
4.11 CULTURAL RESOURCES

4.11.1 Impact Methodology

The methods for assessing potential impacts on cultural resources include identifying significant cultural resources in the areas of potential effect (APEs) under the Proposed Action to determine potential direct and indirect impacts on these resources.

To identify cultural resources in the project areas, historic and current maps and aerial photographs, cultural resources reports, and archival records were reviewed. In addition, federal, state, and local inventories of historic places, including the NRHP, were reviewed for information related to prehistoric and historic resources within the project areas. Project areas were surveyed to confirm presence or absence of previously recorded archaeological resources as well as to identify previously unrecorded cultural resources. Native Hawaiian groups were consulted in an attempt to identify and locate ATIs in the project areas.

4.11.2 Factors Considered for Impact Analysis

Factors determining significance of impacts on cultural resources are derived from federal laws and regulations regarding cultural resources protection.

Section 106 of the NHPA requires federal agencies to consider the effects of their actions on properties listed on or eligible for listing on the NRHP. Eligible properties would include properties significant for their importance to Native Hawaiian groups. Section 106 and its implementing regulations state that an undertaking has an effect on a historic property (i.e., NRHP-eligible resource) when that undertaking may alter those characteristics of the property that qualify it for inclusion on the NRHP. An undertaking is considered to have an adverse effect on a historic property when it diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects include, but are not limited to, the following:

- Physical destruction, damage, or alteration of all or part of the property;
- Isolation of the property or alteration of the character of the property's setting when that character contributes to the property's qualifications for the NRHP;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property, or changes that may alter its setting;
- Neglect of a property, resulting in its deterioration or destruction; and
- Transfer, lease, or sale of a property without adequate provisions to protect its historic integrity.

Native Hawaiian sites, including sacred sites, burials, and cultural items, whether or not they are considered eligible for the NRHP, may also be protected under AIRFA, ARPA, or NAGPRA. Factors considered in determining whether an alternative would have a significant impact on cultural resources include the extent or degree to which its implementation would result in:

- An adverse effect on a historic property or TCP as defined under Section 106 of the NHPA; or
- A violation of the provisions of AIRFA, ARPA or NAGPRA.

It should be noted that an adverse effect on an historic property as defined by NHPA is not necessarily a significant impact under NEPA. While mitigation under NHPA does not necessarily negate the adverse nature of an effect, mitigation under NEPA can reduce the significance of an impact. NHPA and NEPA compliance are separate and parallel processes, and the standards and thresholds of the two acts are not precisely the same.

It should also be noted that some mitigation measures for other resource areas, such as cultivating land to revegetate a plant species, might involve actions that could create adverse effects on cultural resources. Prior to implementation, these actions would also undergo Section 106 review following federal guidelines.

In addition to these factors, public concerns expressed during the scoping process were also considered in the impact analysis. These concerns included access to traditional and religious sites for ceremonial purposes, access for hunting and gathering, protection and preservation of archaeological and traditional sites, interpretation of significance based on Native Hawaiian tradition and the knowledge of elders of the community, community involvement in managing cultural resources on Army land, and compliance with federal and state laws and regulations concerning cultural resources protection.

4.11.3 Summary of Impacts

Table 4-11 lists potential cultural resource impacts associated with the Proposed Action, Reduced Land Acquisition, and No Action at the relevant installations, based on identified cultural resources. General descriptions of identified impacts are provided.

Specifically for SBCT, the Army has complied with its responsibilities under the NHPA by executing a PA with the SHPO and the ACHP and through consultation with the OHA, the NPS, the ROOK, the OCHCC, Hui Malama I Na Kupuna 'O Hawai'i Nei, the OIBC, the HIBC, the HHF, and Native Hawaiian organizations, families, and individuals that attach traditional religious and cultural importance to cultural sites within the various project areas. The January 2004 PA for the SBCT project does not override any rights Native Hawaiians and Native Hawaiian organizations have under federal law, as described in 36 CFR 800.2(c)(ii)(B). Appendix J contains a copy of the PA.

Proposed Action (Preferred Alternative)

Significant Impacts

There would significant impacts on cultural resources and ATIs under the Proposed Action. Mitigation measures have been developed to lessen impacts to these resources.

