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**CHAPTER 5**

**SCHOFIELD BARRACKS MILITARY  
RESERVATION/WHEELER ARMY AIRFIELD**

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# CHAPTER 5

## SCHOFIELD BARRACKS MILITARY RESERVATION AND WHEELER ARMY AIRFIELD

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### 5.1 INTRODUCTION

This chapter is a discussion of the affected environment and environmental consequences of project activities at SBMR (which includes SBER and Schofield Barracks Main Post), WAAF, and the SRAA. Levels of analysis by resource area will vary within this chapter, as the sensitivity of resources and level of project activity vary from one area to another. For instance, biological impacts at WAAF are not discussed in as much detail as at SBMR because WAAF has little undisturbed habitat and the project activities proposed for WAAF would have limited impacts on biological resources.

The proposed project at SBMR would require the construction of various training and support facilities, the acquisition of the SRAA, and changes in the training activities and locations. The following text provides a description of these proposed activities; for detailed construction information and graphics, see Appendix D, Construction Details. Potential environmental impacts associated with these proposed activities are discussed in detail throughout the remainder of this chapter.

#### 5.1.1 Proposed Action

##### ***Construction***

##### *Construction of Qualification Training Range 1*

The facility's proposed location is on the SBMR range footprint on McCarthy Flats, approximately 1.25 miles (2.01 kilometers) north of the intersection of Beaver Road and Trimble Road. The construction of QTR1 is anticipated to disturb approximately 120 acres (49 hectares) (an estimated 100 percent receiving construction activities), with the new buildings and structures occupying 0.12 acre (0.05 hectare).

The nonstandard QTR1 at McCarthy Flats would include 12 lanes of a combat pistol/Military Police (MP) firearms qualification course, 24 lanes of a modified record fire range, 12 lanes of a multipurpose machine gun/sniper range, and 50 lanes of a basic 10/25-meter firing range. Primary facilities also include stationary infantry target emplacements, moving infantry target emplacements, and zero panel and standing silhouette emplacements. Supporting facilities within the perimeter of the range complex would consist of necessary information systems requirements, demolition, earthwork electrical service, limit markers, fencing, lighting, berms, parking, service roads, site drainage, erosion control, and other site improvements. Approximately 20 tons of air conditioning equipment would be provided in the instruction buildings and range control.

#### Construction of Qualification Training Range 2

QTR2 would have a total of 22 firing points. Ten lanes would be used for modified record fire, and 12 lanes would be used for a standard automated combat pistol qualification course. This complex would support qualifications for pistol (38 cal., 9mm, 45 cal.) and shotgun and rifle (M16 and M4) Munitions would be limited to small arms, and tracers would not be authorized. This project would not require the demolition of any facilities in the real property inventory. The construction of QTR2 is anticipated to disturb approximately 120 acres (49 hectares) (a footprint of 1,574 feet [480 meters] by 3,280 feet [1,000 meters], with an estimated 100 percent receiving construction activities), with the new buildings and structures occupying 0.11 acre (0.45 hectare). This qualification range would be sited on existing agriculture fields within the proposed SRAA. There are no ranges currently in this area.

#### Construction of Battle Area Complex

A BAX would be constructed at SBMR for company gunnery training and qualification weapons systems. The proposed BAX would be constructed on the west side of Beaver Road and north of Trimble Road, on the existing range complex and range impact area. Supporting facilities would include site improvements, erosion control, a bivouac area, electrical service, security fencing, and gates. The construction of the BAX would occupy approximately 600 acres (243 hectares) of disturbed land (an estimated 200 acres [81 hectares] receiving construction activities), with the new buildings and structures occupying 0.18 acre (0.07 hectare).

#### Construction of Urban Assault Course and Training Facility

The UACTF would be positioned on what is now the MOUT assault course on the Kolekole Range at SBMR. The proposed range project would be 100 yards (91 meters) north of Trimble Road and oriented to the north in order to use the current range impact area. The construction of the UACTF is anticipated to disturb approximately 6 acres (2 hectares) (a footprint of 700 feet by 900 feet [213 meters by 274 meters], with an estimated 40 percent receiving construction activities), with the new buildings and structure occupying 0.04 acre (0.02 hectare). Construction would involve the removal of the MOUT assault course and support facilities at SBMR.

### Construction of Range Control Facility

A consolidated range control complex would be built to support consolidated command and control and other operations, including range maintenance operations, for range activities at all Army training areas on O'ahu. The proposed project would add 22,133 square feet (2,056 square meters) of new facilities on previously disturbed land and would involve demolishing eight buildings with a total area of 35,867 square feet (3,332 square meters). Supporting facilities would include water, sewer, and electrical service, paving, walks, parking, security fencing, information systems, and site improvements. The proposed facility would be constructed on the west side of Beaver Road on an open field, approximately half a mile (0.8 kilometer) north of Trimble Road intersection.

