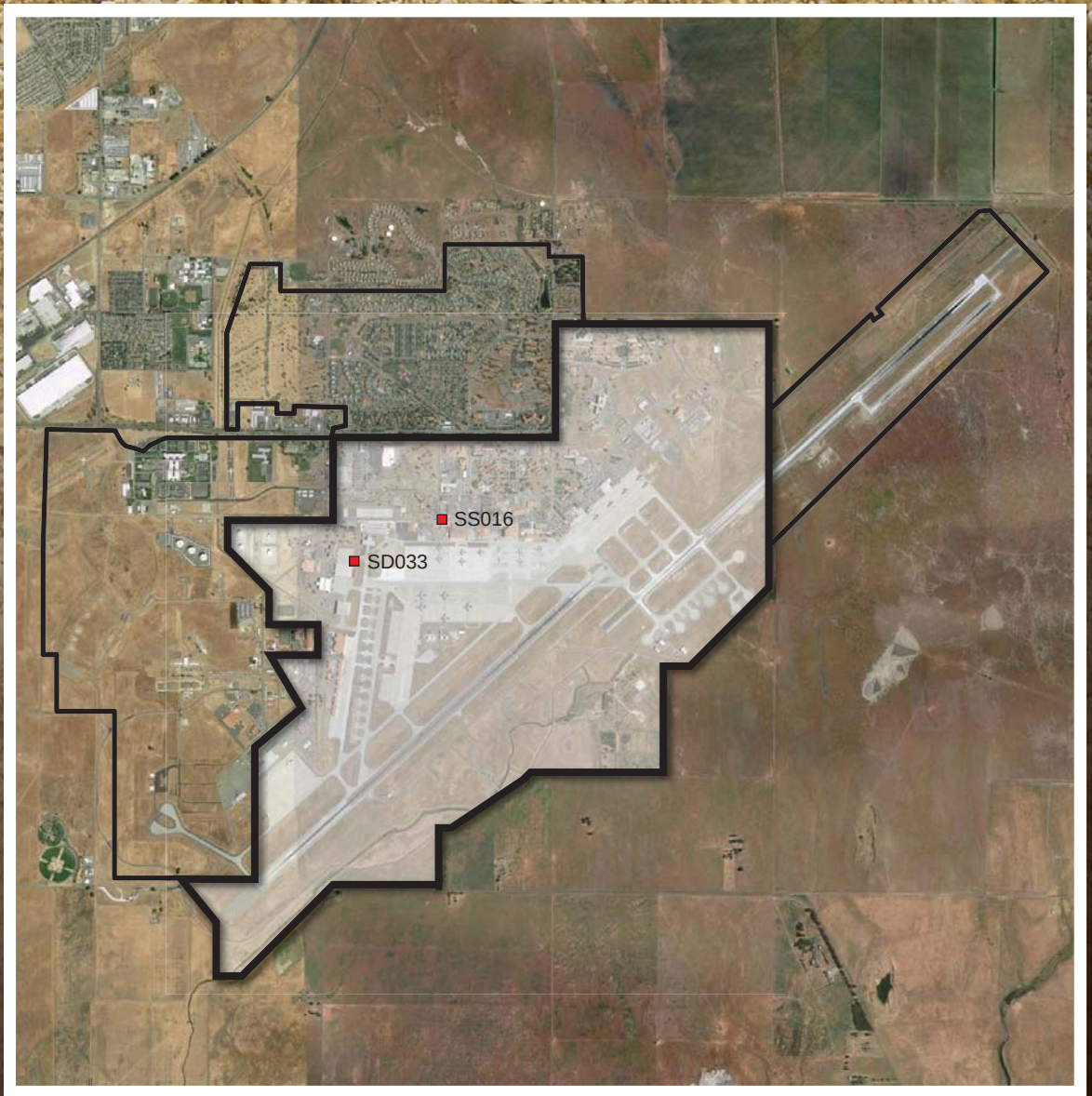
Environmental Restoration Program

Travis Air Force Base, California



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Proposed Plan for the

NEWIOU Soil, Sediment, and Surface Water ROD

Final

April 2015

Introduction

The United States (U.S.) Air Force (Air Force) seeks your comments on its proposed changes to its selected remedies at two (2) contaminated soil locations at Travis Air Force Base (AFB), as described in this Soil Proposed Plan. This Proposed Plan describes the soil contaminants at these two (2) locations, the current selected remedy, the potential options that are available to clean them up, the new Air Force preferred option, and the rationale for the change. You may comment on the potential cleanup options from 15 April 2015 to 15 May 2015 by any of the methods listed on page 9 of this Proposed Plan. You are also invited to discuss these cleanup options at a public meeting at 7:00 p.m. on 23 April 2015 at the Northern Solano County Association of Realtors building located at 3690 Hilborn Road in Fairfield. The back cover contains a map of the public meeting building.

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In 1983, Travis AFB established an Installation Restoration Program (now called the **Environmental Restoration Program [ERP]**[1]) to investigate and clean up contamination from past base activities. Releases of hazardous waste occurred from leaking pipelines, spills, or waste disposal to landfills. Although the materials handling and disposal practices of the past complied with environmental regulations at the time, they resulted in soil and groundwater contamination and have since been stopped. Travis AFB now follows current environmental guidelines for the management and disposal of hazardous materials and waste.