**Table 4-11
Summary of Potential Cultural Resource Impacts**

Impact Issues	SBMR			DMR			KTA/KLOA			PTA			Project-wide Impacts		
	PA	RLA	NA	PA	RLA	NA	PA	RLA	NA	PA	RLA	NA	PA	RLA	NA
Impacts on historic buildings	⊙	⊙	○	○	○	○	⊗/○	⊗/○	○/○	⊗	⊗	○	⊗	⊗	○
Impacts on archaeological resources from range and facility construction	⊗	⊗	○	○	○	○	⊗/○	⊗/○	○/○	⊗	⊗	○	⊗	⊗	○
Impacts on archaeological resources from training activities	⊗	⊗	⊙	⊗	⊗	⊙	⊙/○	⊙/○	⊙/○	⊗	⊗	○	⊗	⊗	⊙
Impacts on archaeological sites from construction of FTI	⊙	⊙	○	⊙	⊙	○	○/○	○/○	○/○	⊙	⊙	○	⊙	⊙	○
Impacts on ATIs	⊗	⊗	○	⊗	⊗	○	⊙/○	⊙/○	○/○	⊗	⊗	○	⊗	⊗	○
Impacts from installation information infrastructure architecture construction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	⊙	⊙	○	⊙	⊙	○
Impacts on archaeological sites from road or trail construction	⊙	⊙	○	⊗	⊗	○	N/A	N/A	N/A	⊗	⊗	○	⊗	⊗	○
Impacts on archaeological sites from road use	○	○	N/A	⊙	⊙	○	⊙/⊙	⊙/⊙	⊙/⊙	⊗	⊗	○	⊗	⊗	○

This table summarizes project-wide impacts. For installation-specific impacts see Chapters 5 – 8. In cases when there would be both beneficial and adverse impacts, both are shown on this table. Mitigation measures would only apply to adverse impacts.

LEGEND:

- ⊗ = Significant
- ⊙ = Significant but mitigable to less than significant
- ⊙ = Less than significant
- = No impact
- + = Beneficial impact
- N/A = Not applicable
- PA = Proposed Action
- RLA = Reduced Land Acquisition
- NA = No Action

Significant Impacts

Impact 1: Impacts on historic buildings. Potential significant impacts on historic buildings would occur at KTA and PTA. Constructing the CACTF could have significant impacts on historic buildings at KTA. Among the properties to that may be adversely affected by the Proposed Action are the Nike Missile Site and other buildings that may be eligible for listing on the NRHP as Cold War-era properties. Construction of the Range Maintenance Facility at PTA would require demolishing Cold War-era buildings; the BAAF runway scheduled for upgrade may be a Cold War-era historic property as well. The Ke‘āmuku Village Complex within the WPAA may be eligible for listing on the NRHP. The construction of the Range Control Facility at SBMR would require demolishing buildings that are or will soon be 50 years of age and therefore may be eligible for the NRHP. The mitigation measures given below will mitigate the severity of the demolition of historic buildings at PTA but not to less than significant levels.

Regulatory and Administrative Mitigation 1. The Army will consult with the SHPO, ACHP, and interested parties, in accordance with Section 106 of the NHPA, on the Nike Missile Site

complex. The Army will manage and will renovate this complex in compliance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.

The Army will require WPAA buildings to be avoided by using range management protocols, which will require the area around the buildings to be off-limits to military training activities. Ke'āmuku Village will be marked as off-limits for training to protect it from damage.

Impact 2: Impacts on archaeological resources from range and facility construction. The greatest number and intensity of impacts from the Proposed Action would occur at SBMR and PTA. These two areas have the most proposed transformation related ground-disturbing activities and may have the most impacts on archaeological resources.

Facility construction involves ground softening at the PTA BAX, and grubbing vegetation, grading site surfaces, excavating the subsurface, and moving heavy construction equipment at all construction sites. All of these activities may result in direct destruction of or damage to archaeological resources. The mitigation measures given below would mitigate the severity of the impacts but not to less than significant levels.