### Construction of Virtual Fighting Training Facility

The proposal is to construct an 11,496-square-foot (1,068-square-meter), single-story, state-of-the-art, virtual fighting training facility to house war-fighting simulation operations to support small arms marksmanship and dismounted weapons system training. Support facilities would include water, sanitary sewer, storm drainage, electric service, fire protection and alarm systems, telephone, paving, walks, curbs, gutters, parking, information systems, and state-of-the-art intracommunications and intercommunications systems and site improvements. The building would be constructed on the south side of Trimble Road, approximately half a mile (0.8 kilometer) west of the intersection of Beaver Road and Trimble Road on previously disturbed land.

### Construction of Motor Pool Maintenance Shops

The proposal is to construct a 167,775-square-foot (15,587-square-meter) motor pool facility, which would include new tactical equipment maintenance shops with repair bays, a separate administrative area, two arms rooms, two communication rooms, hazardous material storage facility, shop control, overhead cranes, petroleum, oil, and lubricants facilities, deployment equipment storage facilities, oil-water separators, a hardened parking area, and organizational vehicle parking areas, arms rooms, communication rooms, deployment storage facilities, hazardous material storage facility, telecom shelter, and oil water separator. Supporting facilities would include water, sanitary sewer, storm drainage, electric service, exterior lighting, fire protection and alarm systems, paving, walks, curbs and gutters, parking, roadways, information systems, and site improvements. There are no available lands at SBMR and WAAF to support these new facilities. The motor pool needs to be close as possible to SBMR and soldiers who would be training in the Stryker. The only available lands near SBMR are agriculture fields within the proposed SRAA.

### Construction of Tactical Vehicle Wash Facility

The proposal is to construct a tactical vehicle wash facility with six wash stations. The bays would be sized to fit a 60-foot (18.3-meter) long by 12-foot (3.7-meter) wide vehicle. The primary facility would consist of the preparation area and wash stations. The wash stations would use a high-pressure wash system and would recycle water to minimize wastewater disposal. The water would flow through a water sediment basin, an equalization basin, and oil water separators and then would be deposited into a water supply reservoir. Treatment would include oil and grease and grit removal and organic control. A structure would be provided to house the mechanical secondary treatment units and the control panels necessary

for the facility. The structure would be approximately 40 feet (12 meters) by 30 feet (9 meters). The structure would require louvers and would have a large door to install equipment and for maintenance. Supporting facilities include utilities, paving, fencing, curbing, and site improvements. The wash rack would be sited on previously disturbed lands on Higgins Road on SBER.

#### Construction of Multiple Deployment Facility

The proposal is to construct a multiple deployment facility (MDF) to support deployments from multiple airfields. The facility would include a deployment marshalling area, prefabricated guardhouses and document control station, wash rack, defueling shed, scale houses, joint inspection area, vehicle maintenance shelter, vehicle holding area, AHA, and a contingency warehouse. An additional ASP scale area would be provided to support Stryker vehicles that are processed through the MDF and are then directed to the ASP site to be loaded with ammunition. These vehicles would then be reweighed at the ASP scale area, and the information would be processed at Building 1551 and transmitted to the AHA facility. The AHA facility would be accessible to the disabled. Three buildings would be demolished as part of this project. Supporting facilities would include water, sanitary sewer, storm drainage, electric service, exterior lighting, fire protection alarm systems, telephone, paving, fencing, parking, information systems, and site improvements. Sustainable design elements would be incorporated into the facility design and would include air conditioning. This proposed facility would be on a previously disturbed site south of Airdrome Road, on an abandoned airstrip at WAAF.

#### Upgrade Wheeler Army Airfield for C-130 Aircraft

Under this proposal the 694-foot by 837-foot (212-meter by 255-meter) apron, the taxiway, and the parking pad would be strengthened to accommodate C-130 aircraft staging operations for the proposed life cycle of WAAF. This proposed project would be sited on the west side of WAAF, just north of Airdrome Road.

#### Construction of Helemanō Trail

A 15-foot-wide (5-meter-wide) gravel road would be constructed, with three-foot-wide gravel shoulders on both sides, to provide military vehicle access from SBMR to HMR. In conjunction with Drum Road, this project would provide a road network from SBMR to KTA. Work would include grading, paving, drainage improvements, culverts at stream crossings, guardrails, shotcrete, retaining walls, concrete swales, grass swales, signs, and storm drainage structures and lines. Work would also include provisions for telecommunication lines, which would run alongside the new paved road. Road grades steeper than 10 percent would be paved with asphalt or concrete. The project would be sited from SBMR to HMR for approximately seven miles (eight kilometers). It would be north of Wahiaiwā and would use as much of the existing agriculture roadways as possible.

