

# SAAP-118 TRENCH DISPOSAL AREA A3

## SITE DESCRIPTION

SAAP-118 is the Trench Disposal Area (34 acres) identified as A3 in 1948 aerial photographs from disturbed ground west of SAAP-001, the Classification Yard located in the northeast portion of SFAAP.

The Army obligated funds to conduct site characterization sampling in 2003 as follow-up work to SAAP-001 characterization and RFI completion. Lead was detected above regulatory levels.

## CLEANUP STRATEGY

Perform an RFI to delineate soil requiring excavation. Excavate, treat, and dispose of ~40 cy of contaminated soil. Restore area once excavation is complete.



## STATUS

**REGULATORY:** RCRA  
**RRSE:** High  
**CONTAMINANTS:** Lead  
**MEDIA OF CONCERN:** Soil

PHASES	Start	End
RFA.....	199808 .....	200303
CS.....	199808 .....	200303
RFI/CMS.....	200510 .....	200609
DES .....	200610 .....	200612
CMI(C).....	200701 .....	200709

**RC Expected: 200709**

# SAAP-119 TRENCH DISPOSAL AREA A4

## SITE DESCRIPTION

SAAP-119 (0.6 acres) is the Disposal Site identified as A4 in 1948 aerial photographs from disturbed ground on the southwest end of SAAP-001, the Classification Yard located in the northeast portion of SFAAP.

The Army obligated funds to conduct site characterization sampling in 2003 as follow-up work to SAAP-001 characterization and RFI completion. There were no contaminants detected above regulatory limits. Therefore, the Army recommended no further action at this site. However, KDHE wrote letter recommending the Army conduct additional soil and groundwater samples, and conduct trenching with backhoe to verify that no disposal of waste occurred in historic trenches.

## CLEANUP STRATEGY

The SI phase will be re-opened in spring 2005, and additional soil samples will be taken. Backhoe trenching will be conducted for one day.

## STATUS

**REGULATORY:** RCRA

**RRSE:** Low

**CONTAMINANTS:** None

**MEDIA OF CONCERN:** Soil

<b>PHASES</b>	<b>Start</b>	<b>End</b>
RFA.....	199808 .....	200303
CS.....	199808 .....	200809

**RC Expected: 200809**

# SAAP-120

## TRENCH DISPOSAL AREA A5

### SITE DESCRIPTION

SAAP-120 (0.5 acres) is the Disposal site identified as A5 in 1948 aerial photographs from disturbed ground east of SAAP-001, the Classification Yard located in the northeast portion of SFAAP.

The Army obligated funds to conduct site characterization sampling in 2003 as follow-up work to SAAP-001 characterization and RFI completion. There were no contaminants detected above regulatory limits. Therefore, the Army recommended no further action at this site. However, KDHE wrote letter recommending the Army conduct additional soil and groundwater samples, and conduct trenching with backhoe to verify that no disposal of waste occurred in historic trenches.

### CLEANUP STRATEGY

The SI phase will be re-opened in spring 2005, and additional soil samples will be taken. Backhoe trenching will be conducted for one day.

### STATUS

**REGULATORY:** RCRA

**RRSE:** Low

**CONTAMINANTS:** None

**MEDIA OF CONCERN:** None

<b>PHASES</b>	<b>Start</b>	<b>End</b>
RFA.....	199808 .....	200303
<b>CS.....</b>	<b>199808 .....</b>	<b>200908</b>

**RC Expected: 200809**

# SAAP-121 TRENCH DISPOSAL AREA A6

## SITE DESCRIPTION

SAAP-121 (0.1 acres) is the Disposal site identified as A6 in 1948 aerial photographs from disturbed ground south of SAAP-001, the Classification Yard located in the northeast portion of SFAAP.

The Army obligated funds to conduct site characterization sampling in 2003 as follow-up work to SAAP-001 characterization and RFI completion. There were no contaminants detected above regulatory limits. Therefore, the Army recommended no further action at this site. However, KDHE wrote letter recommending the Army conduct additional soil and groundwater samples, and conduct trenching with backhoe to verify that no disposal of waste occurred in historic trenches.

## CLEANUP STRATEGY

The SI phase will be re-opened in spring 2005, and additional soil samples will be taken. Backhoe trenching will be conducted for one day.

## STATUS

**REGULATORY:** RCRA

**RRSE:** Low

**CONTAMINANTS:** None

**MEDIA OF CONCERN:** Soil

<b>PHASES</b>	<b>Start</b>	<b>End</b>
RFA.....	199808	.....200303
<b>CS.....</b>	<b>199808</b>	<b>.....200809</b>

**RC Expected: 200809**

# SAAP-122 OLD RECLAMATION YARD

## SITE DESCRIPTION

The Old Reclamation Yard (13 acres) is located in the northeast portion of the plant. Disturbed ground in a fenced area southwest of the Classification Yard was observed in 1948 aerial photographs (A8). A site walk was conducted in February 2003. The following was observed: metal debris, stressed vegetation and bare spots.

Soil samples were collected by USACHPPM and analyzed for SVOCs, VOCs, total metals, and PCBs with six compounds exceeding their respective Region IX PRG values, including PCBs, SVOCs and metals.

## CLEANUP STRATEGY

Finalize the RFI report. CMS will be completed. Excavate, treat and dispose of ~6,500 bcy (8,125 cy after 25% fluff factor) of contaminated soil. 125 cy will be disposed of as hazardous waste. 8,000 cy will be stabilized. 200 cy of debris will disposed of as solid waste.



## STATUS

**REGULATORY:** RCRA  
**RRSE:** High  
**CONTAMINANTS:** POL, SVOCs, VOCs, Metals, PCBs  
**MEDIA OF CONCERN:** Soil

PHASES	Start	End
RFA.....	199808	.....200303
CS.....	199808	.....200303
<b>RFI/CMS.....</b>	<b>200303</b>	<b>.....200609</b>
DES.....	200610	.....200612
CMI(C).....	200701	.....200709

**RC Expected: 200709**

# CLEANUP UNDER EXPLOSIVE FOUNDATIONS

## SITE DESCRIPTION

This site involves the investigation and cleanup underneath explosive buildings' foundations. This site includes explosive foundations within SAAP-010, 014, 017, 024, 026, 031, 036, 043, 047, 048, 065, 067, 111, 112, 116, with an approximate total square feet of 2,254,113 of concrete. The explosive foundations will be removed and any soil containing greater than 10% explosives will be decontaminated using non-ER,A funds. After explosive decontamination is completed, ER,A funds will pay for investigation and cleanup of any potentially contaminated soil.

## CLEANUP STRATEGY

Removal of 20,871 cy of soil is planned. Assumes 25% of square footage under foundations requires removal with off-site disposal. Assumes one foot depth for excavation for cubic yards. If LTM is required, then it will be funded under the appropriate site (see sites listed above).

## STATUS

**REGULATORY:** RCRA

**RRSE:** High

**CONTAMINANTS:** Metals, SVOCs, Explosives, NC, VOCs, NG, Nitrates, Dioxins, Sulfates, Guanidine, Lead Ammonia, TPH, Chromium, Arsenic

**MEDIA OF CONCERN:** Soil

<b>PHASES</b>	<b>Start</b>	<b>End</b>
RFA.....	199508 .....	199808
CS.....	199809 .....	199810
RFI/CMS.....	200510 .....	200706
DES .....	200610 .....	200707
CMI(C).....	200708 .....	200809

**RC Expected: 200809**

# CLEANUP UNDER EXPLOSIVES SEWERS

## SITE DESCRIPTION

This site involves the investigation and cleanup underneath explosive sewer lines. This site includes explosive sewer lines within SAAP-007, 008, 009, 010, 017, 024, 026, 036, 067, 116, with an approximate total linear feet of 163,141 of explosive sewer lines. The explosive sewer lines will be removed and any soil containing greater than 10% explosives will be decontaminated using non-ER,A funds. After explosive decontamination is completed, ER,A funds will pay for investigation and cleanup of any potentially contaminated soil.

## CLEANUP STRATEGY

Removal and off-site disposal of 13,114 cy of soil is planned. Investigation assumes an average of one sample every one hundred feet. If LTM is required, then it will be funded under the appropriate site (see sites listed above).