Regulatory and Administrative Mitigation 2. Before construction, the Army will complete the evaluation of any archaeological sites within areas subject to range and facility construction. Sites determined to be eligible for the NRHP will be flagged for avoidance. The projects will be designed to avoid all eligible and unevaluated archaeological sites, to the full extent practicable. Geographical information system (GIS) and global positioning system (GPS) information will be given to project designers and range control to ensure that any sites are considered in project design. If it is not possible to avoid archaeological sites, the Army will consult in accordance with the PA to determine the appropriate mitigation for the damage to the sites, such as data recovery or other mitigation measures. To address the accidental discovery of archaeological sites, human remains, or cultural items, the Army has developed an inadvertent discovery plan (IDP) as part of the PA.

Impact 3: Impacts on archaeological resources from training activities. Significant impacts on archaeological sites would occur on DMR and PTA. Significant but mitigable to less than significant impacts would occur on SBMR and KTA. Potential impacts from the proposed training activities include damage to sites from subsurface excavations related to troop training (e.g., field fortifications, emplacement of obstacles), increased access by ground troops into the ranges, off-road vehicular movement, possible damage from live fire where resources are in the line of fire, and cleanup of unexploded ordnance within or adjacent to historic properties. Off-road mounted maneuvers with tactical vehicles could result in greater impacts on archaeological sites in all of the training areas. Activities such as revegetation could also cause impacts through ground disturbance. The presence of large numbers of personnel could affect resources through vandalism or accidental damage. Mitigation measures described below will reduce the severity of the impacts on these resources but not to less than significant levels.

Regulatory and Administrative Mitigation 3. The Army will evaluate archaeological sites within training areas related to SBCT. Sites determined to be eligible for the NRHP and sites pending evaluation will be identified and avoided through protective measures, to the full extent practicable. If it is not feasible to avoid identified archaeological sites or newly discovered sites, the Army will consult in accordance with the PA to determine the appropriate mitigation for the damage to the sites, such as data recovery or other mitigation measures. To address the accidental discovery of archaeological sites, human remains, or cultural items, the Army has developed an IDP as part of the PA.

Impact 4: Impacts on Areas of Traditional Importance. Potentially significant impacts on ATIs may occur at SBMR, DMR, and PTA.

Potential impacts related to construction of training facilities could include destroying or damaging ATIs, including shrines, archaeological sites, burials, or elements of Native Hawaiian cultural landscapes. Purchasing the SRAA at SBMR and the WPAA at PTA, and then using them for military training, could limit Native Hawaiian access to and use of sites on these parcels for traditional or religious purposes. Native Hawaiians consider range and training activities inappropriate and disrespectful uses of the land that disturb and change the character and feeling of spiritual places.

Construction of FTI antennas at SBMR, including on Mount Ka'ala, and at PTA may result in visual intrusion on cultural landscapes. Because some sites would require construction, they could have an adverse effect on the nature of the cultural landscape.

Activities relating to the construction of Dillingham Trail from DMR to SBMR could also result in significant impacts on such cultural properties; however, identified mitigations, including identification and avoidance, may reduce the severity of the impacts, but not to less than significant levels.

Regulatory and Administrative Mitigation 4. Facility construction or training area uses will be designed to avoid identified traditional places and limit visual impacts on TCPs by site location, design, and orientation, where feasible.

If avoiding identified TCPs or ATIs is not feasible because of interference with the military mission or risk to public safety, the Army will consult with the SHPO and Native Hawaiians, in accordance with the PA, to identify impacts and develop appropriate mitigation measures. Mitigation for impacts on the cultural landscape could include consulting with Native Hawaiians and using a cultural monitor during construction.

The Army will continue to provide Native Hawaiians with access to traditional religious and cultural properties, in accordance with AIRFA and Executive Order 13007, on a case-by-case basis. This access program will be expanded to include new land acquisitions.

The Army previously identified Native Hawaiian burial sites in the SBCT ROI. The Army completed notification and consultation procedures for these burial sites, in accordance with NAGPRA, and left these human remains in place. To address any impacts on any burial sites

or an inadvertent discovery of Native Hawaiian human remains or funerary objects, the Army will abide by all notification and consultation requirements outlined in Section 3 of NAGPRA.

