Installation Restoration Program

West/Annexes/Basewide Operable Unit
Travis Air Force Base

Proposed Plan for Soil Cleanup

F I N A L

JULY 1998

Introduction

The Air Force seeks your comments on the proposed actions for the cleanup of soil contamination at 10 locations on Travis Air Force Base (AFB). This Proposed Plan (Plan) describes the soil contamination at these 10 locations and the possible options that are available to clean up this contamination. The Plan also describes the Air Force's preferred options and the rationale for them.

This Plan is available for public comment from July 8, 1998 to August 8, 1998. You are encouraged to provide your comments to either the Air Force or the Department of Toxic Substances Control during this 30-day public comment period using any of the methods described on page 15 of this Plan. You are also invited to discuss these cleanup options at a public meeting on July 23, 1998 beginning at 7:00 p.m. at the Fairfield Senior Center in Fairfield. A map of the public meeting site is provided on the back cover.

The 10 locations are part of a geographical area known as the West/Annexes/Basewide Operable Unit, or WABOU. The WABOU is one of two **operable units*** **(OU)** at Travis AFB that has soil contamination. The other OU is called the North, East, and West Industrial Operable Unit, or NEWIOU. The cleanup of soil, sediment and surface water contamination in this OU is described in the NEWIOU Soil, Sediment and Surface Water Proposed Plan. Both OUs also have **groundwater** contamination and associated cleanup options. The groundwater cleanup options are described in separate NEWIOU and WABOU Groundwater Proposed Plans. You are encouraged to visit the Travis AFB **Information Repository** in the Vacaville Public Library to review these documents. The address of the Vacaville Public Library is provided on the back cover.

This WABOU Soil Proposed Plan summarizes the technical information that applies to the 10 locations and the potential cleanup alternatives that could be used to clean up the soil contamination. This information is presented in much greater detail in the WABOU **Remedial Investigation (RI)** report and the WABOU **Feasibility Study (FS)** report.

Figure 1. Regional Map of Travis AFB

* Words highlighted in **boldface** are defined in the Glossary on page 16 of this Proposed Plan.

After the cleanup actions are selected, they will be documented in a formal legal report, known as a **Record of Decision** (ROD). The ROD will be approved and signed by the U.S. Air Force, the U.S. Environmental Protection Agency (U.S. EPA), the California Department of Toxic Substances Control (DTSC), and the San Francisco Bay Regional Water Quality Control Board (RWQCB). Th three regulatory agencies have provided technical oversight and program management to Travis AFB to assist in the decision-making process.

The Air Force, together with the U.S. EPA and the State of California (State), realize that community input and acceptance is critical to the success of any cleanup action. Your participation in the review and discussion of all proposed soil cleanup alternatives is needed to help with the selection of the remedies at the 10 WABOU soil locations.

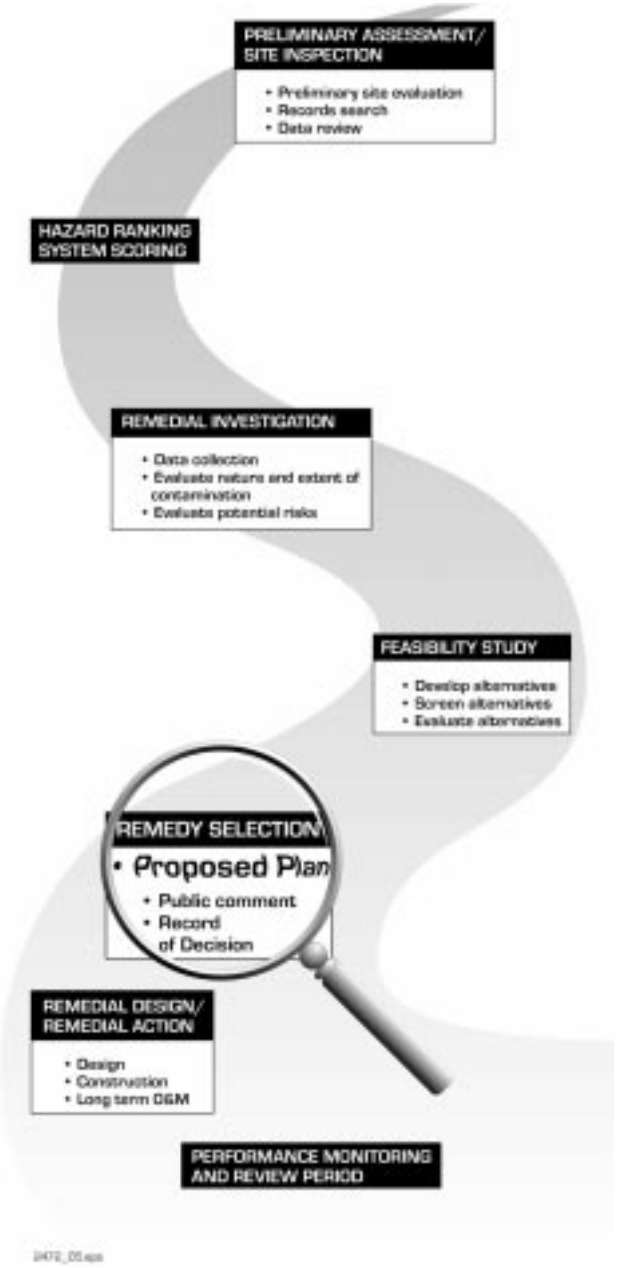


Figure 2. The WABOU in the CERCLA Process

Site Description

Travis AFB occupies approximately 5,025 acres in Solano County, California, midway between San Francisco and Sacramento (Figure 1). It is located in primarily agricultural or range land, although recent years have seen residential development to the southwest and commercial development to the north and west.

