



# CARSWELL AFB TEXAS

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## ADMINISTRATIVE RECORD COVER SHEET

AR File Number 471

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## Meeting Notice

**Carswell/Plant 4 Restoration Advisory Board**

**May 13, 1999**

**7:00-9:00 pm**

**NAS Ft. Worth Joint Reserve Base**

**Carswell Lanes Bowling Center, Bldg. 1815**

*Notice: The location for the RAB meeting has changed. The meeting will be held at the Carswell Lanes Bowling Center Meeting Room (Building 1815), on the corner of Military Parkway and Hulk Road at Carswell NAS Ft. Worth JRB.*

### Agenda

Welcome/Introductions/Minutes

Westworth Village Redevelopment Authority

Carswell Off-Base/Rafael Vazquez

Program Update

Property Transfer Update

Carswell On-Base/Joe Dunkle

IRP Program Video

Landfill RCRA Facilities Investigation Update

Monitoring Program Discussion

Air Force Plant 4/John Doepker

Fish Tissue Sampling Program Update

Open Discussion/Questions

#### Enclosures:

Draft February 1999 meeting minutes

Directions to New Meeting Location

For more information, please contact:

Mike Dodyk 1-817-732-9734

Daniel Johnson 1-800-982-7248, ext. 346

*Please Note: You will need identification to enter the base. If you wish to drive and park on-base, auto registration and proof of insurance will also be needed.*

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**Directions to the Carswell Lanes meeting room:**

The Restoration Advisory Board meeting will be held in the meeting room in the rear of the "Carswell Lanes" Bowling Center, Building 1815, on the corner of Military Parkway and Hulk Road. To get to the meeting room, tell the guard at the Guard house that you are going to the RAB meeting at the Carswell Lanes. Proceed 1 mile past the guard house along Military Parkway. Just past the second traffic signal, you will pass the Auditorium/Movie Theater, building 1845 on the left. The next building on the left is the Bowling Center. Turn left at the intersection of Hulk Road and then immediately turn left into the parking lot. You may want to proceed all the way around the building to enter from the rear. If you enter the building from the main parking lot, you will go through the building past the bowling alleys and snack bar to the end of the building and turn left to the end of the hall where the meeting room is located. There will be signs in the building directing you to the meeting room.

**Carswell/Plant 4  
Restoration Advisory Board Meeting**

DRAFT  
Summary Minutes of February 11, 1999  
Regular Quarterly Meeting

A regular meeting of the Carswell/Plant 4 Restoration Advisory Board (RAB) was held February 11, 1999, at the New Commander's Conference Room, Building 1510 at the Naval Air Station Fort Worth, Joint Reserve Base. The RAB meeting began at 7:00 PM.

**Agenda**

Welcome/Introductions/Minutes  
Nomination and Election of Community Co-Chair  
Westworth Village Redevelopment Authority  
Carswell Off-Base (Rafael Vazquez)  
    Program Update  
    Property Transfer Update  
Carswell On-Base (Joe Dunkle)  
    FY00 IRP Program  
    Field Work Update  
Air Force Plant 4 (John Doepker)  
    USGS Groundwater Model  
    Public Health Assessment Update  
Community Outreach Activities  
Open Discussion/Questions

**Welcome and Introduction of Attendees**

Community Co-Chair Mike Gross welcomed everyone to the meeting and introductions were made.

**Westworth Village Redevelopment Authority**

The meeting deviated slightly from the agenda, and Mr. Gross introduced Leland Clemons who conducted the briefing on activities and progress of the Westworth Village Redevelopment Authority since the last meeting.

Mr. Clemons stated that more than half of the houses (64 as of the day of this meeting) have been removed from the area known as Wherry Housing. An additional 12 houses from the area known as Kings Branch across from Shady Oaks also have been removed. He said that the projections continue to indicate that by the end of June, all houses from Wherry Housing will have been removed and, by the end of calendar year '99, all houses from Kings Branch will be removed.

According to Mr. Clemons, prospective developers are showing an interest which would be beneficial to the area for a variety of reasons. Along with the interest of potential developers, Mr. Clemons indicated that the public infrastructure has been evaluated and, not surprisingly, very little of the existing infrastructure is useable. For example the sanitary sewer, storm sewer, and water pipes are inadequate for commercial development. The good news is that they don't think they will have to remove what is there but can work around it. He hopes to be able to line up some of the development announcements within the next 60 days. Additionally, he noted that they are waiting on the results of some updated noise studies which will impact the location of future buildings and materials that may be required. (Note: Captain McDonald later indicated that this noise study has been completed by Wiley Labs, but the results have not yet been released.) Mr. Clemons indicated that they are also looking at the possibility of reconfiguring parts of the golf course so that the scope of commercial development could be expanded. They are at a point now where what they do is more impacted by environmental issues such as groundwater and noise. In summary, he said everything is on track.

Joe Dunkle asked about the small group of houses on White Settlement Road near the cemetery. Mr. Clemons indicated that no houses will remain as all military housing must be removed. The houses near the cemetery are expected to be some of the last removed based on current development plans.

#### **Fort Worth YMCA/Camp Carter** (an addition to the agenda)

Captain McDonald introduced Angela Fields, Congresswoman Granger's office; Jerry Pipes, CEO of YMCA Fort Worth; and Craig Gossard, Executive Director of Camp Carter who attended to discuss their hopes to use part of the Base.

Mr. Pipes described Camp Carter, one of the branches of the Fort Worth YMCA, as a 50-year-old facility located close to the Base that has had a campaign under way for the past two years to do some remodeling and build some new additions.

Mr. Gossard explained the need for a new entrance to Camp Carter and described the road that they would like to have along the levee, which includes a corner of property that used to be part of Carswell Air Force Base. They aren't sure if it belongs to the Navy or to the Bureau of Prisons. They attended tonight's meeting to introduce, at this early stage, the plans for what they would like to see happen.

Mr. Gross asked if the Corps of Engineers would have a job to do on this project--would they be the final say so? Rafael Vazquez spoke up at this point to indicate that AFBCA owns the property in question, and he offered to help direct the YMCA representatives. Mr. Dunkle added that he had taken a drive around the area and there doesn't appear to be any environmental impact from past activity at the site.

#### **Minutes**

Mr. Gross motioned that the minutes from the last RAB meeting (November 5, 1998) be passed, and this motion was seconded and approved.

Comments to the draft minutes for this meeting (February 11, 1999) should be sent to

Ms. Valerie Eisenstein  
HydroGeoLogic, Inc.  
1155 Herndon Parkway, Suite 900  
Herndon, Virginia 20170

Phone: (703) 736-4513  
Fax: (703) 471-4180  
e-mail: vke@hgl.com

### **Nomination and Election of Community Co-Chair**

Mr. Gross opened nominations for a new community co-chair for the RAB.

No volunteers spoke up on their own.

Mr. W.F. (Ski) Olshefski nominated J'Nell Pate. She declined the nomination.

Mr. Gross nominated Norman Robbins who declined because he felt that it would be inappropriate given that he works for Lockheed.

Ms. Pate then agreed to assume the position and was accepted by acclamation.

### **Carswell Off-Base**

Mr. Vazquez conducted the Carswell Off-Base briefing.

#### **Program Update**

Mr. Vazquez presented overheads on the program status update for closure reports and the closure activities for the Weapons Storage Area, the Sanitary Sewer System Investigation, and the Landfills Investigation as well as an update on property transfer (Attachment 1).

Mr. Vazquez reminded the RAB that resampling had to be conducted at the Aerospace Museum, the Golf Course Maintenance Yard, the Grounds Maintenance Yard, and the Unnamed Stream. The work plans have been submitted for the regulators to review, and field work is scheduled to begin this spring.

At the Weapons Storage Area, additional field sampling has been conducted and Mr. Vazquez indicated that negotiations with regulators on cleanup continues. He explained that clean up of these areas will be conducted this summer, the site will be closed by the fall, and AFBCA will then sell the property.

In regards to the Sanitary Sewer System Investigation, work plans for the next stage of the investigation are being prepared, and additional sampling and delineation is expected to occur in the fall. Mr. Gross asked if Mr. Vazquez expected any problems to which Mr. Vazquez responded no. Further delineation is necessary in areas where the pipes have leaked and then clean up might be necessary.

AFBCA recently awarded the contract for the Corrective Measures Study for Landfills 4, 5, 8 and Waste Burial Area 7. Currently, the RCRA Facility Investigations on these units are being finished. Hopefully this summer the design and the corrective measure study will be finished, and in the fall design and construction of the selected remedy will start.

#### Property Transfer Update

According to Mr. Vazquez, transfer of the house and the horse stable areas to Westworth Village Redevelopment Authority should happen in March. AFBCA continues to work with the Navy on the Federal Bureau of Prisons land. This transfer will probably happen next year.

Mark Weegar asked why the need to do a Finding Of Suitability To Transfer (FOST) for the Federal Bureau of Prisons given that it is not going outside the Federal government. Mr. Vazquez reported that it is a requirement to do a FOST unless it was going to DoD.

