

7.2 LAND USE/RECREATION

The land uses and recreational resources for KTA, KLOA, and Drum Road were identified through review of the state Land Use District designations (State of Hawai'i 2002a), the state designations for Agricultural Lands of Importance to the State of Hawai'i (State of Hawai'i 2002a), the City and County of Honolulu Land Use Ordinance zoning (City and County of Honolulu 2001), the Ko'olau Loa Sustainable Communities Plan for KTA (City and County of Honolulu 2002b), the North Shore Sustainable Communities Plan for KLOA (City and County of Honolulu 2000a), and the City and County of Honolulu Real Property Assessment Division data for Tax Map Key identifications and property boundaries (City and County of Honolulu 2003).

7.2.1 Affected Environment

Land Use

Kahuku Training Area

KTA is in northern O'ahu, on the northern terminus of the Ko'olau Mountains (Figure 7-1). It is the second largest Army maneuver training area on O'ahu (Nakata Planning Group, LLC 2002a). KTA consists of 9,398 acres (3,803 hectares) of which 4,569 acres (1,849 hectares) are considered maneuverable (Nakata Planning Group, LLC 2002a). KTA can support multiple infantry battalion-sized¹ ARTEP missions. Training areas, helicopter landing zones, and parachute drop zones on KTA are shown on Figure 7-1. Ammunition used on KTA is currently limited to blanks and pyrotechnics (e.g., smoke and incendiary devices), but no pyrotechnics are allowed in training areas A1 and A3 or within 3,281 feet (1,000 meters) of the KTA borders. There are no existing ordnance impact areas or SDZs on KTA. There is no cantonment area at KTA; areas that support Army-related operations include the range control compound in Training Area B2 and three smaller compounds on KTA.

Military land uses within KTA project areas are listed in Table 7-3. About half of KTA lands are within the state-designated Conservation District Resource Subzone (described in Table 5-4), and the remaining lands are within the Agricultural District (Figure 7-2). The northern half of KTA is zoned by the county as Ag-2 General Agricultural District, and the southern half is zoned P-1 Restricted Preservation District (City and County of Honolulu 2001). The state ALISH map (Figure 7-3) shows unique agricultural lands at KTA (State of Hawai'i 2002a); however, these lands are currently used for military training (City and County of Honolulu 2002b). Inactive windmills and associated structures within KTA boundaries were removed in 2003 (Hannigan 2003).

KTA's primary nonmilitary land use is for recreation, specifically hiking, biking, and hunting (Figure 7-4; USARHAW and 25th ID[L] 2001a). The 2.5 mile Kaunala Trail is located in the west-central portion of KTA (Na Ala Hele 2003). The trail is open for hiking and bicycling

¹ A battalion consists of 300 to 1,000 Soldiers (USACE Mobile District 2001).

Figure 7-1
Land Use at Kahuku Training Area

Figure 7-2

State Land Use District Map Kahuku and Kawaihoa Training Areas

Figure 7-3

Agricultural Lands of Importance to the State of Hawai'i Kahuku and Kawaihoa Training Areas

Figure 7-4

Public and Army Hunting Areas and Hiking Trails Kahuku and Kawailoa Training Areas

**Table 7-3
Kahuku Training Area Project Areas and Land Uses**

Project Title	Existing Land Use
Tactical Vehicle Wash Facility	Training
CACTF	Training
Fixed Tactical Internet	
Kawela (Kahuku) 1	Training
Kawela (Kahuku) 2	Training

Source: City and County of Honolulu 2001

on weekends and state and national holidays, if the Army is not conducting maneuvers in the area. The Pūpūkea Summit Trail passes along the border of KTA and extends south along the eastern border of KLOA (R. M. Towill Corp. 1997a). Hiking along this trail is allowed with an Army DPW permit. Bicycle races are sometimes held on KTA, and the Hawai'i Motorsports Association leases the motorcross course in Training Area A1, sponsoring 12 motorcross races per year (R. M. Towill Corp. 1997a).