## STATUS

**REGULATORY:** RCRA  
**RRSE:** High  
**CONTAMINANTS:** Metals, PAHs, VOCs, SVOCs, Explosives, NC, NG, Nitrates, Sulfates, Ammonia,  
**MEDIA OF CONCERN:** Soil

<b>PHASES</b>	<b>Start</b>	<b>End</b>
RFA.....	199505 .....	199808
CS.....	199809 .....	199810
<b>RFI/CMS.....</b>	<b>200510 .....</b>	<b>200706</b>
DES .....	200610 .....	200707
CMI(C).....	200708 .....	200809
<b>RC Expected: 200809</b>		

## PAST MILESTONES

<b>IRP Phase</b>	<b>Completion Date</b>
IRP PA Initiation	April 1980
RFA	September 1990
Community Relations Plan	February 1997
Non-RCRA Groundwater Well Closures	September 1995
IRA at SAAP-050 South	August 1997
IRA at SAAP-050 North	July 1999
RA at SAAP-010/011	July 2000
IRA at SAAP-018, 032-035	June 2002
RA at SAAP-022	Dec 2004
RA at SAAP-010 (AOC 6)	Mar 2005

## PROJECTED MILESTONES

*Phase Completion Milestones:*

*ROD/DD Approval Dates:*

IRA at SAAP-001, 019, 039

RA at SAAP-002, 003, 004, 005, 006, 007, 008, 009, 010, 012, 014, 017, 018, 020, 021, 022, 024, 025, 026, 030, 031, 036, 037, 038, 040, 045, 046, 047, 051, 053

*Construction Completion:* 2009

*Completion Date of all RA(C) Activities:* 2009

*Completion Date of IRP (including LTM phase):* Indefinite

# SFAAP IRP Schedule

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
SAAP-001	Classification Yard	DES										
		RFA										
SAAP-002	River Water Treatment Plant Lagoons	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-003	Main Sewage Treatment Plant Drying Beds	DES										
		RFA										
SAAP-004	Pond A and Sludge Disposal Area	RFI/CMS										
		DES										
		RFA										
SAAP-005	Acid Sewage Disposal Plant	RFI/CMS										
		DES										
		RFA										
SAAP-006	Pond B and Sludge Disposal Area	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-007	North Acid Area- Chromate Area	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-008	North Acid Area- Chromate Concentration Pond	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-009	North Acid Area- Wastewater Treatment Lagoon	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-010	F-Line Area Ditches	LTM										
SAAP-011	F-Line Area Settling Ponds	LTM										
SAAP-012	Pyotts Pond and Sludge Disposal Areas	RFI/CMS										
		DES										
		RFA										
		LTM										

# SFAAP IRP Schedule

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	
SAAP-013	South Acid Area LWTP Evaporative Lagoons	LTM											
SAAP-014	Rocket Static Test Area	DES											
		RFA											
		LTM											
SAAP-015	Waste Storage Magazines	RFI/CMS											
SAAP-016	Temporary Waste Storage Magazines	RFI/CMS											
SAAP-017	G-Line Area Ditches	RFI/CMS											
		DES											
		RFA											
		LTM											
SAAP-018	Old/New Sanitary Landfills	DES											
		RFA											
		LTM											
SAAP-019	Ash Landfills	DES											
		RFA											
SAAP-020	Ash Lagoons and Sludge Disposal Area	DES											
		RFA											
SAAP-021	Contaminated Materials Burning Ground	LTM											
SAAP-024	Nitroglycerine Area Ditches	RFI/CMS											
		DES											
		RFA											
		LTM											
SAAP-025	Nitrocellulose Area Ditches	DES											
		RFA											
		LTM											

SAAP-026	Single Base Propellant Area Waste Water Settling Sumps	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-027	Nitroguanidine Area SAC LWTP Evaporative Lagoons	LTM										
SAAP-030	Pesticide Handling Area	RFI/CMS										
		DES										
		RFA										

# SFAAP IRP Schedule

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
SAAP-031	Contaminated Waste Processor/ Evaporative Lagoon	RFI/CMS										
		DES										
		RFA										
SAAP-033	Paste Area Half Tanks and Ditches	LTM										
SAAP-035	Nitroglycerin Area Settling Ponds	LTM										
SAAP-036	N-Line Area	RFI/CMS										
		DES										
		RFA										
SAAP-037	Sandblast Areas	RFI/CMS										
		DES										
		RFA										
SAAP-038	Oil Water Separator	DES										
		RFA										
SAAP-039	South Acid Area Ditches	DES										
		RFA										
SAAP-040	Calcium Cyanamide Disposal Area	RFI/CMS										
		DES										
		RFA										
SAAP-041	Calcium Carbonate Cake Landfill	LTM										
SAAP-043	Tunnel Dryers (CCC Storage)	RFI/CMS										
		LTM										
SAAP-045	Building 9040 (CA Cyanamid Conv & Storage Unit)	LTM										
SAAP-046	Decontamination Oven	RFI/CMS										
		DES										
		RFA										
SAAP-047	Nitroguanidine Production Area (25) Sumps	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-048	Nitroguanidine Support Area	LTM										
SAAP-050	Disposal Site East of the Classification Yard	LTM										
SAAP-051	New Reclamation Yard	CS										
		DES										
		RFA										
SAAP-053	Burn and Debris Area North of STP	CS										
		DES										

## SFAAP IRP Schedule

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
SAAP-053	Dunn and DCBHS Area North of STP	RFA										
		LTM										
SAAP-054	Fluorescent Tube Well	RFI/CMS										
SAAP-056	Monitoring Well South of Facility 211	CS										
SAAP-057	Chemical Preparation House	CS										
SAAP-058	Combined Shops Area	CS										
		DES										
		RFA										
		LTM										
SAAP-059	Laundry Facilities	CS										
SAAP-060	Old Photographic Laboratory	CS										
		DES										
		RFA										

SAAP-063	Water Towers	RFI/CMS										
		DES										
		RFA										
SAAP-064	Paper Burning Ground	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-065	Tank Farm	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-066	Installation-Wide Stream Study	DES										
		RFA										
SAAP-067	South Acid Area	RFI/CMS										
		DES										
		RFA										
		LTM										
SAAP-101	Monitoring Well West of Old Admin Area	LTM										
SAAP-104	Disposal Area Southeast of STP	CS										
SAAP-105	Cannon Range Tunnels	CS										
SAAP-110	Storage Magazines Not Part of SWMU 15 & 16	RFI/CMS										

# SFAAP IRP Schedule

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
SAAP-111	Forced Air Dryers and Rest, Screen and Can Pack Houses	CS										
SAAP-112	Paste Air Dry Facilities	RFI/CMS										
SAAP-114	Robert's Lake	CS										
		DES										
		RFA										
SAAP-115	Hazard Analysis Testing Lab	IRA										
SAAP-116	NC Production Lines	RFI/CMS										
		DES										
		RFA										
SAAP-117	Nitroguanidine Production Buildings	CS										
SAAP-118	Trench Disposal Area A3	RFI/CMS										
		DES										
		RFA										
SAAP-119	Trench Disposal Area A4	CS										
SAAP-120	Trench Disposal Area A5	CS										
SAAP-121	Trench Disposal Area A6	CS										
SAAP-122	Old Reclamation Yard	CS										
		DES										
		RFA										
SAAP-123	Cleanup Under Explosive Foundations	RFI/CMS										
		DES										
		RFA										
SAAP-124	Cleanup Under Explosive Sewers	RFI/CMS										
		DES										
		RFA										

**PRIOR YEAR FUNDING**

**1993-1995**

RFI - 1,185K  
 RD - 1,327K  
 RA - 3,386K **5,898K**

**1996**

RFI - 2,073K  
 CMS - 331K  
 RD - 21K **2,425K**

**1997**

RAB - 24K  
 RFI - 260K  
 CMS - 80K  
 RA - 236K **600K**

**1998**

RAB - 24K  
 RFI - 248K  
 CMS - 56K  
 LTM - 26K **354K**

**1999**

RAB - 24K  
 RI/FS  
 - Grazing Study 23.2K  
 - SWMUs 33, 34, & 35 51.9K  
 - SWMUs 14 and 21 600.1K  
 - SWMU 10/11 @ 22.7K) 697.9K  
 RA  
 - SWMU 50 658.1K  
 - SWMU 10/11 1,430.7K  
**3,461.9K**