#### Carswell On-Base

Mr. Dunkle began the briefing. He indicated that a Fact Sheet (Attachment 2) and two Executive Summaries have been produced. He also reported that another round of soil sampling has been done at some of the landfills to delineate the extent of contamination and those tests currently are being conducted. It appears, initially, as if the contamination is not as widespread as had been anticipated. In particular, there doesn't appear to be any groundwater contamination or at least no addition to the Plant 4 TCE plume from the landfills at Carswell. By the May time frame, Mr. Dunkle hopes to come to some decisions on those landfills with the regulators. If some are deemed as no further action, then some of the funding that was planned to be used for remedial action could be used to pull the Year 2000 program forward into 1999. He also stated that groundwater monitoring continues, and in the late spring he expects to be conducting field work at some oil/water separators and waste accumulation areas. Mr. Dunkle concluded his remarks by reminding the attendees that if they are interested in viewing some field work, they should contact him.

#### FY2000 Program

Mike Dodyk presented a viewgraph showing the FY2000 program as it is currently envisioned (Attachment 3). The projected funding is \$4,456,000.

#### Air Force Plant 4

John Doepker provided an update of the activities at Air Force Plant 4 (AFP 4).

##### Program Update

Mr. Doepker reported that there is a lot of design work under way at AFP 4. Some digging has begun at Bomber Road on the west side in preparation of running a discharge pipe. IT Corporation (IT) will be conducting this work. He also indicated that Jacobs Engineering Group (Jacobs) is installing a Soil Vapor Extraction (SVE) system in Building 181. Jacobs also is conducting some design work for some of the pump and treat systems for the East Parking Lot. At this point, Mr. Doepker introduced Ms. Sonya Jones of United States Geological Survey (USGS) to talk about groundwater modeling currently being conducted at AFP 4.

Ms. Jones explained that Building 181 is the source of a TCE spill that occurred some years ago (Attachment 4). The TCE has migrated eastward to what is referred to as a window area. The purpose of the model is to try and determine how much water is moving from Building 181 toward the window area and to try to design a remediation strategy to account for the flow. She discussed the following four alternatives for remediating the East Parking Lot area: a slurry or impermeable concrete barrier wall down to bedrock; a permeable reaction wall which is like a funnel and gate system; a line of extraction wells that would pump the water out and enable it to be treated and then reinjected downgradient; and a french drain. After an explanation of each alternative she indicated that Jacobs will use the model to evaluate the remediation alternatives.

Mr. Gross asked which of the alternatives is the most expensive yet most effective. Ms. Jones indicated that Jacobs would be weighing all of the different factors to determine this.

A representative from EMR, Inc. asked about the depth to bedrock. Ms. Jones replied that it varies from approximately 10 to about 40 to 50 feet and the barriers will be about 600-700 feet in length.

Ms. Pate asked if there was still pumping going on in the area. The answer is yes.

Mr. Olshefski asked where the water that is pumped out goes. Mr. Doepker answered that it is treated and goes to the public owned treatment works in Fort Worth, but after final design, it will be discharged to Farmers Branch Creek. A discussion ensued about storm water runoff. Victor Dozzi of IT spoke about his efforts at Landfill 1 and runoff. This led to a discussion about TCE in the Landfill.

Mr. Olshefski asked about the status of the phytoremediation study. Mr. Doepker explained that when the discharge line is run under the road and a potable water line is installed, then the trees will be planted.

Mr. Gross asked why we are testing fish. Mr. Doepker said the concern is the sediment. He would discuss further following the completion of Ms. Jones' briefing.

Ms. Jones wrapped up her briefing by talking about the second part of the remediation at the window area. A well field was designed to capture the high concentration water in the alluvial aquifer and limit the amount of water entering the Upper Paluxy Sand Aquifer from the overlying alluvial aquifer. She concluded by summarizing that USGS has provided Jacobs with preliminary results for all four simulations in the East Parking Lot, and the preliminary well field design for the window area has been presented to Lockheed Martin and Aeronautical Systems Center (ASC) for approval.

An attendee asked how long the TCE would continue to emit into the stream. Mr. Doepker said the SVE that is being installed at Building 181 should stop the source. At this point Mr. Doepker returned to the fish sampling discussion and said he would have a representative of USGS who does the sampling come for a briefing at the next RAB meeting. The concern is sediment contamination and bottom feeding fish. Mr. Doepker just received the funding for this, and he said the sampling will be done in March.

The floor was opened at this point for other questions....

Mr. Weegar asked how many wells are completed in Paluxy, how often are they sampled, and where are the results published? He would like a map and sampling results. Mr. Doepker responded and indicated that there are about 20 wells and the monitoring is done by Jacobs semi-annually. Mr. Doepker will obtain a map for Mr. Weegar. A short discussion on various other well sampling took place at this time.

When asked when he expected to complete the piping work, Mr. Dozzi responded by mid-March.

In response to a question by Ms. Pate, it was determined that there were eight community members present.

### **Community Outreach Activities**

An open discussion about communications and getting information out to the community about the RAB meetings and the concerns that exist proceeded. The group recapped some of the methods that have been used previously, including setting up a booth at the Air Show and at the mall.

The following list of potential communication methods/suggestions and comments was generated during this discussion:

- Make presentations (in layman's language) at Lion's Club meetings, church groups, etc.
- Organize booths with handouts at festivals.
- Pitch positive success story to the *Star Telegram*.
- Contact the Highway Department to determine how they are so successful.
- Tours have been successful but need to determine how to keep people interested after the tour.
- A web site exists with meeting minutes, etc., but people only learn about this tool via word of mouth or when conducting a search.
- Fact sheets will be published quarterly. These can be used at meeting and also can be mailed out to those on the mailing list.
- Develop a video for the community access channel that describes the restoration activities. Tie in with a newspaper article.
- Run an advertisement in the *Star Telegram* that describes the program and has a clip out to mail in or an 800 number to call to get more information or be added to the mailing list.
- Make a presentation at the Pre-City Council Meeting.
- Develop a dedicated communication group.
- Obtain help from the Fort Worth Chamber of Commerce. Among other things, the Chamber can provide information as to when each of the community groups is meeting.
- Target each and every community group. Make a presentation that explains what is going on, why they should be concerned, what is being done, when it will be done, etc., and distribute a handout with contact information (i.e., a Fact Sheet or brochure). This might generate interest for people to want to come to the meetings.
- The point was made that things are going well with the work that is being done and, therefore, it may be difficult to generate interest.
- If there is interest on the part of the community to form an outreach group, the government will support it. The concern is not to add any burden on the community that would burn the participants out.
- Ralph Stangl and Mr. Olshefski agreed to get together and discuss the community outreach issue further.

### **Adjournment**

The next RAB meeting is scheduled for May 13, 1999. Restoration Advisory Board members will be notified by mail of the exact date, time, and place.

In closing, Mr. Gross thanked the government agencies for all of their help and Captain McDonald for his hospitality, and Ms. Pate said she is interested and would try to do a good job as the new Co-Chair.

The meeting was adjourned at 8:40 PM.

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**In Attendance**

## Carswell DERA (On-Base)

Michael Dodyk, HQ AFCEE/ERD  
 Joe Dunkle, HQ AFCEE/ERD  
 Gary DuPriest, HQ AFCEE  
 Chuck Pringle, HQ AFCEE/ERD  
 Jim Costello, HydroGeoLogic, Inc.  
 Valerie Eisenstein, HydroGeoLogic, Inc.  
 Miquette Rochford, HydroGeoLogic, Inc.  
 Will Carter, IT Corporation  
 Amy Hardberger, Unitec

## Carswell AFBCA (Off-Base)

Gwen Brewer, AFBCA  
 Alvin Brown, AFBCA  
 Rafael Vasquez, AFBCA

## Air Force Plant 4

John Doepker, ASC/EM  
 Daniel Johnson, ASC  
 Victor Dozzi, IT Corporation  
 Gregory McGraw, IT Corporation  
 Norman Robbins, Lockheed Martin TAS

## United States Navy

Capt. Greg McDonald, NAS JRB  
 Wayne McKenzie, Navy Environmental

## Texas Natural Resource Conservation Commission

Ray Risner  
 Tim Sewell, Region 4  
 Mark Weegar

## United States Environmental Protection Agency

Rafael Casanova, Region 6  
 Gary Miller, Region 6

## United States Geological Survey

Sonya Jones  
 Lloyd Woosley

## Others, Off-Base

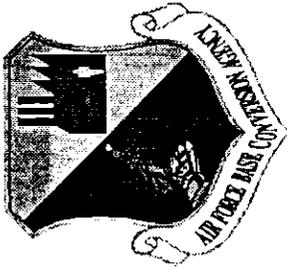
Mike Gross, community member  
 J'Nell Pate, community member

**In Attendance (cont.)**

Vince Wilcox, community member  
 Leland Clemons, Westworth Village Redevelopment Authority  
 Ed van Hahn, Westworth Village Redevelopment Authority  
 W.F. Olshefski, Lake Worth Civic Club  
 Ralph Stangl, Lake Worth Civic Club

