

PART III: RESPONSIVENESS SUMMARY

The primary avenues of public input have been through the Proposed Plan and public comment period. The Proposed Plan for groundwater was issued to the public on 25 September 1996. To encourage public comment, the U.S. Air Force (USAF) held a public meeting on 17 October 1996, distributed Proposed Plans to libraries in the area, and included the phone numbers and e-mail addresses of USAF and agency representatives.

The public meeting to receive comments on the Proposed Plan was attended by various community members. Oral comments were received from one person: Bill Petersen. Following the public meeting, and prior to the conclusion of the public comment period, written comments were submitted by one individual: Carl Freitas of Oakland, California.

All comments received are documented in the administrative record file for the site. A transcript of the public meeting is available for public review at the site information repository. The repository is located off-base at the Vacaville Public Library, 1020 Ulatis Drive. Public comments, relevant to contaminated groundwater in the NEWIOU and/or the environmental restoration program at Travis AFB, are presented below and have been paraphrased for greater clarity. This IROD is based on the documents in the Administrative Record and comments received from the public.

Public Comment 1a: There was a concern that contaminants on base could impact neighboring property by contaminants migrating off base or by discharge of treated water to storm drains and creeks.

USAF Response: The USAF has identified three areas where contamination has migrated off-base: two on the south base boundary and one on the North. At these sites, the USAF proposes putting in wells to clean the contaminated off-base groundwater to drinking water standards and prevent any future migration of contaminated groundwater off-base. The

primary contaminant in the off-base groundwater is Trichloroethene (TCE) which is a solvent used at Travis until 1980. At the other sites (where all contamination is on-base), the proposed cleanup actions and monitoring will minimize the migration of contaminated groundwater and ensure there will not be any additional off-base migration.

Areas of past fuel spills at the base have been investigated and have resulted in some contamination of on-base groundwater but no contamination of off-base groundwater. One fuel spill in 1978 did temporarily contaminate off-base surface water (Union Creek), but due to removal and dissipation did not have any long term effect to either surface water or groundwater.

Water that is treated and discharged to storm sewers or Union Creek will meet stringent clean water standards (drinking water levels) set by the State of California Regional Water Quality Control Board. The Board will oversee the operation of all treatment plants and verify compliance with the discharge standards.

Public Comment 1b: Additional information was requested on the location of the groundwater contamination south of the base relative to the location of off-base wells and roads.

USAF Response: There are two plumes of contaminated groundwater that have migrated beyond the southern base boundary. The groundwater flow in this area is to the South. The plumes are referred to as site SS030 and FT005 (see figure 5 of the Proposed Plan). The most recent data indicate the southernmost edge of the SS030 plume is approximately 1000 feet north of Creed Road, 1000 feet north-northeast of the nearest production well, and 1300 feet north-northwest of the nearest Travis AFB monitoring well pair on Creed Road. The southernmost edge of the FT005 plume is approximately 2000 feet north of creed road, 1/2 mile west-northwest of the nearest production well, and 1/2 mile north-northwest of the nearest Travis AFB monitoring well pair on Creed Road.

Public Comment 1c: There was a concern that removal of contaminated groundwater would reduce the supply of water on neighboring property.

USAF Response: Pumping will be designed to extract only contaminated groundwater and to minimize the amount of groundwater requiring treatment. The groundwater action is intended to remove only the quantity of water that will achieve capture of the contaminated plume. Based on modeling of the groundwater south of the base, the operation of extraction wells associated with remediation of the off-base plumes would have a minor effect (less than a 3 foot decrease in average water level) on a well 1,000 feet from the remedial extraction wells, a minimal effect (less than a 5 inch decrease in average water level) on a well 1 mile from the extraction wells, and no discernible effect (less than 1 inch decrease in average water level) on wells 1.25 miles or more from the extraction wells. During operation of the extraction wells, the effects on water levels will be monitored and evaluated to ensure there is not a significant impact on the off-base groundwater supply.

Public Comment 2a: The Proposed Plan is based on very limited testing of soil and/or groundwater on the Freitas property (the only testing we are aware of was 5 hydropunch samples taken in one limited area in July, 1995). Is the need for any further testing anticipated? If so, what type of testing and when should it take place? Given the limited testing done, with what degree of confidence has the level of contamination and the extent of the contaminated groundwater plume been established?

USAF Response: The results of on-base soil, sediment, surface water, and groundwater sampling for landfill No. 2 (also known as site LF007) were presented in the North Operable Unit (NOU) Remedial Investigation (RI) Report of July 1995. The report concluded that the contamination and the contamination sources were all on-base except trichloroethene (TCE) groundwater contamination near the northern boundary of the landfill. In order to investigate the level and extent of the off-base groundwater contamination, the five groundwater samples (hydropunch) were taken on the Freitas property. The results of this groundwater sampling are documented in the NOU RI Report Addendum of October, 1995 and showed one off-base detection of TCE (31 µg/L) surrounded by four locations (east, north-northeast, north-northwest and west) with no detection of TCE. Based on that information, Travis AFB considers the plume

to be adequately defined for planning and selection of interim remedial actions. Additional sampling may be needed for specific engineering design purposes. Samples may also be collected at some time in the future (probably several years from now) to confirm that the interim remedial goal has been attained and that the groundwater concentrations meet drinking water standards.

Public Comment 2b: The Proposed Plan does not define a time line for the cleanup process. What level of hazard is presently associated with the Freitas property? What reduction in the level of contamination is targeted, and over what time frame? What are restrictions (as a practical matter) on use of the Freitas property while the cleanup process is taking place?

USAF Response: Our current estimate is that it could take 12 years to reduce the TCE concentration in the off-base plume from 31 µg/L to the drinking water standard of 5 µg/L. There is no current level of hazard (human health risk) from the groundwater contamination because the water is not being used. The groundwater contamination will not affect surface land uses (such as ranching or agriculture). Prior to cleanup, a production well (for household or livestock consumption) should not be installed in the area where the five off-base samples were taken. Also, during any soil excavations that would reach the groundwater in this area, minor precautions should be taken to limit worker exposure to the contaminated groundwater.

Public Comment 2c: Since the source of contamination on the Freitas property is apparently, at least in part, Landfill 2, and since the plan anticipates only natural attenuation and monitoring of Landfill 2, what is the likelihood of further contamination emanating from Landfill 2 and further contaminating the Freitas property?

USAF Response: At Landfill 2 (LF007), wells will be installed to pump and treat the off-base plume to reduce the contamination level to MCLs and to prevent future off-base migration of contaminated groundwater. The remaining portions of Landfill 2 will use natural attenuation as an interim action. This is considered a reasonable approach since the contaminant

levels are low and the plume has exhibited limited migration thus far. In addition, although the area in question has groundwater migration to the north, this is a localized anomaly and the overall direction of groundwater migration is generally toward the south. The installation of the extraction well is expected to stop the northward migration and allow the regional southerly migration to dominate.

The results of this approach will be periodically monitored and reviewed by the regulatory agencies, and more aggressive action will be implemented if it appears there is any potential for future migration onto the Freitas property. Also, the anticipated remedial action for the soil at Landfill 2 (capping) will reduce the infiltration of rainwater into the landfill and will route drainage away from the landfill areas. This action will reduce the groundwater flow potential and the movement of contaminants and will also reduce the localized flow direction to the north.