**2000**

RI/FS - 549K  
 IRA- 55K (3 sites, SAAP-018, 051, 054)  
 RA - 2,545K  
 RAO- 44K  
 LTM- 15K **3,208K**

**2001**

RI/FS - 81K  
RA - 1,422K  
IRA - 1,097K  
LTO - 62K  
LTM - 27K **2,689K**

**2002**

**3,203K**

**2003**

RI/FS - 2,649K  
IRA - 58K  
RD - 217K  
RA - 1,845K  
LTM - 1,035K **5,803K**

**FY04**

**\$1,786K**

**TOTAL PRIOR YEARS FUNDING: \$29,427,900**

**CURRENT YEAR FUNDING**

FY05: 4,439,000

**FUTURE YEAR FUNDING**

**TOTAL FUTURE REQUIREMENTS: \$67,282,000**

**TOTAL IRP PROGRAM COSTS: \$101,114,900**

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source	
SAAP-001	Classification Yard	DES			26								26	352	design	RACER	
		RFA			326								326		7,500cy soil removal, no stabilization	RACER	
SAAP-002	River Water Treatment Plant Lagoons	RFL/CMS		87									87	1,522	update Risk Assessment	RACER	
		DES			95								95		design	RACER	
		RFA			1,181										1,181	12,500cy soil and lime sludge removal (no stabilization) and offsite disposal, pond closure, extensive filling and regrading, sampling, reroute ditch around ponds	RACER
		LTM				31	32	32	32	32					159	4 wells, 5 years, semi-annual monitoring	RACER
SAAP-003	Main Sewage Treatment Plant Drying Beds	DES	18										18	240	design	RACER	
		RFA	222										222		500cy dried sludge removal as HW, confirmatory sampling	RACER	
SAAP-004	Pond A and Sludge Disposal Area	RFI/CMS		280									280	713	4 GW, 20 soil, and 50 sediment samples analyzed for NC, NG, Metals, SVOCs. Install 1 bedrock well	RACER	
		DES			32								32		design	RACER	
		RFA			401										401	4,000cy soil removal offsite disposal as solid waste (no stabilization). clean closure of pond.	RACER
SAAP-005	Acid Sewage Disposal Plant	RFI/CMS		366									366	882	9 GW, 33 soil, and 18 sediment samples analyzed for NC, NG, Metals, SVOCs. Install 4 overburden wells	RACER	
		DES			38								38		design	RACER	
		RFA			478										478	5,000cy soil and sediment removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-006	Pond B and Sludge Disposal Area	RFI/CMS		311									311	3,902	7 GW and 18 sediment samples analyzed for NC, NG, Metals, SVOCs, Pesticides. Install 3 overburden wells	RACER	
		DES			249								249		design	RACER	
		RFA			3,114										3,114	42,000cy soil removal and treatment for propellants and metals, assumes offsite disposal as solid waste (no stabilization). Clean closure of pond.	RACER
		LTM				45	45	46	46	46					228	7 wells, 5 years, semi-annual monitoring	RACER
SAAP-007	North Acid Area-Chromate Area	RFI/CMS	387										387	676	6 GW, 4 Surface Water, and 169 soil samples analyzed for Metals, PAHs, VOCs, SVOCs. Install 2 overburden wells	RACER	
		DES		14									14		design	RACER	
		RFA		181											181	550cy soil removal, offsite disposal as solid waste (no stabilization). 7,200 gal. liquid sludge offsite disposal as hazwaste	RACER
		LTM			18	19	19	19	19						94	3 wells, 5 years, semi-annual monitoring	RACER
SAAP-008	North Acid Area-Chromate Concentration Pond	RFI/CMS	382										382	605	6 GW, 4 Surface Water, and 169 soil samples analyzed for Metals, PAHs, VOCs, SVOCs. Install 2 overburden wells	RACER	
		DES		10									10		design	RACER	
		RFA		119											119	550cy soil removal, offsite disposal as solid waste (no stabilization). 3,600 gal. liquid sludge offsite disposal as hazwaste	RACER
		LTM			18	19	19	19	19						94	3 wells, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source	
SAAP-009	North Acid Area-Wastewater Treatment Lagoon	RFI/CMS	380										380	663	6 GW, 4 Surface Water, and 169 soil samples analyzed for Metals, PAHs, VOCs, SVOCs. Install 2 overburden wells	RACER	
		DES		14									14		design	RACER	
		RFA		175											175	550cy soil removal, offsite disposal as solid waste (no stabilization). 7,200 gal. liquid sludge offsite disposal as hazwaste	RACER
		LTM			18	19	19	19	19						94	3 wells, 5 years, semi-annual monitoring	RACER
SAAP-010	F-Line Area Ditches	LTM	36	36	36	36	38						182	182	5 wells, 5 years, semi-annual monitoring. Analyze Metals, NG, SVOCs, Explosives	RACER	
SAAP-011	F-Line Area Settling Ponds	LTM	60	60	60	62							242	242	7 wells, 4 years, semi-annual monitoring. Analyze Metals, NG, SVOCs, Explosives	RACER	
SAAP-012	Pyotts Pond and Sludge Disposal Areas	RFI/CMS		442									442	1,221	9 GW, 26 Surface Water, 26 sediment, and 26 soil samples analyzed for Metals, PAHs, Explosives, NC, NQ, VOCs, Pesticides/Herbicides, sulfates.	RACER	
		DES			47								47		design	RACER	
		RFA			585										585	7,000cy soil and sediment removal, offsite disposal as solid waste (no stabilization). pond clean closure	RACER
		LTM				29	29	29	30	30					147	4 wells, 5 years, semi-annual monitoring	RACER
SAAP-013	South Acid Area LWTP Evaporative Lagoons	LTM	104	104	104	104	104	104	104	104	104	106	1,042	1,042	19 wells, 10 years semi-annual monitoring. Analyze for metals, NQ, GN, Nitrates, Sulfates	RACER	
SAAP-014	Rocket Static Test Area	DES	10										10	164	design	RACER	
		RFA	60										60		200cy "Hot Spot" removal, offsite disposal as solid waste (no stabilization)	RACER	
		LTM		18	18	18	20	20					94		3 wells, 5 years, semi-annual monitoring	RACER	
SAAP-015	Waste Storage Magazines	RFI/CMS			393								393	393	7 GW, 22 Surface Water, 22 sediment, and 77 soil samples analyzed for Metals, Fluoride, nitrate/nitrite, ammonia, sulfate, cyanide, NQ, NG, GN, perchlorates, VOCs, SVOCs, pesticides/herbicides, explosives. Install 3 overburden wells	RACER	
SAAP-016	Temporary Waste Storage Magazines	RFI/CMS			421								421	421	7 GW, 22 Surface Water, 22 sediment, and 77 soil samples analyzed for Metals, Fluoride, nitrate/nitrite, ammonia, sulfate, cyanide, NQ, NG, GN, perchlorates, VOCs, SVOCs, pesticides/herbicides, explosives. Install 3 overburden wells	RACER	
SAAP-017	G-Line Area Ditches	RFI/CMS		503									503	1,764	20 GW, 3 Surface Water, 33 sediment, and 113 soil samples analyzed for Metals, NC, VOCs, SVOCs.	RACER	
		DES			77								77		Design	RACER	
		RFA			962										962	11,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM				44	44	44	45	45					222	6 wells, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
SAAP-018	Old/New Sanitary Landfills	DES			738								738	12,316	design	RACER
		RFA			9,231								9,231		Landfill cap preparation (grading, fill, laying fabric, compacting clay, etc; 31 acres) and French Drain installation (8,050 linear feet) to divert upgradient groundwater around landfill.	RACER
		LTM				78	78	78	78	78	79	1,878	2,347		30 years maintenance of landfill cap and French Drain. 8 wells, 5 years semi-annual GW monitoring, followed by 25 years of annual GW monitoring analyzed for Metals, Dioxins, Furans, VOCs. Abandonment of all GW monitoring wells will be funded on this site (8,532 linear feet of 2 inch wells, 629 linear feet of 4 inch wells). LTM to go past thirty years; cost only given for thirty years.	RACER
SAAP-019	Ash Landfills	DES			10								10	116	design	RACER
		RFA			106								106		1,000cy ash sludge removal, offsite disposal as solid waste (no stabilization).	RACER
SAAP-020	Ash Lagoons and Sludge Disposal Area	DES		301									301	4,067	design	RACER
		RFA		3,766									3,766		55,000 cy ash sludge removal, offsite disposal as solid waste (no stabilization). Lagoon clean closure	RACER
SAAP-021	Contaminated Materials Burning Ground	LTM	15	15	15	15	17						77	77	5 wells, 5 years, semi-annual monitoring. Analyze PAHs, VOCs, Metals	RACER
SAAP-024	Nitroglycerine Area Ditches	RFI/CMS	629										629	2,143	18 GW, 110 sediment, and 244 soil samples analyzed for Metals, NG, VOCs, SVOCs. Install 4 overburden wells	RACER
		DES		96									96		design	RACER
		RFA			1,195								1,195		15,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM				44	44	44	44	47			223		8 wells, 5 years, semi-annual monitoring	NC
SAAP-025	Nitrocellulose Area Ditches	DES	13										13	235	design	NC
		RFA	161										161		1,481cy soil removal, offsite disposal as solid waste (no stabilization)	
		LTM		12	12	12	12	13					61		4 wells, 5 years, semi-annual monitoring	RACER
SAAP-026	Single Base Propellant Area Waste Water Settling Sumps	RFI/CMS		310									310	913	3 GW, 30 sediment, and 244 soil samples analyzed for Metals, explosives, VOCs, SVOCs.	RACER
		DES			21								21		Design	RACER
		RFA			265								265		2,400cy sediment removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM				63	63	63	64	64			317		9 wells, 5 years, semi-annual monitoring	RACER
SAAP-027	Nitroguanidine Area SAC LWTP Evaporative Lagoons	LTM	50	50	50	50	50	50	49	49	49	49	496	496	9 wells, 10 years, semi-annual monitoring. Analyze for metals, NQ, GN, Nitrates, Sulfates	RACER
SAAP-030	Pesticide Handling Area	RFI/CMS		308									308	943	13 GW, 17 sediment, and 35 soil samples analyzed for Pesticides, Herbicides, Dioxin.	RACER
		DES			47								47		design	RACER
		RFA			588								588		1,500cy soil removal, offsite disposal as hazwaste (no stabilization)	RACER
SAAP-031	Contaminated Waste Processor/ Evaporative	RFI/CMS		328									328	471	7 GW, 18 sediment, and 35 soil samples analyzed for Metals, SVOCs, Dioxin. Install 3 overburden wells	RACER
		DES			11								11		design	RACER