#### Construction of Fixed Tactical Internet

Vertical whip antennas would be strategically placed at seven locations at SBMR and at two locations at SBER so that radios in military vehicles could receive both voice and data signals. Four antennas would be installed at each proposed site on O‘ahu, using existing tower sites when possible. Two of the antennas would be approximately four feet (1 meter)

long and two inches (0.05 meter) in diameter, and the other two antennas would be approximately 10 feet (2.5 meters) long and two inches (0.05 meter) in diameter. All the antennas would be mounted on masts or existing utility poles, towers, or buildings, which would make each of the two SBER antennas a total of 102 feet tall; the total height of the SBMR antennas would range from 25 feet to 102 feet. Each site would have an area of 20 feet (6 meters) by 25 feet (7.6 meters), including a 15-foot (4.6-meter) by 20-foot (6-meter) concrete pad for the support structure and shed. Sites would be accessed via existing roads in all cases. No security lighting would be installed at the sites. Equipment sheds would house four radios and four batteries.

### ***Land Transactions***

#### ***South Range Land Acquisition***

The SRAA is south of SBMR, west of WAAF, and north of the Del Monte pineapple fields and the Honouliuli Preserve, which is a forested area managed by The Nature Conservancy. The SRAA is to the east of the Wai'anae Mountains. The proposed parcel acquisition would cover approximately 1,400 acres (567 hectares). The area would be used for mounted and dismounted maneuver training, and QTR2 and the motor pool would be constructed within this area.

#### ***Land Easement for Construction of Helemanō Trail***

Approximately 17 acres (7 hectares) of land would be acquired in a perpetual easement for constructing Helemanō Trail.

### ***Training***

#### ***Operation of Qualification Training Range 1***

In general, QTR1 provide improved, consolidated facilities to more efficiently and cost-effectively conduct live-fire range qualification training, as well as training necessary to detect, identify, engage, and defeat dismounted and mounted enemy forces. Range training would include familiarizing troops with and qualifying them for using individual and crew-served weapons, including combat pistols/MP firearms (M9, .38 caliber [cal.], and .45 cal.), shotguns and rifles (M16, M4, M14, M21, and M24), and machine guns (M60, M249, M240B, and M2). The proposed facilities would also provide a location for maneuver training required by proposed units. Additional details regarding training at the QTR1 are included in Chapter 2.

The training at QTR1 will take place on approximately 120 acres (49 hectares) of disturbed land and would be used between 180 and 242 days per year. No combat vehicles would be in service at the site, but between 5 and 10 support vehicles would be used per training episode.

#### ***Operation of Qualification Training Range 2***

The training at the QTR2 is anticipated to disturb approximately 120 acres (49 hectares) of agricultural land. The proposed range would be used between 180 and 240 days per year. No combat vehicles would be used, but between 5 and 10 support vehicles would be used.

### Operation of Battle Area Complex

The proposal is to construct a BAX at SBMR, designed for company gunnery training and qualification requirements of the weapons systems associated with the proposed SBCT. The complex would support qualification for graduated live-fire training from squad to company level and some battalion exercises. The complex would incorporate all weapons intrinsic to the SBCT Infantry Company (except the Javelin) and would allow a variety of live-fire exercise scenarios. The range would also support dismounted infantry platoon tactical live fire operations, either independently of or simultaneously with supporting vehicles. The range would include the following training objective features: 4 course roads with crossover capability, 30 stationary armor targets, 6 moving armor targets, 174 stationary infantry targets, 14 moving infantry targets, 17 machine gun/observation bunkers, 2 grenade/breaching obstacles, 3 helicopter landing zones, 13 mortar simulation devices, and 8 vehicle trenches and firing positions.

The training at the BAX is anticipated to affect 2,075 acres (840 hectares) of existing disturbed range lands. The BAX is anticipated to use combat vehicles for a maximum of 210 days a year and a minimum of 180 days a year and to support vehicles a maximum of 8 days a year and a minimum of 4 days a year. Combat vehicles consist of Stryker and HMMWV vehicles, while support vehicles consist of 2½-ton to 5-ton vehicles. The BAX is anticipated to use various types of ammunitions, mines, and pyrotechnics.

