

Letter I18

Comments

Responses

Review of the Draft Makua Environmental Impact Statement

By
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 Review prepared October 3, 2005

I was asked to review the cultural impacts sections of the draft Environmental Impact Statement for Military Training Activities at Makua Military Reservation.

My analysis and interpretations are derived from my training as a historian of Hawai'i and the Pacific; my research of Hawaiian cultural, subsistence, and spiritual beliefs, customs, and practices over the past 27 years; and my experience in conducting cultural impact studies over the past 14 years. With regard to the adequacy of the Draft Environmental Impact Statement ("DEIS"), I read the sections of the DEIS relating to cultural resources (Executive Summary, Section 3.10 (Affected Environment – Cultural Resources), Section 4.10 (Environmental Consequences – Cultural Resources), and Section 5.3.10 (Cumulative Impacts – Cultural Resources). I also reviewed the bibliography for the DEIS and read the following reports which it cited:

Kelly, M and Quintal, SM, 1977. Cultural History Report of Makua Military Reservation and Vicinity, Makua Valley, Oahu, Hawaii. Bernice P. Bishop Museum, Honolulu, Hawaii.

Ogden Environmental and Energy Services Co., Inc., 2002. "Final Report: Initial Implementing Activities for the Historic Preservation Plan at Ukanipo Heiau and Intensive Survey and Mapping of Archaeological Sites, Ukanipo Heiau Vicinity, Makua Military Reservation, Makua Valley, O'ahu Island, Hawaii."

Prashad, U and Nunes, K, 2001. Planning Level Oral History Survey, Makua and Kahanahaiki Valleys for Traditional Cultural Properties at the US Army Makua Military Reservation Waianae, Oahu Island, Hawaii. Draft

Social Research Pacific, Inc., 2003. "Cultural Impacts on Traditional Cultural Properties from Continued Military Use of U.S. Army Makua Military Use of U.S. Army Makua Military Reservation, Wai'anae, Oahu Island, Hawai'i."

Social Research Pacific, Inc., 2003. "Planning Level Oral History Survey Makua and Kahanahaiki Valleys for Traditional Cultural Properties at the U.S. Army Makua Military Reservation Waianae, Oahu Island, Hawaii," Final Report.

H. David Tuggle, 1997. "The Archaeology of Makua Beach: Background for an Environmental Assessment of Proposed Amphibious Training in Hawai'i Makua, Island of O'ahu," International Archaeological Research Institute, Inc.

¹ A copy of my resume is attached hereto.

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US Army 25th Infantry Division (Light) and US Army-Hawaii. 2000. Programmatic Agreement among the 25th Infantry Division (Light) and the United States Army-Hawaii, the Hawaii State Historic Preservation Office, and the Advisory Council on Historic Preservation for Section 106 Responsibilities for Routine Military Training at Makua Military Reservation, Oahu Island, Hawaii.

Williams and Patolo et al Ogden Environmental and Energy Services, 2000. Final Report: Intensive Archaeological Survey and Monitoring for Proposed Modifications to the Company Combined Assault Course (CCAAC) and Construction of a Fire Access Trail at the US Army Makua Military Reservation, Makua Valley, Island of Oahu, Hawaii.

Zulick, L and Cox, D, The Research Corporation of the University of Hawaii, 2001. Phase I Inventory Survey of Cultural Resources Within Makua Military Reservation, Island of O'ahu, Hawaii," Final Report.

In addition, I read the following report relating to the cultural resources in the Makua Military Reservation which was funded by the Marine Corps Base Hawaii in preparation for the Environmental Assessment for Marine Corps Amphibious Training in Hawaii:

Institute for Sustainable Development, 1998. Final Report: Oral History Study: Ahupua`a of Makua and Kahanahaiki, District of Wai'anae Island of O'ahu (Wai'anae Overview TMK: 8-1 & 8-2), [conducted by Kepa Maly] PACDIV Contract Number N62742-D-0006 D.O. 22, BCH Project No. 442.0122.

I18-1 | It is important to note that the consultants for the DEIS did not have an opportunity to interview or receive responses to their questionnaire from members of Malama Makua and other community groups concerned with preserving Hawaiian culture at Makua. (Social Research Pacific, June 19, 2003, p. 13). However, in 2001, I interviewed members of Malama Makua, as well as of other cultural groups, by phone, including Mr. William Aila, Aunty Frenchy DeSoto, Sparky Rodrigues, and Rev. Kaleo Patterson. I asked them the following questions, to ascertain if there were cultural practices that they or persons they know of have participated in. I also spoke with Fred Dodge, M.D. for suggestions regarding key informants for the conduct of a more complete cultural impact study. I also did a site visit of the makai portions of the ahupua`a of Kahanahaiki, Makua, and Ko'iahi on August 25, 2001. In the past few years, I have taken my University of Hawai'i students on work projects with the Army botanists in the mauka portions of Kahanahaiki.

