

**US Army Corps  
of Engineers  
Baltimore District**

# **Fort Detrick Remedial Investigation/Feasibility Study**

**Restoration Advisory Board Meeting**

**12 March 1998 7:30 PM  
Fort Detrick, Frederick, Maryland**



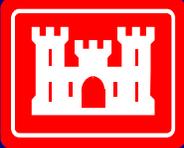
**US Army Corps  
of Engineers**  
Baltimore District

# Fort Detrick RI/FS

## CHRONOLOGY OF PAST EVENTS

---

- 1994-1996 Phase I RI Investigation
- January 1997- Initiation of Phase II RI Investigation
- March 1997 Submittal of Phase I RI Data Report
- March 1997- Discovery of Chemical Waste Disposal Pit at Area B-11
- August 1997- Analysis of bottles Recovered from B-11 Pit: Negative Results for Chemical Weapons Material
- Summer 1997- Increased Concentrations of TCE and PCE Detected in On-Post Monitoring Wells
- Fall 1997- Detection of Elevated PCE Concentrations in Robinson's Spring
- November 1997- Re-sampling of 10 Domestic Wells. Results Showed Low Level Concentrations of 3 VOCs in 2 Domestic Wells.
- December 1997-Fort Detrick Announces Plan to Connect 4 Residences to City Water
- January 1998- Draft Final Area A and Draft Area B Ri Documents Submitted.
- January 1998-Down Hole Flow Measurements Collected from 4 Wells in Area B. Stable Flow Measurements Could Not be Obtained



**US Army Corps  
of Engineers**  
Baltimore District

# Fort Detrick RI/FS

## RI/FS CURRENT WORK STATUS

---

- **Finalizing WorkPlan Addendum to Address Additional Investigation in Area A and Area B**
  - **Geophysical and Soil Gas Survey in Area B Located Downgradient from Area B-11.**
  - **Installation of on and off-post monitoring wells in Area A.**
  - **Quarterly Groundwater Sampling of Selected Area B Monitoring Wells and Domestic Wells**
  - **Quarterly Sampling of Robinson's Spring , Hospital Spring and the Post Pond**
  - **Installation and Sampling of Additional Monitoring Wells in Area A**
- **Development of Feasibility Study for Area A Sites.**
- **Development of Engineering Evaluation/Cost Analysis (ECCA) for Remediation of the waste disposal pit in Area B-11.**



**US Army Corps  
of Engineers**  
Baltimore District

# Fort Detrick RI/FS

## SCHEDULE OF EVENTS LEADING TO REMOVAL ACTION IN AREA B-11

---

- **February – April 1998 -Evaluation of Feasible Remedial Alternatives**
- **April – June 1998 Development of Engineering Evaluation/Cost Analysis (ECCA)**
- **June 1, 1998- Submittal of ECCA for Army and Regulatory Review**
- **June – August 1998 Army and Regulatory Review of ECCA**
- **July 1, 1998 -Submittal of Action Memorandum for Army Review**
- **July – September 1998- Army and Regulatory Review of Action Memorandum**
- **September 1998 -Action Memorandum Approval**



**US Army Corps  
of Engineers**  
Baltimore District

# Fort Detrick RI/FS

## Recommended Actions

### Area A

---

#### **NO ACTION SITES** (Based on Sampling/Surveys and Risk Assessment Results Which Indicate No Unacceptable Risk)

- **Construction Debris Landfill**
- **Area A Landfill**
- **Combustible Burn Pit**
- **Pesticide/Herbicide Storage Building**
- **Car Wash Facility**

#### **ACTION SITES** (Based on Sampling/Surveys and Risk Assessment Results Which Indicate Unacceptable Risk)

- **Building 568 - TCE Contamination in Groundwater**
- **Water Towers - Lead in Surface Soils**



**US Army Corps  
of Engineers**  
Baltimore District

# Fort Detrick RI/FS

## Recommended Actions

### Area B

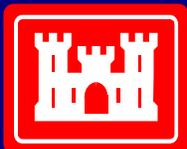
---

#### **NO ACTION SITES** (Based on Sampling/Surveys and Risk Assessment Results Which Indicate No Unacceptable Risk)

- Area B-1
- Area B-Ammo (No further action anticipated, five additional bunkers not previously examined being sampled)
- Area B-2
- Area B-3 (Inactive)
- Area B-6
- Area B-8
- Area B-8 Trenches
- Area B-10
- Area B-18
- Area B-20 North
- Area B-20 South
- Area B-Grid
- Area B-Skeet

#### **ACTION SITES** (Based on Sampling/Surveys and Risk Assessment Results Which Indicate Unacceptable Risk)

- B-11 Trench Area - Disposal Pit/Groundwater (TCE, PCE)
- Groundwater/Surface Water - TCE and PCE Contamination



**US Army Corps  
of Engineers**  
Baltimore District

# Fort Detrick RI/FS

## Common Element Metal Concentrations

---

Range of concentrations (mg/kg)

Element	Eastern USA Soil	Maryland Soil (mean)	Surface Soil Background	Subsurface Soil Background
Arsenic	1 - 73	3.8	20 - 26.7	5.31 - 14.7
Berillium	1 - 7	1	0.83 - 2.67	.0955 - 3.31
Magnesium	50 - 50000	NA	2540 - 6150	2740 - 11100



US Army Corps  
of Engineers  
Baltimore District

# Fort Detrick RI/FS

## Proposed Wells - Area B