Travis AFB has provided strategic airlift support to military forces worldwide since it was established in 1943. It is home to the largest mobility organization in the Air Force. As other Air Force bases have closed across the country, Travis AFB has received additional responsibilities, including the support of several squadrons of KC-10 aerial refueling aircraft. To support these missions, various hazardous materials, such as oils, fuels, and solvents, are used to maintain the aircraft.

In 1983, Travis AFB established an Installation Restoration Program (IRP) to investigate and clean up soil and groundwater contamination from past base operations. Releases of hazardous waste had occurred as a result of leaking pipelines, spills or waste disposal to landfills. Although

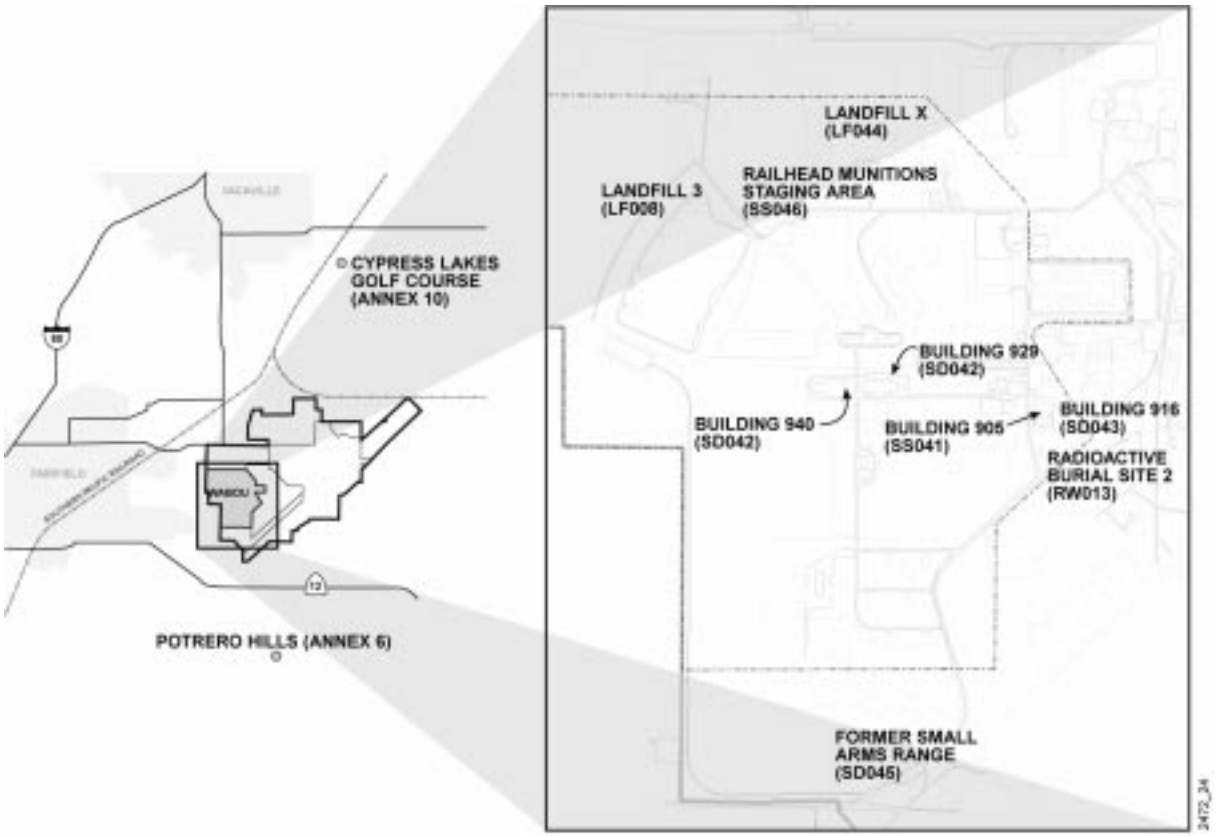


Figure 3. Soil Sites in the WABOU

the materials handling and disposal practices of the past were in accordance with regulations at the time, they resulted in contamination and have been stopped. Travis AFB now follows environmentally safe guidelines for the management and disposal of all hazardous materials and waste. In 1989, after evaluating the initial IRP data, the U.S. EPA placed Travis AFB on the **National Priorities List (NPL)**. The cleanup of NPL sites must follow the applicable procedures outlined in the federal Superfund Act and supporting regulations. The official title of the Superfund Law is the *Comprehensive Environmental Response, Compensation, and Liability Act* or **CERCLA**. Figure 2 shows the status of the WABOU within the CERCLA process.

Once placed on the NPL, the Air Force entered into a legal agreement with the U.S. EPA and the State of California, known as a Federal Facility Agreement (FFA). The FFA provides procedures and schedules for the investigation and cleanup of contamination at Travis AFB.

The WABOU consists of three components:

- The western portion of the installation (Figure 3).
- The annexes, or noncontiguous parcels of property that are under the jurisdiction of the Travis AFB installation commander (Figure 3).
- Other sites within the installation not addressed by the NEWIOU. This is the "basewide" component of the WABOU.

Table 1 provides a brief description of the 10 WABOU soil locations.

