

# **BLOSSOM POINT RESEARCH FACILITY**

Army Cleanup Program

Installation Action Plan Final

September 2023

**TABLE OF CONTENTS**

**STATEMENT OF PURPOSE..... 3**

**INSTALLATION OVERVIEW..... 4**

**ACRONYMS..... 5**

**PHASE TRANSLATION TABLE..... 7**

**PROGRAM SUMMARY..... 8**

**SITE-LEVEL INFORMATION..... 9**

    1011A.1027\_BPF-002-R-01\_Nanjemoy Creek.....10

    1011A.1028\_BPF-003-R-01\_Water Range Fan.....11

    1011A.1031\_BPF-002-R-03\_Potomac River South .....12

**SITE SUMMARY.....13**

**SITE CLOSEOUT SUMMARY .....14**

**COMMUNITY INVOLVEMENT .....15**

**FIVE-YEAR / PERIODIC REVIEW SUMMARY .....16**

## STATEMENT OF PURPOSE

The Installation Action Plan (IAP) provides evidence that the Army is firmly committed to expeditious identification and cleanup of environmental contamination, and that the installation has a credible, organized program to carry out that commitment. The IAP provides an outline of the total multi-year environmental cleanup program for each site with ongoing or future planned restoration activity and includes the (1) environmental restoration requirements, (2) the rationale for the selected technical approach, and (3) foundation to develop corresponding financial needs for each cleanup site.

## INSTALLATION OVERVIEW

**Installation Name:** BLOSSOM POINT RESEARCH FACILITY

**Installation City:** ADELPHI

**Installation County:** Montgomery

**Installation State:** MD

**Regulatory Participation - Federal:** N/A

**Regulatory Participation - State:** Maryland Department of the Environment (MDE)

## ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
BPRF	Blossom Point Research Facility
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminant of Concern
DD	Decision Document
EE/CA	Engineering Evaluation/Cost Analysis
ENV	Environmental
ESTCP	Environmental Security Technology Certification Program
FS	Feasibility Study
FY	Fiscal Year
FYR	Five-Year Review
HRR	Historic Record Review
HRS	Hazardous Ranking Score
HQAES	Headquarters Army Environmental System
IAP	Installation Action Plan
ID	Identification
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
MD	Munitions Debris
MDE	Maryland Department and Environment
MEC	Munitions and Explosives of Concern
mm	millimeters
MPPEH	Material Potentially Presenting an Explosive Hazard
MR	Munitions Response

Acronym	Definition
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
NPL	National Priorities List
PA	Preliminary Assessment
PR	Periodic Review
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SC	Site Closeout
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
UST	Underground Storage Tank
UU/UE	Unrestricted Use/ Unrestricted Exposure

## PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operations) (RA(O))	Corrective Measures Implementation (Operations) (CMI(O))	Implementation (Operations) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

## **PROGRAM SUMMARY**

**Number of Open Sites with Response Complete/Total IR Sites: 0/0**

**Number of Open Sites with Response Complete/Total MR Sites: 3/3**

**Number of Open Sites with Response Complete/Total CC Sites: 0/0**



## SITE-LEVEL INFORMATION

## 1011A.1027\_BPF-002-R-01\_Nanjemoy Creek

**Legacy ID:** BPF-002-R-01

**Site Name:** Nanjemoy Creek

**Alias:** #

**Regulatory Driver:** CERCLA

**RIP Date:** 3/15/2020

**RC Date:** 3/15/2020

**RC Reason:** All Required Cleanup(s) Completed

**SC Date:** 9/30/2053

**Program:** ENV Restoration, Army

**Subprogram:** MR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:** N/A

**MRSPP:** 10

Phase	Start	End
PA:	6/1/2003	12/11/2003
SI:	8/15/2005	3/15/2007
RI/FS:	6/15/2010	5/28/2019
RD:	9/15/2018	7/15/2019
IRA:	3/15/2007	9/15/2011
RA(C):	7/16/2019	3/15/2020
RA(O):	--	--
LTM:	3/16/2020	9/30/2053

**Site Narrative:** The Nanjemoy Creek Munitions Response Site (MRS) consists of 7.1-acres, defined by a 30-foot-wide swath of land extending from the bluff that surrounds the installation towards Nanjemoy Creek. The site covers the area along the coastline of Nanjemoy Creek, which extends south from the northwest installation boundary to the southwestern most tip at Blossom Point Research Facility (BPRF). Depending on tidal effects, a significant portion of the Nanjemoy Creek MRS is submerged in shallow water. During the site investigation, material potentially presenting an explosive hazard (MPPEH) was encountered in three locations but was not conclusively identified as munitions and explosives of concern (MEC) by the responding explosive ordnance division unit. The RI and FS were completed in 2014 and 2017, respectively. A final land use control implementation plan was completed in July 2019. Contaminants of concern- MEC. Media of concern- soil. The engineering estimate/cost analysis (EE/CA) was completed at this site during the interim remedial action (IRA) phase. Operational range boundaries were adjusted in 2008 to add Landfill No. 1 acreage to BPF-002-R-01. The decision document (DD) was finalized in 2019. Potential for offsite migration is not likely. The future land use is industrial. RESTORATION/CLEANUP STRATEGY-Continue LTM indefinitely. LTM will take place in the form of LUC maintenance (checking the signs periodic reproduction and redistribution of education materials and performing inspections). Five-year reviews will be conducted to ensure long-term protectiveness. Because the future land use will remain industrial and hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for unlimited use/unrestricted exposure (UU/UE), five-year remedy reviews will continue indefinitely.