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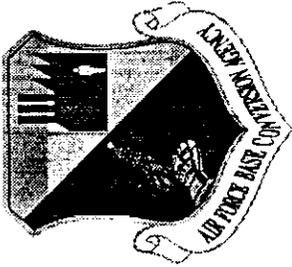
Angela Fields, Congresswoman Granger's office  
Craig Gossard, Camp Carter/YMCA  
Jerry Pipes, Camp Carter/YMCA  
Jim Scanlan, City of Fort Worth  
Marshall Dunn, EMR, Inc.  
Leon Romme, EMR, Inc.  
Gino Zangara, NAUS  
Denise Gordon, FWISD  
Carrie Baran  
Lisa Holder



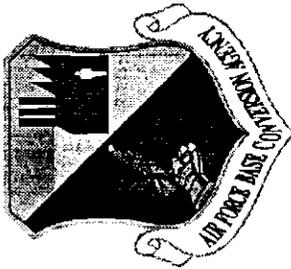
# PROGRAM STATUS

- CLOSURE REPORTS
  - AEROSPACE MUSEUM
  - GOLF COURSE MAINTENANCE YARD
  - GROUNDS MAINTENANCE YARD
  - UNNAMED STREAM
- WEAPONS STORAGE AREA
- SANITARY SEWER INVESTIGATIONS
- LANDFILL INVESTIGATIONS
  - LANDFILLS 4, 5, AND 8
  - WASTE PILE 7

# PROGRAM STATUS CLOSURE REPORTS



- WORKPLANS FOR ADDITIONAL SAMPLING SUBMITTED TO REGULATORY AGENCIES FOR REVIEW
- FIELD WORK TO BEGIN SPRING 1999
- COMPLETE CLOSURE REPORTS BY SUMMER 1999



# PROGRAM STATUS

## WEAPONS STORAGE AREA

- ADDITIONAL FIELD INVESTIGATIONS CONDUCTED TO DEVELOP SCOPE OF ADDITIONAL SOIL EXCAVATION
- CLEANUP TO BE CONDUCTED SUMMER 1999
- COMPLETE CLOSURE REPORT BY FALL 1999



# **PROGRAM STATUS**

## **SANITARY SEWER INVESTIGATIONS**

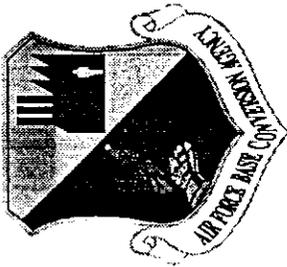
- PREPARING WORKPLAN FOR ADDITIONAL INVESTIGATIONS TO BE CONDUCTED IN SUMMER 1999
- COMPLETE CLOSURE REPORTS BY FALL 1999



# PROGRAM STATUS

## LANDFILL INVESTIGATIONS

- AWARDED CONTRACT FOR CORRECTIVE MEASURES STUDY
- COMPLETE DESIGN OF CORRECTIVE MEASURE IMPLEMENTATION (CMI) FOR SOILS ONLY IN FALL 1999
- COMPLETE CONSTRUCTION OF CMI IN SPRING 2000



# PROPERTY TRANSFER UPDATE

- FINDING OF SUITABILITY TO TRANSFER (FOST)
  - HOUSE IN HORSE STABLES AREA (MARCH 1999)
  - FEDERAL BUREAU OF PRISON HOSPITAL (MAY 1999)



## CARSWELL/PLANT 4 RESTORATION ADVISORY BOARD

Fact Sheet #2  
February 11, 1999

### **NAS FORT WORTH JOINT RESERVE BASE (JRB) INSTALLATION RESTORATION PROGRAM (IRP)**

This is the second in a series of fact sheets focusing on the Installation Restoration Program (IRP) at the Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB). The NAS JRB, formerly Carswell Air Force Base, is in the process of planning and conducting activities for the identification, remediation, and closure of contaminated sites at the Base.

The IRP is the Department of Defense's (DoD) primary mechanism for environmental response actions on U.S. Air Force installations. IRP activities are governed by provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and other applicable Federal and state regulations. These activities are being conducted through the combined efforts of the Air Force Center for Environmental Excellence (AFCEE) and the Air Force Base Conversion Agency (AFBCA). Under provisions of the Resource Conservation and Recovery Act, the Air Force identified 68 solid waste management units (SWMU) and 16 Areas of Concern (AOC) for further study and cleanup, if necessary.

### **AOC 2 DRAFT REPORT SUBMITTED**

The AOC 2 RCRA Facility Investigation [of northern lobe trichloroethylene (TCE) contamination] has been completed, and a report documenting the results of the investigation prepared. This report was submitted to the agencies for review on January 15, 1999. Components of the investigation included a geophysical survey, subsurface soil and groundwater sampling, a review of new and existing analytical and physical data, an evaluation of potential sources and migration pathways, and a risk characterization. The report concludes that there is no evidence to support an onsite source of TCE other than the Air Force Plant 4 (AFP 4) plume migrating from the flightline area. It also concludes adverse health affects related to currently contaminated groundwater and soils are not expected, and the plume has not yet intercepted the West Fork Trinity River. In addition, downward migration to the Paluxy Aquifer (Fort Worth's primary drinking water aquifer) is not expected based on the observed thickness and hardness of the bedrock. Prevention of further migration of the plume toward the West Fork Trinity River eventually will be required. Until remedial measures are evaluated, monitoring to confirm no impacts will continue via the Basewide Groundwater Sampling and Analysis Program.

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## QUARTERLY BASEWIDE MONITORING CONTINUES

The Air Force samples groundwater at locations basewide four times a year to monitor the status of the contaminant plumes and to provide information for establishing trends. The current program (called Basewide Quarterly Groundwater Sampling and Analysis Program, or GSAP) has been in place since January 1997. Quarterly events occur in January, April, July, and October of each year. The most recent round of quarterly monitoring was completed in January 1999. Currently, an annual report is being prepared that summarizes 1998 groundwater monitoring results.

## AOC 4 SITE INVESTIGATION REPORT SCHEDULED FOR EARLY MARCH

Area of Concern 4 (AOC 4) includes the area of the former fuel hydrant system at the Base. The fuel hydrant system was used to transfer aviation fuel from the bulk storage facility to fuel hydrants located along the flightline. These hydrants then were used to fuel the aircraft. The hydrant system was removed from service in 1994, and during the removal of the system, contamination from the chemicals that comprise aviation fuel was detected. The Site Investigation (SI) for AOC 4 was completed last month, and, presently, the analytical data is being compiled. The Site Investigation Report is scheduled to be submitted in March 1999.

## RCRA FACILITY INVESTIGATION OF LANDFILLS CONTINUES

RCRA Facility Investigations (RFI) continue at seven former landfills. These landfills include SWMU 17 (Landfill No. 7), SWMU 26 (Landfill No. 3), SWMU 27 (Landfill No. 10), SWMU 28 (Landfill No. 1), SWMU 29 (Landfill No. 2), SWMU 30 (Landfill No. 9), and SWMU 62 (landfill No. 6). The results of the RFIs will determine if a source of potential contamination exists, and, if so, if the source has impacted the soil, groundwater, surface water, or sediments at or near the site. The results of the RFI also will be used to determine which Texas Natural Resource Conservation Commission (TNRCC) Risk Reduction Standard (RRS) is appropriate for closure of the units. If the values are all below background, then a request will be forwarded to the TNRCC requesting closure with no further action. If the sites have chemicals above background concentrations, then additional efforts will be accomplished that may include remediating the sites. The RFI reports will be completed in the spring/summer of this year.

## FIRST ANNUAL ADMINISTRATIVE RECORD UPDATE NEARLY COMPLETE

The Administrative Record and other documents for the NAS Fort Worth JRB Installation Restoration Program are available on CD-ROM at the local Information Repositories. This project was completed in March 1998. The first annual update to these CD-ROMs will be complete in March 1999. Community members are able to view more than 356 documents such as work plans, sampling and analysis data, and the Community Relations Plan on CD-ROM. *In Magic*, a library management database, allows readers to use key words to search for documents of interest available on-line. Information Repositories have been

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established at the following locations: White Settlement Public Library, 8215 White Settlement Road, White Settlement, Texas 76108 (817) 367-0166 and Central Fort Worth Public Library, 300 Taylor Street, Fort Worth, Texas 76102 (817) 871-7701.

## **WASTE ACCUMULATION AREA PLANS SUBMITTED**

The RFI of 13 Waste Accumulation Areas (WAA) at the Base is scheduled to begin in March of this year. The WAAs are small storage sheds that housed hazardous wastes prior to transferral to the central storage facility. Examples of the most common wastes stored at these facilities included used solvents, spray cans, dirty rags, and used batteries. The Work Plans for the RFI were approved by the TNRCC in late 1998, and, currently, drilling, analytical, and other support contractors are being lined up to initiate the work. Each investigation generally will consist of a few soil borings and one downgradient monitoring well. The results of the investigation will be compiled in an RFI report which is expected to be submitted in December 1999.

## **UST INVESTIGATIONS IMMINENT**

During the closure/realignment process at Carswell, an agreement was signed whereby the Air Force would be responsible for cleaning up any contamination from Underground Storage Tanks (UST) at the Base that occurred prior to October 1, 1994. In late 1998, the Air Force and Navy agreed which tanks would require additional investigation, and the Air Force is preparing a plan for investigating those tanks which require additional data before closure. The plans were submitted to the TNRCC on February 5, 1999, and the investigation is scheduled for completion this summer.