Site Name	Site Designation	Site Description
Building 905	SS041	Building 905 is the Entomology Shop that was used to mix and store pesticides and herbicides. An outdoor concrete wash facility was used to wash pesticide residue off of pesticide applicator vehicles. The topsoil surrounding the wash facility contains a variety of chlorinated pesticides. These pesticides may be a source of potential **human health risk**.
Building 916	SD043	Building 916 is an emergency electric power facility. At least one electrical transformer on a concrete pad adjacent to the building leaked cooling oil containing a **Polychlorinated Biphenyl** (**PCB)** into the surface soil. Although the concentration of PCBs does not present an unacceptable risk to either local workers or the environment, it may be acting as a source of groundwater contamination.
Buildings 929/931	SD042	Building 929 is a storage shed near a former Hazardous Waste Accumulation Area. Building 931 is a maintenance facility for portable electrical generators. Both facilities drain into an adjacent drainage ditch. Sediment within the ditch is contaminated with **Semivolatile Organic Compounds** (**SVOCs)** and metals. These compounds may be a source of potential human health and **ecological risk**.
Building 940	SD042	Building 940 is a former paint drying facility that was located within the former Fairfield Air Force Station, an Atomic Energy Commission facility that stored and maintained nuclear weapons. No elevated radioactive residue was found. A sediment sump near the building and a connecting ditch are contaminated with various metals associated with the painting operations. These metals may be a source of potential ecological risk.
Landfill 3	LF008	Landfill 3 consists of a series of small, unlined trenches that were used to dispose of expired pesticide containers. Several chlorinated pesticides are present in the waste material and soil surrounding the trenches. These pesticides may be a source of potential human health and ecological risk.
Landfill X	LF044	Landfill X is located in Grazing Management Unit 2 and was used to stockpile construction debris that contains metals and SVOCs. These compounds may be a source of potential human health and ecological risk.
Railhead Munitions Staging Area	SS046	Railroad operations deposited metals and SVOCs into the surface soil. These compounds may be a source of potential human health and ecological risk.
Former Small Arms Range	SD045	The former small arms range is an open field near the south gate that was historically used for small arms training. Lead was detected in the soil and may be a source of potential human health and ecological risk.
Cypress Lakes Golf Course	SS041	A portion of the golf course maintenance yard has historically been used for the mixing of chlorinated pesticides. These pesticides may be a source of potential human health and ecological risk.
Radioactive Burial Site 2/ Dry Waste Landfill	RW013	This dry waste landfill is a fenced backfilled trench that was part of the former Fairfield Air Force Station, an Atomic Energy Commission facility that stored and maintained nuclear weapons. Wastes from the maintenance of the nuclear components were disposed of in the trench. The low-level radioactive waste may be a source of potential human health risk.

Table 1. Soil Sites in the WABOU

Site Name	Major Contaminants	Average Concentration in parts per million (ppm)	Maximum Concentration (ppm)
Building 905	**Alpha-Chlordane**	0.49	6.50
	Gamma-Chlordane	0.54	7.20
	Heptachlor Epoxide	0.02	0.27
	Toxaphene	3.26	25.00
Building 916	PCB-1254	0.58	2.0
Buildings 929/931/940	**Benzo(a)pyrene**	0.09	1.20
	Dibenz(a,h)anthracene	0.04	0.59
	Cadmium	4.38	24.60
	Zinc	206.69	1040.00
Landfill 3	Alpha-Chlordane	5.49	68.00
	Gamma-Chlordane	4.47	50.00
	Heptachlor	1.13	12.00
Landfill X	Benzo(a)pyrene	5.59	69.00
	Cadmium	0.69	2.00
	Lead	16.94	107.00
	Silver	1.16	17.8
Railhead Munitions Staging Area	Benzo(a)pyrene	0.05	0.61
	Benzo(b)fluoranthene	0.15	2.30
	Cadmium	1.88	18.70
Former Small Arms Range	Lead	574.08	7370
Cypress Lakes Golf Course	**DDE**	0.32	5.60
	Dieldrin	0.05	0.44
	Endosulfan	0.006	0.049
Radioactive Burial Site 2/Dry Waste Landfill	Uranium-234	1425 **pCi/g**	11160 pCi/g
	Uranium-235	7.2 pCi/g	11.8 pCi/g

Table 2. Major Contaminants at WABOU Soil Sites

One site no longer in the WABOU is the Potrero Hills Annex. This 25-acre Annex is a portion of a former NIKE-AJAX missile battery that was used in the late 1950's to store, maintain and operate surface-to-air missiles. The only contamination associated with these military activities is 1.3 **parts per million** of PCBs near a generator building.

OEA Aerospace, Inc., a private firm that leases the Annex and owns an adjacent 500-acre property, assembles various military and commercial explosive devices. Metals found in the surface soil are associated with the production and testing of these devices. As a result of technical and legal issues at this site that may take a long time to resolve, the Potrero Hills Annex has been removed from the WABOU and has been placed into a separate operable unit. These issues will be resolved separately to avoid delays in conducting cleanup actions at the other

WABOU sites. The environmental program activities at the Annex will be reported in separate documentation.

One site not described in detail in this Soil Proposed Plan is the base battery and electric shop, Building 755. A sump was once used at this site to neutralize battery acid. When the sump was decommissioned and removed by excavation, a small quantity of lead was deposited in the surface soil around the sump. The existing lead concentrations in the soil present no risk to site workers but present a potential risk for residential use (i.e., construction of a day care center). Since this site is located in an industrial area, the Air Force will use land use and access restrictions to ensure that the property is always used for industrial purposes.