QUESTIONS

1. What is your relationship to Makua Valley? Did you have family who lived in the valley before World War II?
2. If so, where did they live?
3. Do you have family burials in the valley? What part of the valley?
4. Have you been in the valley? Where did you go? What did you do?

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Members of both Malama Makua and Hui Malama Makua were given an opportunity to fill out the questionnaire for the cultural impact assessment and were also given an opportunity to revise the questionnaire when a member of the Hui objected to the tone of the questions; however, the Hui did not provide a proposed revision. If there was a separate questionnaire from outside the Army, no member of the public has provided that questionnaire to the Army.

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5. Are there particular resources in the valley that you or your family have used and would use?
6. Did your family have springs or wells on their land? Did they make use of springs or wells in the valley?
7. Does your family have an 'aumakua* relationship to a deity or nature force within the valley? Do you know of any family who does have such a relationship? Do you know if they need to make ho'okupu (offering) to this 'aumakua?
8. Are there any trails in the valley that you or your family used and would like to use? For what purpose?
9. Do you know of anyone who continued to hunt in the valley? Which part of the valley? What did they / do they hunt?
10. Do you know of anyone who gathered resources in the valley? What resources did they gather?
11. Is there a relation between Makua Valley and the leina** at Ka'ena?
12. Are there heiau (temples) and/or shrines that you or your family have taken care of and/or used?
13. Do you know of any heiau and/or shrines in the valley that someone has a relationship to or is caring for?
14. Do you know of any night marcher trails in the valley***?
15. Does the valley have the qualities of a spiritual pu'uhonua (place of refuge and retreat)?
16. Do you feel that you have a kuleana (ancestral responsibility) for Makua Valley?
17. Are there other persons related to families who lived in the valley with whom I should speak?

* An 'aumakua is an ancestral guardian spirit. An 'aumakua relationship is one in which an animal form is acknowledged to be an ancestral guardian spirit and thus, there is a responsibility to make offerings to the 'aumakua in order to connect with and honor this ancestral guardian spirit for continued protection and strength

**A leina is a point where spirits leap into the nether world, lit. leap of the soul.

***The 27th night of the lunar month is sacred to the god Kane. It is called Po Kane. On this night, spirits of departed chiefs march over pathways they trod in life.

While Makua is inclusive of Kahanahaiki, Makua and Ko'iahi, I will refer to the area under study collectively as Makua.

Findings and Conclusions:

In my opinion, as a historian of Native Hawaiian cultural, subsistence, and spiritual beliefs, customs, and practices, the Army's Draft Environmental Impact Study does NOT disclose all potential cultural impacts associated with its proposed training at the Makua Military Reservation.

The Environmental Impact Studies is deficient in the following aspects:

First, the report makes up a new category: Areas of Traditional Importance or ATIs. The report states on p. ES-25 that "The term ATI was created as a broad category because many places of importance to native, aboriginal, or local groups have not been formally evaluated, although

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The EIS fully assesses all potential impacts from the four alternatives in Section 4.10.

I18-2

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I18-3 these areas have been identified through oral testimony or are associated with other cultural and natural components . . . It is highly probable that many ATI's would qualify as cultural properties following formal evaluation and consultation. " This essentially means that all of the cultural and natural resources that are not considered archaeological sites were not assessed and evaluated. However, these are the primary resources of importance for the re-establishment of cultural and subsistence practices in Makua. This is a major failure on the part of the drafters of the EIS and the principal deficiency in the draft EIS.

Moreover, the term that they created, ATI, implies that these are not areas of continuing cultural significance. The Hawaiian culture is a living culture that is dependent upon sustaining relationships by Native Hawaiians with ancestral lands and resources. The present generation of Native Hawaiians who have ancestral ties to Kahanahaiki, Makua and Ko'iahi (referred to collectively as Makua) have expressed the need to fulfill their obligation to connect with and care for ancestral lands, burials, heiau, shrines, springs, realms of 'aumakua (ancestral spirits), native plants, and animals. Most of them are one generation removed from the land, some are 2 generations removed, that is their parents or grandparents were removed from Makua at the beginning of World War II. The ability for this generation to reconnect with their ancestral lands is essential to their cultural identity as Native Hawaiians. At least two groups have expressed the desire and commitment to provide stewardship to the lands and cultural resources of Makua by constructing new cultural sites dedicated to the stewardship of Makua. One group, including William Aila constructed an ahu to Kanaloa and a second group, Kupu ka 'Aina rebuilt a paepae. The recommendation to continue military training in Makua would prevent the present generation of Makua families from fulfilling their responsibility as Native Hawaiians to their ancestral lands and ancestors.