KTA includes two Army-maintained hunting areas (USARHAW and 25th ID[L] 2001a). The Kahuku Hunting Area, which includes game bird hunting, is in Training Area A1 and the Pūpūkea State Public Hunting Area is in Training Area A3. Conditions for hunting at KTA are presented in Table 7-4. The Integrated Natural Resources Management Plan proposes the following management objectives for recreational resources at KTA (USARHAW and 25th ID[L] 2001a):

- Develop a system with the DLNR for allowing weekday access into training area A-3 when the area is not in use by the military.
- Develop signage and educational materials for hiking trails and motorcross events.
- Develop maps of the trails on KTA for distribution with access permits, including level of difficulty and natural resources issues.
- Investigate a method to monitor potential conflicts between training actions and public recreation in KTA in conjunction with the Division of Forestry and Wildlife.
- Work with the DLNR to expand public and Army hunting areas in KTA.
- Develop educational materials regarding the effect of trespass motorcross use for distribution at sanctioned events.
- Pursue additional cooperation with Hawai'i Motorsports Association to develop facilities for the benefit of both parties.
- Increase patrol levels on KTA and work with Hawai'i Motorsports Association to establish penalties to help curb trespass motorcross use.
- Pursue additional cooperation with Hawai'i Motorsports Association to develop facilities for the benefit of both the Army and the Hawai'i Motorsports Association

(for example, installing a water catchment system and planting native Hawaiian plants for erosion control).

Kawailoa Training Area

KLOA is located south of KTA, on the western slope of the Ko'olau Mountain Range (Figure 7-5). KLOA is the largest training area on O'ahu. KLOA consists of 23,348 acres

**Table 7-4
Hunting at Kahuku Training Area**

Conditions	Pūpūkea State Public Hunting Area A-3	Kahuku Army Hunting Area A-1
Game to be taken	Wild pigs and wild goats.	Wild pigs. Game birds: Ring-necked pheasant and green pheasant; Japanese quail, Erckels' Francolin, Barred dove, and Spotted dove.
Permitted hunting methods	Rifles, shotguns, handguns, knives, spears, bows and arrows. Dogs are permitted, but must be kept under physical restraint and control except when actually hunting.	Wild pigs can be hunted with knives and spears. Dogs are permitted, but must be kept under physical restraint and control except when actually hunting. Game birds can be hunted with a shotgun no larger than 12-gauge and shot size no larger than No. 6.
Open hunting periods	Year-round.	Wild pigs: February to October. Game birds: November through January.
Open hunting days	Saturdays, Sundays, and state holidays unless military training activities have been announced prior to a weekend or holiday.	Days when area is not used for motorcross racing or military training.
Special Conditions and Restrictions	Access from Pūpūkea Road (subject to military activities).	Only one hunting group (of two to six people) is allowed at a time and permits are issued by the Provost Marshall on a first-come, first-serve basis (subject to military activities).
Hunters	Persons who have the appropriate hunting license, tags, permits, or permit tags on their person and who have signed in at the state hunter checking station.	Active duty, reserve duty, and retired military personnel and authorized family members and US Department of Defense civilian employees and their civilian guests are allowed to hunt in these areas. Hunters must have a valid State of Hawai'i hunting license and must check in and out with Military Police at Schofield Barracks.

Sources: DLNR 1999a; USARHAW and 25th ID(L) 2001a

Figure 7-5
Land Use Kawaihoa Training Area

(9,449 hectares) of which 5,310 acres (2,149 hectares) are suitable for maneuver training activities (Nakata Planning Group, LLC 2002a). KLOA can support small infantry unit maneuvers and helicopter training. The remaining land is considered unsuitable for maneuver training, but can support mountain and jungle warfare training. In these areas, troop deployment is limited to single file, small unit movement on ridgelines. Ammunition used at KLOA is limited to blanks; no pyrotechnics or live-fire are allowed (Nakata Planning Group, LLC 2002a).