In 1989, after evaluating initial Installation Restoration Program data, the EPA placed Travis AFB on the **National Priorities List (NPL)**. The cleanup of NPL **sites** must follow the applicable procedures outlined in the **Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)** and supporting regulations.

After the Travis NPL listing, the Air Force entered into a legal agreement with the 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.

Initially, Travis AFB was treated as a single entity with one associated comprehensive cleanup schedule. In May 1993, the FFA was amended and the Base was divided into the four **operable units (OUs)** listed below to facilitate the overall cleanup program:

- East Industrial Operable Unit (EIOU)
- West Industrial Operable Unit (WIOU)
- North Operable Unit (NOU)
- West/Annexes/Basewide Operable Unit (WABOU)

In October 1995, the EIOU, WIOU, and NOU were combined into the North/East/West Industrial Operable Unit (NEWIOU). The following is a description of the three OUs that are within the NEWIOU:

- NOU - The NOU includes two inactive landfills (Landfills 1 and 2). Landfill 1 (LF006) was in use from 1943 until the early 1950s, when operation of Landfill 2 (LF007) was begun. Landfill 1 was used as a burn-and-fill landfill, primarily for disposing of general refuse. Landfill 2, operated from the early 1950s until 1974, was used for general refuse disposal using a trench-and-fill method.
- EIOU - The EIOU covers approximately 1,726 acres and includes industrial shops, administration facilities, runways, taxiways, an aircraft parking apron, an inactive sewage treatment facility and associated ponds, open fields, and Union Creek.
- WIOU - The WIOU is located in the west-central portion of Travis AFB and includes facilities related to the maintenance and repair

[1] Words in the text highlighted in boldface are defined in the Glossary on Page 10 of this Proposed Plan.

Please visit our Environmental Restoration Program web site at http://www.travis.af.mil/enviro for more restoration information.