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
	Lagoon	RFA			132								132		800cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-033	Paste Area Half Tanks and Ditches	LTM	23	23	23	24							93	93	3 wells, 4 years, semi-annual monitoring, site closure document. Analyze for Metals, SVOCs, NC, NG	RACER
SAAP-035	Nitroglycerin Area Settling Ponds	LTM	26	23	23	23							95	95	3 wells, 4 years, semi-annual monitoring, abandon 1 well, install one new overburden well, site closure document. Analyze for Metals, SVOCs, NC, NG	RACER
SAAP-036	N-Line Area	RFI/CMS		605									605	2,238	20 GW, 7 Surface Water, 33 sediment, and 110 soil samples analyzed for Metals, VOCs, SVOCs, PAHs.	RACER
		DES			121								121		design	RACER
		RFA			1,512								1,512		16,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-037	Sandblast Areas	RFI/CMS		262									262	667	59 soil samples analyzed for Metals.	RACER
		DES			30								30		design	RACER
		RFA			375								375		3,000 cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
SAAP-038	Oil Water Separator	DES	10										10	98	design	RACER
		RFA	88										88		500cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-039	South Acid Area Ditches	DES		10									10	75	design	RACER
		RFA		65									65		78cy soil removal "Hot Spot", offsite disposal as solid waste (no stabilization)	RACER
SAAP-040	Calcium Cyanamide Disposal Area	RFI/CMS		270									270	656	11 GW and 17 sediment samples analyzed for Metals, VOCs, SVOCs, sulfates, cyanide. Install one overburden well	RACER
		DES			29								29		design	RACER
		RFA			357								357		5,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-041	Calcium Carbonate Cake Landfill	LTM	20	20	20	20	20	20	20	20	20	438	618	618	6 wells, semi-annual monitoring; LTM to go past thirty years; cost only given for thirty years. Analyze for nitrates, SVOCs, Sulfates	RACER
SAAP-043	Tunnel Dryers (CCC Storage)	RFI/CMS		224									224	341	22 GW and 17 soil samples analyzed for Metals, Nitrates, GN. Install 5 overburden wells	RACER
		LTM			23	23	23	24	24				117		5 wells, 5 years, semi-annual monitoring	RACER
SAAP-045	Building 9040 (CA Cyanamid Conv & Storage Unit)	LTM			43	43	43	43	44	44	44	129	433	433	12 wells, 10 years, semi-annual monitoring. Analyzed for metals, nitrates	RACER
SAAP-046	Decontamination Oven	RFI/CMS		289									289	377	30 soil samples analyzed for Metals, Explosives.	RACER
		DES			10								10		design	NC
		RFA			78								78		400cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-047	Nitroguanidine Production Area (25) Sumps	RFI/CMS	765										765	3,678	22 GW, 28 sediment, and 116 soil samples analyzed for Metals, Nitrates, sulfates, GN, NQ, VOCs, Perchlorate (4 samples for formaldehyde). Install 10 overburden wells. Bench test for landfarming high Nitrate soil	RACER
		DES		179									179		design	RACER
		RFA		2,239									2,239		14,800cy soil removal consisting of removal of 25 sumps, landfarm soil to reduce Nitrate concentration and use for backfill. 2,500cy of concrete debris disposal as solid waste (no stabilization).	RACER
		LTM			99	99	99	99	99				495		15 wells, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
SAAP-048	Nitroguanidine Support Area	LTM	45	45	45	45	45	45	45				315	315	9 wells, 7 years, semi-annual monitoring. Analyze nitrates, sulfates, NQ, GN and VOCs	RACER
SAAP-050	Disposal Site East of the Classification Yard	LTM	14	14	14	14	14	14	14	14	14	75	187	187	10 acre soil cover, 30 years, cover maintenance, erosion repair. LTM to go past thirty years; cost only given for thirty years.	RACER
SAAP-051	New Reclamation Yard	CS	117										117	545	CMS	RACER
		DES		32									32		design	RACER
		RFA		396									396		3,200cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
SAAP-053	Burn and Debris Area North of STP	CS	117										117	345	CMS	RACER
		DES		10									10		design	RACER
		RFA		101									101		500cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
		LTM			23	23	23	24	24				117		3 wells, 5 years, semi-annual monitoring. Analyzed for metals, PAHs, VOCs, SVOCs, PCBs, Dioxin	RACER
SAAP-054	Fluorescent Tube Well	RFI/CMS		167									167	167	13 GW and 13 soil samples analyzed for Mercury. Install 2 GW monitoring wells at each of the old farmstead wells (total 6 wells). The soil samples are from the well-installation	RACER
SAAP-056	Monitoring Well South of Facility 211	CS			30								30	30	6 GW samples analyzed for Nitrates (1 well, 2 years, semi-annual monitoring)	RACER
SAAP-057	Chemical Preparation House	CS			48								48	48	3 GW, and 13 soil samples analyzed for Metals, VOCs, SVOCs. Install 3 GW piezometers.	RACER
SAAP-058	Combined Shops Area	CS	117										117	271	CMS	RACER
		DES		10									10		design	NC
		RFA		93									93		400cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
		LTM			17	17	17						51		3 wells, 3 years, semi-annual monitoring. Analyze for metals, VOCs, SVOCs, PCB	RACER
SAAP-059	Laundry Facilities	CS			49								49	49	3 GW, and 13 soil samples analyzed for VOCs, SVOCs. Install 3 GW piezometers.	RACER
SAAP-060	Old Photographic Laboratory	CS		117									117	177	CMS	RACER
		DES			10								10		design	
		RFA			50								50		75cy soil removal (SVOCs, VOCs, Metals), offsite disposal as solid waste (stabilization required)	RACER
SAAP-063	Water Towers	RFI/CMS			366								366	811	187 soil samples analyzed for Lead, Arsenic.	RACER
		DES			33								33		design	RACER
		RFA			412								412		5,000cy soil removal, offsite disposal as solid waste (stabilization required on 20% of soil)	RACER
SAAP-064	Paper Burning Ground	RFI/CMS		440									440	652	4 GW, and 107 soil samples analyzed for Metals, VOCs, SVOCs, dioxin. Install 3 GW piezometers, and 1 overburden GW monitoring well.	
		DES			12								12		design	RACER
		RFA			144								144		1,575cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM				11	11	11	11	12			56		1 well, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source	
SAAP-065	Tank Farm	RFI/CMS		1,058									1,058	1,536	28 GW, 268 surface soil, and 369 subsurface soil samples analyzed for Metals, VOCs, SVOCs. Install 6 GW piezometers, and 19 overburden GW monitoring wells.	RACER	
		DES			25								25		design	RACER	
		RFA			317										317	4,100cy soil removal, offsite disposal as solid waste (no stabilization).	RACER
		LTM				27	27	27	27	28					136	5 wells, 5 years, semi-annual monitoring	RACER
SAAP-066	Installation-Wide Stream Study	DES	10										10	31	design	RACER	
		RFA	21										21		75cy soil removal, offsite disposal as solid waste (no stabilization)	RACER	
SAAP-067	South Acid Area	RFI/CMS	1,446										1,446	4,009	45 GW, 1,287 surface soil, and 572 subsurface soil samples analyzed for Metals, VOCs, SVOCs, nitrates, sulfates, ammonia, TPH, Chromium VI. Install 33 GW piezometers, and 16 overburden GW monitoring wells.	RACER	
		DES		177									177		design	RACER	
		RFA		2,216											2,216	15,565 bcy soil removal (17,106cy after 25% fluff factor), 2,145cy dispose offsite as hazwaste; 16,319cy dispose offsite as solid waste (stabilization required); 843cy debris dispose offsite as solid waste (no stabilization); 1,508cy landfarmed for elevated Nitrates to be used as backfill once landfarming completed.	RACER
		LTM			34	34	34	34	34						170	12 wells, 5 years, semi-annual monitoring	RACER
SAAP-101	Monitoring Well West of Old Admin B	LTM	9	9	10								28	28	1 well, 3 years, semi-annual monitoring, analyzed for Nitrates.	RACER	
SAAP-104	Disposal Area Southeast of STP	CS			60								60	60	Backhoe trenching for 2 days, 10 GW and 13 soil samples analyzed for Metals, VOCs, SVOCs.	RACER	
SAAP-105	Cannon Range Tunnels	CS			13								13	13	2 soil samples analyzed for Metals, Explosives.	RACER	
SAAP-110	Storage Magazines Not Part of SWMU 15 & 16	RFI/CMS			721								721	721	22 GW, 6 Surface Water, 110 sediment, and 154 soil samples analyzed for Metals, SVOCs, NG, NQ, herbicides/pesticides.	RACER	
SAAP-111	Forced Air Dryers (and Rest, Screen and Can Pack Houses)	CS			84								84	84	4 GW, and 22 soil samples analyzed for Metals, VOCs, SVOCs, explosives. Install 4 GW piezometers.	RACER	
SAAP-112	Paste Air Dry Facilities	RFI/CMS			99								99	99	36 soil samples analyzed for Arsenic, Lead.	RACER	
SAAP-114	Robert's Lake	CS	117										117	1,502	CMS	RACER	
		DES		103									103		design	RACER	
		RFA		1,282											1,282	17,000cy sediment removal, offsite disposal as solid waste (no stabilization). Restore pond by fixing the dam	
SAAP-115	Hazard Analysis Testing Lab	IRA		63									63	63	Design (10K); 77cy sand removal, offsite disposal as solid waste (stabilization required)		
SAAP-116	Nitrocellulose Production Lines	RFI/CMS		648									648	2,321	11 GW, and 281 soil samples analyzed for Metals, VOCs, SVOCs, NC, Nitrates. Install 6 GW piezometers, and 4 overburden GW monitoring wells.	RACER	
		DES			124								124		design	RACER	
		RFA			1,549										1,549	13,880 cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-117	Nitroguanidine Production Buildings	CS		264									264	264	36 soil samples analyzed for Metals, VOCs, SVOCs, GN, NQ, Nitrates, Sulfates, Sulfide.	RACER	