I18-5 A complete and thorough study of the impact to natural and cultural resources utilized for cultural, religious and subsistence purposes must be conducted. Measures to prevent or to mitigate negative impacts, must be included in the EIS. The No Action alternative will result in the least impact to these resources.

I18-6 Second, the Army's claim that impacts to archaeological resources, areas of traditional importance and cultural landscapes (from trampling, stray rounds from guns, mortars, artillery and rockets, wildfires, etc.) are "mitigatable to less than significant" (DEIS, pages 4-146 to 4-151) is simply an incorrect and uninformed assertion. My experience with such incidents on the island of Kaho'olawe, prior to the termination of military exercises on October 22, 1990, is that there was noticeable and significant damage to our archaeological resources, areas of traditional importance and cultural landscapes. I directly and personally witnessed this at the Pu'u Moiwī adze quarry, Moa'ulaiki navigation training site and the Hale Halawai in Hakiowa.

I18-7 The Army's patronizing statement that blowing up or burning cultural sites "would result in ... PERCEIVED loss of mana by Native Hawaiians." (DEIS, page 4-148) is truly offensive in that it implies that the damage is not actual, observed and real, but only perceived. This is arrogant at best and dishonest at worst.

Third, the final report, "Cultural Impacts on Traditional Cultural Properties from Continued Military Use of U.S. Army Makua Military Reservation, Wai'anae, Oahu Island, Hawai'i by

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I18-3

During training exercises, stray ammunition rounds from guns, mortars, and artillery could damage or destroy cultural properties, as could squad and platoon live-fire training, air assault, aviation support, and other proposed training activities. Landscape alteration caused by live-fire exercises may affect the integrity of setting of resources that are eligible for the NRHP. Live-fire training would increase the threat of wildfires, which could damage or remove landscapes, flora, and fauna associated with traditional practices. Reference Section 4.10 for a thorough discussion of this issue.

I18-4

In Section 4.10 of the Draft EIS, the Army assesses impacts to access to MMR by Native Hawaiians. Although MMR is an active training complex, the Army allows access consistent with training, safety, and other applicable requirements.

I18-5

In Sections 4.9 and 4.10 of the Draft EIS, the Army assessed impacts to all natural and cultural resources consistent with NEPA, the National Historic Preservation Act, and the Endangered Species Act. The Army has also assessed the historical and anticipated impacts to hydrology and other resources in Chapters 4 and 5. In Section 4.10 of the Draft EIS, the Army assesses impacts to access to MMR. Mitigation measures have been identified for impacts throughout Chapter 4 and are summarized in Table ES-4 in the Executive Summary.

I18-6

As now reflected in Section 4.10 of the EIS, the Army recognizes the potential for unmitigable significant impacts to these resources.

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(Cont.)

I18-7

The sentence in Section 4.10.3 has been revised in the EIS.

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- I18-8 Social Research Pacific, June 19, 2003, acknowledges that their cultural impact assessment is insufficient and inadequate due to time limitations and the lack of communication with the primary groups with ancestral claims and connection to Makua Valley. Their recommendations are aimed at laying the groundwork for conducting a more thorough, comprehensive Cultural and/or Social Impact Assessment. (p. 22). Clearly, by admission of the Army's own consultants, the Cultural Impact Assessment is inadequate.
- I18-9 Fourth, a more complete archaeological survey of middle elevation inland sites and complexes, including subsurface excavation must be conducted for the EIS to be adequate. The reports indicate that each successive surface archaeological survey has recovered a substantial number of previously unidentified complexes, sites and features. For example, Ogden's detailed survey of Ukanipo Heiau and the surrounding vicinity, as reported in November 2000, started out to assess one site with 11 features and actually found 4 new sites and 229 new features. The study by Zulick and Cox (2000) recorded 13 new sites and 58 new features in the Makua Military Reservation. The report notes that certain areas could not be assessed because they were in a high hazard area and no subsurface excavation could be conducted because of the hazard of unexploded ordnance. These studies indicate that expanded inland surveys consisting of surface and subsurface excavation have a high potential of yielding recovery of substantially more sites, features, and cultural resources. In addition, the Williams and Patolo report (2000), based on excavations in 1994 and 1995 suggested that pre-contact Makua Valley had water resources substantial enough to support two site complexes at middle elevations within the valley. These findings led the archaeologists to revise their original assumption that Makua was a dry valley supporting only a coastal population of Native Hawaiians who conducted limited inland gardening. The study by Zulick and Cox (2000) validated the assessment that there were habitation complexes at middle elevations in Makua, when they studied the Ko'iahi Gulch Complex as one such middle elevation settlement area. These two studies indicate that expanded archaeological surveys not only have the potential of recovering substantially more inland complexes, sites, and features, but they also have the potential to yield significant new information about the pre-contact settlement, land use and social relations in Makua Valley.
- I18-10 The Draft EIS acknowledges that Makua once supported both a coastal population and permanent occupation in the middle elevation. It states that steps were taken to change target objectives to avoid damaging the sites in the Makua Mid-Valley complexes further after the Williams and Patolo survey, but that, since it was in an area of unexploded ordnance it was not accessible until a controlled burn was conducted as part of the survey by Ogden. This 2000 Ogden report recommends that the sites in the Makua mid-Valley complexes should be preserved, protected from further ordnance damage, mapped and further excavated by surface and subsurface excavation.
- I18-11 Fifth, there is no assessment in the Draft EIS of how military training will impact ancestral burial sites and the ability of Native Hawaiian families to care for these sites. Informants speak of unmarked ancestral burials located near the Ukanipo heiau and on lands which were granted to Native Hawaiian families as kuleana under the Mahele. The Ogden archaeological survey (2000) of the Ukanipo Heiau vicinity identified 30 possible unmarked burials in and around the Ukanipo Heiau. (p. 63-65) In addition, the Ogden archaeological survey (2000) for proposed modifications to the company combined assault course and construction of a fire access trail in