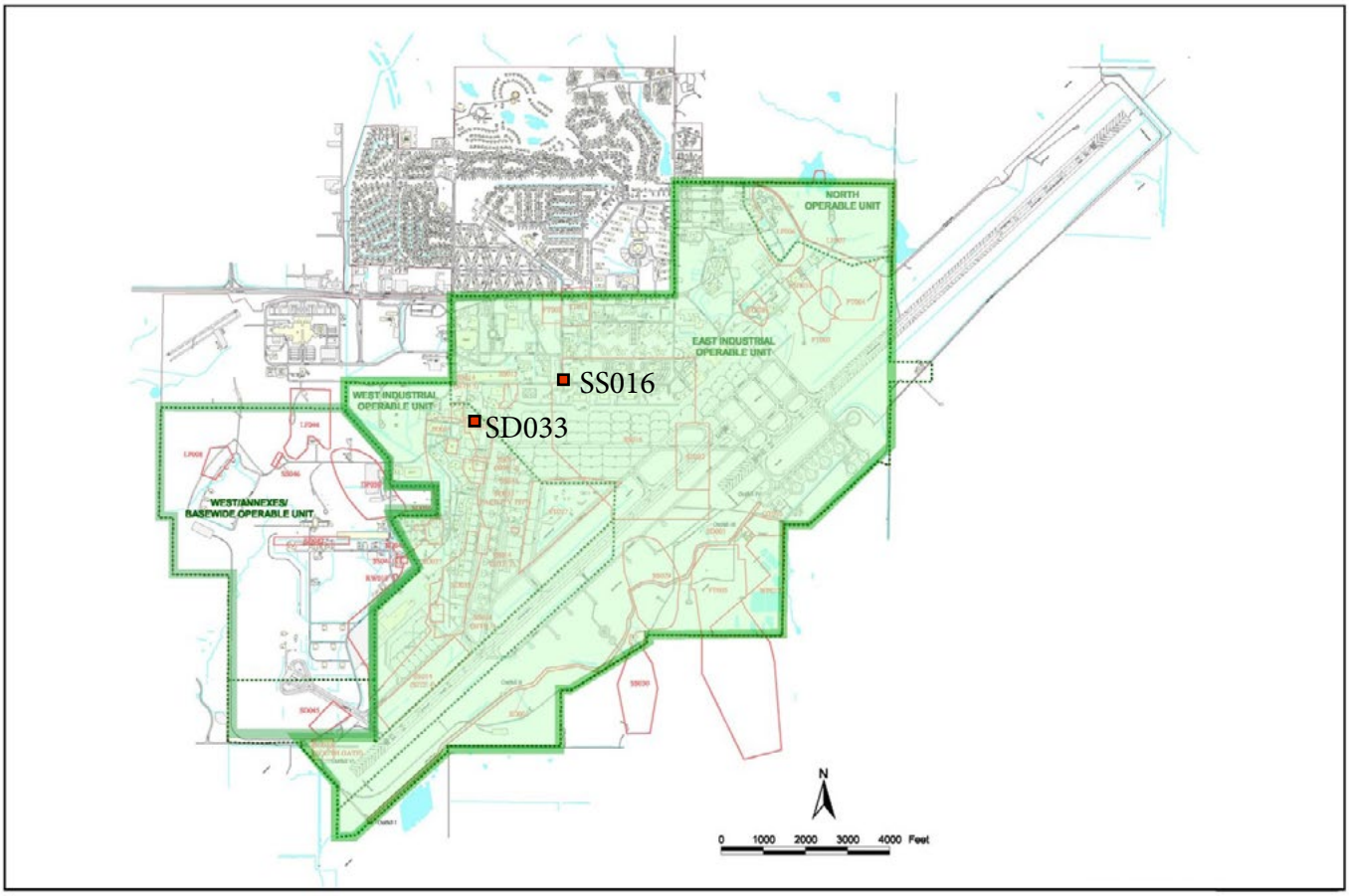

Figure 1 - Locations of Sites SS016 and SD033

of C-141 and C-5 aircraft. Facilities include aircraft taxiways, a refueling area, fuel storage areas, and portions of three pipeline systems: the fuel distribution pipeline, Storm Sewer System II, and the sanitary sewer.

This Proposed Plan addresses two (2) soil locations that are within the NEWIOU. The two (2) soil locations are called **restoration sites** and are referred to by their alpha-numeric site designations:

- SS016 (Oil Spill Area [OSA]) - This restoration site is located in the central part of the base and is within an active industrial area with ongoing maintenance activities and an aircraft parking apron.

- SD033 (Storm Sewer II) - This restoration site includes Facility 810 which is used for aircraft refurbishing. Facility 810 includes an abandoned **oil/water separator (OWS)**, sump, and wash rack that had discharged to Storm Sewer II.

Figure 1 shows the locations of the two restoration sites on Travis AFB. Table 1 summarizes the types and maximum concentrations of soil contaminants at Sites SS016 and SD033. The preferred remedies for the two restoration sites are as follows:

- SS016 - Alternative 20 - Excavation, Ex Situ High Temperature Thermal Treatment, Disposal at Landfill

- SD033 - Alternative 18 – Excavation, Removal to Landfill

The selection of new soil cleanup actions will be reported in an amendment to the May 2006 NEWIOU Soil, Sediment, and Surface Water (SSSW) **Record of Decision (ROD)**. The NEWIOU SSSW ROD is a formal decision document that was signed by the Air Force, the U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), and the San Francisco Bay Regional Water Quality Control Board (RWQCB). The three regulatory agencies provide technical oversight and project management to Travis AFB to promote the decision-making process. The ROD documents the agreement between the Air Force and the regulatory agencies as

to how the cleanup actions will take place and how clean the soil must be to consider a cleanup action to be complete. The ROD also allows Travis AFB to request funds for the soil cleanup actions.

Along with the NEWIOU SSSW ROD, there are other relevant sources that provide information in this Proposed Plan in greater detail. The **NEWIOU Feasibility Study (FS)**, the original NEWIOU SSSW Proposed Plan, and the NEWIOU SSSW ROD are available for review at the Travis AFB **Information Repository (IR)** in the Vacaville Public Library. Electronic copies of these documents can be found on the Air Force Civil Engineer Center **Administrative Record (AR)** at http://afcec.publicadmin-record.us.af.mil. For convenience, we placed these documents on the Travis AFB public website at www.travis.af.mil/enviro/library/.

After the NEWIOU SSSW Proposed Plan was completed, remedy selection became complicated, due to the complexity of addressing 18 sites, 40 chemicals of concern (COCs), 3 media (soil, sediment, and surface water), and 3 types of receptors (human, ecological, and groundwater) in one document. To promote remedy selection, it was decided to use technical memoranda (tech memos) as ROD development documents. The three tech memos (Human Health Tech Memo, Ecological Tech Memo, and Groundwater Protection Tech Memo) updated risk evaluations as well as several COCs and cleanup standards. The Air Force and the regulatory agencies used the tech memos to support the selection of remedial alternatives. Sections 5.2.3, 5.2.4, and 5.2.5 of the NEWIOU SSSW ROD discuss each of the tech memos in more detail.

The Air Force as the lead agency for environmental restoration activities on Travis AFB has issued this Proposed Plan as part of its public participation responsibilities under Section 117(a) of CERCLA, 42 U.S. Code Section 9617(a), and 40 Code of Federal Regulations Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan. The DTSC and RWQCB, as support agencies, have concurred with this Proposed Plan in accordance with CERCLA and have approved it as satisfying State of California **Applicable or Relevant and Appropriate Requirements (ARARs)**. Since Travis AFB is included on the NPL, EPA co-selects remedies along with the Air Force, and in the event of disagreement the EPA Administrator solely selects the remedy.

This Proposed Plan only covers the proposed changes to two (2) soil remedies. The Travis AFB ERP also addresses sediment and groundwater contamination. Currently, the cleanup of contaminated sediment is complete, and the base is implementing the groundwater remedies that were selected in the June 2014 Travis AFB Groundwater ROD.

Travis AFB also has petroleum contamination from the use of jet fuel. Petroleum cleanup is not authorized under CERCLA, so it is managed in a separate cleanup program regulated by the RWQCB.