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
SAAP-118	Trench Disposal Area A3	RFI/CMS	57										57	87	4 GW, and 22 soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Pesticides/Herbicides, Nitrates, Sulfates. Install 4 GW piezometers.	RACER
		DES		10									10		design	RACER
		RFA		20									20		40 cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
SAAP-119	Trench Disposal Area A4	CS			62								62	62	Backhoe trenching for one day, 3 GW and 14 subsurface soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Nitrates, Sulfates, pesticides/herbicides. Install 3 GW piezometers.	RACER
SAAP-120	Trench Disposal Area A5	CS			62								62	62	Backhoe trenching for one day, 1 GW and 6 subsurface soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Nitrates, Sulfates, pesticides/herbicides. Install 1 GW piezometer.	RACER
SAAP-121	Trench Disposal Area A6	CS			34								34	34	Backhoe trenching for one day, 3 GW and 14 subsurface soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Nitrates, Sulfates, pesticides/herbicides. Install 3 GW piezometers.	RACER
SAAP-122	Old Reclamation Yard	CS	117										117	929	CMS	RACER
		DES		60									60		design	RACER
		RFA		752									752		6,500cy soil removal, (8,125cy after 25% fluff factor), 125cy dispose offsite as hazwaste; 8,000cy dispose offsite as solid waste (stabilization required); 200cy debris dispose offsite as solid waste (no stabilization).	
SAAP-123	Cleanup Under Explosive Foundations	RFI/CMS	1,352										1,352	3,246	112 soil samples analyzed for Metals, VOCs, SVOCs, NC, Explosives; 19 soil samples analyzed for Metals, SVOCs, NG; 85 soil samples analyzed for Metals, VOCs, SVOCs, NC; 24 soil samples analyzed for Metals, VOCs, SVOCs, NG; 181 soil samples analyzed for Metals, VOCs, SVOCs, Explosives; 1 soil sample analyzed for Metals, SVOCs, Dioxins; 139 soil samples analyzed for Metals, VOCs, SVOCs, PAHs; 3 soil samples analyzed for Metals, GN, Nitrates; 37 soil samples analyzed for Metals, VOCs, NQ, GN, Perchlorate, Nitrates, Sulfates; 5 soil samples analyzed for Metals VOCs, NQ, GN, Nitrates, Sulfates; 1 soil sample analyzed for Metals, VOCs, SVOCs; 3 soil samples analyzed for Metals, VOCs, SVOCs, TPH, Chromium VI, Ammonia, Nitrates, Sulfates; 33 soil samples analyzed for Metals, VOCs, SVOCs, Explosives; 25 soil samples analyzed for Arsenic, Lead; 160 soil samples analyzed for Metals, VOCs, SVOCs, NC, Nitrates.	
		DES		140									140		design	
		RFA		1,754									1,754		20,871 cy soil removal, dispose offsite as solid waste (no stabilization).	RACER

## Sunflower Army Ammunition Plant Unconstrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
SAAP-124	Cleanup Under Explosive Sewers	RFI/CMS	879										879	2,404	15 soil samples analyzed for Metals, VOCs, SVOCs, PAHs; 67 soil samples analyzed for Metals, VOCs, SVOCs, NC, Explosives; 7 soil samples analyzed for Metals, VOCs, SVOCs, NG; 69 soil samples analyzed for Metals, VOCs, SVOCs, PAHs; 13 soil samples analyzed for Metals, VOCs, SVOCs, Ammonia, Nitrates, Sulfates; 230 soil samples analyzed for Metals, VOCs, SVOCs, NC, Nitrates; 116 soil samples analyzed for Metals, VOCs, SVOCs, Explosives; 18 soil samples analyzed for Metals, VOCs, SVOCs, NC; 4 soil samples analyzed for Metals, VOCs, SVOCs, NG.	RACER
		DES		113									113		design	RACER
		RFA		1,412											1,412	13,114 cy soil removal, 12,794 dispose offsite as solid waste (no stabilization). 320 cy dispose offsite as solid waste with stabilization required.
<b>FY TOTALS IN THOUSANDS OF DOLLARS</b>			<b>7,877</b>	<b>23,621</b>	<b>28,308</b>	<b>1,091</b>	<b>989</b>	<b>921</b>	<b>891</b>	<b>613</b>	<b>310</b>	<b>2,675</b>	<b>67,282</b>	<b>67,282</b>		
<b>POM</b>			<b>5206</b>	<b>11959</b>	<b>32501</b>	<b>14660</b>	<b>877</b>	<b>861</b>	<b>654</b>	<b>525</b>	<b>401</b>	<b>3336</b>				
<b>Difference</b>			<b>-2,671</b>	<b>-11,662</b>	<b>4,193</b>	<b>13,569</b>	<b>-112</b>	<b>-60</b>	<b>-237</b>	<b>-88</b>	<b>91</b>	<b>661</b>				