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- I18-8 As reflected in the Cultural Impact Assessment conclusions, lack of community input hindered development of that report. The Army's consultant did not cite insufficient time as a factor in the report's findings.
- I18-9 The Army recognizes that areas of MMR that cannot be surveyed may contain cultural resources. More complete archaeological investigations are undertaken whenever possible but may be inaccessible due to the presence of unexploded ordnance or other factors. Those areas which would be directly impacted by the proposed training have been surveyed and assessed and the identified properties are being protected.
- I18-10 The Army acknowledges that areas of MMR that cannot be surveyed may contain cultural resources. More complete archaeological investigations are undertaken whenever possible but may be inaccessible due to the presence of unexploded ordnance or other factors. Those areas which would be directly impacted by the proposed training have been surveyed and assessed and the properties located are being protected.
- I18-11 The training alternatives discussed in the Draft EIS will not have an impact on known burial sites. Monitoring of sites will continue during training and if it appears that impacts may occur further consultation will be undertaken. No group has identified further concerns about burial areas. Although MMR is an active training complex, the Army at this time allows limited public access to cultural sites. Public access depends in part on training requirements, safety and other applicable policy, requirements, regulations/laws.

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the reservation summarized that Site 4546 is probably a pre-Contact heiau and an associated shrine or burial, and noted that subsurface excavation would be required to be conclusive (p. 42-43). They also determined that Sites 4540 and 5590 probably include burials (pp. 62, 70) but that subsurface excavation would be required to be conclusive. The report recommends preservation of these sites, protection from further ordnance damage, and additional excavation and mapping. (p.79). Family obligation requires Native Hawaiian individuals to periodically visit the ancestral burials to assure that they are protected from disturbance and to acknowledge the presence of the spirit of their ancestors in their ancestral land. The 2002 Ogden Report

I18-12 recommends that "the entire area situated on the west side of the North Fire Break Road be set aside as an archaeological/cultural preserve. Military training exercises currently do not use this area, and should be banned from future use. This preserve area would include all of the area that was surveyed and mapped during the current phases of work, as well as those areas to the north that were not surveyed. " The report also recommends that management of the preserve should be coordinated with the Ukanipo Advisory Council as they are associated with the Ukanipo Heiau Complex.

Oral History Sources:

Prashad- p. 17 – burials near Ukanipo heiau

Maly: p. R-12, R-15, R-17, p. 48 – 49

Aila: phone conversation

I18-14 Sixth, there is no assessment of the impact of military training upon hunting and gathering activities by Native Hawaiian families in Kahanahaiki, Makua and Ko'iahi. The majority of lands of the Makua Military Reservation are ceded lands which were designated as "Government Land" under the Mahele of 1848 (Indices, 1929: 41-42). According to the Indices of Land Awards, all government lands were subject to the following phrase "koe wale no ke kuleana o na kanaka e noho ana ma ua mau aina la" which is translated as "subject always to the rights of tenants." The right to access Makua for cultural, subsistence, and religious purposes is a right of those who are descended from families who lived in Makua. One such descendant, William Aila said in my phone discussions with him that his father and uncles hunted wild cattle in Makua after World War II. According to him, young men still hunt wild pig and goats in the valley. Another such descendant, Albert Silva, said in his interview with Kepa Maly in 1998 that hunting of pigs and goats for subsistence continues in Makua. The Draft EIS does not address the impact of continued live fire training upon subsistence hunting.