Site Background

Travis AFB occupies approximately 6,368 acres in Solano County, California, midway between San Francisco and Sacramento and near the cities of Fairfield and Vacaville. 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, with a fleet of C-5 Galaxy and C-17 Globemaster III cargo aircraft, and KC-10 Extender aerial refueling aircraft. Various hazardous materials,

TABLE 1 Summary of Soil Sites, Chemicals of Concern, Maximum Concentrations, and Average Concentrations

Site Name	Site Identifier	Chemicals of Concern	Maximum Concentrations (mg/kg)	Average Concentrations (mg/kg)
Oil Spill Area, Facilities 11, 13/14, 20, 42/1941, 139/144, and sections of Storm Sewer Right-of-Way	SS016	Benzo(a)anthracene	3.44	1.06
		Benzo(a)pyrene	3.75	1.21
		Benzo(b)fluoranthene	9.06	2.88
Storm Sewer System B (including West Branch of Union Creek), Facilities 810 and 1917, and South Gate Area	SD033	Cadmium	40.90	1.65
		Benzo(a)pyrene	0.59	0.27

such as oils, fuels, and solvents, are used to maintain these aircraft.

Summary of Site Contamination

Site SS016 [Oil Spill Area (OSA)] is located in the central part of the base and is within an active industrial area with ongoing maintenance activities and an aircraft parking apron. Cleaning and degreasing operations took place in the OSA, resulting in the contamination of and estimated 150 cubic yards of soil with **polycyclic aromatic hydrocarbons (PAHs)**. Site SD033 (Storm Sewer II) also includes Facility 810 which is used for aircraft refurbishing. Facility 810 includes an abandoned **oil/water separator (OWS)**, sump, and wash rack that had discharged to Storm Sewer II. OWS use resulted in the contamination of an estimated 300 cubic yards of soil with a metal (cadmium) and a PAH (benzo[a]pyrene).

Summary of Site Risks

Currently, the types and concentrations of contaminants at Sites SS016 and SD033 may pose a potential risk to human health and the environment. The amount of potential risk depends on the contaminant, its concentration, and where it is found.

PAH [benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene] contamination in soil at Site SS016 poses a potential human health risk and does not allow for unlimited use and unrestricted exposure. While PAH concentrations in soil exceed industrial cleanup levels, they do not pose an unacceptable risk to site workers, because the site is mostly paved. Thus, the exposure pathway for normal day-to-day operations is eliminated. In addition, Site SS016 is not an ecological habitat, because it is an industrial area and any grassy areas are mowed regularly and maintained to discourage wildlife from establishing habitat (Ecological Technical Memorandum, Section 3.3.2 and Table 3-1).

For Site SD033, the PAH [benzo(a)pyrene] and cadmium in soil pose a potential risk to future residents. Benzo(a)pyrene concentrations exceed indus-

TABLE 2 Summary of Soil Cleanup Alternatives for the NEWIOU

Cleanup Alternative [1]	Description
16. No Action	Federal regulations require the use of this alternative as a starting point for comparing the other alternatives. Under this alternative, no treatment takes place.
17. Land Use Controls	Access to soil and sediment is restricted. The Base General Plan will be updated after the ROD Amendment is signed to restrict access.
18. Excavation, Removal to Landfill	Contaminated soils are excavated and removed to an off-base landfill.
19. Cap	The restoration site is covered with a material such as asphalt, concrete, synthetic membrane, or soil and/or clay. For landfill areas, the area is also graded to control runoff, thereby minimizing the potential for rainwater to move through contaminated soil to protect the groundwater below from contaminants.
20. Excavation, Ex Situ High Temperature Thermal Treatment, Disposal at Landfill	Contaminated soil is excavated and treated at high temperatures. The treatment process destroys the organic contaminants through conversion to carbon dioxide, water, and hydrochloric acid. The acid is then removed. Treated soil that still exceeds cleanup goals is placed at an off-base landfill. If the treated soil meets cleanup goals, then it could either be used as backfill for the excavation void or as a beneficial source of clean soil.
21. In Situ Soil Vapor Extraction, Off-gas Treatment [2]	Contaminated soil vapor is extracted from the ground to remove contaminants. The contaminated vapors are then treated by catalytic or thermal oxidation, which converts the contaminants to carbon dioxide, water and hydrochloric acid. The acid is then removed.
22. In Situ Bioventing [2]	Air is injected into the ground to encourage the growth of microorganisms in the soil. Microorganisms can help break down certain VOCs.

[1] Alternatives for soil are numbered 16 through 22 to be consistent with the numbers used in the NEWIOU FS.

[2] This cleanup alternative is only effective on volatile organic compounds (VOCs), which are not found in the soil at Sites SS016 and SD033. Therefore, it would not be effective in cleaning the soil and removing the LUCs at these two restoration sites.

Figure 2
Evaluation Criteria for Superfund Cleanup Alternatives

1. **Overall Protectiveness of Human Health and the Environment**
Determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

2. **Compliance with State and Federal Environmental Requirements**
Evaluates alternatives for compliance with Federal and State environmental statutes, regulations, and other requirements that pertain to a site.

3. **Long-term Effectiveness**
Considers an alternative's ability to maintain reliable protection of human health and the environment after implementation. Effectiveness is assessed over time.

4. **Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment**
Evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

5. **Cost**
Weighs estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

6. **Short-term Effectiveness**
Considers the length of time needed to implement an alternative and the potential risks the alternative poses to workers, residents, and the environment during implementation.