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source	
SAAP-001	Classification Yard	DES			26								26	352	design	RACER	
		RFA			326								326		7,500cy soil removal, no stabilization	RACER	
SAAP-002	River Water Treatment Plant Lagoons	RFI/CMS			87								87	1,522	update Risk Assessment	RACER	
		DES			95								95		design	RACER	
		RFA				1,181									1,181	12,500cy soil and lime sludge removal (no stabilization) and offsite disposal, pond closure, extensive filling and regrading, sampling, reroute ditch around ponds	RACER
		LTM					31	32	32	32	32				159	4 wells, 5 years, semi-annual monitoring	RACER
SAAP-003	Main Sewage Treatment Plant Drying Beds	DES	18										18	240	design	RACER	
		RFA	222										222		500cy dried sludge removal as HW, confirmatory sampling	RACER	
SAAP-004	Pond A and Sludge Disposal Area	RFI/CMS			280								280	713	4 GW, 20 soil, and 50 sediment samples analyzed for NC, NG, Metals, SVOCs. Install 1 bedrock well	RACER	
		DES			32								32		design	RACER	
		RFA				401									401	4,000cy soil removal offsite disposal as solid waste (no stabilization), clean closure of pond.	RACER
SAAP-005	Acid Sewage Disposal Plant	RFI/CMS			366								366	882	9 GW, 33 soil, and 18 sediment samples analyzed for NC, NG, Metals, SVOCs. Install 4 overburden wells	RACER	
		DES			38								38		design	RACER	
		RFA				478									478	5,000cy soil and sediment removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-006	Pond B and Sludge Disposal Area	RFI/CMS			311								311	3,902	7 GW and 18 sediment samples analyzed for NC, NG, Metals, SVOCs, Pesticides. Install 3 overburden wells	RACER	
		DES			249								249		design	RACER	
		RFA				3,114									3,114	42,000cy soil removal and treatment for propellants and metals, assumes offsite disposal as solid waste (no stabilization). Clean closure of pond.	RACER
		LTM					45	45	46	46	46				228	7 wells, 5 years, semi-annual monitoring	RACER
SAAP-007	North Acid Area- Chromate Area	RFI/CMS	387										387	676	6 GW, 4 Surface Water, and 169 soil samples analyzed for Metals, PAHs, VOCs, SVOCs. Install 2 overburden wells	RACER	
		DES		14									14		design	RACER	
		RFA		181											181	550cy soil removal, offsite disposal as solid waste (no stabilization). 7,200 gal. liquid sludge offsite disposal as hazwaste	RACER
		LTM			18	19	19	19	19						94	3 wells, 5 years, semi-annual monitoring	RACER
SAAP-008	North Acid Area- Chromate Concentration Pond	RFI/CMS	382										382	605	6 GW, 4 Surface Water, and 169 soil samples analyzed for Metals, PAHs, VOCs, SVOCs. Install 2 overburden wells	RACER	
		DES		10									10		design	RACER	
		RFA		119											119	550cy soil removal, offsite disposal as solid waste (no stabilization). 3,600 gal. liquid sludge offsite disposal as hazwaste	RACER
		LTM			18	19	19	19	19						94	3 wells, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source	
SAAP-009	North Acid Area-Wastewater Treatment Lagoon	RFI/CMS	380										380	663	6 GW, 4 Surface Water, and 169 soil samples analyzed for Metals, PAHs, VOCs, SVOCs. Install 2 overburden wells	RACER	
		DES		14									14		design	RACER	
		RFA		175											175	550cy soil removal, offsite disposal as solid waste (no stabilization). 7,200 gal. liquid sludge offsite disposal as hazwaste	RACER
		LTM			18	19	19	19	19						94	3 wells, 5 years, semi-annual monitoring	RACER
SAAP-010	F-Line Area Ditches	LTM	36	36	36	36	38						182	182	5 wells, 5 years, semi-annual monitoring. Analyze Metals, NG, SVOCs, Explosives	RACER	
SAAP-011	F-Line Area Settling Ponds	LTM	60	60	60	62							242	242	7 wells, 4 years, semi-annual monitoring. Analyze Metals, NG, SVOCs, Explosives	RACER	
SAAP-012	Pyotts Pond and Sludge Disposal Areas	RFI/CMS			442								442	1,221	9 GW, 26 Surface Water, 26 sediment, and 26 soil samples analyzed for Metals, PAHs, Explosives, NC, NQ, VOCs, Pesticides/Herbicides, sulfates.	RACER	
		DES			47								47		design	RACER	
		RFA				585									585	7,000cy soil and sediment removal, offsite disposal as solid waste (no stabilization). pond clean closure	RACER
		LTM					29	29	29	30	30				147	4 wells, 5 years, semi-annual monitoring	RACER
SAAP-013	South Acid Area LWTP Evaporative Lagoons	LTM	104	104	104	104	104	104	104	104	104	106	1,042	1,042	19 wells, 10 years semi-annual monitoring. Analyze for metals, NQ, GN, Nitrates, Sulfates	RACER	
SAAP-014	Rocket Static Test Area	DES	10										10	164	design	RACER	
		RFA	60										60		200cy "Hot Spot" removal, offsite disposal as solid waste (no stabilization)	RACER	
		LTM		18	18	18	20	20					94		3 wells, 5 years, semi-annual monitoring	RACER	
SAAP-015	Waste Storage Magazines	RFI/CMS			393								393	393	7 GW, 22 Surface Water, 22 sediment, and 77 soil samples analyzed for Metals, Fluoride, nitrate/nitrite, ammonia, sulfate, cyanide, NQ, NG, GN, perchlorates, VOCs, SVOCs, pesticides/herbicides, explosives. Install 3 overburden wells	RACER	
SAAP-016	Temporary Waste Storage Magazines	RFI/CMS			421								421	421	7 GW, 22 Surface Water, 22 sediment, and 77 soil samples analyzed for Metals, Fluoride, nitrate/nitrite, ammonia, sulfate, cyanide, NQ, NG, GN, perchlorates, VOCs, SVOCs, pesticides/herbicides, explosives. Install 3 overburden wells	RACER	
SAAP-017	G-Line Area Ditches	RFI/CMS			503								503	1,764	20 GW, 3 Surface Water, 33 sediment, and 113 soil samples analyzed for Metals, NC, VOCs, SVOCs.	RACER	
		DES			77								77		Design	RACER	
		RFA				962									962	11,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM					44	44	44	45	45				222	6 wells, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source	
SAAP-018	Old/New Sanitary Landfills	DES			738								738	12,316	design	RACER	
		RFA			9,231										9,231	Landfill cap preparation (grading, fill, laying fabric, compacting clay, etc; 31 acres) and French Drain installation (8,050 linear feet) to divert upgradient groundwater around landfill.	RACER
		LTM				78	78	78	78	78	79	1,878	2,347		30 years maintenance of landfill cap and French Drain. 8 wells, 5 years semi-annual GW monitoring, followed by 25 years of annual GW monitoring analyzed for Metals, Dioxins, Furans, VOCs. Abandonment of all GW monitoring wells will be funded on this site (8,532 linear feet of 2 inch wells, 629 linear feet of 4 inch wells). LTM to go past thirty years; cost only given for thirty years.	RACER	
SAAP-019	Ash Landfills	DES			10								10	116	design	RACER	
		RFA			106										106	1,000cy ash sludge removal, offsite disposal as solid waste (no stabilization).	RACER
SAAP-020	Ash Lagoons and Sludge Disposal Area	DES		301									301	4,067	design	RACER	
		RFA		3,766											3,766	55,000 cy ash sludge removal, offsite disposal as solid waste (no stabilization). Lagoon clean closure	RACER
SAAP-021	Contaminated Materials Burning Ground	LTM	15	15	15	15	17						77	77	5 wells, 5 years, semi-annual monitoring. Analyze PAHs, VOCs, Metals	RACER	
SAAP-024	Nitroglycerine Area Ditches	RFI/CMS	629										629	2,143	18 GW, 110 sediment, and 244 soil samples analyzed for Metals, NG, VOCs, SVOCs. Install 4 overburden wells	RACER	
		DES		96									96		design	RACER	
		RFA			1,195										1,195	15,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM				44	44	44	44	47					223	8 wells, 5 years, semi-annual monitoring	NC
SAAP-025	Nitrocellulose Area Ditches	DES	13										13	235	design	NC	
		RFA	161												161	1,481cy soil removal, offsite disposal as solid waste (no stabilization)	
		LTM		12	12	12	12	13							61	4 wells, 5 years, semi-annual monitoring	RACER
SAAP-026	Single Base Propellant Area Waste Water Settling Sumps	RFI/CMS		310									310	913	3 GW, 30 sediment, and 244 soil samples analyzed for Metals, explosives, VOCs, SVOCs.	RACER	
		DES			21										21	Design	RACER
		RFA			265										265	2,400cy sediment removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM				63	63	63	64	64					317	9 wells, 5 years, semi-annual monitoring	RACER
SAAP-027	Nitroguanidine Area SAC LWTP Evaporative Lagoons	LTM	50	50	50	50	50	50	49	49	49	49	496	496	9 wells, 10 years, semi-annual monitoring. Analyze for metals, NQ, GN, Nitrates, Sulfates	RACER	
SAAP-030	Pesticide Handling Area	RFI/CMS			308								308	943	13 GW, 17 sediment, and 35 soil samples analyzed for Pesticides, Herbicides, Dioxin.	RACER	
		DES			47										47	design	RACER
		RFA				588									588	1,500cy soil removal, offsite disposal as hazwaste (no stabilization)	RACER
SAAP-031	Contaminated Waste Processor/ Evaporative	RFI/CMS			328								328	471	7 GW, 18 sediment, and 35 soil samples analyzed for Metals, SVOCs, Dioxin. Install 3 overburden wells	RACER	
		DES			11										11	design	RACER