Cleanup Alternative	Description
S1 - No Action	Federal regulations require the use of this alternative as a starting point for comparing the other alternatives. No soil treatment takes place.
S2 – Land Use and Access Restrictions	**Land use restrictions** are used to prohibit the excavation or disturbance of contaminated soil. Fences and signs are posted to prevent access. This alternative modifies the Travis AFB General Plan to ensure that this industrial land use restriction is enforced.
S3 – Containment: Capping	A multilayer cap is placed over contaminated soil to prevent access to the soil. A cap is an impermeable covering that is made of layers of compacted clay and/or synthetic material. Land use and access restrictions are included to protect the cap.
S4 – Excavation/Treatment/ Onbase Consolidation	Contaminated soil is excavated, treated using a chemical stabilization process, and placed in an onbase Corrective Action Management Unit (CAMU). Land use and access restrictions may be included, depending on the soil cleanup level that is attained.
S5 – Excavation/Offbase Disposal	Contaminated soil is excavated and transported by truck to an offbase landfill. Land use and access restrictions may be included, depending on the soil cleanup level that is attained.
S6 – Excavation/Onbase Consolidation	Contaminated soil is excavated and placed in an onbase CAMU. Land use and access restrictions may be included, depending on the soil cleanup level that is attained.
S7 - In Situ Treatment/ Capping	Contaminated soil is treated using a chemical stabilization process. The resulting soil/slurry mix is covered with an asphalt cap, surrounded by a fence, and protected with land use restrictions.

Table 3. Soil Cleanup Alternatives for the WABOU

Summary of Site Risks

There are no *immediate* human health or ecological risks associated with contaminated soil in the WABOU. The soil sites are either located in fenced areas or are in remote areas that are rarely visited by workers. All construction projects that require soil excavation are reviewed by the Travis AFB Environmental Management Office to ensure that construction workers are protected from exposure to soil contaminants. Also, the soil sites make up a very small portion of the territory where most domestic and native animals reside. However, cleanup activities are required in order to protect people, plants, animals and the environment from future *potential* risks. These

actions are necessary to permanently remove the possibility of potential exposure to harmful chemicals and prevent future groundwater contamination. Table 2 presents the primary chemicals that create the potential risk at each site. A complete description of the risk assessment for each site is found in the WABOU RI report.

Preliminary Cleanup Goals

The WABOU Feasibility Study developed preliminary cleanup goals that are protective of human health and the environment. Preliminary cleanup goals are used to estimate the volume of soil that needs to be cleaned, to estimate project costs, and to determine whether a cleanup technology can adequately clean soil contaminants and reduce the potential risk at a site to a low, protective level. These goals are based on the following sources of information:

- Chemical concentrations based on the results of human health, plant or animal studies.

- Chemical concentrations of inorganic compounds that are found in nature. These are often called background concentrations and help to tell the difference between naturally occurring constituents and contaminants from Air Force activities.

- Chemical concentrations in soil that are protective of groundwater. This is usually a conservative estimate of the concentration of a contaminant that can remain in the soil without acting as a continuing or potential source of groundwater contamination.

- The current and future use of property. In general, residential property has higher human health protection standards than industrial property. The WABOU sites at Travis AFB are in an industrial area, and no changes to this current land use are expected. Therefore, the Preliminary Cleanup Goals were designed to protect industrial workers.

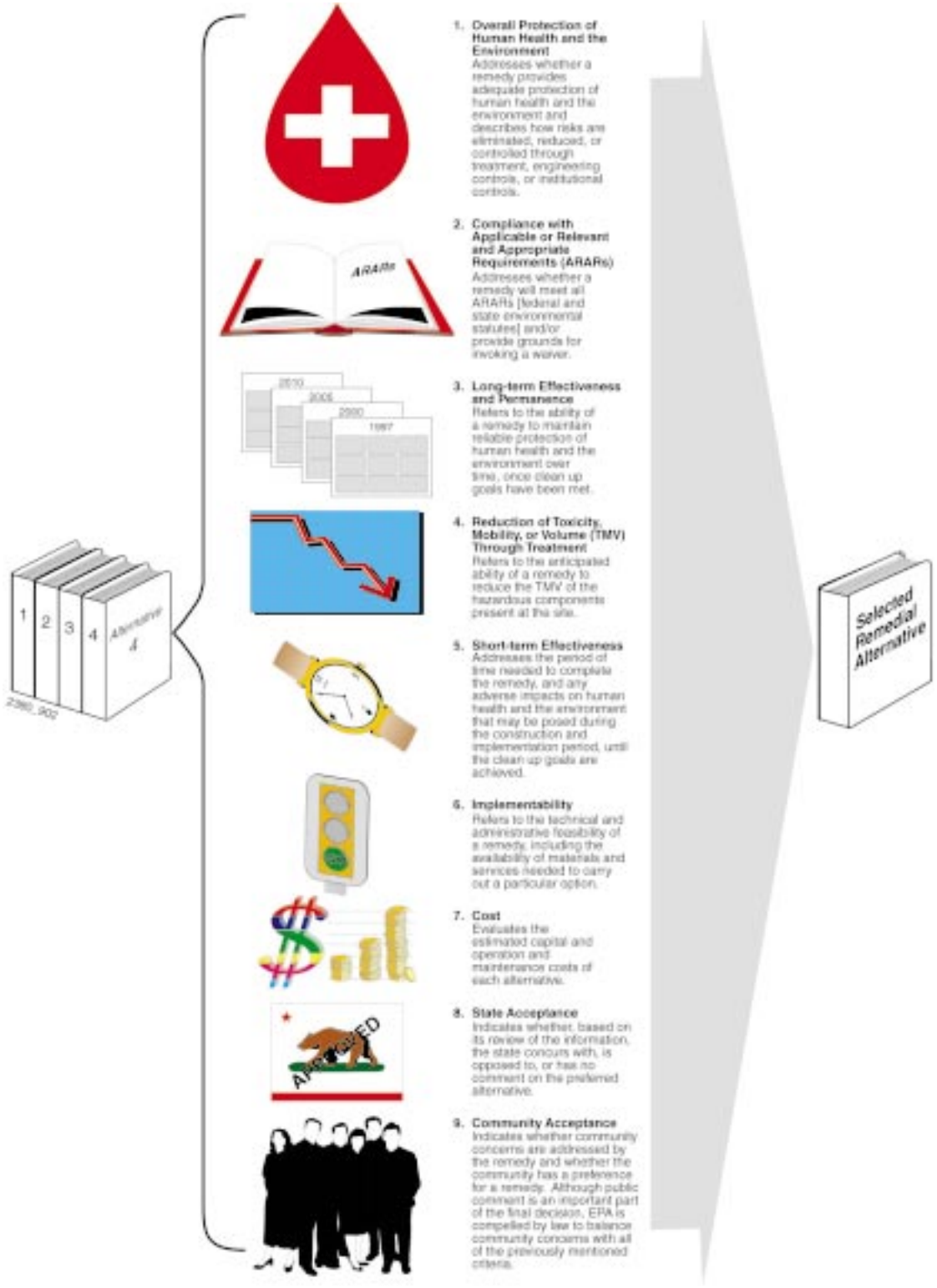
Preliminary Cleanup Goals are not the same as final cleanup levels. Final cleanup levels are used to establish when a site is considered clean and are approved by the regulatory agencies. These levels will be documented in the WABOU Soil ROD.