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## **FOR MORE INFORMATION**

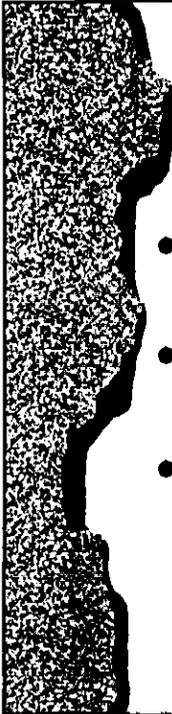
*If you would like more information about the Installation Restoration Program at Naval Air Station Fort Worth Joint Reserve Base, contact Joseph Dunkle, HQ AFCEE, at (210) 536-5290 or via e-mail at [Joe.Dunkle@HQAFCEE.brooks.af.mil](mailto:Joe.Dunkle@HQAFCEE.brooks.af.mil).*

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**CARSWELL FY00 DERA PROGRAM**

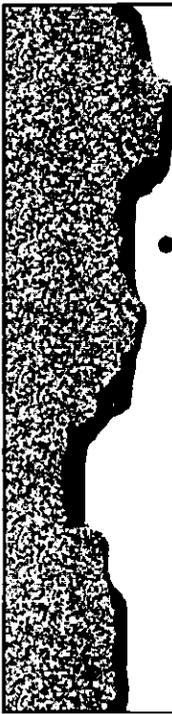
Project Number	Project Description	Projected Funding	PHASE
DDPF2000 0001	Wash Area/Storm Water Collection RI	\$670,000	Study
DDPF2000 0002	Management	\$202,000	MGT
DDPF2000 0003	Landfill Remedial Action	\$2,881,000	RA-C
DDPF2000 0004	LTM - Various Sites	\$537,000	LTM
DDPF2000 0005	Manpower	\$166,000	MPR
		\$4,456,000	

date 2/11/99



## Air Force Plant 4 Ground-Water Model

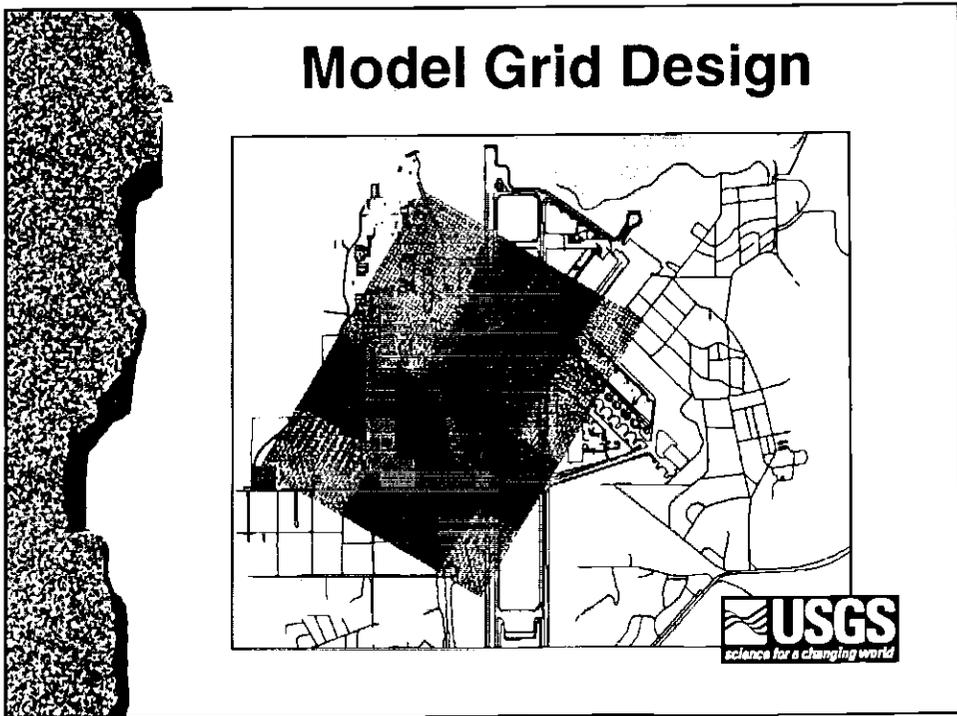
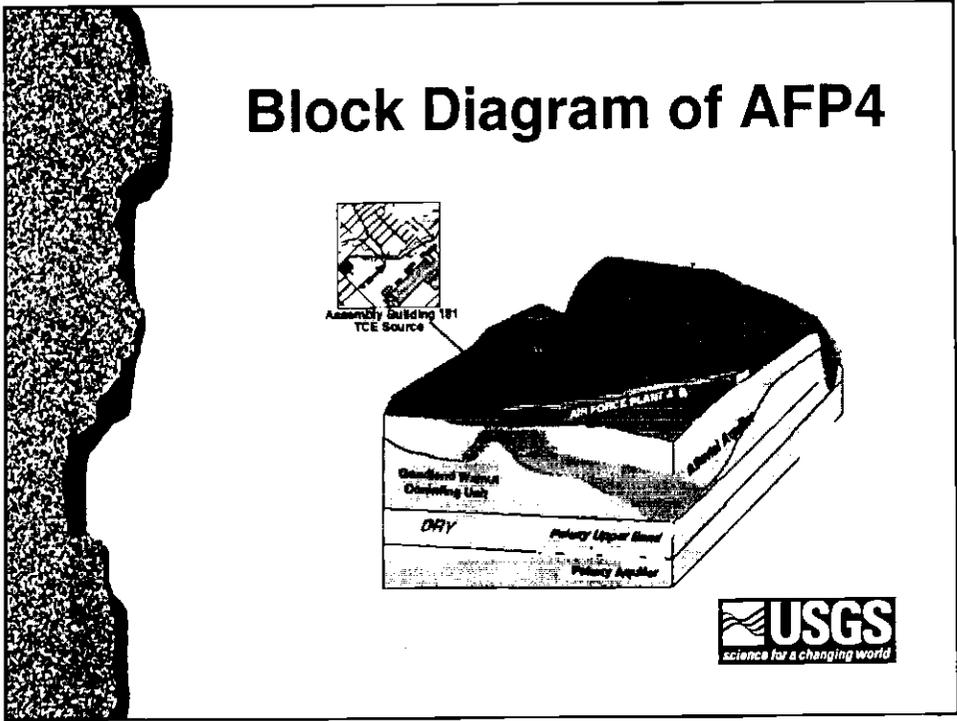
- Spills from building 181 are the source of a TCE plume at the site.
- Ground water moves from west to east in the alluvial aquifer.
- The confining unit between the alluvial aquifer and the Paluxy aquifer is breached east of building 181.