7. **Implementability**
Considers the technical and administrative feasibility of implementing an alternative, including factors such as the relative availability of goods and services.

8. **State Acceptance**
Considers whether the state favors or objects to any of the alternatives based on the available information.

9. **Community Acceptance**
Considers whether the local community agrees with the Air Force's analyses and preferred alternative for each site. Comments received on the Proposed Plan are an important indicator of community acceptance.

trial cleanup levels but do not pose an unacceptable potential risk to current workers, because contaminants are in the subsurface and thus, the exposure pathway for normal day-to-day operations is eliminated. In addition, Site SD033 is not an ecological habitat, because the site is fully paved.

Previous Remedy Selections

Based on the site conditions and low contaminant concentrations, the NEWIOU SSSW ROD selected **Land Use Controls (LUCs)** to restrict access to the sites and prevent contaminant exposure to site visitors and base employees. After the NEWIOU SSSW ROD was signed, Travis AFB implemented the soil LUCs at Sites SS016 and SD033 and has successfully enforced these LUCs to the present day.

Rationale for Remedy Changes

The most significant reason for originally selecting soil LUCs for both sites was cost. It was much less expensive to restrict access to these sites than to excavate the contaminated soil and transport it to an off-base landfill. However, after years of enforcing LUCs at Sites SS016 and SD033 as well as other soil and groundwater sites, it became obvious that there are less obvious challenges and potential future costs associated with the long-term management and enforcement of LUCs that are difficult to quantify.

Soil at Sites SS016 and SD033 became contaminated because of industrial activities that took place there, and it is highly likely that these sites will remain industrial in nature for the foreseeable future. As long as the industrial work at these sites does not change, LUCs are effective and inexpensive. However, the activities at Travis AFB have changed in the past to adapt to new global mission requirements, and as the base continues to take on new responsibilities, the need to carry out new construction projects and new activities on LUC property becomes a real possibility and a growing concern for base decision-makers. The removal of the contaminated soil and the LUCs associated with it would make it easier for the base to carry out new construction projects at these two locations.

In recent years, the Air Force has expressed an interest in reducing its environmental liability and ensuring that all of its property is available to support mission requirements. The current Travis AFB environmental restoration contract is structured to remove the LUCs from a number of industrial on-base

locations. Therefore, the AF approached the regulatory agencies and suggested remedy modifications and additional response actions in order to allow for new uses of the property.

Remedial Action Objectives

Remedial Action Objectives (RAOs) describe what a proposed cleanup action is supposed to accomplish. The RAOs that were developed for soil in the FS are summarized below:

- Prevent current base workers or potential future residents from swallowing or breathing in PAHs and metals.
- Prevent current base workers or potential future residents from coming into contact with PAHs and metals.

To meet contractual requirements, another RAO has been added:

- Restore contaminated sites by achieving residential standards, which will allow for unrestricted use/unlimited exposure, while minimizing interference with the base mission.

The Cleanup Alternatives

None of the cleanup options that are described in the NEWIOU SSSW ROD to clean up contaminated soil have changed. Table 2 describes the soil cleanup alternatives as described in the NEWIOU FS and ROD. The NEWIOU FS looked at all available cleanup technologies, screened out the technologies that would not work, and used the remaining technologies to develop cleanup strategies, known as remedial alternatives. The FS used the first seven of nine EPA criteria (described in Figure 2) to evaluate the alternatives. These evaluations of the alternatives were previously presented in Section 7.0 of the NEWIOU Feasibility Study and then summarized in Section 4.0 of the NEWIOU SSSW ROD. Most of the evaluations have not changed over time, so their results are still valid for comparison purposes. The costs associated with each alternative would have changed due to inflation and additional costs to comply with more recent federal and state regulations. However, these costs would increase proportionately and therefore not impact the comparison of the alternatives.

The last two criteria are state and community acceptance. State acceptance is received when the two California regulatory agencies, the DTSC and RWQCB, accept the proposed actions by signing the amendment to the NEWIOU SSSW ROD. Community acceptance is measured through the review of comments on this Proposed Plan at the 23 April 2015 public meeting and during the 30-day public comment period.

Table 3 summarizes the evaluation of the cleanup alternatives from Table 2 that could be used on Sites SS016 and SD033. The Air Force used this evaluation to identify the preferred alternatives for these restoration sites.

The Preferred Alternatives

After weighing the merits and challenges of the current soil remedies and more active alternatives in light of future mission requirements that the base may receive, the Air Force is proposing to change the selected remedy for Site SS016 from Alternative 17 - LUCs to Alternative 20 - Excavation, **Ex Situ** High Temperature Thermal Treatment, Disposal at Landfill and the selected remedy for Site SD033 from Alternative 17 – LUCs to Alternative 18 – Excavation. The costs for excavating contaminated soil at both locations and transporting it to an off-base landfill will be greater than continued enforcement of LUCs. However, the proposed cleanup actions will remove potential risks to human health, achieve residential cleanup standards, free the encumbered properties from LUCs, make these sites available to support future Air Force missions, and avoid potential future costs associated with changing mission requirements.