The Cleanup Alternatives

Once the nature and extent of contamination at the 10 soil sites were identified in the WABOU RI, the WABOU FS was conducted to help identify the appropriate cleanup methods for each site. The study looked at all available treatment technologies, screened out the technologies that would not work, and used the remaining technologies to develop seven cleanup strategies, known as remedial alternatives. These remedial alternatives are described in Table 3.

The FS evaluated the alternatives using the first seven of the nine criteria established by the U.S. EPA. All nine criteria are briefly described in Figure 4 and are listed below.

1. Overall Protection of Human Health and the Environment
2. Compliance with **Applicable or Relevant and Appropriate Requirements**
3. Long-Term Effectiveness and Permanence
4. Reduction of Toxicity, Mobility, or Volume through Treatment



NOTE
The nine criteria are from the *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA* (EPA, 1988) and provide support for the selected Remedial Alternative.

Figure 4. Nine Evaluation Criteria

5. Short-term Effectiveness
6. Implementability
7. Cost
8. State Acceptance
9. Community Acceptance

State Acceptance is received when the two California agencies, the DTSC and the RWQCB, accept the proposed actions at the 10 WABOU soil sites. Community acceptance is received through the review of and comment on this Proposed Plan at the July 23, 1998 public meeting and during the 30-day public comment period. Evaluation of these last two criteria will be reported in the WABOU Soil ROD.

The Corrective Action Management Unit

There is one aspect of soil cleanup that needs to be considered before looking at the preferred soil cleanup strategies for the WABOU. The WABOU FS looked at the proposed soil cleanup actions in the NEWIOU and identified appropriate and cost effective strategies that could be used in both operable units. One NEWIOU strategy involves the onbase consolidation of contaminated soil. Current environmental regulations refer to the consolidation area as a Corrective Action Management Unit or CAMU.

A CAMU is a designated area within a facility that is designed to carry out a corrective action, such as the management of contaminated soil. In general, the state and federal CAMU regulations were written to give regulatory agencies greater flexibility in selecting and implementing the most effective and appropriate waste management strategy for the cleanup of large, complex facilities such as Travis AFB. One of the soil sites in the NEWIOU is LF007 (Landfill 2). This landfill was used from the 1950's through the 1970's to dispose of general refuse, industrial waste, and fuel sludge. The NEWIOU Soil, Sediment and Surface Water Proposed Plan presents a more detailed description of the landfill waste and the proposal for designating this landfill as a CAMU. It also describes the regulatory approval process that Travis AFB is following to ensure that the CAMU approach meets State CAMU regulations and is protective of human health and the environment. A fact sheet presenting additional details on how Travis AFB will comply with the State CAMU regulations will be sent to the public for complete review and comment prior to completion of the NEWIOU Soil, Sediment, and Surface Water Record of Decision.

The Air Force proposal is to close the landfill in accordance with current environmental regulations. A multi-layer cap, which is an impermeable covering of compacted clay and/or synthetic materials, would be placed over the landfill to prevent people, plants and animals from coming in contact with the waste. In addition, the cap would prevent rainwater from percolating through the buried waste and further contaminating the local groundwater. Land use restrictions would be used to protect the cap.

The original cleanup strategy required Travis AFB to purchase large amounts of clean soil to form a foundation for the cap. If Travis AFB receives regulatory and public acceptance of the proposal to designate a portion of LF007 as a CAMU, then the contaminated soil from other sites

that meet consolidation requirements could be used as part of the foundation. There are several advantages to this approach:

- The consolidation of contaminated soil would provide needed material for the construction of the LF007 cap. This would reduce the amount of clean soil that would need to be purchased.