The mo'olelo (history) of Hi'iaka cited in the report of Prashad and Maly, and the many informants interviewed for all of the oral history reports speak of the former abundance and fragrance of maile lauli'ili'i in Ko'iahi. Maile is used for adornment for hula, significant life cycle events, and ceremonial protocol. According to Hawaiian tradition, as noted in Place Names of Hawaii'i (Pukui, 1984, p. 115) the finest maile lauli'i formerly grew in Ko'iahi. The informants indicated an interest in assessing the condition of the maile lauli'i in Ko'iahi and restoring it for sustainable use. They also identified many native plants which their families had gathered and used from Makua, such as ko'oko'olau and uhaloa for medicine; a'ali'i and wiliwili for lei; kukui nuts for food seasoning and medicine; coconuts for multiple uses; and hala (pandanus) for mats. They also gathered introduced fruits such as oranges, lemons, mangos, guavas, avocados and pineapple. Native bamboo grew by a spring near some mango trees.

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I18-12

Kahanahaiki Valley is not used for training and the site complexes surrounding Ukanipo Heiau have been mapped and are protected. Further work cannot be accomplished because of the presence of unexploded ordnance.

I18-13

Kahanahaiki Valley is not used for training and the site complexes surrounding Ukanipo Heiau have been mapped and are protected. Future decisions to train will be subject to review under NEPA, the National Historic Preservation Act, the Endangered Species Act, and other applicable statutes.

I18-14

In Section 4.10 of the Draft EIS, the Army assesses impacts to access to MMR. Although MMR is an active training complex, the Army at this time allows limited public access to cultural sites. Public access depends in part on training requirements, safety and other applicable policy, requirements, regulations/laws.

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Families also farmed sweet potato, cucumber, pumpkin, and watermelon in the valley,

Hunting and gathering for subsistence, cultural, medicinal, and spiritual purposes are essential activities for Native Hawaiian families in rural communities such as those of the Wai'anae coast.

- I18-15 While entry into the Makua range is illegal, it will be difficult to gather information about such ongoing activities. Nevertheless, there is strong evidence that hunting and gathering activities in Makua has continued and most definitely would resume were live fire training to cease. While access for the gathering of maile lauli'ili'i is under consideration, access for other gathering activities are not taken into account. In addition, the Draft EIS does not adequately address the cumulative impact on the cultural resources hunted and gathered by Native Hawaiian families, should live fire military training resume. Of particular concern is the potential danger of wildfire upon these resources.

Oral History Sources:

Kelly Volume II: 218, 223, 229, 251, 253, 254, 274, 285, 297, 344, 349, 368-69, 386,

Prashad: p. 20,

Maly: p. 9, 26, 29, 30, 47, 51, 53, 68, 70 - 71, 72, 81, 93,

Aila: phone conversation

- I18-17 Seventh, there is no assessment in the Draft EIS of the impact of live-fire training upon the future use and value of the ceded public lands that are used for the Makua Military Reservation. The Army has a lease from the State of Hawai'i, through the year 2029, for 782 acres of ceded lands. The Army also has use of 3,236 acres of ceded lands held by the federal government (DEIS, page 3-11). The resumption of live fire training at Makua can render the ceded lands leased out by the State of Hawai'i and those held by the federal government useless for future habitation, diversified agriculture, for a park or other uses, unless it is cleaned to a level safe for human use. I could not find any estimate in the DEIS of what it would cost to clean Makua of unexploded ordnance, but the Supplemental Environmental Assessment for Routine Training at Makua Military Reservation (May 2001) estimated clean up for Kaho'olawe at \$14,000 per acre (3.2.3, p. 26). The ceded public lands were Crown and Government lands of the Kingdom of Hawai'i. These lands were claimed by the Provisional Government and Republic of Hawai'i at the time of the overthrow of the Hawaiian monarchy. At the time of Annexation, the Republic of Hawai'i ceded these lands of the Kingdom of Hawai'i to the U.S. federal government; however, the Native Hawaiian people never affirmed or consented to this transfer of their national lands. The U.S. Congress acknowledged in Public Law 103-150, the Apology Resolution, that these lands were ceded "without the consent of or compensation to the Native Hawaiian people of Hawai'i or their sovereign government." The Apology Resolution also states that "the indigenous Hawaiian people never directly relinquished their claims to their inherent sovereignty as a people or over their national lands to the United States, either through their monarchy or through a plebiscite or referendum." (Pub.L.No.103-150, 107 Stat. 1510). Legislation introduced in the U.S. Congress by Senator Daniel Akaka, called the Akaka Bill will acknowledge that Native Hawaiians have the right of self-governance and self-determination like Native American tribes. The majority of the lands in Makua, were designated government land of the Kingdom of Hawai'i under the Mahele of 1848 and are therefore considered Hawaiian national land. As a contiguous ahupua'a which is undeveloped it can provide important natural and cultural resources for a Native Hawaiian nation, provided it will be cleared of ordnance. Resumption of

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I18-15

In Section 4.10 of the Draft EIS, the Army assesses impacts to access to MMR. Although MMR is an active training complex, the Army at this time allows limited public access to cultural sites. Public access depends in part on training requirements, safety and other applicable policy, requirements, regulations/laws.

