

### **3.13 PUBLIC SERVICES AND UTILITIES**

#### **3.13.1 Introduction/Region of Influence**

MMR uses federal and county police, fire, and emergency medical services. Utility services are obtained from the county and from contractors and include potable water, stormwater, wastewater, solid waste management, telephone, and electric power.

In addition to the project description in Chapter 2, the following was assumed: emergency care patients would be stabilized at Wai‘anae Coast Community Health Center (WCCHC). These patients ultimately would be transferred to Tripler Army Medical Center, rather than another area hospital, for continued care.

During the scoping process, public comments regarding public service and utility issues included concerns about land maintenance and the existence and location of a designated triage or medical care facility.

#### **3.13.2 Police Mākua Military Reservation**

No on-site police force is maintained at MMR; the Army has jurisdiction and uses military police units as the primary law enforcement agency. While the Honolulu Police Department has no formal role in activities at MMR, it will respond to events at its discretion (Yamamoto 2003). The Army typically gives the Honolulu Police Department one to two weeks notice of upcoming training activities at MMR (Husemann 2003a). The Wai‘anae police station is approximately 8.3 miles (13 kilometers) from MMR.

#### **Pōhakuloa Training Area**

Army staff provide all police services on PTA. Units that come to PTA for training may bring military police of their own, depending on the size of the unit and other circumstances. The PTA police facility is located in the cantonment area and is open 24 hours per day, seven days per week. Saddle Road, a public highway, is patrolled by Hawai‘i County police, but PTA military police are available for support when necessary. Lands leased by the Army are not patrolled on a regular basis, but military police will respond to calls in coordination with county police. PTA military police coordinate extensively with county police on a regular basis (US Army and USACE 2004).

### **3.13.3 Fire**

#### **Mākua Military Reservation**

Two 300,000-gallon (1.1-million-liter) reservoirs, one located in the valley at the final objective and the other between the staging area and administration building, provide water for helicopter dip buckets. A minimum depth of seven feet (2.1 meters) is provided at each reservoir before training begins. The lower reservoir is filled with water obtained from the on-site 33,000-gallon (125,000-liter) water storage tank, which is supplied by a county water service lateral pipe. The upper reservoir is filled with rainwater or augmented with water obtained from an off-site county fire hydrant and trucked to MMR. The Honolulu Fire Department will respond to fires outside of the facility or when requested to support the federal fire department (Husemann 2003a). The Wai‘anae fire station is approximately 7.8 miles (13 kilometers) from MMR. A federal fire fighting team is present during all military maneuvers. Fire fighting resources are discussed in greater detail in Section 3.14.

#### **Pōhakuloa Training Area**

Fire response services are provided by Army staff based at PTA. There is one fire station, located at BAAF, with a staff of six (including two emergency medical technicians sharing duty round the clock). Available equipment includes two brush trucks (wildland rigs), a tanker, a crash rig, and an ambulance.

### **3.13.4 Emergency Medical Services**

#### **Mākua Military Reservation**

An emergency medical service facility does not exist at MMR. The nearest medical facility is the WCCHC approximately 9 miles (14 kilometers) from MMR. The health center provides 24-hour emergency room service and is capable of receiving patients by motor vehicle or helicopter. County ambulance transport is based at the Wai‘anae fire station. Staff at the health center can stabilize a patient for transport to Tripler Army Medical Center (Hefner 2003).

#### **Pōhakuloa Training Area**

Emergency medical services are provided by Army staff based at PTA. Serious medical emergencies rely on medical helicopter transport to Hilo, which is about 10 minutes away by air. PTA emergency staff respond to accidents on the roughly 25 miles (40.2 kilometers) of Saddle Road that pass through PTA, and at the border of the installation the injured are

transferred to the care of the City and County of Hawai'i (US Army and USACE 2004).

### **3.13.5 Potable Water Mākua Military Reservation**

Freshwater is stored at MMR in a 33,000-gallon (125,000-liter), at-grade steel water tank east of the administration building. The tank is a source for on-site fire fighting systems, which include building sprinklers and dry standpipes (Husemann 2003a). Freshwater from the tank is processed through a filtration system to produce drinking water. The County Board of Water Supply provides water service to MMR through a 4-inch (10.2-centimeter) diameter underground line located in the state right-of-way. The sources for the Wai'anae water sector include 11 wells, a tunnel, and a mountain spring. Additional sources of water are available from neighboring water sectors. For the fiscal year ending June 30, 2001, the average Wai'anae water sector consumption was 9.2 mgd (34.8 mld) (BWS 2001). The sustainable yield for the Wai'anae water district is 15.0 mgd (56.8 mld) (DLNR 2001).

### **Pōhakuloa Training Area**

Water supply to PTA is now hauled by tanker trucks from the town of Waimea, where it is purchased (US Army and USACE 2004). Excess demand can be supplied by the City of Hilo. Each truck has a capacity of 5,000 gallons (18,927 liters), and up to 14 truckloads per day were required when the camp was at full capacity. Two pump stations transport the hauled water to two 670,000-gallon (2,553,226-liter) storage reservoirs, where it is treated with powdered chlorine and sent to three 10,000-gallon (37,854-liter) distribution reservoirs. Water from these reservoirs supplies PTA, BAAF, and fire reserves (C. H. Guernsey & Company 2001). Water consumption on PTA ranges from 10,000 gallons (37,854 liters) per day to 250,000 gallons (946,353 liters) per day, depending on camp occupancy; average consumption is 100,000 gallons (378,541 liters) per day (US Army and USACE 2004).