- A large quantity of contaminated soil would never have to leave Travis AFB, avoiding the transport of this soil by truck on major roads and highways. This would reduce air emissions, noise, and the risk of vehicle accidents associated with the cleanup actions.

- The amount of soil that would have to go to commercial offbase landfills would be reduced. This would extend the functional life of these landfills.

- The amount of paperwork generated to track the contaminated soil would be reduced, resulting in a project management cost reduction.

- The consolidation at the landfill of contaminated soil from other IRP soil sites would significantly reduce the cost of cleaning up the other IRP soil sites.

At the time of the writing of this Proposed Plan, it is likely but not certain that Travis AFB will receive regulatory and public acceptance of this cleanup strategy. Therefore, at those sites where this strategy seems appropriate, the consolidation approach is considered the primary approach. At the same time, a contingency approach is also presented.

The Preferred Alternatives

Travis AFB has proposed a preferred remedial alternative for each WABOU soil site. The proposals are based on the environmental conditions and the nature and extent of the contamination found at each site. They are also based on the technology and EPA criteria evaluations from the WABOU FS and the expectation that Travis AFB will remain an industrial facility. The following sections present the alternatives that the Air Force prefers to use at each site, the reasons for these preferences, and cost estimates for the cleanup action.

The cost estimates were calculated in the WABOU FS and are based on the quantity of contaminated soil that needs to be excavated to protect both human health and the environment. At most sites, the soil volume estimates are based on the protection of human health at an industrial facility. At sites where protected plants and animals live, the soil volume estimates are based on the protection of plants and animals. Therefore, the cost estimates include the costs to protect both human health and local plants and animals.

Building 905 (SS041) - Alternative S6 - Excavation/Onbase Consolidation

The pesticide-contaminated topsoil at the base entomology shop surrounds a concrete pad that was used to clean pesticide applicator vehicles. The Air Force proposes to excavate and transport an estimated volume of 100 cubic yards of pesticide-contaminated soil to the CAMU (Alternative S6). This volume represents less than one percent of the estimated total volume of contaminated soil that is proposed for placement in the CAMU. This approach would have a minimal impact

on entomology shop operations and would be protective of the groundwater beneath the site. If the CAMU is not established, the contingency alternative is Alternative S5 - Excavation/Offbase Disposal.

The estimated project cost for Alternative S6 is $32,000. The estimated project cost for Alternative S5 is $57,000.

Once this soil cleanup is completed, the Air Force proposes to extract and treat the pesticide-contaminated groundwater beneath Building 905. The details of the Air Force's preferred groundwater cleanup strategy for this site are presented in the WABOU Groundwater Proposed Plan.

Building 916 (SD043) - Alternative S6- Excavation/Onbase Consolidation

The PCB-contaminated soil at the emergency power generator facility does not present an unacceptable risk to either local workers or the environment, but it may be acting as a source of groundwater contamination. The Air Force proposes to excavate and transport an estimated volume of 25 cubic yards of PCB-contaminated soil adjacent to the generator facility to the CAMU (Alternative S6). This volume represents less than one percent of the estimated total volume of contaminated soil that is proposed for placement in the CAMU. If the CAMU is not established, the contingency alternative is Alternative S5 - Excavation/Offbase Disposal.

The estimated project cost for Alternative S6 is $32,000. The estimated project cost for Alternative S5 is $43,000.

Once this soil cleanup is completed, the Air Force proposes to extract and treat the PCB-contaminated groundwater beneath Building 916. The details of the Air Force's preferred groundwater cleanup strategy for this site are presented in the WABOU Groundwater Proposed Plan.

Buildings 929/931 and 940 (SD042) - Alternative S6- Excavation/Onbase Consolidation

The drainage ditch adjacent to these three buildings contains soil and dry sediment that is contaminated with metals and SVOCs. The Air Force proposes to excavate and transport an estimated volume of 260 cubic yards of soil and sediment from the ditch to the CAMU (Alternative S6). This volume represents less than one percent of the estimated total volume of contaminated soil that is proposed for placement in the CAMU. If the CAMU is not established, the contingency alternative is Alternative S5 - Excavation/Offbase Disposal.

The estimated project cost for Alternative S6 is $86,000. The estimated project cost for Alternative S5 is $176,000.

Landfill 3 (LF008) - Alternative S5 - Excavation/Offbase Disposal

The trenches that were used to dispose of pesticide contaminated debris in the 1970's may contain intact pesticide containers that could be broken during excavation. The resulting spillage of the contents of these containers might create highly contaminated soil that could not be placed in a CAMU without possibly impacting the local groundwater. Therefore, the Air Force proposes to excavate and transport an estimated volume of 11,115 cubic yards of contaminated debris and soil to an appropriate landfill or a waste management facility for the disposal or treatment of the pesticides (Alternative S5).

The estimated project cost for Alternative S5 is $4,162,000.

Once this soil cleanup is completed, the Air Force proposes to extract and treat the pesticide-contaminated groundwater beneath the trenches. The details of the Air Force's preferred groundwater cleanup strategy for this site are presented in the WABOU Groundwater Proposed Plan.

