and a prehistoric pottery scatter. Because the sites are so deteriorated, they are not eligible for listing in the National Register of Historic Places. Thirteen sites were identified along the proposed road corridors from the Port of Tinian and the Military Lease Area. These include Pre-Contact artifact scatters, concrete foundations, railroad remnants, and World War II defenses. Eight of the sites are eligible for listing in the National Register of Historic Places and five sites are not eligible.

3.11.5 Pagan

The Pagan region of influence includes the island and adjacent submerged lands. This broad area was identified because proposed military training activities could impact cultural resources described in [Section 3.11.1, Definition](#), across the island and along the shoreline. A summary of the prehistory and history of Pagan is included in Appendix N, *Cultural Resources Technical Memo*. A general timeline of major historic events is included in [Figure 3.11-1](#).

3.11.5.1 Previous Cultural Resource Studies and Recorded Resources

Eight cultural resource investigations have been conducted on Pagan; these include a historical overview, intensive and reconnaissance level surveys, limited archaeological excavations, and traditional cultural property studies (see Figure 2 in Appendix N, *Cultural Resources Technical Memo*). Extensive research of archives in the U.S., Japan, and Micronesia, including reviews of collections of historical

maps and photographs, supplemented the fieldwork completed for this EIS/OEIS. Appendix N, *Cultural Resources Technical Memo*, Section 2.2.2, provides specific detail on these studies and the resources recorded.

Approximately 60% of the island is covered in lava or has topography with slopes greater than 30%, which are unlikely to contain historic properties. Of the areas with less than 30% slope, approximately 33% of Pagan has been surveyed for archaeological resources. However, many of these areas are in the central portion of the island and are not located near coastlines where most sites tend to be found. Unsurveyed areas with the potential to contain historic properties occur primarily in the southern portion of Pagan. To provide information on unsurveyed areas, archaeological surveys were supplemented by aerial inspections and oral history interviews with former residents, which included additional information on the presence of Pre-Contact villages and other resources of cultural importance in the area (Athens 2009; DoN 2014b). A total of 181 sites have been identified through archaeological surveys for Pagan (Athens 2009; Higelmire and DeFant 2013) including a survey conducted in support of this EIS/OEIS (Athens 2009; Higelmire and DeFant 2013; DoN 2014b). Of the 181 sites, 110 were evaluated and recommended as eligible to the National Register of Historic Places and 71 were recommended not eligible. Most of the sites are located in the relatively flat areas in central Pagan, south of the Mount Pagan caldera. Sites with *latte* features tend to be concentrated on low terraces above beaches. Sites on south Pagan are found along the edges of the caldera, in the limited pockets of relatively level areas. Additionally, Japanese military sites are found in cliff sides and on top of high points overlooking beaches.

Potential traditional cultural properties include traditional fishing areas and traditional healing locations, as well as South Beach (Regusa), Red Beach (Shomshon), Paliat, Pialama, Apansanmena, and a mortar/medicine stone.

Resources of cultural importance include a variety of medicinal plants, including *fofgo* (morning glory vine), *gàso'so'* (type of bush), *puntan talisai* (tips of *Terminalia catappa*), *galak* (*Asplenium nidus*, a fern), *niyok* (coconut), *Flores Mayu* (a flower) and *ahgao* (*Premna obtusifolia*, a tree). Gathering locations for these plants are widely dispersed across the island, and occur in upland settings and along clifflines adjacent to the shore. Beaches and near-shore reefs used as traditional fishing areas occur along the coast. There are also named locations for the gathering of resources such as *gaddo'* (wild yam), *gapgap* (arrowroot), *sunì* (taro), *pugua* (betel nut), *dagu* (yams), and *kahet* (oranges). These are dispersed resource patches that tend to cluster along the southwestern and eastern coasts of the island. Shomshon Bay is used for mortuary practice. The gathering of betel nuts as a cultural practice occurs in certain locations along the steep slopes on the isthmus and is associated with marriage rituals.