KLOA is included in the state-designated Conservation District Resource and Protective Subzones (described in Table 5-3) (Figure 7-2). The west-central portion of KLOA includes land areas designated by the state as Prime agricultural land (Figure 7-3). One of these areas is the Pu‘u Kapu landing zone. Most of KLOA is included in the Kawaihoa Forest Reserve and the southern portion of KLOA includes the ‘Ewa Forest Reserve. The ‘Ewa Forest Reserve is also a state hunting area (Figure 5-10). Table 5-12 presents the conditions of this hunting area, located north of SBER.

The Poamoho Ridge Trail is in the southern portion of KLOA (Na Ala Hele 2003). This trail is closed to the public pending permission from Dole Food Co., Inc. Schofield-Waikāne Trail, located along the southern boundary of KLOA, is owned and managed by the state and the Army. This 3.5-mile (5.6-kilometer) long trail ends on the Ko‘olau Mountain Ridge. Written permission is required from Schofield Barracks Range Control to access Schofield-Waikāne Trail and a permit is needed from Army Support Command.

Drum Road

Drum Road is an existing dirt and gravel road from Helemanō Military Reservation to KTA. The road alignment crosses through a state-designated Agricultural District and Conservation District Resource, General, and Limited Subzones (Figure 7-2). The alignment also crosses through portions of the state’s Prime agricultural land; however, the majority of this alignment is on existing roads (Figure 7-3). The northern portion of Drum Road is within the state’s Special Management Area (Figure 7-6). The upgrade of this road is evaluated under a separate NEPA document and is discussed under Cumulative Impacts in Chapter 9.

Ownership

Kahuku Training Area

The federal government owns the majority of KTA, and the state owns most of Training Area A1 and Training Area A3, which it leases to the Army. Figure 7-7 shows the KTA land parcels, and Table 7-5 lists Tax Map Keys (defined in Chapter 3) of the affected land parcels and the associated landowners and lessees.

Figure 7-6

Special Management Area Map Kahuku and Kawailoa Training Areas

Figure 7-7
Affected Parcels Map for Kahuku Training Area

Kawailoa Training Area

KLOA landowners include the State of Hawai'i, Dole Foods Division of Castle and Cooke, Bernice Pauahi Bishop Estate, and the City and County of Honolulu (leased to the Audubon Society). Figure 7-8 shows the KLOA land parcels, and Table 7-6 lists Tax Map Keys (defined in Chapter 3) of the affected land parcels and the associated landowners and lessees.

Table 7-5
Kahuku Training Area Landowners and Lessees

Tax Map Key	Landowner (Lessee)
56005010	James Campbell Trust Estate
56007003 and 004	United States of America
56008001 to 004	United States of America
57002001	United States of America
57002002	United States of America
57002003	United States of America
57002004	United States of America
57002005	United States of America
57002006	City & County of Honolulu
57002019	Kuilima Resort Co.
57002008 to 018	James Campbell Trust Estate
57004001	United States of America
57004002	United States of America
58002001	United States of America
58002002	State of Hawai'i (The United States of America)
58002003	United States of America
58002005	United States of America
58002006	United States of America
59006026	State of Hawai'i (The United States of America)

Source: City and County of Honolulu 2003

Drum Road

Landowners along the Drum Road alignment include the City and County of Honolulu (leased to the Audubon Society), Bernice Pauahi Bishop Estate, and Dole Food Co., Inc. Figure 7-8 shows the Drum Road land parcels, and Table 7-7 lists Tax Map Keys (defined in Chapter 3) of the affected land parcels and the associated landowners and lessees.

Figure 7-8

Affected Parcels Map for Kawaihoa Training Area

**Table 7-6
Kawailoa Training Area Landowners and Lessees**

Tax Map Key	Landowner (Lessee)
53011009	State of Hawai'i
61002002	<u>City and County of Honolulu (leased to the Audubon Society)</u>
62011012	Lehue L. Shelley
62011013	Dole Food Co., Inc.
62011015	Lehue L. Shelley
62011016	Dole Food Co., Inc.
62011017	Dole Food Co., Inc.
62011018	Dole Food Co., Inc.
62011019	Dole Food Co., Inc.
63001001	Bernice Pauahi Bishop Estate Trustees: aka Kamehameha Schools (Waialua Sugar Co., Inc.)
63001002	Dole Food Co., Inc.
63001003	Dole Food Co., Inc. (Hawaiian Electric Co., Ltd.)
63001004	Bernice Pauahi Bishop Estate Trustees: aka Kamehameha Schools (Waialua Sugar Co., Inc.)
63001005	Dole Food Co., Inc. (Hawaiian Electric Co., Ltd.)
72001006	State of Hawai'i (United States of America)