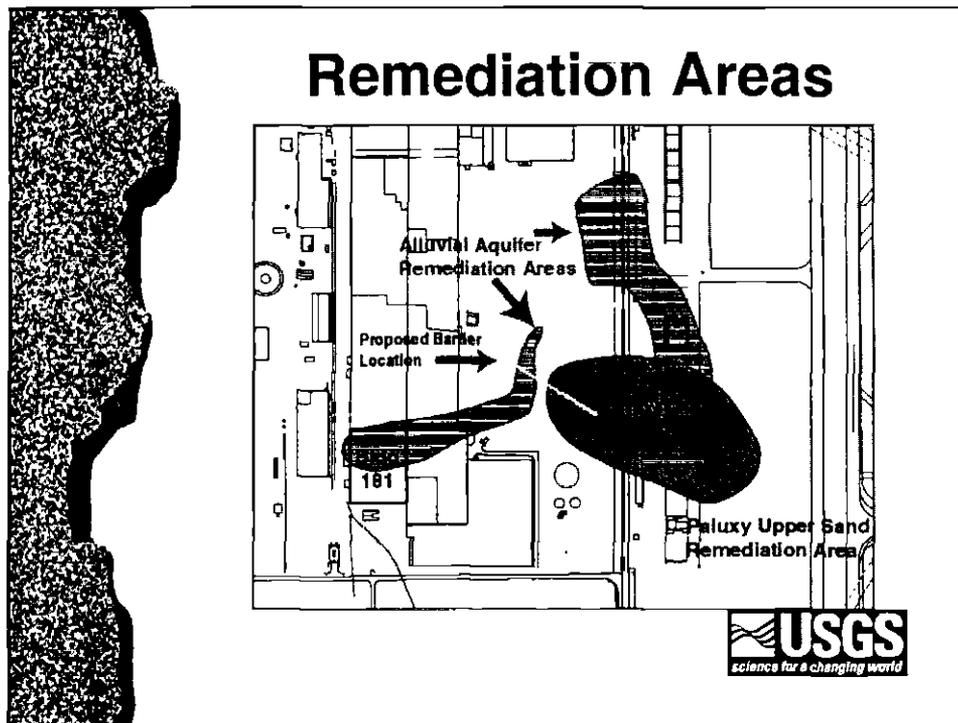


## Project Objectives

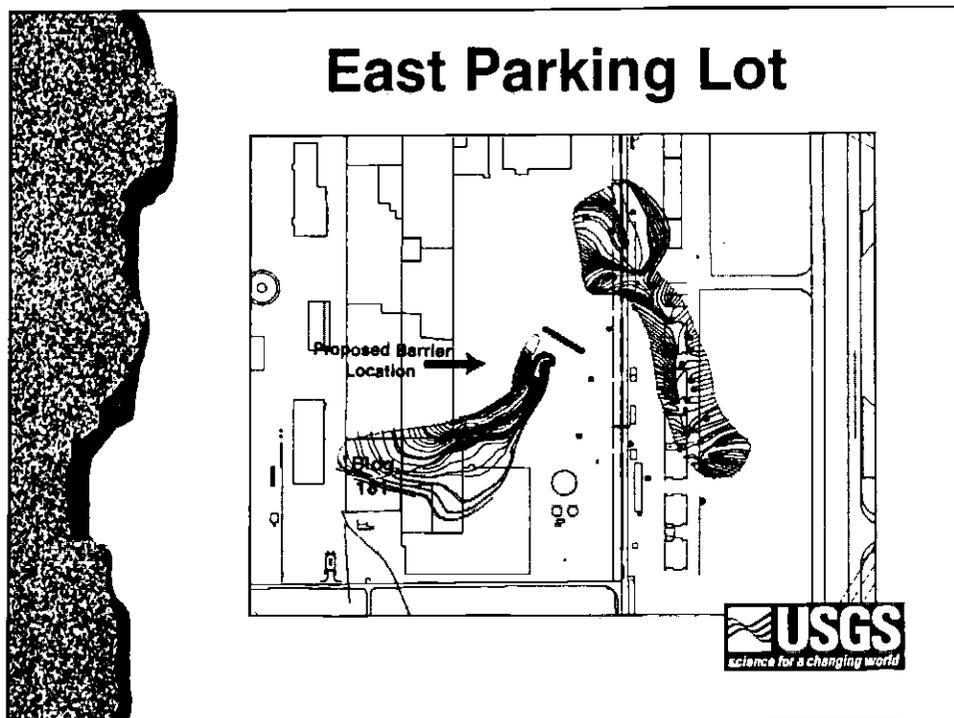
- The ground-water flow model was created to be used as a tool to aid the development of remediation strategies for the East Parking Lot and “window” areas.







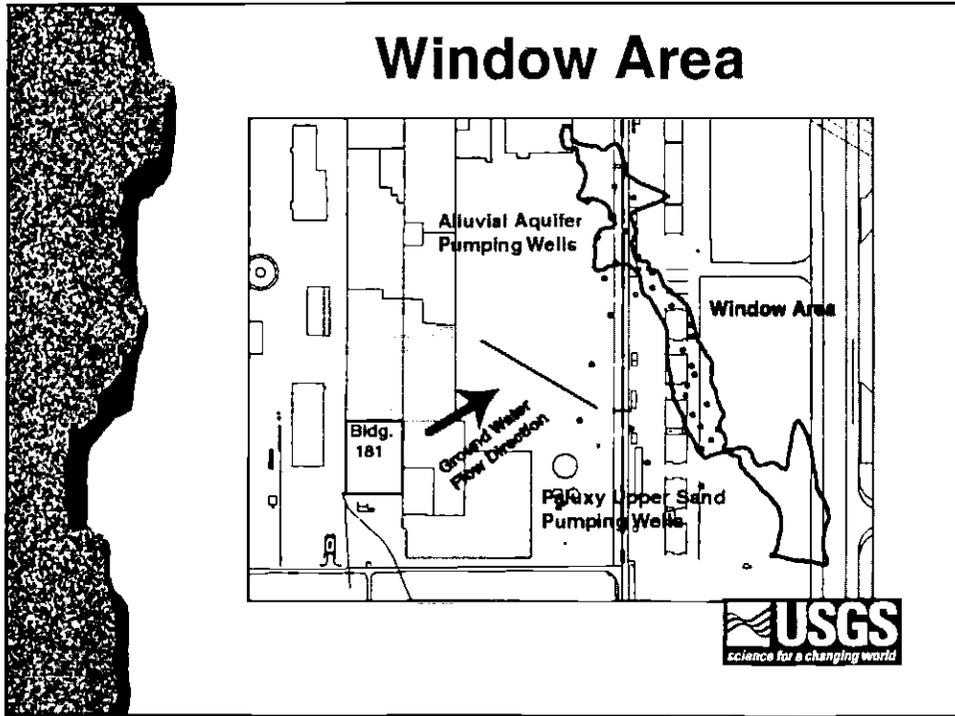
- ### Remediation East Parking Lot
- Slurry Wall .....
  - Permeable Reaction Wall .....
  - Extraction Wells .....
  - French Drain .....
- 



### Remediation Window Area

- A well field was designed to:
  - ① Capture high concentration water in the alluvial aquifer.
  - ② Limit the amount of water entering the Upper Paluxy Sand Aquifer from the overlying alluvial aquifer.





- ### Progress To Date
- The USGS has provided Jacob's Engineering with preliminary results for all 4 simulations in the East Parking Lot.
  - The preliminary well field design for the Window Area has been presented to Lockheed and ASC for approval.
- 

# Air Force Plant 4/NAS Fort Worth JRB Project Update: Long-Term Monitoring

John Doepker

May 13, 1999



# GROUNDWATER FLOW

- ◆ The direction of groundwater flow is predominately to the east from AFP 4 toward NAS Fort Worth and the West Fork of the Trinity River
- ◆ Three water bearing zones exist in this area
  - Terrace Alluvium (shallowest zone)
  - Paluxy Aquifer (~ 80 feet bgs)
  - Twin Mountains Aquifer (~ 625 feet bgs)

# CONTAMINANTS

- ◆ The largest contamination plume on the two sites is the result of chlorinated solvents such as trichloroethene (TCE), and its breakdown products: dichloroethene (DCE) and vinyl chloride.
- ◆ Additional contaminants, such as fuel related compounds (benzene) and metals exist in localized area on NAS Fort Worth

# AFP 4 LTM

- ◆ Quarterly monitoring activities were initiated in October 1991 at AFP 4
- ◆ The monitoring schedule was changed to semi-annual in April 1998
- ◆ Monitoring is conducted at 41 monitoring wells, 9 surface water sites, 3 sediment sites, and 1 city water production well on AFP 4 property, NAS Fort Worth JRB property, and in the community of White Settlement



# AFP 4 LTM OBJECTIVES

- ◆ Monitor for contaminants associated with previously identified sites in order to provide data necessary to recognize if additional remedial actions are necessary to protect public health and the environment.
- ◆ Remediation goals were established in the 1996 Record of Decision (ROD) that, when achieved, will ensure that AFP 4 contaminants do not reach the public water supplies



# AFP 4 LTM OBJECTIVES

- 3 water supplies have been identified in the ROD that could be affected by AFP 4 contaminants
  - Paluxy Aquifer
  - Lake Worth
  - West Fork of the Trinity River.
- LTM evaluates water quality in these water supplies directly, as well as the potential pathways by which contaminants could reach these water supplies.

# NAS FORT WORTH LTM

- ◆ A basewide groundwater sampling and analysis plan (GSAP) was initiated in April 1995
- ◆ The GSAP addresses groundwater contamination associated with various Solid Waste Management Units (SWMU) and Areas of Concern (AOC) identified on the base.
- ◆ Monitoring is conducted at 62 well locations basewide.



# NAS FORT WORTH LTM

- ◆ The GSAP monitoring, except for two units that currently have approved or proposed closure plans, is not presently a regulatory requirement and is a voluntary action on the part of the U.S. Air Force



# NAS FORT WORTH JRB LTM OBJECTIVES

- ◆ Collect data to investigate (1) off-site exposure to groundwater sources used for drinking water and (2) on-site and off-site exposure to surface water bodies.
- ◆ Conduct sampling to fulfill current LTM requirements associated with the closure of SWMUs and AOCs.
- ◆ Define horizontal or vertical migration of contamination associated with miscellaneous hot spots and potential source areas where data are not currently available.
- ◆ Collect data to demonstrate that natural attenuation of volatile organic compounds is occurring.



# MONITORING RESULTS

- ◆ Concentrations of TCE range from below laboratory detection limits to 1,230 mg/L within the Terrace Alluvium on the AFP 4 site
- ◆ Concentrations of TCE range from below laboratory detection limits to 3.5 mg/L approximately 2,000 feet east/southeast of AFP 4 on the NAS Fort Worth site
- ◆ Overall concentrations of TCE at both sites have decreased over the last two years.

Air Force Plant 4/NAS Fort Worth JRB  
Project Update:  
RCRA Facility Investigation of  
Landfills 1, 2, 3, 6, 7, 9, and 10

Michael Dodyk, P.E.