### Operation of the Urban Assault Course Training Facility

The urban assault course training facility (UACTF) would include a breach facility, UACTF, and a live-fire shoothouse. The breach facility would be used to train soldiers in the proper techniques to enter buildings through doors, windows, and walls. The UACTF would be used to train soldiers in other techniques associated with urban combat, including underground training. The live-fire shoothouse would be used to train individuals, squads, and platoons on the proper techniques to enter and clear a building. This facility is required to support the combined arms urban operations training strategy for conducting full spectrum operations (offense, defense, stability and support).

The training at the UACTF is anticipated to affect 14 acres (6 hectares) of previously disturbed range lands. The UACTF is anticipated to be used a maximum of 210 days and a minimum of 75 days per year. The UACTF is anticipated to use various types of ammunitions, mines, and pyrotechnics.

### Use of Information Infrastructure Architecture

These facilities are being constructed to meet requirements of the current mission of the 2<sup>nd</sup> Brigade. The environmental effects of this proposed construction are addressed in a separate NEPA document. Only the use of this project by SBCT forces will be addressed in this SBCT EIS. The facilities would include fiber optics and copper cables running from the cantonment area to the ranges, the motor pool, and other facilities within the installation. These telecommunications facilities would furnish digital information necessary for interconnections among various ranges on SBMR, WAAF, HMR, KTA, and other locations on O'ahu. Also included would be underground and aboveground cable to upgrade the e-

mail system, the asset visibility system, the automated personnel processing system, and video teleconferencing capability.

### General SBCT Training

Transformation activities include military training on lands outside of developed areas, such as the cantonment area. Such training would include nonlive-fire, mounted maneuver training (using vehicles such as the Stryker and HMMWV) and other nonlive-fire military training on foot. Most of the nonlive-fire training by SBCT forces would be similar to that being conducted by Legacy Force light infantry brigades.

As discussed in Chapter 2, training includes establishing and using tactical and logistical operations and administrative centers, as well as smaller more dispersed activities, such as bivouac. As with Legacy Force training, exercises would continue to be at the squad through company level, with some opportunities for battalion and above training. General SBCT training would likely occur between 180 and 242 days per year.

Field activities, or training exercises, can involve a variety of activities, such as vehicle movement, maneuvers, and convoys, foot maneuvers, bivouacking, limited aviation training, and staff training exercises. Field exercises can generally take place in all training areas outside of the designated cantonment areas. Currently, trafficable areas available for maneuver training exercises are undefined but are assumed to include sizable portions of all USARHAW training installations.

### ***Proposed Action Impacts***

Table 5-1 is a list of environmental impacts by specific SBCT project and resource category. This gives the public and reviewers a more detailed evaluation of impacts deriving from specific SBCT-related actions.

#### **5.1.2 Reduced Land Acquisition**

Under this alternative, the SRAA would be reduced and QTR2 would be constructed at PTA on the island of Hawai'i instead of on the SRAA. All other construction and training activities would be the same as the proposed action.

### ***Land Transactions***

#### South Range Land Acquisition

The proposed parcel acquisition would cover approximately 100 acres (40 hectares). The additional land is required for constructing new motor pool facilities and related infrastructure.

### ***Reduced Land Acquisition Impacts***

Table 5-2 is a list of environmental impacts by specific SBCT project and resource category. This gives the public and reviewers a more detailed evaluation of impacts deriving from specific SBCT-related actions.