I18-16

In Section 4.10 of the Draft EIS, the Army assesses impacts to access to MMR. Although MMR is an active training complex, the Army at this time allows limited public access to cultural sites. Public access depends in part on training requirements, safety and other applicable policy, requirements, regulations/laws.

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Because nonmilitary use of ceded lands is not proposed by the Army and is not reasonably foreseeable, the EIS does not evaluate the impacts of proposed training on those activities. Use of ceded lands beyond those addressed in the EIS would be assessed in a separate NEPA document.

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Because remediation of MMR is not proposed at this time, discussion of this issue is beyond the scope of the EIS.

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<p>I18-19 military live fire training at Makua will only exacerbate the problem of unexploded ordnance removal upon the close of the reservation and make restoration of the valley's natural and cultural resources more expensive, if not prohibitive. The Draft EIS failed completely to analyze this issue. Kelly: Vol. 1, p. 19</p>	<p>I18-19 Please see response to Comment I18-18.</p>
<p>I18-20 Eighth, there is no assessment in the Draft EIS of the impact of burning the native ecosystem off of the landscape and increased erosion as the result of these fires upon cultural resources used for subsistence in the streams and the muliwai, including native plants and aquatic life, in the Makua Military Reservation.</p> <p>Informants interviewed for the reports describe the muliwai as important fishing areas where the community caught 'o'opu and 'opae when the streams flowed and where they stocked fish for harvest when the ocean was too rough. Army training and management of Makua have contributed to the destruction and degradation of the streams and the muliwai. Resumption of live-fire military training would further delay proper management of the springs, streams, and muliwai in order to restore the cultural resources identified by informants as having the potential to thrive in Makua streams and muliwai.</p>	<p>I18-20 These issues were addressed in Sections 4.7 and 5.3.7 of the Draft EIS. In addition, Section 5.3.8 of the Draft EIS identified impacts associated with prescribed burns in combination with the potential for wildfire-related soil erosion.</p>
<p>I18-21</p> <p>I18-20 Section 174C-101 of the Hawai'i Revised Statutes defines Native Hawaiian water rights. It states that "traditional and customary rights of ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778 shall not be abridged or denied by this chapter. Such traditional and customary rights shall include, but not be limited to, the cultivation or propagation of taro on one's own kuleana and the gathering of hihiwai, opae, 'o'opu, limu, thatch, ti leaf, aho cord, and medicinal plants for subsistence, cultural, and religious purposes." Traditionally, Native Hawaiian families gathered 'opae, 'o'opu, aholehole and other fish from the muliwai during the rainy season. Military activities, primarily live-fire training, that have caused wildfires that destroyed the native plant life have reduced the ability of the land to absorb the rain. Informants observe the disappearance of springs and wells that were plentiful in their lifetime. Informants attribute this to a cumulative reduction in the level of the water table in Makua. This has impacted the life cycle of stream life that Native Hawaiians customarily gathered seasonally for subsistence. According to informants, the denuding of the landscape has also contributed to erosion and the deposition of sediment in the muliwai that has impacted the life cycle of the aquatic life in those ponds.</p> <p>Oral History Sources: Kelly Volume II: p.212 - Ko'iahi stream used to have 'opae, ahole-hole, until toads introduced. [Note: this is the only source to attribute the decline to toads. Other informants in subsequent interviews conducted in the 1990's report seeing 'opae and 'o'opu and attribute the decline to the reduction of the water table due to fires destroying the native vegetation] Wai komo had mullet, alamihi, aholehole and 'opae. Makua stream had o'opu. p. 246 - when rain a lot, the 'opae and mullet were plentiful by the bridge p. 330 – 331 - in the stream had aholehole, mullet, 'opae when the rain runs down the mountain. Maly: R-12, Mr. Silva explained the relation of the streams and dune ponds to the fishery: "The stream-dune ponds had awa'aua [Chanos chanos] like that and 'opae [shrimp], 'aholehole [Kuhlia sandvicensis]. These ponds were an important fishery resource for the community when the oceans were too rough to go out. They go there, they only take what they need. He points</p>	<p>I18-21 In Section 4.10 of the Draft EIS, the Army assessed impacts to access to MMR. Although MMR is an active training complex, the Army at this time allows limited public access to cultural sites. Public access depends in part on training requirements, safety and other applicable policy, requirements, regulations/laws. Live-fire training at MMR does not restrict access to resources outside the installation boundaries, such as the muliwai. The Draft EIS identified the effects of proposed training as negligible on the muliwai and as significant on MMR streams.</p>