Impact 5: Impacts on archaeological sites from road or trail construction. Construction of PTA Trail and the proposed trails through WPAA would result in a potentially significant impact on archaeological resources. Trail construction would involve vegetation removal and grading soil, as well as the regular use of heavy equipment. Some trail or road construction at WPAA is projected to go through areas with a high potential for archaeological resources. Cultural resources in the trail corridor and in construction staging areas may be adversely affected during construction of the trail. The PTA Trail route, as established, avoids all archaeological and historic sites in the Kawaihae area, but any alteration in the alignment could result in impacts on historic properties. Activities at WPAA could result in direct destruction or direct or indirect damage to archaeological resources by contributing to soil erosion. Additionally, construction activities could expose or disturb previously undiscovered cultural resources.

Construction of Dillingham Trail would involve vegetation removal and soil grading, as well as the regular use of heavy equipment. Cultural resources in the trail corridor and in construction staging areas could be adversely affected during construction. GIS and GPS information is available for all sites in the Dillingham Trail construction corridor. The project designers will use this information to avoid these sites and thereby mitigate impacts to less than significant levels.

Regulatory and Administrative Mitigation 5. In accordance with the PA, the Army will identify cultural properties, evaluate cultural properties for NRHP eligibility, and implement avoidance strategies to the full extent practicable. GIS and GPS information will be provided to project designers to ensure that sites are considered in the design and construction of all the proposed military vehicle trails and training roads on WPAA. If it is not possible to avoid archaeological sites, the Army will consult, in accordance with the PA, to determine the appropriate mitigation for the damage to the sites, such as data recovery or other mitigation measures. To address the accidental discovery of archaeological sites, human remains, or cultural items, the Army has developed an IDP as part of the PA.

Significant Impacts Mitigable to Less than Significant

Impact 6: Impacts on archaeological resources from road use. Impacts on sites along PTA Trail from military use of the trail could include erosion and possible vandalism or human access. These impacts are likely to be less than significant and will be mitigated by installation cultural resources personnel regularly monitoring them. Road use within WPAA poses a greater risk to resources recorded within the proposed new training area. The large number of gravel roads proposed would create additional impacts on sites within the WPAA, including erosion and possible vandalism or human access. The mitigation measures given below will mitigate the severity of the impacts to less than significant levels.

Regulatory and Administrative Mitigation 6. Eligible and unevaluated sites will be flagged and mapped on a range control GPS map. Installation cultural resources staff will monitor the sites regularly. Participants in training activities on the ranges will be ordered to avoid

identified sites. To address the accidental discovery of archaeological sites, human remains, or cultural items, the Army has developed an IDP as part of the PA.

Less than Significant Impacts

Impacts on archaeological sites from FTI construction. FTI antenna construction would have less than significant impacts at SBMR, DMR, and PTA, and no impact at KTA. FTI antennas would be constructed at SBMR and outlying areas. The FTI project at DMR would construct antennas within the installation boundary and on Dillingham Ridge to the southwest of the installation. FTI antennas would be erected at PTA, the WPAA, and several sites off PTA. Antenna support structure locations were chosen to avoid archaeological resources. The FTI project at KTA would construct antennas on disturbed sites and thus is considered to have no impact on archaeological resources.

Reduced Land Acquisition Alternative

Impacts under the RLA Alternative would be approximately the same as under the Proposed Action, but with less intensity of impacts at SBMR. The smaller acreage to be acquired and used for training in the SRAA means that fewer archaeological sites would be affected by Army activities in that area, and there would be less risk of inadvertent discovery of archaeological resources. Impacts at PTA would remain roughly the same as under the Proposed Action, because QTR2 at PTA would be located on land that was previously used for an impact area, and therefore there are few undisturbed archaeological resources remaining.

No Action Alternative

Existing conditions would continue under No Action. Less than significant impacts under No Action generally result from ongoing training activities or infrastructure projects. Ongoing training activities include continued off-road vehicle use. This would result in ongoing impacts on cultural resources in the training areas caused by ground troop activities, off-road vehicle movement, and subsurface excavations. Archaeological resources on the training areas are monitored following exercises to document adverse effects on the sites. Under No Action, current force training would continue, and there would be no additional impacts on cultural resources. USARHAW will continue to inventory eligible historic properties, in compliance with Section 110 of the NHPA, and project planning will comply with Section 106 and its implementing regulations. Impacts on cultural resources would be mitigated in compliance with these regulatory requirements.