The EPA prefers alternatives that use treatment to clean contaminated soil, and Alternative 20 uses thermal treatment to permanently break down contaminants into harmless byproducts. The most promising thermal treatment technology

Basis for Response Action

It is the Air Force's current judgement that the Preferred Remedies identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, are needed to protect public health or welfare or the environment from actual or threatened releases of pollutants or contaminants from these soil restoration sites which may present an imminent and substantial endangerment to public health or welfare.

Table 3 Comparison of Soil Cleanup Alternatives for Sites SS016 and SD033

Criterion	SS016			SD033		
	Alternative 17 Land Use Controls	Alternative 18 Excavation, Removal to Landfill	Alternative 20 Excavation, Ex Situ High Temperature Thermal Treatment, Disposal at Landfill	Alternative 17 Land Use Controls	Alternative 18 Excavation, Removal to Landfill	Alternative 20 Excavation, Ex Situ High Temperature Thermal Treatment, Disposal at Landfill
Overall Protection of Human Health and the Environment	Over 8 years of successful enforcement	Offers highest level of protection	Offers highest level of protection	Over 8 years of successful enforcement	Offers highest level of protection	Offers highest level of protection
Compliance with ARARs	The proper implementation of each alternative will comply with ARARs					
Long-Term Effectiveness and Permanence	Offers low level for this criterion	Offers high level for this criterion	Offers high level for this criterion, as long as cleanup levels are achieved	Offers low level for this criterion	Offers high level for this criterion	Offers high level for this criterion, as long as cleanup levels are achieved
Reduction of Toxicity, Mobility, or Volume through Treatment	Alternative does not include treatment	Alternative does not include treatment	Only treatment option available; treated soil remains on site if all cleanup levels are achieved.	Alternative does not include treatment	Alternative does not include treatment	Only treatment option available; treated soil remains on site if all cleanup levels are achieved.
Short-Term Effectiveness	Few impacts to base mission or environment	Poses greater short term risks to base personnel	Poses greater short term risks to base personnel	Few impacts to base mission or environment	Poses greater short term risks to base personnel	Poses greater short term risks to base personnel
Implementability	Easy to implement	Requires heavy equipment and base coordination to implement	Requires heavy equipment, proprietary technology, and base coordination to implement	Easy to implement	Requires heavy equipment and base coordination to implement	Requires heavy equipment, proprietary technology, and base coordination to implement
Total Lifetime Cost	$26,995	$124,590	$41,958	$26,995	$165,809	$47,144

TABLE 4 Summary of Soil Sites, Chemicals of Concern, Previous Remedies, New Proposed Remedies and Cleanup Goals

Site Name	Site Identifier	Chemicals of Concern	Previous Selected Soil Remedy	New Proposed Soil Remedy	Residential Soil Cleanup Goals (mg/kg)
Oil Spill Area, Facilities 11, 13/14, 20, 42/1941, 139/144, and sections of Storm Sewer Right-of-Way	SS016	Polycyclic Aromatic Hydrocarbons (PAHs)	Alternative 17 – Land Use Controls	Alternative 20 – Excavation, Ex Situ High Temperature Thermal Treatment, Disposal at Landfill	Benzo(a)anthracene 0.15 [1] Benzo(a)pyrene 0.015 [1] Benzo(b)fluoranthene 0.15 [1]
Storm Sewer System B (including West Branch of Union Creek), Facilities 810 and 1917, and South Gate Area	SD033	Cadmium, PAH	Alternative 17 – Land Use Controls	Alternative 18 – Excavation, Removal to Landfill	Cadmium 4.6 [2] Benzo(a)pyrene 0.015 [1]

[1] Based on the January 2015 EPA Regional Screening Level Resident Soil Table

[2] Based on the July 2014 DTSC Human Health Risk Assessment Note #3

that could be used at Site SS016 is called the Vapor Energy Generator (VEG) technology. The VEG technology is a patented and mobile system that uses a compact, high efficiency steam generator to generate steam at 1100 degrees F. The steam strips the organic compounds from the soil, creating a vapor that is returned to the generator as additional fuel. The vapor is completely burned, sending only water and small amounts of carbon dioxide into the atmosphere. As a result, this treatment alternative would reduce the Air Force's environmental liability associated with contaminated soil.

Although Alternative 20 includes the option of sending the treated soil to an off-base landfill, the base would analyze treated soil samples to determine if the cleanup goals for all contaminants have been achieved. If so, then the treated soil can either be used as backfill for the excavation void or as a beneficial source of clean soil. For example, it could be used to increase the thickness of the landfill cap at Site LF007. This beneficial use would save both the cost of transporting soil to a landfill and the landfill fees.

Alternative 18 consists of the excavation of contaminated soil and its disposal in an off-base landfill. Even though Alternative 18 does not have a treatment component, it has the advantage of removing all contaminants (and all potential risk) from a site. The contaminated soil at Site SD033 contains cadmium, a metal that cannot be broken down with thermal treatment. Therefore, Alternative 18 would be able to achieve all RAOs at Site SD033, whereas Alternative 20 would still allow cadmium (and potential risk associated with it) to remain in the soil. For this reason, Alternative 18 is the preferred alternative for Site SD033.