May 13, 1999

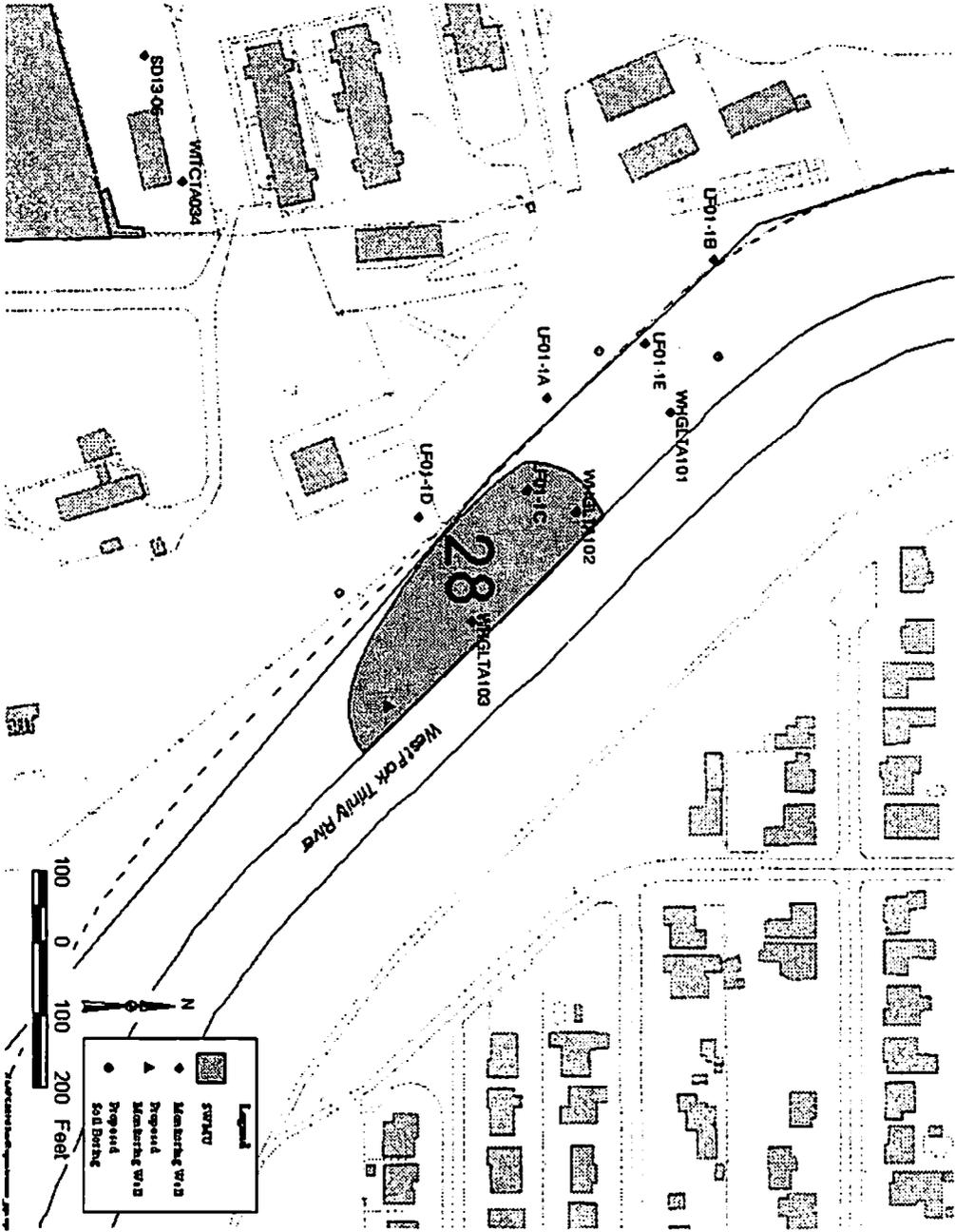


# Investigation Objective

- ◆ To determine if a release has occurred from each Solid Waste Management Unit (SWMU/Landfill)



# Landfill 1 Sampling Locations



# Activities Conducted at Landfill 1

- ◆ Installed three monitoring wells and conducted two rounds of groundwater sampling
- ◆ Collected 16 soil samples during monitoring well installation for analysis

# Sampling Results-Landfill 1

## ◆ Soil results

- Metals (lead and arsenic) present in soil above background concentrations

## ◆ Groundwater results

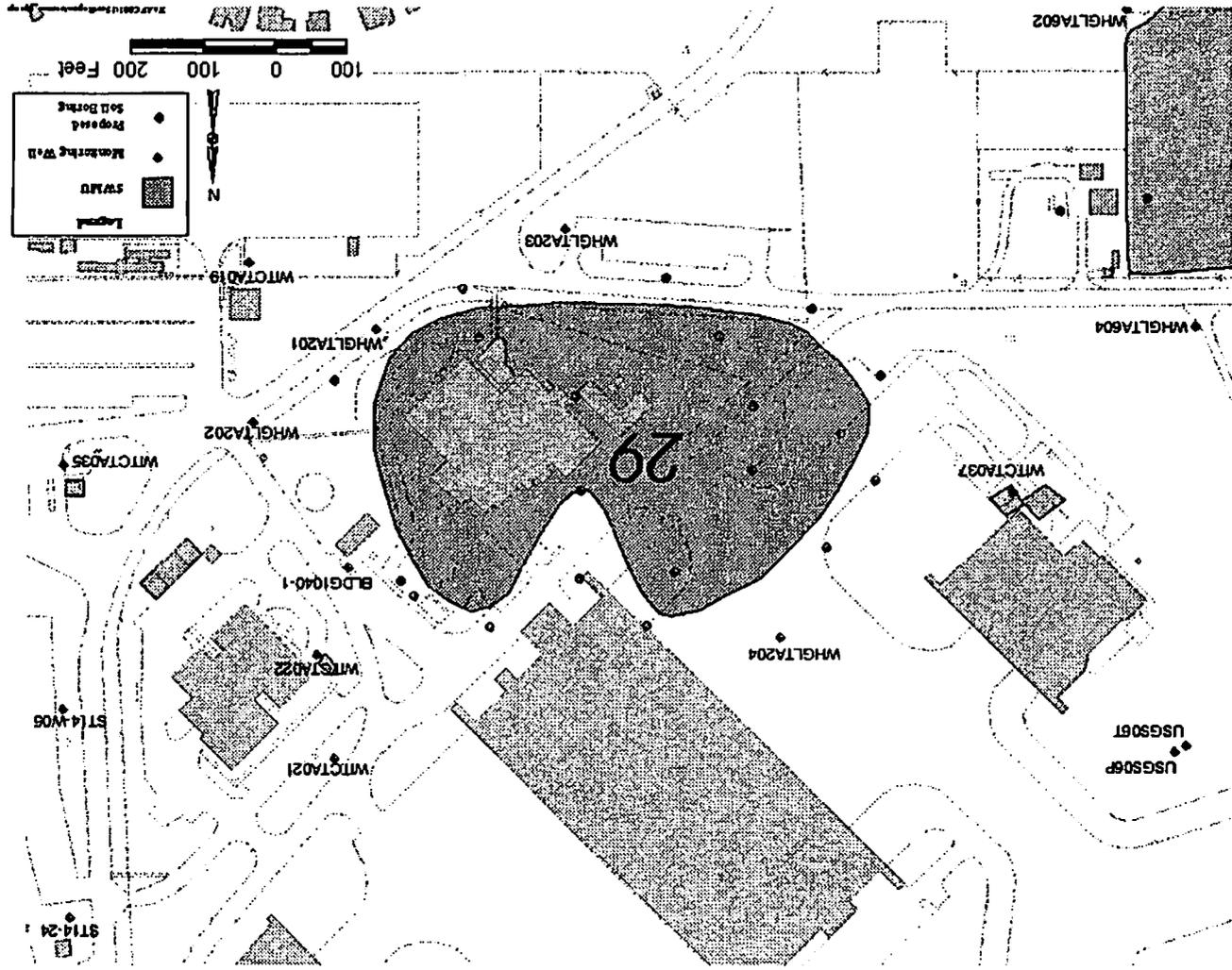
- Metals (lead and arsenic) present in groundwater above background concentrations

## ◆ Additional sampling

- One additional monitoring well and three soil borings for delineation of metals during May/June field effort
- Sample groundwater--new and existing wells