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out that the Makua stream bed and muliwai on the 'Ohikilolo side of the church lot, was a very important fishing resource, where there were 'o'opu and 'opae as well when there was a lot of rain and the stream flowed. Silva's transcript referring to the stream resources is on p. 53, 54, and p.90.

R-13 Mr. Bailey - The muliwai or dune-banked ponds were stocked with fish – “They caught mullet and aholehole [Kuhlia sandvicensis], the fish that can adapt to fresh, or brackish water. You also get aholehole and papio (young crevalle or jack fish).” p. 106 of the transcript.

Aila: In phone conversation, Aila spoke of seeing bullets in the muliwai which washed down from the streams, as an impact upon the streams and the muliwai. Aila observed an aeo (Hawaiian stilt), a male, female and juvenile auku'u (native heron) and an 'alae'ula at the muliwai, native birds that frequent wetlands.

I18-22 Ninth, there is no assessment in the Draft EIS of the cumulative impact of burning and denuding the landscape, replacing native ecosystems with alien plants, and the deposition of toxic contaminants associated with military training upon the water table and the inland springs and wells. Informants interviewed for reports speak of many wells and springs in Makua – which were destroyed by the Army. Despite being destroyed, the water sources that had been tapped by those wells should still be under the surface. A complete and thorough Draft EIS should assess the cumulative impacts of military training upon the water table, the effects of resumed live-fire training upon the water table, and measures that can be implemented to restore the water table in Makua.

Oral History Sources:

Kelly Volume II: p. 208, p. 222, p. 230, p. 232, p. 375, p. 387, p. 387-88, p. 392

p. 387 - Makua is a real damp area. Makua is green. Always has. That rain come out, and if you dig 10 to 15 feet you hit all the water you like. We was raised upon on the well water.

Brackish; further back you hit the spring water. The informant spoke also of water tunnels that McCandless had developed to provide water for his cattle and for his beachside home.

Prashad: p. 22 – Walter Kamana – stated that there was an artesian well near aunt's home, mango trees near house and Hawaiian “spring” bamboo that grew near the mango trees and that there were 12 to 15 wells plus natural water running down the mountainside. He described how waterfalls emptied into a streambed with a three-way split. The stream ran from Nanaui, Molohiki and Kuahi before joining into one single bed. There was a water supply in Molohiki.

Maly: p. R-12, p. 13, p. 24, p. 54, p. 90, p. 93, p. 174

Aila: in phone conversation also identified a well by the mango tree and spoke of several springs.

I18-23 Tenth, there is no assessment in the Draft EIS of the impact of increased erosion and the changes in the hydrology of Makua Valley upon coastal and nearshore marine life along the coast and in the ocean. Informants speak of the abundant marine resources of Makua, from 'opihi, pipipi and seaweeds, to the catching of various species of fish, kona crab, and muhe'e. The informants speak of the importance of fresh water streams, including underground springs that well up in the nearshore ocean, for the spawning of marine life in the ocean waters off of Makua. Kupuna informants even spoke of observing the nesting of turtles on Makua Beach. The effect of military training, especially of wild fires on denuding the landscape and the potential for the run off of sediment into the ocean is not addressed. The effect of the increased noise and activities upon turtle nesting is not discussed. The marine resources of Makua are an important

Responses

I18-22

These issues were addressed in Sections 4.7 and 5.3.7 of the Draft EIS.

I18-23

Please see responses to Comments F1-32 and I18-22. The impact of increased erosion upon coastal and nearshore marine life in the coastal area and in the nearshore ocean environment was addressed in Section 4.9.4 of the Draft EIS and found to be less than significant.

I18-24

There is no documentation of turtle nesting occurring in the ROI, and thus this topic was not discussed. Sediment impacts were addressed in the Draft EIS (see pages 3-82, 4-114, 4-124, 4-138, 5-52, etc).

These issues were addressed in Sections 5.3.7 and 5.3.9 of the Draft EIS.