Based on the information currently available, the Air Force believes the Preferred Alternatives meet the threshold criteria and provide the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. The Air Force expects the Preferred Alternatives to satisfy the following statutory requirements of CERCLA subpart 121 (b): (1) be protective of human health and the environment; (2) comply with ARARs; (3) be cost effective; (4) use permanent solutions and alternative treatment technologies to the maximum extent practicable; and (5) satisfy the preference for treatment as a principal element.

Table 4 summarizes the proposed change in soil remedies for the two sites and presents the cleanup levels that the remedies have to achieve in order to meet their RAOs.

The Air Force acknowledges that its preferred alternatives are based on current technical and policy information and that they could change in response to public comment or new information.

The Final Decision

The Air Force and EPA will make a final decision on these changes to current soil remedies based on technical reports in the Administrative Record as well

as public and state acceptance of the preferred alternatives in this Proposed Plan.

Comments received on this Proposed Plan during the public comment period from 15 April 2015 to 15 May 2015, and at the 23 April 2015 public meeting at the Northern Solano County Association of Realtors building, will be used to evaluate public acceptance. The decisions will be formally documented in an amendment to the NEWIOU SSSW ROD. The responses to public comments will be published in a section of the ROD amendment called the Responsiveness Summary. The Air Force expects to finalize the ROD amendment by the end of 2015, after which it will be made available for review at the Information Repository and on the Travis AFB environmental public website. The Air Force will also inform the community of the selected soil actions through announcements in the Vacaville and Fairfield newspapers, including the *Vacaville Reporter*, the *Tailwind*, and the *Fairfield Daily Republic*.

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 23 April 2015 to let us know what you think of the proposed actions. Can't attend the meeting? Then call the Travis AFB Public Affairs office and ask for Mr. James Spellman, our Community Relations Specialist. His phone number is on page 13.

2) Write to us. You can write your comments and drop them off at the meeting. Or, you can mail your comments to Mr. Spellman. His address is on page 13.

3) Send us an e-mail. Mr. Spellman also responds to e-mail from the public. His e-mail address is on page 13.

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

References

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Acronyms and Abbreviations	
AFB	Air Force Base
Air Force	U.S. Air Force
AR	Administrative Record
ARAR	applicable or relevant and appropriate requirement
CAMU	Corrective Action Management Unit
CERCLA	Comprehensive Environmental Response Compensation and Liability Act of 1980
DTSC	Department of Toxic Substances Control
EPA	Environmental Protection Agency
ERP	Environmental Restoration Program
FFA	Federal Facility Agreement
FS	Feasibility Study
IR	Information Repository
LUC	land use control
mg/kg	milligram per kilogram
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEWIOU	North, East, West Industrial Operable Unit
NPL	National Priorities List
OSA	Oil Spill Area
OU	operable unit
OWS	oil-water separator
PAH	polycyclic aromatic hydrocarbon
PRG	preliminary remediation goal
RAO	Remedial Action Objective
ROD	Record of Decision
RWQCB	San Francisco Bay Regional Water Quality Control Board
SSSW	Soil, Sediment, and Surface Water
VEG	Vapor Energy Generator
U.S.	United States

Glossary

Administrative Record (AR): The collection of information – including reports, public comments, and correspondence – the Air Force uses to select a cleanup action. The AR makes legally required information available to the public and is available for review at the Information Repository at the Vacaville Public Library.

Applicable or Relevant and Appropriate Requirements (ARARs): The federal and state environmental cleanup standards and other substantive requirements that a selected remedy must meet.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA): Also called the Superfund Act. The federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances have been released to the environment and that present an unacceptable risk to human health or the environment.

Environmental Restoration Program (ERP): The program established under the Defense Environmental Restoration Program (DERP at 10 USC §§ 2701 et seq) that evaluates and cleans up sites where hazardous substances have been released to the environment. Formerly called the Installation Restoration Program, the ERP is implemented at Travis AFB and is consistent with CERCLA.

Ex Situ: Moved from its original place; excavated; removed or recovered from the subsurface.

Feasibility Study (FS): A study required under CERCLA and the ERP to identify and evaluate potential remedial technologies and to compare the technologies for cleanup of a particular site or sites. An FS report is prepared using information contained in the Remedial Investigation report.

Federal Facility Agreement (FFA): A legal agreement between multiple government agencies that is designed to manage the cleanup of environmentally contaminated property. Its purpose is to ensure that past or present activities on a property are carefully investigated and that appropriate remedies are taken to protect public health and the environment.

Information Repository (IR): A source of information about an installation's environmental restoration activities that is readily available to the public. At a minimum, the IR contains all documentation found in the AR and all public documents associated with the RAB. The Travis AFB IR is located in the Vacaville Public Library.

Land Use Controls (LUCs): Administrative, legal, or

physical measures used to prevent exposure to contaminants that remain onsite either during or after remedial action and that present an unacceptable risk to human health or the environment. LUCs include restrictions on the use of the land that will be incorporated into the Base General Plan.

Milligram per kilogram (mg/kg): A unit of measurement of the concentration of a substance present; one mg of a substance in one kilogram of an environmental medium, such as soil or sediment. One mg/kg is equivalent to one part of a substance per million parts of an environmental medium.

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

Oil-Water Separator (OWS): An apparatus that uses the natural tendency of oil to float on water to remove the oil from an industrial wastewater. The OWS removes most of the petroleum contaminants from the water, allowing it to be more effectively treated by another process.