Hōkūpani Spring, Waihū Spring, and Liloe Spring previously supplied water to PTA. Spring water is captured by two 2-inch (5-centimeter) pipes running from the springs, through water catchments, and down to the base camp. The annual production of water supplied by the springs ranges from 20,000 gallons (75,708 liters) to 40,000 gallons (151,417 liters) per day. However, historically, the spring produces a range of 0 to 80,000 gallons (302,833 liters) per day. This water was stored in a 670,000-gallon (2,553,226-liter) tank and treated in a slow sand filter treatment plant

installed in 1996. The treated water was then conveyed to the two storage reservoirs for chlorination. The slow sand filter ceased to function, and use of spring water was discontinued. The state ranger facility has the rights to the first 8,000 gallons (30,283 liters) of water from the springs. The Army has the rights to the next 6,000 gallons (22,712 liters), and the remainder of the water is divided equally between the two agencies (US Army and USACE 2004).

### **3.13.6 Stormwater**

Runoff from MMR is either retained on-site or collected in a roadside swale along Farrington Highway. The swale discharges to two box culverts that cross beneath the highway and outlet to low areas between beach dunes and the highway (see Section 3.8, Geology and Soils, for further discussion).

### **3.13.7 Wastewater Mākua Military Reservation**

MMR maintains two permanent underground sewage holding tanks located east of the administration buildings. Sewage generated from the administration buildings is held in the two tanks. A licensed waste hauling contractor empties the tanks and disposes of sewage at the Schofield Wastewater Treatment Plant at Wheeler Army Air Field as needed. Between January 2002 and April 2003, the holding tanks were serviced on ten occasions, or every six weeks on average (Devera 2003). Eight portable toilets are on-site at all times for use by training units and are maintained by a contractor (Husemann 2003b). Six portable toilets are in the staging area, and two are east of the administration building.

### **Pōhakuloa Training Area**

Wastewater flows at PTA derive from domestic wastewater generated by mess halls, latrines, and other administrative operations. Most of the flows from each of these facilities are disposed of in adjacent cesspools. Some facilities are grouped to one cesspool, and wastewater from grouped facilities is collected and transported through 4-inch (10-centimeter) sewer lines to a cesspool for disposal. Three latrine/shower facilities (T-87, T-290, and T-121) recycle water used in the showers and sinks for use in the latrines. The wastewater from the latrines is then discharged to a septic tank and is finally disposed of in a seepage pit or leach field.

### **3.13.8 Solid Waste Management Mākuā Military Reservation**

Nonhazardous solid waste generated at MMR is collected in a 30-cubic-yard (23-cubic-meter) trash container and disposed of off-site by a licensed contractor as needed. Between January 2002 and April 2003, the container was emptied eight times, or every two months on average (Tamaru 2003).

#### **Pōhakuloa Training Area**

PTA generates an estimated 296 tons (269 metric tons) of industrial solid waste annually based on the waste and recycling streams generated during the third quarter of 2002 (USARHAW 2002a).

### **3.13.9 Telephone Mākuā Military Reservation**

Verizon Hawai‘i provides telephone service at MMR using US government-owned underground cables. MMR is being converted to the Department of Defense Hawai‘i Information Transfer System (DoD HITS) operated by AT&T Government Solutions (Booker 2003). The HITS system upgrade will involve new underground fiber optic lines within existing government easements. Voice and data communications for MMR will be carried entirely on the DoD HITS system. The system upgrade is expected to be completed within two years (Grey 2003).

#### **Pōhakuloa Training Area**

Telecommunications from the area between Mauna Kea and Mauna Loa are transmitted to Hilo through the Humu‘ula microwave station. Overhead trunk lines extend from this station to PTA, and distribution lines are located in the base camp, cantonment area, and BAAF. The trunk and distribution lines are owned by GTE Hawaiian Telephone, Inc.

### **3.13.10 Electricity Mākuā Military Reservation**

Two sources of electrical power are available at MMR. The Hawaiian Electric Company provides power from overhead power lines in the state right-of-way to the administration buildings. A standby diesel generator provides temporary emergency power in the event that permanent service is interrupted.

### **Pōhakuloa Training Area**

HELCO supplies electric power to PTA through a single 12.47-kV delivery point from a HELCO-owned substation located outside the northeast fence of the cantonment area. The components of this system include metering equipment, 29 transformers, 20 miles (32.2 kilometers) of overhead lines, and 755 poles. Demand for electric power varies throughout the year, depending on troop population in the base camp. Usage varies from about 1,600 kilowatt hours per day (kWh/day) to 7,100 kWh/day; average consumption is approximately 4,553 kWh/day (US Army and USACE 2004).