Comments

- I18-25 subsistence resource for the residents of the Wai'anae coast and a complete and thorough EIS which assesses the impacts of continuing military ground training exercises upon the nearshore marine resources is necessary.
Oral History Sources:
Kelly, Volume II: p. 246, 255, 283, 325, 327, 364, 366, 397
Prashad: p. 17, 22,
Maly: p. R-12, R-14, R-17, 18, 64, 65, 105, 106, 108, 111,
Aila: phone conversation
- I18-26 Eleventh, there is no assessment in the Draft EIS of the impact of military training upon the ability of Native Hawaiian families to continue their connection to ancestral 'aumakua or family guardian spirits in the Makua Military Reservation – the pueo (owl), the mo'o (water dragon lizard), the mano (shark) – and the ability of Native Hawaiian descendants to offer ho'okupu to these deities in their natural settings. Informants spoke of their family 'aumakua in Makua Valley and lamented their inability to connect to these family guardian spirits. In the oral history interview with Kepa Maly, the group of Makua family descendants called Kupu Ka 'Aina provide an insight into this problem:
 In Makua Valley, water was a very important and sacred resource. One of the famous springs, not far inland from the former Naiwi family residence, and the present-day Army Range Control Facilities, was the spring called "Mo'o Punawai." This spring was accessed by a hole in the side of a small pali (cliff) . . . It was a significant water source for the families of Makua, and is associated with stories of the mo'o (water guardian) and the shark Nanaue. While trying to work with the Army, Uncle Ivan told the Army about the spring and showed it to them; telling them how sacred it was to the Hawaiians of the area. A while later, when Uncle Ivan went back to Makua, the Army had covered the entrance to the cave, burying Mo'o Punawai. This broke Uncle Ivan's heart, and caused him great pain. It is because of experiences like that, that it is hard for us to just tell everything.
 Then again, we wonder why it is that we have to give up all of our secrets to prove what we know, practice, and believe. This isn't required of other native peoples. So why is it that the Hawaiians have to divulge everything?
 Other informants spoke of a shrine to a shark 'aumakua in Makua and of the experience of offering ho'okupu upon the shrine. Contemporary descendants of Native Hawaiian Makua families can revive ceremonies at these sites if access to these sites can be allowed.
Oral History Sources:
Kelly: p. 212, 222, 233 - 234, 246
Prashad: p. 12, p. 16, p. 22
Maly: p. 111, 174
Aila: phone conversation
- I18-27 Twelfth, there is no assessment in the EIS of the impact of military training upon access by Native Hawaiian families upon traditional trails to cultural use areas within Kahanahaiki, Makua and Ko'iahi. Informants describe a number of trails used traditionally to access resources, to hike over to Waialua, and to hike into Ka'ena. Native Hawaiians whose families lived in Makua, and who live in Wai'anae have expressed an interest in accessing those trails and in keeping
- I18-28 them open through periodic use. Again, a full and thorough EIS should assess the conditions of

Responses

- I18-25
 The effects of proposed training on nearshore marine resources were assessed in Section 4.9 of the Draft EIS. The Army conducted an additional study regarding marine resources. The results are contained in Appendix G-8. The Army plans on developing a monitoring program for the MMR nearshore marine resources.
- I18-26
 The Draft EIS acknowledges that the impact of training on access by Native Hawaiians for all purposes will be impacted at a significant and unmitigable level.
- I18-27
 The Draft EIS acknowledges that the impact of training on access by Native Hawaiians for all purposes will be impacted at a significant and unmitigable level.
- I18-28
 The Draft EIS acknowledges that the impact of training on access by Native Hawaiians for all purposes will be impacted at a significant and unmitigable level.

Comments

Responses

I18-28|the trails and the feasibility of allowing periodic access to them by Makua and Wai'anae families.
Oral History Sources
Kelly Volume II: p. 223
Prashad: p. 9, p. 23,
Maly: p. 68, p. 90
Aila: phone conversation

Concluding Observations

I18-14|Military training will disturb and prevent access to cultural resources for hunting and gathering by contemporary descendants of Makua and Wai'anae families. It will prevent descendants of Makua families from accessing trails and sustaining connections to their family 'aumakua. It
I18-27|will prevent descendants of families of Makua and Wai'anae from assuming their kuleana (obligation) as Native Hawaiians.

I18-17|Military training will exacerbate the amount of ordnance that will have to be cleaned to return the ceded public lands to the state and Native Hawaiian people, increasing the cost of a clean up and restricting future uses of these lands.

I18-22|Military training increases the potential for wildfires, adding to the cumulative impact of fire
I18-23|upon the landscape and related erosion upon the streams, the muliwai, water springs and wells,
I18-24|and coastal and nearshore marine resources.

I18-27|Makua is an ahupua'a within the moku or district of Wai'anae. Native Hawaiians of the Wai'anae moku have expressed an interest in reincorporating the cultural resources of Makua within the range of their cultural activities. This is a serious claim that must be honored.