

EXECUTIVE SUMMARY

Hill Air Force Base (Hill AFB) is located in Weber and Davis counties in northern Utah, approximately 25 miles north of Salt Lake City. Hill AFB covers about 6,700 acres on the Weber River Delta, a terrace that lies about 300 feet above the surrounding valleys. In July 1987, Hill AFB was placed on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL) because of the historical release of hazardous liquid and solid wastes generated by installation operations at several sites. These hazardous waste sites have been grouped into eight Operable Units (OUs) according to a Federal Facilities Agreement (FFA) that was executed in 1991 between the U.S. Air Force, the State of Utah Department of Environmental Quality (UDEQ), and the United States Environmental Protection Agency (EPA).

Operable Unit 3, located at the southern portion of the Base, consists of several sites with known soil contamination, including Berman Pond, the Sodium Hydroxide Tank Site, and the Refueling Vehicle Maintenance Facility (RVMF, consisting of Buildings 511 and 514). Additional OU 3 sites that were determined not to be primary contaminant sources include Pond 1, Pond 3, and the Industrial Wastewater Treatment Plant (IWTP) West Sludge Drying Beds. Ground water underlies the OU 3 source areas at approximate depths ranging from 8 feet below ground surface (bgs) near Pond 3 to 83 feet bgs at the RVMF. Pursuant to a 1993 agreement with the EPA and UDEQ, ground water both on and off Base has been transferred from OU 3 into a new Operable Unit (OU 8). Operable Unit 8 comprises the contiguous layer of ground water beneath the industrial area of the Base and the Layton Area.

A remedial investigation (RI) was completed between 1987 and 1994 to evaluate the nature and extent of contamination at each OU 3 source area. This investigation included collecting and analyzing soil, pond sediment, ground water, pond surface water, and soil vapor samples. Contamination was identified at all six source areas. Analytical data collected during the RI confirmed the presence of VOCs; base, neutral, and acid extractable compounds (BNAEs); pesticides; polychlorinated biphenyls (PCBs); metals; and cyanide in subsurface soil at OU 3.

The Feasibility Study (FS) develops remedial alternatives for each of the four source areas that have current or future risks to humans and the environment. The range of alternatives established for the source areas include No Action, Institutional Controls, Capping, Excavation, Soil Vapor Extraction, Neutralization, Thermal Desorption, and Off-Site Disposal. The alternatives for each source area were numerically evaluated against seven evaluation criteria. A score from 1 to 5 (5 being the best) was assigned to each alternative for each specific criterion. Scores for each alternative were used to help identify the most effective remedial alternative for each source area. These "preferred alternatives" will be identified in the Proposed Plan.

For the RVMF, the only contaminant of concern is 1,1-dichloroethene (1,1-DCE). The area of attainment for 1,1-DCE is centered around a floor drain in Building 514 and includes approximately 100 cubic yards (yds³) of near-surface soil. The proposed soil remediation goal is 0.8 milligram per kilogram (mg/kg). Three alternatives were developed and analyzed for the RVMF Area. The alternative that rated highest for most of the seven criteria was in-situ vapor extraction of the 1,1-DCE area of attainment.

At the sodium hydroxide tank site, high pH in soil requires remedial action. The soil remediation goal for pH is between 6.5 and 8.5 pH units (to meet ground-water quality standards); approximately 12,000 yds³ of soil contain pH greater than 8.5. Four alternatives were developed and analyzed for the sodium hydroxide tank site. The alternative that received the highest scores was institutional controls, which includes long-term maintenance of an existing asphalt cap over the former sodium hydroxide tank area.

At Berman Pond, two zones have been established in the area of attainment. These include approximately 57,000 yds³ of soil from 8 feet below ground surface (bgs) to approximately 5 feet below the bottom of the pond (Zone 1), and 141,000 yds³ of soil from 5 feet below the pond bottom to the capillary fringe of the ground-water table (approximately 65 feet bgs). Contaminants of concern include VOCs, BNAEs, pesticides, PCBs, and metals. Six alternatives were developed and analyzed for the Berman Pond area. The alternative that rated highest for most of the seven criteria was dewatering Berman Pond, placing a multi-media cap over the area of attainment, and providing long-term operation and maintenance (O&M) for the capped area. A continuing order from the Base commander would be issued to restrict access to and use of the affected area.