

EXECUTIVE SUMMARY

Purpose

This Environmental Assessment (EA) was prepared to comply with the requirements of the National Environmental Policy Act (NEPA), which requires an environmental assessment for major federal actions. The environmental impacts of proposed site investigations, interim remedial actions, and treatability studies at Hill Air Force Base (AFB) Operable Unit 8 (OU 8) are evaluated.

Existing Contamination

Operable Unit 8 is located in the southern portion of Hill AFB, and comprises ground water beneath the industrial area of the Base and in the Layton area off Base. The most widespread contaminants associated with OU 8 are trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), and 1,1-dichloroethene (1,1-DCE). The source areas for this contamination will be addressed under remedial actions for Operable Units 3 and 7 and several underground storage tank (UST) sites.

Description of Proposed Activities

Site investigation and treatability studies are planned for Hill AFB OU 8 to gather data necessary to select appropriate remedial action(s) for clean-up of contaminated ground water. Interim remedial actions may be taken to limit the spread of contamination during the Remedial Investigation/Feasibility Study (RI/FS) process. Planned site investigation activities include cone penetrometer testing (CPT), monitoring well installation and sampling, and aquifer tests. Treatability studies planned include air sparging and UVB (Unterdruck-Verdampfer-Brunnen, or vacuum vaporizer well). As interim remedial measures, air strippers may be installed at contaminated field drains in the Layton area and a hydraulic containment system may be installed at the southern boundary of Hill AFB.

Baseline for Evaluating Environmental Impacts

The no action alternative has been considered as a baseline against which the impacts of proposed activities are measured. Under a no action alternative, no additional investigative activities or treatability studies would be performed to further characterize OU 8 and no interim remedial actions would be taken to limit the migration of contaminants during the RI/FS process. If no action is taken, ground-water contamination would continue to spread. However, there would be no environmental impacts due to air emissions, changes in surface or ground-water hydrology, or disturbance to vegetation, wildlife, or archaeological and historical resources. There would be no changes in land use.

Summary of Environmental Impacts of Proposed Activities

Air Quality. Construction-related impacts on air quality include fugitive dust and vehicular emissions. Treatability studies and interim remedial measures will emit volatile organic compounds (VOCs). These emissions are minor and are not expected to have a discernible effect on regional air quality. However, prior to allowing these discharges, modeling and cost analysis for Best Available Control Technology (BACT) will be required. Based on modeling results and the cost of implementing BACT, emissions controls will be installed as required. Emissions sources may require identification in Hill AFB's Title V air permit application.

Surface and Ground-Water Hydrology. Overall effects on surface and ground-water hydrology are minor. Ground-water hydrology will be affected by pump tests, but these tests are of short duration and any effects also will be of short duration. Operation of air strippers to treat contaminated ground water from the hydraulic containment system or at the field drains will have a limited effect on ground-water and surface water hydrology. Although water will be diverted from its current flow path through the air stripper, the treated water will be returned to its flow path as close to the collection point as possible so flow is not interrupted (i.e., if flow was previously in an irrigation ditch, treated water would be returned to the irrigation ditch; contaminated ground water extracted for the hydraulic containment system will be treated and reinjected at the Base boundary). The treated water in field drains can continue to be used by the property owner as it was previously. In some cases, it is used for irrigation or livestock watering. In other cases, the water flows directly to the storm sewer system without being used.

Surface and Ground-Water Quality. The proposed treatability studies and interim remedial actions are intended to gather data and limit the spread of contamination during the RI/FS process. The net effect on surface and ground-water quality will be an improvement of existing quality.

Vegetation. All of the proposed projects will result in clearing less than one acre of vegetation. Before construction in field drain areas, the U.S. Army Corps of Engineers will be consulted to determine the extent of jurisdictional wetlands. At that time, the functions and values of any wetlands will be analyzed, and impacts of the air strippers will be assessed. All disturbed areas will be revegetated with plants compatible with existing vegetation.

Wildlife. The proposed activities are not expected to impact wildlife populations. No endangered species are known to inhabit the project area.

Archaeology and Historical Resources. The proposed action is not expected to affect any cultural or historic resources.

Land Use. Only limited changes in on- or off-Base land use are expected. Implementation of activities may involve leasing some off-Base property, but landowners will be compensated fairly by the Air Force.

Noise. Construction and operation of proposed activities would produce noise. This additional noise is not expected to be discernible outside the immediate project area.

Human Health and Safety. The proposed activities will be performed in a manner designed to protect human health and safety. Worker safety will be a high priority during system construction and operation, including adherence to all applicable safety requirements. Interim remedial actions and treatability studies may limit the spread of contamination and thereby reduce risks to human health and the environment.

Conclusion

Based on the findings of this environmental assessment, no significant impacts are expected from site investigations, treatability studies, or interim remedial actions. Therefore, issuance of a Finding of No Significant Impact (FONSI) is warranted and an Environmental Impact Statement is not required. The Air Force, in this decision, will employ all practical means to minimize potential adverse impacts on the local environment.