**Table 5-1  
SBCT Project Impacts Under the Proposed Action at SBMR**

1391 Project #	SBCT Project Title	Location	Land Use	Visual Resources	Airspace	Air Quality	Noise	Traffic	Water Resources	Geology and Soils	Biological Resources	Cultural Resources	Human Health & Safety Standards	Socioeconomic s/EJ	Utilities
<b>SBMR/WAAF</b>															
58143	Urban Assault Course and Training Facilities	Main Post	⊙	⊗	○	⊙	⊙	○	⊙	⊙	⊙	⊗	⊗	○+	⊙+
57404	Virtual Fighting Training Facility	Main Post	⊙	⊗	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○+	⊙+
56923	Range Control Facility	Main Post	⊙	⊗	○	⊙	⊙	○	⊙	⊙	⊙	⊙	⊗	○+	⊙+
58144	Battle Area Complex	Main Post	⊙	⊗	○	⊙	⊙	○	⊙	⊙	⊗	⊗	⊗	○+	⊙+
57421/ 58925	Motor Pool Maintenance Shops	Main Post	⊙	⊗	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊗	⊙+	⊙+
57416	Tactical Vehicle Wash Facility	East Range	⊙	⊙	○	⊙	⊙	⊙	⊙	⊙	⊙	⊗	⊙	⊙+	⊙
N/A	Fixed Tactical Internet	Main Post	⊙	⊙	○	⊙	⊙	○	⊙	⊙	⊙	⊗	⊙	○	+
55270	South Range Land Acquisition	SRAA	⊙	○	○	○	○	○	○	○	⊙	○	⊗	○	○
57461	Qualification Training Range, QTR1	Main Post	⊙	⊗	○	⊙	⊙	⊙	⊙	⊙	⊗	⊗	⊗	○+	⊙+
57462	Qualification Training Range, QTR2	SRAA	⊗	⊗	○	⊙	⊙	⊙	⊙	⊙	⊗	⊗	⊗	○+	⊙+
57422	Multiple Deployment Facility	WAAF	⊙	⊙	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊗	⊙+	⊙
57405	Upgrade Airfield for C-130 Aircraft	WAAF	⊙	⊙	○	⊙	⊙	○	⊙	⊙	⊙	○	⊙	⊙+	⊙
N/A	SBCT Training	SBMR	⊙	⊙	○	⊗	⊗	⊙	⊗	⊗	⊗	⊗	⊗	⊙	⊙
57406	Road Construction, Schofield to Helemanō	Helemanō	⊙	⊗	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙+	⊙
57802	Land Easement, Schofield to Helemanō	Helemanō	○	○	○	○	○	○	○	○	⊙	○	○	○	○

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:**

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

**Table 5-2  
SBCT Project Impacts Under the RLA Alternative at SBMR**

1391 Project #	SBCT Project Title	Location	Land Use	Visual Resources	Airspace	Air Quality	Noise	Traffic	Water Resources	Geology and Soils	Biological Resources	Cultural Resources	Human Health & Safety Standards	Socioeconomic s/EJ	Utilities
<b>SBMR/WAAF</b>															
58143	Urban Assault Course and Training Facilities	Main Post	⊙	⊗	○	⊙	⊙	○	⊙	⊙	⊙	⊗	⊗	○	⊙+
57404	Virtual Fighting Training Facility	Main Post	⊙	⊗	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	⊙+
56923	Range Control Facility	Main Post	⊙	⊗	○	⊙	⊙	○	⊙	⊙	⊙	⊙	⊗	○	⊙+
58144	Battle Area Complex	Main Post	⊙	⊗	○	⊙	⊙	○	⊙	⊙	⊗	⊗	⊗	○	⊙+
57421/ 58925	Motor Pool Maintenance Shops	Main Post	⊙	⊗	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊗	⊙+	⊙+
57416	Tactical Vehicle Wash Facility	East Range	⊙	⊙	○	⊙	⊙	⊙	⊙	⊙	⊙	⊗	⊙	⊙+	⊙
N/A	Fixed Tactical Internet	Main Post	⊙	⊙	○	⊙	⊙	○	⊙	⊙	⊙	⊗	⊙	○	⊙+
55270	South Range Land Acquisition	SRAA	⊙	○	○	⊙	⊙	○	○	○	⊙	○	⊗	○	○
57461	Qualification Training Range, QTR1	Main Post	⊙	⊗	○	○	○	⊙	⊙	⊙	⊗	⊗	⊗	○+	⊙+
57422	Multiple Deployment Facility	WAAF	⊙	⊙	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊗	⊙+	⊙
57405	Upgrade Airfield for C-130 Aircraft	WAAF	⊙	⊙	○	⊙	⊙	○	⊙	⊙	⊙	○	⊙	⊙+	⊙
N/A	SBCT Training	SBMR	⊙	⊙	○	⊗	⊗	⊙	⊗	⊗	⊗	⊗	⊗	⊙	⊙
57406	Road Construction, Schofield to Helemanō	Helemanō	⊙	⊗	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙+	⊙
57802	Land Easement, Schofield to Helemanō	Helemanō	○	○	○	○	○	○	○	○	⊙	○	○	○	○

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:**

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

### 5.1.3 Public Scoping Comments

Public scoping comments on SBCT project activities at SBMR and WAAF focused on potential impacts related to the following:

- Access to the Schofield-Waikane Trail and other open space areas;
- Biological resources at Honouliuli Preserve, especially rare and endangered species;
- Continued stewardship by The Nature Conservancy to manage Honouliuli Preserve;
- Air emissions from training activities to Kolekole Pass and other areas;
- Potential impacts to cultural resources at Honouliuli Preserve;
- Increased frequency of wildfires;
- Erosion of soils;
- Land use changes, including the conversion of agricultural lands to military use;
- Socioeconomic and environmental justice issues;
- Traffic along the Kamehameha Highway and other roads;
- Groundwater at SBMR and surrounding areas; and
- Remediation of hazardous materials and wastes.