If the NEWIOU Soil, Sediment, and Surface Water ROD establishes a consolidation area at site LF007, then there may be an opportunity to separate the highly contaminated soil that must be transported offbase from the soil that meets the CAMU consolidation requirements. This opportunity would be identified prior to the cleanup action and would be coordinated through the regulatory agencies and the **Restoration Advisory Board (RAB).**

Landfill X (LF044) - Alternative S2 - Land Use and Access Restrictions

Landfill X is not a landfill at all. It was given this name because the past activities at this site had not been completely identified at the start of the WABOU RI. The site is a field that has been used to stockpile construction materials such as asphalt and concrete. The metals and SVOCs found in the soil are directly related to these construction materials. Currently, Travis AFB uses this site for heavy equipment training and for the temporary staging of broken asphalt and concrete from construction projects.

This field meets important worker safety training and construction needs on Travis AFB. Training is conducted in accordance with worker safety regulations. The soil contaminants are attributed to the asphalt and other construction debris that is stockpiled onsite and do not impact the local groundwater. Rather than moving this training and staging area to a part of Travis AFB where the ecological habitat is relatively untouched, the Air Force proposes to construct a fence around the 2,600-foot perimeter of this site (Alternative S2). This approach is protective of human health, because it restricts site access to people. It also is protective of the environment, because it places a physical barrier between the site and several **vernal pools** that surround the site, preventing the accidental stockpiling of material on top of this protected ecological habitat. A berm within the fence would be built to minimize the transport of sediment from the training area to the vernal pools. This alternative modifies the Travis AFB General Plan to ensure that this industrial land use restriction is enforced.

The estimated project cost for Alternative S2 is $139,000.

Former Small Arms Range (SD045) - Alternative S6- Excavation/Onbase Consolidation

The soil in the former small arms training area is contaminated with lead. The Air Force proposes to excavate and transport an estimated volume of 5,760 cubic yards of lead-contaminated soil to the CAMU (Alternative S6). This volume represents about six percent of the estimated total volume of contaminated soil that is proposed for placement in the CAMU. If the CAMU is not established, the contingency alternative is Alternative S5 - Excavation/ Offbase Disposal.

The estimated project cost for Alternative S6 is $186,000. The estimated project cost for Alternative S5 is $2,255,000.

Railhead Munitions Staging Area (SS046) - Alternative S2 - Land Use and Access Restrictions and Alternative S6 - Excavation/Onbase Consolidation

Most of the contaminated surface soil at the staging area is associated with past railroad operations and is located beneath the railroad tracks. Since the currently inactive railroad tracks and staging area may be used in the future, the Air Force proposes to construct a fence around the site in order to restrict its use to railroad operations and temporary material storage only (Alternative S2). This alternative also requires the annotation of this land use restriction in the Travis AFB General Plan which would ensure that this restriction is enforced. Once the Air Force decides to decommission this portion of the railroad, then the contaminated soil beneath the railroad ties will be excavated and either treated or transported to an appropriate landfill.

There are several small surface soil areas surrounding the staging area that pose a risk to plants and animals only. The Air Force proposes to excavate and transport an estimated volume of 85 cubic yards of contaminated soil to the CAMU (Alternative S6). This volume represents less than one percent of the estimated total volume of contaminated soil that is proposed for placement in the CAMU. If the CAMU is not established, the contingency alternative is Alternative S5 - Excavation/Offbase Disposal.

The estimated project cost for Alternative S2 is $17,000. The estimated project cost for Alternative S6 is $24,000 and for Alternative S5 is $72,000.

Radioactive Burial Site 2/Dry Waste Landfill (RW013) - Alternative S5 - Excavation/Offbase Disposal

The burial site is a single trench that contains low level radioactive waste materials from former nuclear weapons maintenance. The Air Force proposes to excavate and transport an estimated volume of 60 cubic yards of waste materials and soil with elevated radioactive readings in specially designed containers to an offbase low level radioactive waste repository for disposal.

The estimated project cost for Alternative S5 is $131,000.

Cypress Lakes Golf Course (SS041) - Alternative S5 - Excavation/Offbase Disposal

The fenced maintenance yard at the Cypress Lakes Golf Course contains pesticide-contaminated surface soil from past pesticide handling activities. The Air Force proposes to excavate and transport an estimated volume of 130 cubic yards of contaminated soil to an offbase landfill.

The estimated project cost for Alternative S5 is $112,000.

The Final Decision

The Air Force will make a final decision on the WABOU soil actions, based on the technical reports in the **Administrative Record** as well as public and state acceptance. Comments received on this Proposed Plan during the public comment period from July 8, 1998 to August 8, 1998 will be used to measure public acceptance. The decisions on the WABOU soil actions and the final agency-approved soil cleanup levels will be formally documented in the WABOU Soil ROD. The responses to public comments will be published in a section of the ROD called the Responsiveness Summary. The Air Force expects to sign the ROD in November 1998, after which it will be made available for review at the Information Repository. The Air Force will also inform the community of the selected soil actions through announcements in the Vacaville and Fairfield newspapers.

What Can I Do?

As a member of the local community, your thoughts on the cleanup issues presented in this Proposed Plan are important to the decision making process. You have several options available to ensure that your voice is heard.

1. Talk to us. There will be time during the public meeting on July 23, 1998 to let us know what you think of the proposed actions. Can't attend the meeting? Then call the Travis AFB Environmental Management Office, and ask for Glenn Anderson, our WABOU Project Manager, or contact Jose Salcedo, the DTSC Project Manager. Their phone numbers are on the back cover.

2. Write to us. You could also write your comments and drop them off at the meeting; or you could mail your comments to either Mr. Anderson or Mr. Salcedo. Their addresses are on the back cover.

3. Send us an E-mail. Mr. Anderson and Mr. Salcedo also respond to E-mail from the public. Their E-mail addresses are on the back cover.