# Landfill 2 Sampling Locations





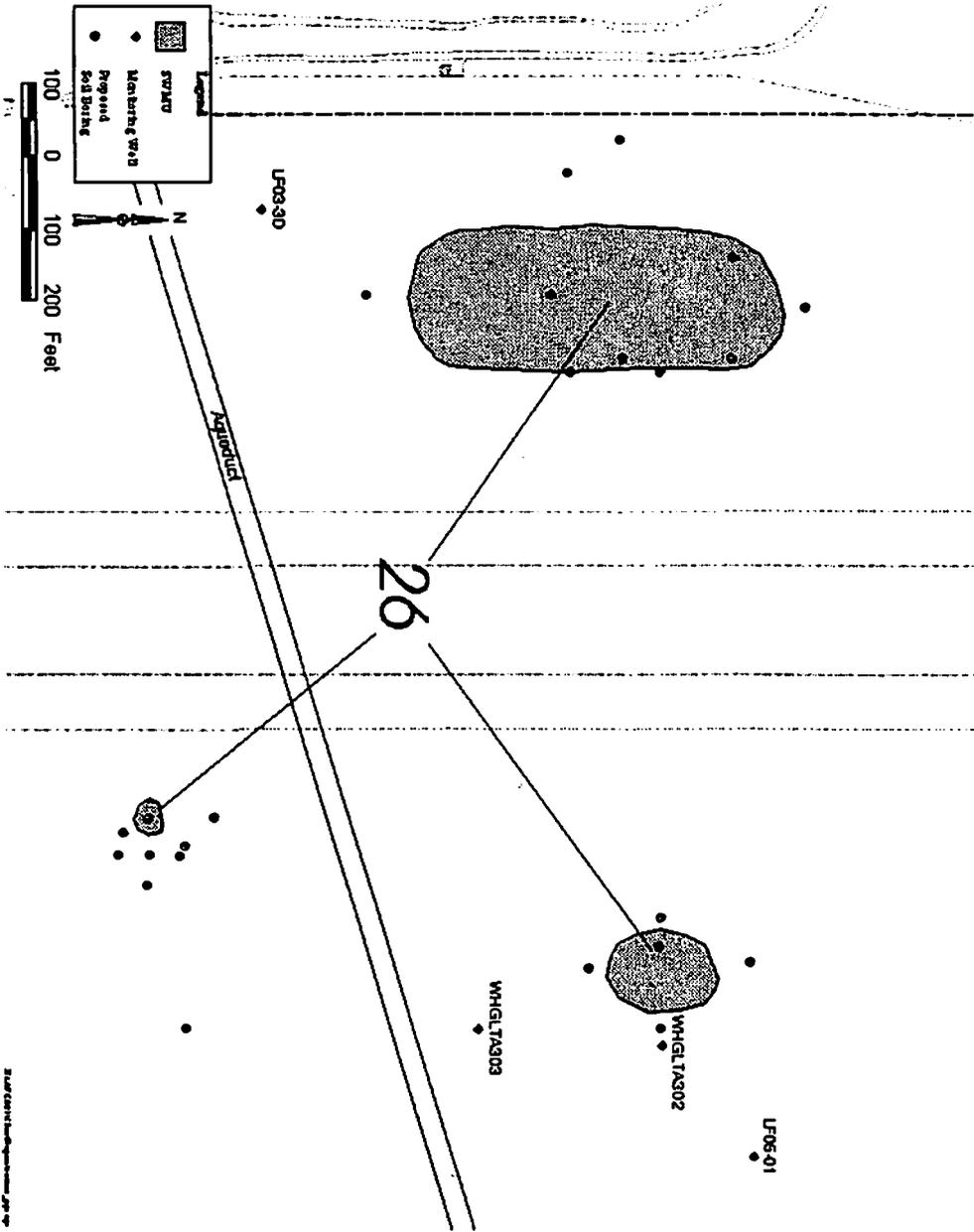
# Activities Conducted at Landfill 2

- ◆ Advanced 29 soil borings
- ◆ Collected 44 soil samples for analysis
- ◆ Installed four monitoring wells and conducted three rounds of groundwater sampling

# Sampling Results-Landfill 2

- ◆ Soil results
  - PAHs in surface soils adjacent to asphalt-paved roads
  - Lead in one surface soil sample--no pattern of release
- ◆ Groundwater results
  - TCE and degradation products upgradient and downgradient of landfill
- ◆ Additional sampling
  - Soil gas survey will be conducted this month to determine source of petroleum-impacted soils

# Landfill 3 Sampling Locations



2000-01-01 10:00 AM

# Activities Conducted at Landfill 3

- ◆ Advanced 28 soil borings
- ◆ Collected 22 soil samples for analysis
- ◆ Installed two monitoring wells and conducted three rounds of groundwater sampling



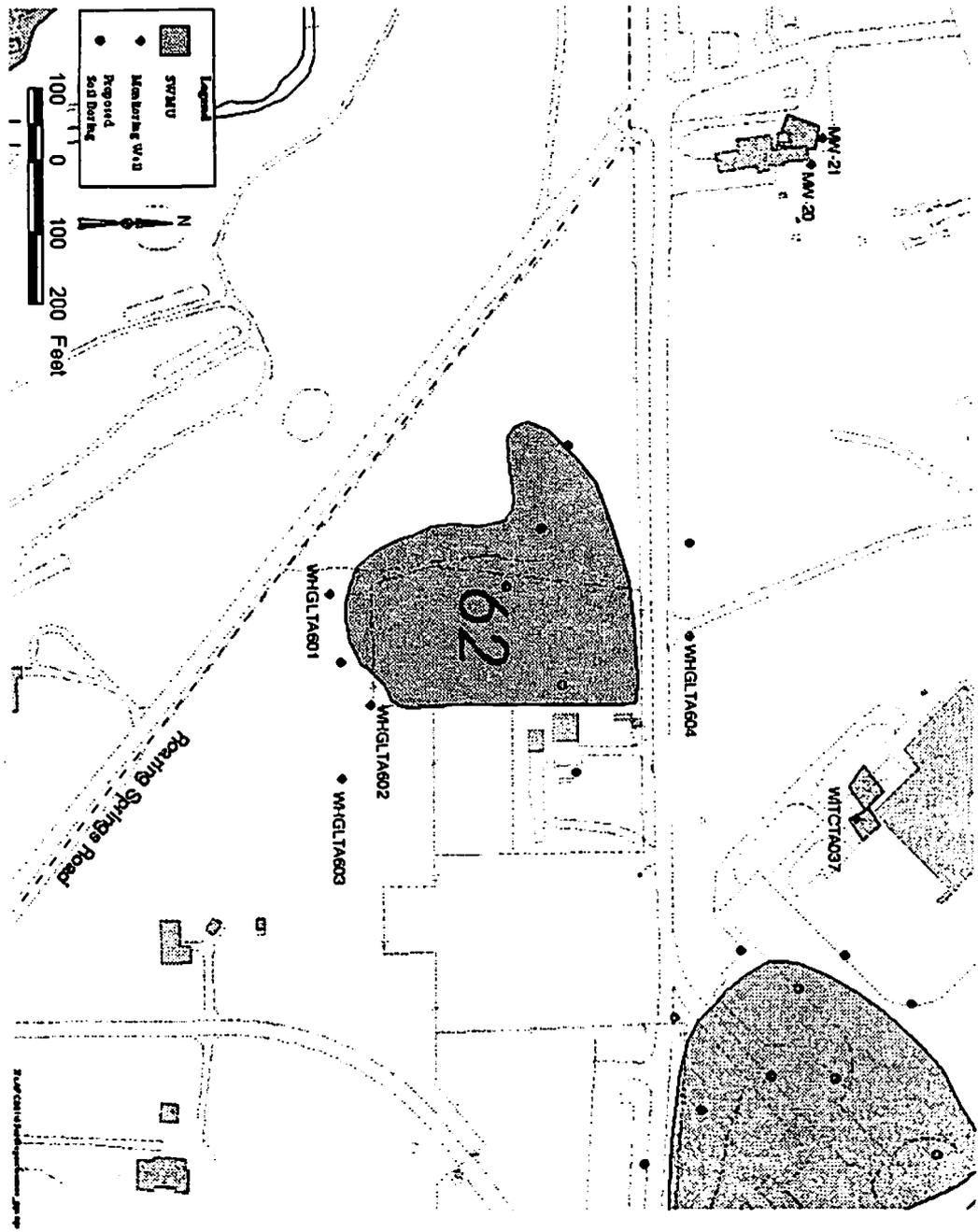
# Sampling Results-Landfill 3

- ◆ Landfill material bisected by runway and aqueduct creating four smaller landfill areas
- ◆ Encountered “hydraulic-like” fluid--sampled for Appendix IX, no significant results except for lead
- ◆ Soil results
  - Lead in subsurface soil, 15 feet bgs
- ◆ Groundwater results
  - TCE and degradation products upgradient and downgradient of landfill
  - Groundwater was only encountered in northeast quadrant of landfill