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
	Lagoon	RFA				132							132		800cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-033	Paste Area Half Tanks and Ditches	LTM	23	23	23	24							93	93	3 wells, 4 years, semi-annual monitoring, site closure document. Analyze for Metals, SVOCs, NC, NG	RACER
SAAP-035	Nitroglycerin Area Settling Ponds	LTM	26	23	23	23							95	95	3 wells, 4 years, semi-annual monitoring, abandon 1 well, install one new overburden well, site closure document. Analyze for Metals, SVOCs, NC, NG	RACER
SAAP-036	N-Line Area	RFI/CMS			605								605	2,238	20 GW, 7 Surface Water, 33 sediment, and 110 soil samples analyzed for Metals, VOCs, SVOCs, PAHs.	RACER
		DES			121								121		design	RACER
		RFA				1,512							1,512		16,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-037	Sandblast Areas	RFI/CMS			262								262	667	59 soil samples analyzed for Metals.	RACER
		DES			30								30		design	RACER
		RFA				375							375		3,000 cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
SAAP-038	Oil Water Separator	DES	10										10	98	design	RACER
		RFA	88										88		500cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-039	South Acid Area Ditches	DES			10								10	75	design	RACER
		RFA			65								65		78cy soil removal "Hot Spot", offsite disposal as solid waste (no stabilization)	RACER
SAAP-040	Calcium Cyanamide Disposal Area	RFI/CMS			270								270	656	11 GW and 17 sediment samples analyzed for Metals, VOCs, SVOCs, sulfates, cyanide. Install one overburden well	RACER
		DES			29								29		design	RACER
		RFA				357							357		5,000cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-041	Calcium Carbonate Cake Landfill	LTM	20	20	20	20	20	20	20	20	20	20	438	618	6 wells, semi-annual monitoring; LTM to go past thirty years; cost only given for thirty years. Analyze for nitrates, SVOCs, Sulfates	RACER
SAAP-043	Tunnel Dryers (CCC Storage)	RFI/CMS			224								224	341	22 GW and 17 soil samples analyzed for Metals, Nitrates, GN. Install 5 overburden wells	RACER
		LTM				23	23	23	24	24			117		5 wells, 5 years, semi-annual monitoring	RACER
SAAP-045	Building 9040 (CA Cyanamid Conv & Storage Unit)	LTM			43	43	43	43	44	44	44	129	433	433	12 wells, 10 years, semi-annual monitoring. Analyzed for metals, nitrates	RACER
SAAP-046	Decontamination Oven	RFI/CMS			289								289	377	30 soil samples analyzed for Metals, Explosives.	RACER
		DES			10								10		design	NC
		RFA				78							78		400cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-047	Nitroguanidine Production Area (25) Sumps	RFI/CMS	765										765	3,678	22 GW, 28 sediment, and 116 soil samples analyzed for Metals, Nitrates, sulfates, GN, NQ, VOCs, Perchlorate (4 samples for formaldehyde). Install 10 overburden wells. Bench test for landfarming high Nitrate soil	RACER
		DES		179									179		design	RACER
		RFA		2,239									2,239		14,800cy soil removal consisting of removal of 25 sumps, landfarm soil to reduce Nitrate concentration and use for backfill. 2,500cy of concrete debris disposal as solid waste (no stabilization).	RACER
		LTM			99	99	99	99	99				495		15 wells, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
SAAP-048	Nitroguanidine Support Area	LTM	45	45	45	45	45	45	45				315	315	9 wells, 7 years, semi-annual monitoring. Analyze nitrates, sulfates, NO <sub>x</sub> , GN and VOCs	RACER
SAAP-050	Disposal Site East of the Classification Yard	LTM	14	14	14	14	14	14	14	14	14	75	187	187	10 acre soil cover, 30 years, cover maintenance, erosion repair. LTM to go past thirty years; cost only given for thirty years.	RACER
SAAP-051	New Reclamation Yard	CS			117								117	545	CMS	RACER
		DES			32								32		design	RACER
		RFA			396								396		3,200cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
SAAP-053	Burn and Debris Area North of STP	CS	117										117	345	CMS	RACER
		DES		10									10		design	RACER
		RFA		101									101		500cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
		LTM			23	23	23	24	24				117		3 wells, 5 years, semi-annual monitoring. Analyzed for metals, PAHs, VOCs, SVOCs, PCBs, Dioxin	RACER
SAAP-054	Fluorescent Tube Well	RFI/CMS			167								167	167	13 GW and 13 soil samples analyzed for Mercury. Install 2 GW monitoring wells at each of the old farmstead wells (total 6 wells). The soil samples are from the well-installation	RACER
SAAP-056	Monitoring Well South of Facility 211	CS			30								30	30	6 GW samples analyzed for Nitrates (1 well, 2 years, semi-annual monitoring)	RACER
SAAP-057	Chemical Preparation House	CS			48								48	48	3 GW, and 13 soil samples analyzed for Metals, VOCs, SVOCs. Install 3 GW piezometers.	RACER
SAAP-058	Combined Shops Area	CS	117										117	271	CMS	RACER
		DES		10									10		design	NC
		RFA		93									93		400cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
		LTM			17	17	17						51		3 wells, 3 years, semi-annual monitoring. Analyze for metals, VOCs, SVOCs, PCB	RACER
SAAP-059	Laundry Facilities	CS			49								49	49	3 GW, and 13 soil samples analyzed for VOCs, SVOCs. Install 3 GW piezometers.	RACER
SAAP-060	Old Photographic Laboratory	CS			117								117	177	CMS	RACER
		DES			10								10		design	
		RFA				50							50		75cy soil removal (SVOCs, VOCs, Metals), offsite disposal as solid waste (stabilization required)	RACER
SAAP-063	Water Towers	RFI/CMS			366								366	811	187 soil samples analyzed for Lead, Arsenic.	RACER
		DES			33								33		design	RACER
		RFA			412								412		5,000cy soil removal, offsite disposal as solid waste (stabilization required on 20% of soil)	RACER
SAAP-064	Paper Burning Ground	RFI/CMS			440								440	652	4 GW, and 107 soil samples analyzed for Metals, VOCs, SVOCs, dioxin. Install 3 GW piezometers, and 1 overburden GW monitoring well.	
		DES			12								12		design	RACER
		RFA				144							144		1,575cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
		LTM					11	11	11	11	12		56		1 well, 5 years, semi-annual monitoring	RACER