Thank you in advance for your time and support of these important issues that affect us all.

Glossary

Administrative Record – All documents that have a legal bearing and were used to make decisions on cleanup actions.

Alpha-chlordane – A chlorinated pesticide used for termite control, known to be toxic to fish.

Applicable or Relevant and Appropriate Requirement (ARAR) – This is a federal or state law that must be considered in choosing a remedial action. Remedial actions must be designed, constructed, and operated to comply with all ARARs.

Benzo(a)pyrene – A semivolatile organic compound found in coal tar and in the atmosphere as a product of incomplete combustion.

Benzo(b)fluoranthene – A semivolatile organic compound similar in chemical structure to benzo(a)pyrene.

Cadmium – A toxic, heavy metal found in paint and rechargeable batteries.

CERCLA – The acronym for the Comprehensive Environmental Response, Compensation, and Liability Act. This federal law provides a series of programs to address the cleanup of hazardous waste disposal and spill sites.

DDE – A breakdown product of DDT, a chlorinated insecticide.

Dibenz(a,h)anthracene – A semivolatile organic compound used in copying systems.

Dieldrin – A chlorinated insecticide.

Ecological Risk – A qualitative or quantitative estimate of the potential impact on local plants and animals of exposure to chemicals detected in the environment. This information is used to help evaluate the need for and extent of a cleanup action at a site.

Endosulfan – A chlorinated insecticide.

Feasibility Study (FS) – A cost and engineering study that looks at all of the possible cleanup options that are available and evaluates their ability to clean up contamination at a site.

Gamma-chlordane – A chlorinated pesticide similar in chemical structure to alpha-chlordane.

Groundwater – Underground water that fills spaces between soil particles and openings in rocks. The top of this body of water is often called the water table.

Heptachlor – A toxic chlorinated insecticide that is no longer used as of 1983 except for termite control.

Heptachlor Epoxide – A breakdown product of heptachlor.

Human Health Risk – A qualitative or quantitative estimate of the potential impact on the human population of exposure to chemicals detected in the environment. This information is used to help evaluate the need for and extent of a cleanup action at a site.

Information Repository – A location in a public building, such as a library, where community members can review IRP documents. The Travis AFB Information Repository is located in the Vacaville Public Library.

Land Use Restriction – A physical barrier or legal restriction that is imposed on a

property to eliminate or limit the exposure of people and, to a lesser degree, plants and animals to contaminated soil.

National Priorities List (NPL) – EPA's published list of the highest priority hazardous waste sites in the United States for investigation and cleanup.

Operable Unit (OU) – A geographic area that includes one or more cleanup sites. Often the sites within the operable unit have similar characteristics, such as contaminants, industrial processes or location.

Part Per Million (ppm) – A unit of measurement used to express low concentrations of contaminants. One ppm of Compound X is equal to one ounce of Compound X in one million ounces of soil or water.

PicoCurie Per Gram (pCi/g) – A unit of measurement used to express the level of radioactivity in soil. One pCi is approximately equal to one trillionth of the energy exhibited by one gram of radium.

Polychlorinated Biphenyl (PCB) – A group of synthetic oily liquids or solids used widely in the past as coolants, insulating materials, and lubricants in electrical equipment like transformers and capacitors.

Record of Decision – A public document that explains which cleanup alternatives will be used at National Priorities List sites. The Record of Decision is based on information and technical analysis generated during the remedial investigation/feasibility study and consideration of public comments and community concerns.

Remedial Investigation (RI) – An environmental study that identifies the nature and extent of contamination at a site.

Restoration Advisory Board (RAB) – A group of interested community members who have provided valuable community input into the investigation and cleanup activities on Travis AFB. Representatives of the federal and state regulatory agencies are also on the RAB.

Semivolatile Organic Compound (SVOC) – A compound that contains carbon and that does not evaporate readily at room temperature. An example of a SVOC in asphalt is benzo(a)pyrene.

Toxaphene – A chlorinated insecticide primarily used for cotton and vegetables.

Vernal Pool – A shallow depression or small pool that fills with water during the winter rainy season, then dries out during the spring. The vernal pool is a habitat for various unique plants and animals.

Travis AFB

Public Meeting

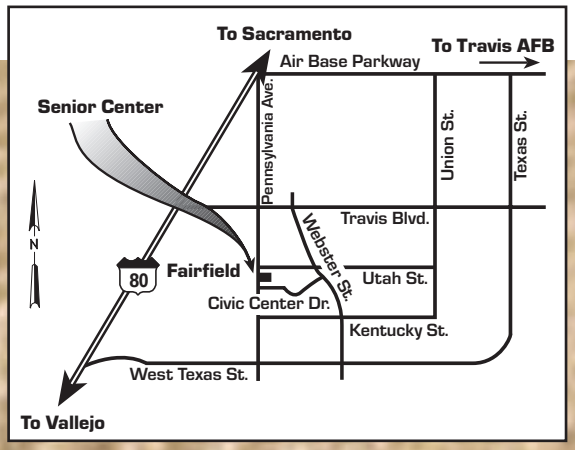
7:00 p.m. - 23 July 1998
Fairfield Senior Center
1200 Civic Center Drive
Fairfield, CA

Location of Information Repository

Vacaville Public Library
1020 Ulatis Drive
Vacaville, CA 95688

Mon. & Thurs. 12-9
Tues. & Wed. 10-6
Sat. 10-5
Closed Friday and Sunday

(707) 449-6290



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