**HYDRO**  
Geologic-



# Landfill 6 Sampling Locations



# Activities Conducted at Landfill 6

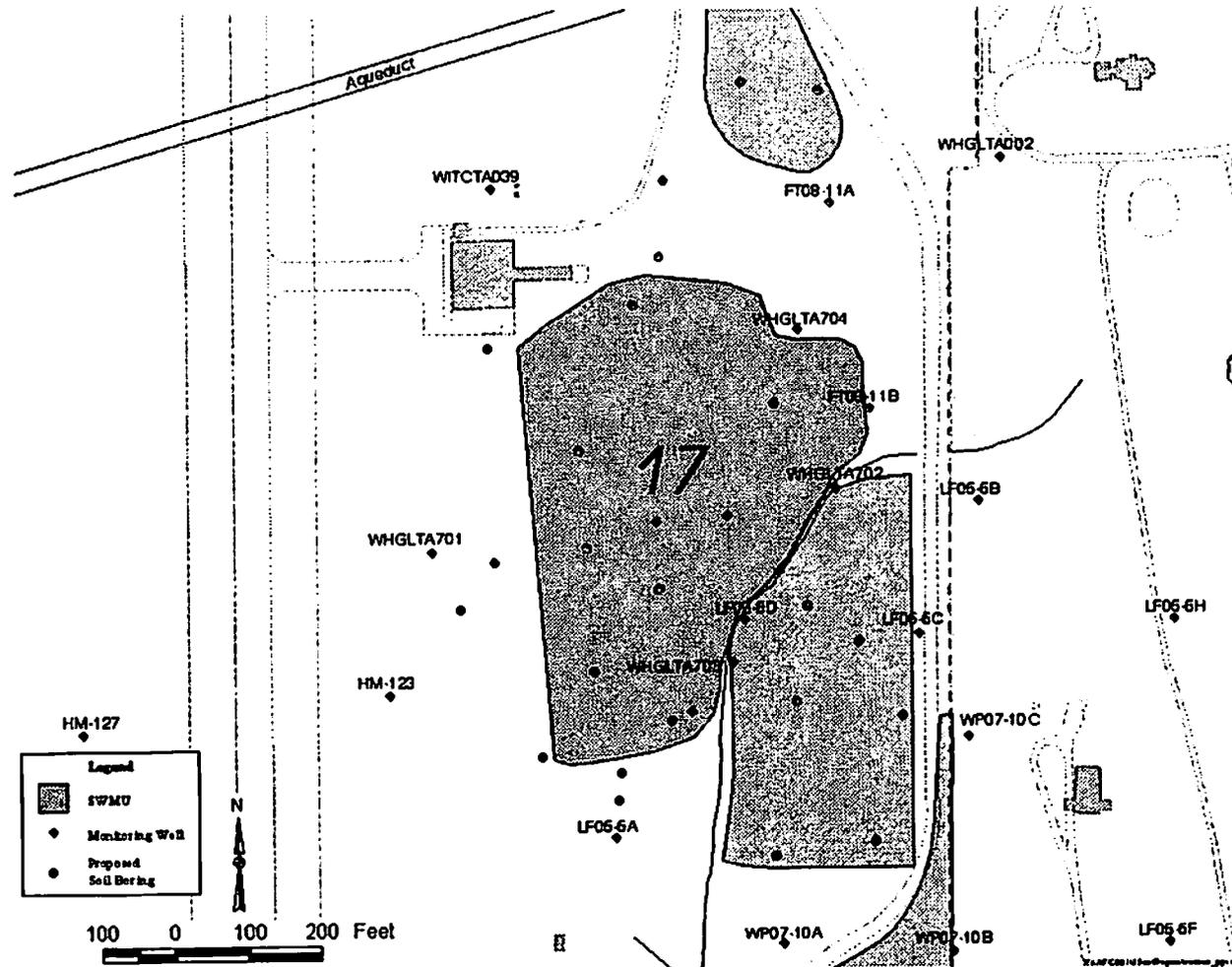
- ◆ Advanced 25 soil borings
- ◆ Collected 36 soil samples for analysis
- ◆ Installed four monitoring wells and conducted three rounds of groundwater sampling



# Sampling Results-Landfill 6

- ◆ Soil results
  - Low concentrations of pesticides, lead, and PAHs in surface/subsurface soils
- ◆ Groundwater results
  - TCE and degradation products upgradient and downgradient of landfill
- ◆ No additional sampling necessary

# Landfill 7 Sampling Locations



# Activities Conducted at Landfill 7

- ◆ Advanced 19 soil borings
- ◆ Collected 27 soil samples for analysis
- ◆ Installed four monitoring wells and conducted three rounds of groundwater sampling



# Sampling Results-Landfill 7

## ◆ Soil results

- Random detections of cadmium, mercury, pesticides, and PAHs in surface/subsurface soils, no pattern of release
- Lead in surface/subsurface soil in one location

## ◆ Groundwater results

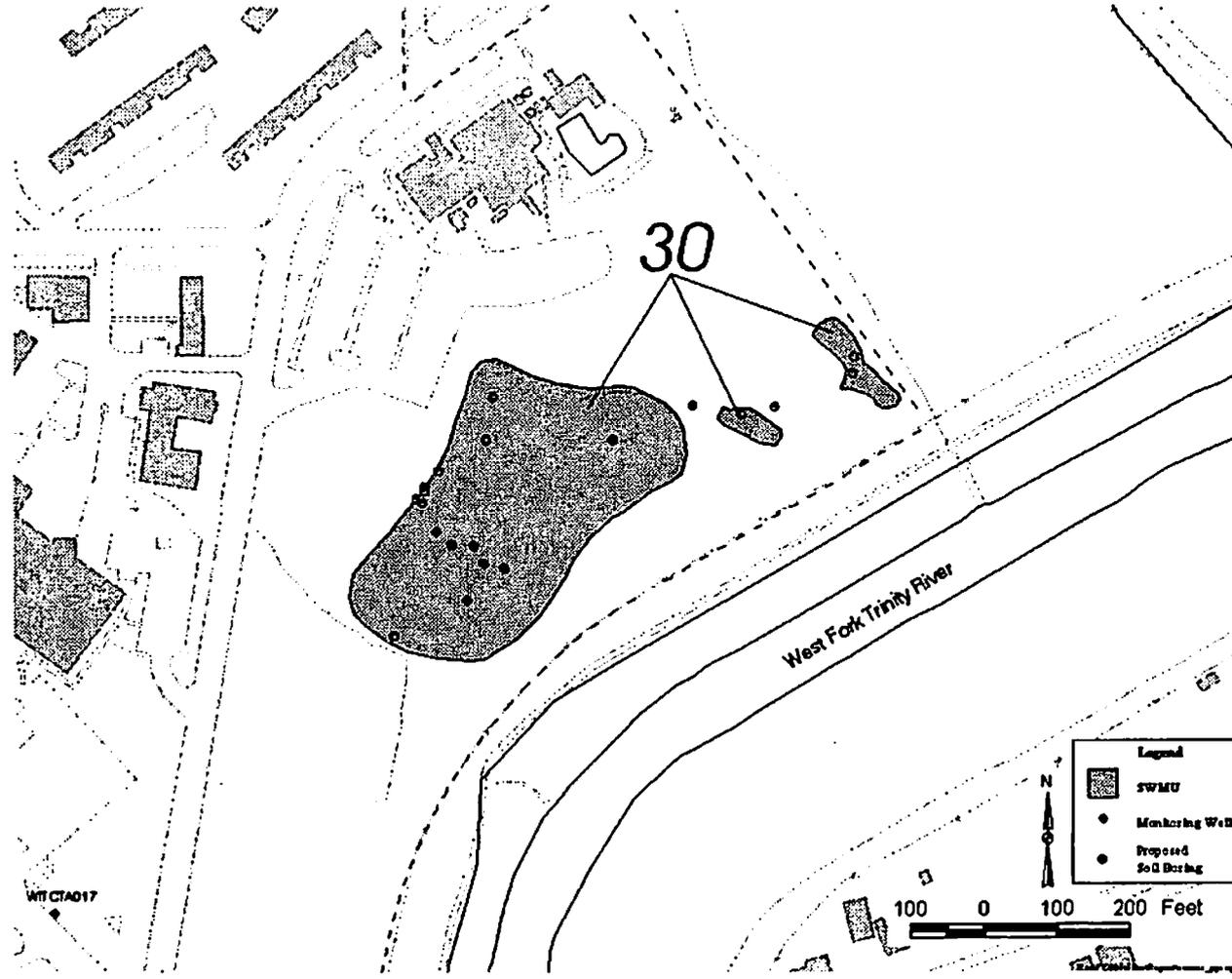
- TCE and degradation products upgradient and downgradient of landfill
- Benzene detected in northern well slightly above MCL one sampling event only
- No cadmium, lead, pesticides or PAHs detected



# Additional Sampling-Landfill 7

- ◆ An additional groundwater sample was collected to verify benzene concentration in groundwater north of Landfill 7--analytical results are pending
- ◆ No other additional sampling is planned at this time

# Landfill 9 Sampling Locations



# Activities Conducted at Landfill 9

- ◆ Advanced 28 soil borings
- ◆ Collected 16 soil samples for analysis
- ◆ Installed 5 monitoring wells

# Sampling Results-Landfill 9

## ◆ Soil results

- Lead in subsurface soils--one location, no pattern of a release
- Low barium, cadmium, PAHs, and chlordane, also no pattern of a release

## ◆ Groundwater results

- Groundwater has not been sampled yet, as additional wells are necessary due to site geology

- ◆ Four additional groundwater monitoring wells will be installed in May/June 1999

HYDRO  
Geologic





# Activities Conducted at Landfill 10

- ◆ Advanced 24 soil borings
- ◆ Collected 10 soil samples for analysis
- ◆ Groundwater was not encountered; therefore, no monitoring wells were installed
- ◆ Collected two surface water samples

# Sampling Results-Landfill 10

## ◆ Soil results

- Low, sporadic concentrations of a few metals, PAHs, and acetone were detected above background/RRS1 in surface/subsurface soils--no pattern of a release

## ◆ Surface water results

- No analytes detected above background/RRS1 values

## ◆ No additional sampling necessary

# Upcoming Events

## ◆ Landfill 10

- Draft RFI Report to Regulators in May

## ◆ Landfills 6 and 7

- Internal Draft RFI Report to AFCEE in May

## ◆ Landfills 2 and 3

- Additional field work to be conducted in May/June

## ◆ Landfills 1 and 9

- Additional field work to be conducted in May/June and additional rounds of groundwater sampling to be conducted in summer/fall 1999



**FINAL PAGE**

**ADMINISTRATIVE RECORD**

**FINAL PAGE**