Source: City and County of Honolulu 2003

**Table 7-7
Drum Road Landowners and Lessees**

Tax Map Key	Landowner (Lessee)
61002002	<u>City and County of Honolulu (leased to the Audubon Society)</u>
61006001	Bernice Pauahi Bishop Estate Trustees: aka Kamehameha Schools
63001004	Bernice Pauahi Bishop Estate Trustees: aka Kamehameha Schools (Waialua Sugar Co., Inc.)
61007001	Bernice Pauahi Bishop Trust Estate: aka Kamehameha Schools
62011001	Bernice Pauahi Bishop Trust Estate: aka Kamehameha Schools
64002001	Dole Food Co., Inc.
62011021	Bernice Pauahi Bishop Estate Trustees: aka Kamehameha Schools (New 'Ōpae'ula Ranch)
64004001	Dole Food Co., Inc.
64004003	United States of America

Source: City and County of Honolulu 2003

Surrounding Land Use

Kahuku Training Area

Land to the north and east of KTA is agricultural and includes the town of Waiale‘e, with the Waiale‘e Beach Park (City and County of Honolulu 2000a). Land farther north and east, beyond Kamehameha Highway, includes the Turtle Bay Resort, Kawela Bay Beach Park, Punamanō National Wildlife Refuge, an aquaculture facility, Ki‘i National Wildlife Reserve, the town of Kahuku, Mālaekahana State Recreation Area, Lā‘ie Point County Park, and Brigham Young University. Forest and agricultural land is to the southeast, and KLOA is south and southwest of KTA. Land west of KTA includes agricultural land, Pūpūkea Paumalū Forest Reserve, the Pūpūkea Paumalū Homesteads, and Camp Paumalū. Land uses to the northwest of KTA include agriculture, park, and rural communities. The properties abutting KTA are zoned for Preservation or Agricultural uses (City and County of Honolulu 2001). The surrounding properties are zoned Ag-1 Agricultural District with the exception of F-1 Military and federal zoned lands at the northern and southern ends of the property. The Ko‘olau Loa Sustainable Community Plan depicts existing access from the Kahuku District Park into KTA with the goal of maintaining access to this area of the Ko‘olau Mountain Range (City and County of Honolulu 2002b).

Kawailoa Training Area

KLOA is bordered by KTA on the north; on the east by private land, Kaipapa‘u Forest Reserve, Hau‘ula Forest Reserve, and Sacred Falls State Park; on the south by SBER; and on the west by private agricultural lands. The eastern side of the Ko‘olau Mountain Range with the Ahupua‘a O Kahana State Park are to the east of the southern end of KLOA. The Ahupua‘a O Kahana State Park (formerly Kahana Valley State Park) was established as a living park with the primary purpose to nurture and foster native Hawaiian culture and spread knowledge of its values and ways (DLNR 2003d). SBER is located to the south, and private agricultural lands are to the west.

Drum Road

Land uses surrounding Drum Road are open and forested areas, agriculture, and military/federal (City and County of Honolulu 2000a). The northern portion of the road is near the Waimea Valley, which includes Waimea Falls Park.

Surrounding Land Ownership

Kahuku Training Area

The land surrounding KTA is owned by James Campbell Trust Estate, the State of Hawai‘i, Property Reserve, Inc., Dole Food Co., Inc., the City and County of Honolulu (leased to the Audubon Society), Girl Scout Council, Antonio Narvaez, Comstat Corporation, and Obayashi Corporation (USARHAW and 25th ID[L] 2001a).