Operable Unit (OU): A geographic area that contains one or more cleanup sites. Often, the sites in an OU have similar characteristics, such as contaminants, industrial processes, or location, which makes the environmental investigation of the restoration sites within the OU easier to manage.

Polycyclic Aromatic Hydrocarbon (PAH): An organic compound that contains carbon and hydrogen atoms, is found in fossil fuels, and is formed during the incomplete combustion of organic materials. PAHs are harmful to human health and the environment, because they are carcinogenic and are known to create genetic mutations in cells.

Preferred Alternative: The cleanup alternative proposed for a contaminated site. Selection is based on the best protection of human health and the environment, achievement of RAOs, compliance with applicable laws, and performance against other CERCLA evaluation criteria.

Record of Decision (ROD): A document that explains and legally commits the lead agency to the cleanup alternatives to be used at a site. The ROD is based on information and technical analyses generated during the Remedial Investigation and Feasibility Study and considers public comments and community concerns. The ROD is signed by the Air Force, EPA, and state agencies.

Remedial Investigation (RI): An investigation of a contaminated site to determine the nature and extent of contamination, to assess human health and environmental risks posed by the contaminants, and to provide a basis for development of remedial alternatives to clean up the site.

Restoration Advisory Board (RAB): A group of interested community members and federal and state government representatives who provide valuable input into the investigation and cleanup activities on Travis AFB.

Restoration Site: A location on an installation or facility where soil contamination is present. A restoration site is identified by a five-digit alpha-numeric designation. The two letters in the designation are based on the way that the contamination was released into the environment. For example, "SS" refers to surface soil and "SD" refers to soil deposition.

Site: In Superfund terms, a site is a facility of any kind where contamination is present as a result of a release of hazardous material. Thus, Travis AFB is a Superfund site.

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USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the Proposed Plan for the NEWIOU SSSW ROD Amendment for Travis Air Force Base is important to the Air Force. Comments provided by the public are valuable in helping the Air Force to select a final cleanup remedy for each site.

You may use the space below to write your comments, then fold and mail them to Mr. James Spellman at 60th AMW PA, 101 Bodin Circle, Travis AFB, CA 94535. Comments must be postmarked by 15 May 2015. If you have questions about the comment period, please contact Mr. Spellman at (707) 424-2011. Those with access to email may submit their comments to the Air Force at the following address: james.spellman@us.af.mil.

Name:_____

Address:_____

City_____

State_____Zip_____

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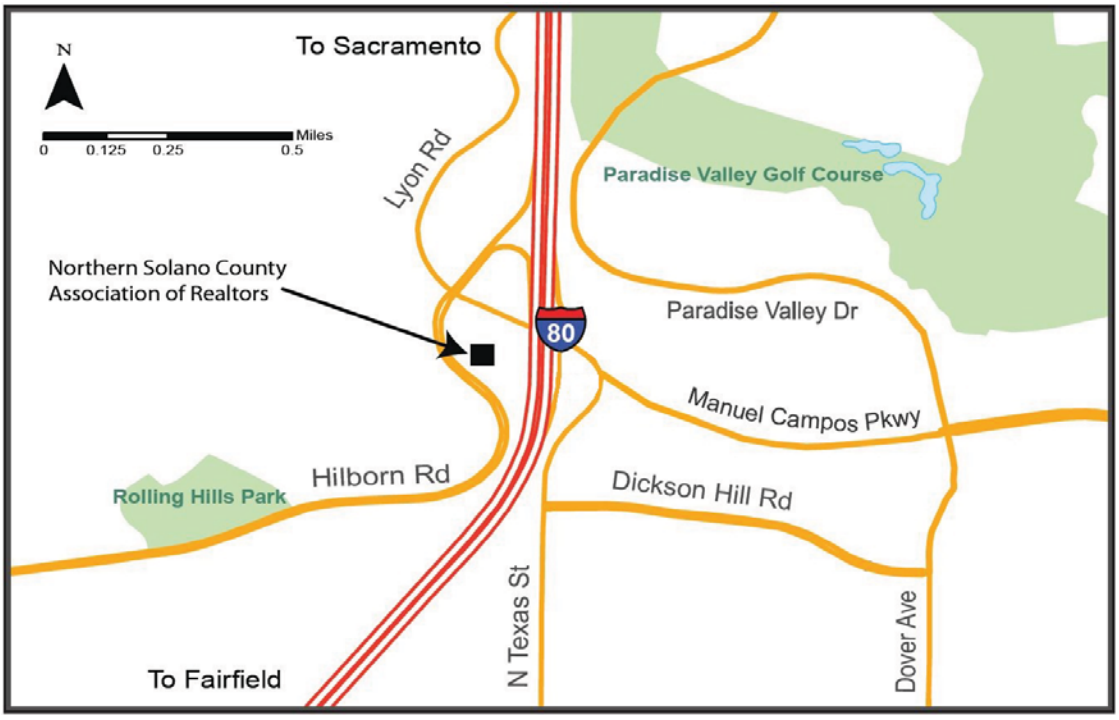

Travis AFB

Public Meeting

April 23, 2015

Northern Solano County
Association of Realtors
3690 Hilborn Road
Fairfield, CA 94535