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source	
SAAP-065	Tank Farm	RFI/CMS			1,058								1,058	1,536	28 GW, 268 surface soil, and 369 subsurface soil samples analyzed for Metals, VOCs, SVOCs. Install 6 GW piezometers, and 19 overburden GW monitoring wells.	RACER	
		DES			25								25		design	RACER	
		RFA			191	126									317	4,100cy soil removal, offsite disposal as solid waste (no stabilization).	RACER
		LTM						27	27	27	27	28			136	5 wells, 5 years, semi-annual monitoring	RACER
SAAP-066	Installation-Wide Stream Study	DES	10										10	31	design	RACER	
		RFA	21												21	75cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-067	South Acid Area	RFI/CMS			1,446								1,446	4,009	45 GW, 1,287 surface soil, and 572 subsurface soil samples analyzed for Metals, VOCs, SVOCs, nitrates, sulfates, ammonia, TPH, Chromium VI. Install 33 GW piezometers, and 16 overburden GW monitoring wells.	RACER	
		DES			177								177		design	RACER	
		RFA			2,216										2,216	15,565 bcy soil removal (17,106cy after 25% fluff factor), 2,145cy dispose offsite as hazwaste; 16,319cy dispose offsite as solid waste (stabilization required); 843cy debris dispose offsite as solid waste (no stabilization); 1,508cy landfarmed for elevated Nitrates to be used as backfill once landfarming completed.	RACER
		LTM				34	34	34	34	34					170	12 wells, 5 years, semi-annual monitoring	RACER
SAAP-101	Monitoring Well West of Old Admin Area	LTM	9	9	10								28	28	1 well, 3 years, semi-annual monitoring, analyzed for Nitrates.	RACER	
SAAP-104	Disposal Area Southeast of STP	CS			60								60	60	Backhoe trenching for 2 days, 10 GW and 13 soil samples analyzed for Metals, VOCs, SVOCs.	RACER	
SAAP-105	Cannon Range Tunnels	CS			13								13	13	2 soil samples analyzed for Metals, Explosives.	RACER	
SAAP-110	Storage Magazines Not Part of SWMU 15 & 16	RFI/CMS			721								721	721	22 GW, 6 Surface Water, 110 sediment, and 154 soil samples analyzed for Metals, SVOCs, NG, NQ, herbicides/pesticides.	RACER	
SAAP-111	Forced Air Dryers and Rest, Screen and Can Pack Houses	CS			84								84	84	4 GW, and 22 soil samples analyzed for Metals, VOCs, SVOCs, explosives. Install 4 GW piezometers.	RACER	
SAAP-112	Paste Air Dry Facilities	RFI/CMS			99								99	99	36 soil samples analyzed for Arsenic, Lead.	RACER	
SAAP-114	Robert's Lake	CS	117										117	1,502	CMS	RACER	
		DES		103									103		design	RACER	
		RFA		223	1,059										1,282	17,000cy sediment removal, offsite disposal as solid waste (no stabilization). Restore pond by fixing the dam	
SAAP-115	Hazard Analysis Testing Lab	IRA		63									63	63	Design (10K); 77cy sand removal, offsite disposal as solid waste (stabilization required)		
SAAP-116	NC Production Lines	RFI/CMS			648								648	2,321	11 GW, and 281 soil samples analyzed for Metals, VOCs, SVOCs, NC, Nitrates. Install 6 GW piezometers, and 4 overburden GW monitoring wells.	RACER	
		DES			124								124		design	RACER	
		RFA			1,549										1,549	13,880 cy soil removal, offsite disposal as solid waste (no stabilization)	RACER
SAAP-117	Nitroguanidine Production Buildings	CS		264									264	264	36 soil samples analyzed for Metals, VOCs, SVOCs, GN, NQ, Nitrates, Sulfates, Sulfide.	RACER	

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
SAAP-118	Trench Disposal Area A3	RFI/CMS	57										57	87	4 GW, and 22 soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Pesticides/Herbicides, Nitrates, Sulfates. Install 4 GW piezometers.	RACER
		DES		10									10		design	RACER
		RFA		20									20		40 cy soil removal, offsite disposal as solid waste (stabilization required)	RACER
SAAP-119	Trench Disposal Area A4	CS			62								62	62	Backhoe trenching for one day, 3 GW and 14 subsurface soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Nitrates, Sulfates, pesticides/herbicides. Install 3 GW piezometers.	RACER
SAAP-120	Trench Disposal Area A5	CS			62								62	62	Backhoe trenching for one day, 1 GW and 6 subsurface soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Nitrates, Sulfates, pesticides/herbicides. Install 1 GW piezometer.	RACER
SAAP-121	Trench Disposal Area A6	CS			34								34	34	Backhoe trenching for one day, 3 GW and 14 subsurface soil samples analyzed for Metals, VOCs, SVOCs, Explosives, Nitrates, Sulfates, pesticides/herbicides. Install 3 GW piezometers.	RACER
SAAP-122	Old Reclamation Yard	CS	117										117	929	CMS	RACER
		DES		60									60		design	RACER
		RFA		752									752		6,500cy soil removal, (8,125cy after 25% fluff factor), 125cy dispose offsite as hazwaste; 8,000cy dispose offsite as solid waste (stabilization required); 200cy debris dispose offsite as solid waste (no stabilization).	
SAAP-123	Cleanup Under Explosive Foundations	RFI/CMS	676	676									1,352	3,246	112 soil samples analyzed for Metals, VOCs, SVOCs, NC, Explosives; 19 soil samples analyzed for Metals, SVOCs, NG; 85 soil samples analyzed for Metals, VOCs, SVOCs, NC; 24 soil samples analyzed for Metals, VOCs, SVOCs, NG; 181 soil samples analyzed for Metals, VOCs, SVOCs, Explosives; 1 soil sample analyzed for Metals, SVOCs, Dioxins; 139 soil samples analyzed for Metals, VOCs, SVOCs, PAHs; 3 soil samples analyzed for Metals, GN, Nitrates; 37 soil samples analyzed for Metals, VOCs, NQ, GN, Perchlorate, Nitrates, Sulfates; 5 soil samples analyzed for Metals VOCs, NQ, GN, Nitrates, Sulfates; 1 soil sample analyzed for Metals, VOCs, SVOCs; 3 soil samples analyzed for Metals, VOCs, SVOCs, TPH, Chromium VI, Ammonia, Nitrates, Sulfates; 33 soil samples analyzed for Metals, VOCs, SVOCs, Explosives; 25 soil samples analyzed for Arsenic, Lead; 160 soil samples analyzed for Metals, VOCs, SVOCs, NC, Nitrates.	
		DES		140									140		design	
		RFA		585	1,169								1,754		20,871 cy soil removal, dispose offsite as solid waste (no stabilization).	RACER

## Sunflower Army Ammunition Plant Constrained Cost to Complete

AEDB-R #	SITE TITLE	PHASE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+	PHASE TOTAL	SITE TOTAL	DESCRIPTION OF WORK	Cost Est. Source
SAAP-124	Cleanup Under Explosive Sewers	RFI/CMS	447	432									879	2,404	15 soil samples analyzed for Metals, VOCs, SVOCs, PAHs; 67 soil samples analyzed for Metals, VOCs, SVOCs, NC, Explosives; 7 soil samples analyzed for Metals, VOCs, SVOCs, NG; 69 soil samples analyzed for Metals, VOCs, SVOCs, PAHs; 13 soil samples analyzed for Metals, VOCs, SVOCs, Ammonia, Nitrates, Sulfates; 230 soil samples analyzed for Metals, VOCs, SVOCs, NC, Nitrates; 116 soil samples analyzed for Metals, VOCs, SVOCs, Explosives; 18 soil samples analyzed for Metals, VOCs, SVOCs, NC; 4 soil samples analyzed for Metals, VOCs, SVOCs, NG.	RACER
		DES		113									113		design	RACER
		RFA		471	941										1,412	13,114 cy soil removal, 12,794 dispose offsite as solid waste (no stabilization). 320 cy dispose offsite as solid waste with stabilization required.
<b>FY TOTALS IN THOUSANDS OF DOLLARS</b>			<b>5,206</b>	<b>11,959</b>	<b>32,501</b>	<b>10,987</b>	<b>988</b>	<b>919</b>	<b>889</b>	<b>669</b>	<b>503</b>	<b>2,675</b>	<b>67,282</b>	<b>67,282</b>		
<b>POM</b>			<b>5206</b>	<b>11959</b>	<b>32501</b>	<b>14660</b>	<b>877</b>	<b>861</b>	<b>654</b>	<b>525</b>	<b>401</b>	<b>3336</b>				
<b>Difference</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>3,673</b>	<b>-111</b>	<b>-58</b>	<b>-235</b>	<b>-144</b>	<b>-102</b>	<b>661</b>				

On May 6, 1998, Sunflower conducted the first RAB meeting with 17 community members attending. Six additional positions were created as follows: two for the Army and one each for the operating contractor, USEPA, KDHE and COE. RAB meetings were conducted monthly for the first six months and now meet bimonthly.

Previous meetings included activities such as:

- An installation tour
- Individual site briefings (including discussion of past practices and existing contamination)
- Educational presentations (risk assessment, how investigations are conducted, explanation of technical documents, etc.)
- Land use plan briefings presented by Johnson County
- Presentation by potential developer on the property to explain their proposal for potential site remediation

The RAB will continue bimonthly meetings.

# Supervisory Review Check List

Installation Name \_\_\_\_\_

Review Date \_\_\_\_\_

Estimator Name \_\_\_\_\_

Date Estimates Prepared \_\_\_\_\_

1. Is sound estimating methodology used and the assumptions used reasonable?		
2. Did the estimator compare prior year estimates to the current year estimates?		
3. Does the estimate include all relevant phases and costs to complete the cleanup?		
4. Is the estimate consistent with the operational plans of the Army?		
5. Is the estimator qualified and has the required training to perform the estimate?		
6. Is there an adequate audit trail?		
7. Is there adequate documentation to support the underlying assumptions made to develop the estimate?		
8. Does the supervisor agree with the underlying assumptions made to develop the estimate?		
9. Is the estimate maintained in the current cost basis?		

Supervisor's Signature \_\_\_\_\_

Date \_\_\_\_\_

Note: The above checklist is being used to assess the reasonableness of the installation's estimates and to document supervisory review. The signed checklist reflecting final approval will be maintained with the estimates as part of the audit trail.