Kawailoa Training Area

Owners of land surrounding KLOA include the federal government, the State of Hawai‘i, James Campbell Trust Estate, the City and County of Honolulu (leased to the Audubon

Society), Bernice Pauahi Bishop Estate, Dole Food Co., Inc, Property Reserve, Inc., and Waialua Sugar Co.

Drum Road

Owners of land surrounding the Drum Road alignment include those listed in Table 7-7.

7.2.2 Environmental Consequences

Summary of Impacts

Table 7-8 provides a summary of impacts associated with land use and recreation at KTA/KLOA. Significant impacts on land use would occur under the Proposed Action and the RLA Alternative, where operation of a live-fire training facility (CACTF) would result in a surface danger zone preventing unauthorized access within KTA. When the KTA CACTF is active, USARHAW would establish all prudent measures to prevent unauthorized access within the newly established SDZs during training. Less than significant impacts on land use would occur during the temporary construction of the projects and due to SBCT training on lands currently used for current training. There would be no impacts under No Action.

Table 7-8
Summary of Potential Land Use/Recreation Impacts at KTA/KLOA

Impact Issues	Proposed Action	Reduced Land Acquisition	No Action
Conversion of agricultural land to training land	N/A	N/A	N/A
Impacts on natural resources management and recreational land use	⊗	⊗	○
Construction of Fixed Tactical Internet in a Conservation District	N/A	N/A	N/A
Impacts on land use during construction activities	⊙	⊙	○
SBCT training on lands currently used for current training	⊙	⊙	○

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	+ = Beneficial impact
⊙ = Significant but mitigable to less than significant	N/A = Not applicable
⊙ = Less than significant	
○ = No impact	

Proposed Action (Preferred Alternative)

Significant Impacts

Impact 1: Impacts on natural resources management and recreational land use. Projects associated with KTA and use of Drum Road would not affect natural resources management areas.

Authorized recreational uses at KTA, including hunting, hiking, biking and motorcross, would not change with the Proposed Action. However, unauthorized recreational access may be adversely affected by additional fencing and signs restricting access, which are necessary due to the proposed live-fire use of the area. Construction and operation of the CACTF would convert general maneuver lands to a live-fire facility, using SRTA only. SRTA has a maximum range of approximately 2,300 feet (700 meters) and an effective range of approximately 246 feet (75 meters). When the range is in use, any traffic (on foot or in unprotected vehicles) within the SDZ would be prohibited. Presently, traffic – such as unauthorized public access - is not strictly controlled at KTA. A significant impact would be associated with the introduction of live-fire training in an area used for low-intensity, generally dismounted, training because of additional restrictions on unauthorized recreational access.

Regulatory and Administrative Mitigation 1. No regulatory and administrative mitigation has been identified for this impact. Mitigation to address safety issues is discussed in Section 7.12.

Additional Mitigation 1. No additional mitigations have been identified.

Less Than Significant Impacts

Impacts on land use during construction activities. Land uses may be affected due to construction activities. This action would have short-term less than significant impacts limited to the localized and temporary nature of construction activities.

SBCT Training on lands currently used for training. Most of the land area within KTA and along Drum Road that would be used for general SBCT training is currently being used for training. The primary land use difference between current training and SBCT training is the introduction of the Stryker vehicle. This would result in the land being more intensively used following the Proposed Action, with vehicle traffic between SBMR and KTA increasing from 4 to 12 times per year, with vehicle density increasing from 40 to between 18 and 145 (an increase of 269 vehicles on the road). No impacts on land uses or recreation are expected due to this proposed change.

Reduced Land Acquisition Alternative

The impacts associated with RLA are identical to those described for the Proposed Action.

No Action

No Impacts

Under No Action, transformation would not occur, so no major changes to training areas would take place in Hawai'i. The Army would continue to operate and maintain its range, training areas, and support facilities in order to meet its current training mission requirement. However, the level of training would change occasionally in response to this requirement and as a result, the land uses of these areas may change. As appropriate, these actions would be evaluated under separate NEPA analysis. If future changes could affect the environment, NEPA documentation would be prepared.