## 1011A.1028\_BPF-003-R-01\_Water Range Fan

**Legacy ID:** BPF-003-R-01

**Site Name:** Water Range Fan

**Alias:** #

**Regulatory Driver:** CERCLA

**RIP Date:** 3/15/2020

**RC Date:** 3/15/2020

**RC Reason:** All Required Cleanup(s) Completed

**SC Date:** 9/30/2053

**Program:** ENV Restoration, Army

**Subprogram:** MR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:** N/A

**MRSPP:** 10

Phase	Start	End
PA:	6/1/2003	12/11/2003
SI:	8/31/2005	3/31/2007
RI/FS:	6/15/2010	5/28/2019
RD:	9/15/2018	7/15/2019
IRA:	--	--
RA(C):	7/16/2019	3/15/2020
RA(O):	--	--
LTM:	3/16/2020	9/30/2053

**Site Narrative:** This 5,413-acre transferred range fan surrounds the BPRF and consists of 14 distinct range firing fans overlapping into the Nanjemoy Creek in the east and northeast directions and into the Potomac River to the south, southeast, and east from BPRF. Between 1942 and 1976, the ranges were used for experimental testing of mortars, rockets, and projectiles. The munitions fired into the range fan were 2.75-inch, 3.25-inch, 3.5-inch, 4.5-inch, and 5-inch rockets; 60 millimeters (mm), 80mm, and 4.2-inch mortars; 20mm, 30mm, 40mm, 75mm, and 105mm projectiles; and 20 pound and 750-pound bombs. All the firing points for these ranges are located within the current operational area of Blossom Point Facility. The area is used for recreational purposes. MEC was confirmed in the MRS by the Environmental Security Technology Certification Program (ESTCP) technology transfer project conducted in 2007. Historical records review (HRR) results indicate the potential for MEC, material potentially presenting an explosive hazard (MPPEH), and munitions debris (MD). During a magnetometer - assisted visual survey of the adjacent Nanjemoy Creek MRS, MD, and MPPEH were spotted in portions of the Nanjemoy Creek MRS along the shoreline of Nanjemoy Creek. As a result of this survey the final site inspection (SI) report, Adelphi Laboratory Center, BPRF, MD (2007) recommended this site for RI/FS. A Marine Towed Array Technology Demonstration was provided by ESTCP November 2007 to identify MEC in 5,413-acres of the Nanjemoy Creek and the Potomac River. As part of the RI, the contractor conducted three additional weeks of marine digital geophysical mapping, reacquisition, and intrusive sampling during spring 2012. No MEC or MC were identified. An FS was finalized February 2016. The DD was finalized January 2019. Contaminants of concern- MEC. Media of concern- soil. Potential for offsite migration is not likely. The future land use is industrial. RESTORATION/CLEANUP STRATEGY - Continue LTM indefinitely. LTM will take place in the form of LUC maintenance (checking the signs, periodic reproduction and redistribution of education materials, and performing inspections). Five-year reviews will be conducted to ensure long-term protectiveness. Because the future land use will remain industrial and hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue indefinitely.

## 1011A.1031\_BPF-002-R-03\_Potomac River South

**Legacy ID:** BPF-002-R-03

**Site Name:** Potomac River South

**Alias: #**

**Regulatory Driver:** CERCLA

**RIP Date:** 3/15/2020

**RC Date:** 3/15/2020

**RC Reason:** All Required Cleanup(s) Completed

**SC Date:** 9/30/2053

**Program:** ENV Restoration, Army

**Subprogram:** MR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:** N/A

**MRSPP:** 10

Phase	Start	End
PA:	6/30/2003	12/31/2003
SI:	8/31/2005	3/31/2007
RI/FS:	6/15/2010	5/28/2019
RD:	9/15/2018	7/15/2019
IRA:	3/31/2007	9/30/2011
RA(C):	7/16/2019	3/15/2020
RA(O):	--	--
LTM:	3/16/2020	9/30/2053

**Site Narrative:** The Potomac River South Munitions Response Site (MRS) consists of a 303-acre 30-foot-wide swath of land extending from the bluff that surrounds the installation towards the Potomac River. The site covers the area along the Potomac River that extends east from the southwestern-most tip at Blossom Point to the operational range area (safety danger zone for range 1) near Cedar Point. Depending on tidal effects, a significant portion of the Potomac River South MRS is submerged in shallow water. An EE/CA was completed at this site during the interim removal action (IRA) phase. The final RI report was released March 2014. An FS was finalized in February 2016. The DD was finalized in January 2019. Contaminants of concern- MEC. Media of concern- soil. Potential for offsite migration is not likely. The future land use is industrial. RESTORATION/CLEANUP STRATEGY - Continue LTM indefinitely. LTM will take place in the form LUC maintenance (checking the signs, periodic reproduction and redistribution of education materials, and performing inspections). Five-year reviews will be conducted to ensure long-term protectiveness. Because the future land use will remain industrial and hazardous substances pollutants or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue indefinitely.

## SITE SUMMARY

## SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date
1011A.1001	BPF-003_RANGE 1	8/31/1990
1011A.1002	BPF-004_RANGE 2 (WATER RANGE)	8/31/1990
1011A.1003	BPF-005_RANGE 3	8/31/1990
1011A.1004	BPF-006_RANGE 4 (WATER RANGE)	8/31/1990
1011A.1005	BPF-007_RANGE 5	8/31/1990
1011A.1006	BPF-008_RANGE 6	8/31/1990
1011A.1007	BPF-009_UNDERGROUND STORAGE TANKS (3)	8/31/1990
1011A.1008	BPF-010_UNDERGROUND STORAGE TANK	8/31/1990
1011A.1009	BPF-012_LANDFILL 1 AND JUNKYARD	7/15/2017
1011A.1010	BPF-013_LANDFILL 2	8/31/1990
1011A.1011	BPF-014_LANDFILL 3	11/30/1996
1011A.1012	BPF-015_LANDFILL 4	8/31/1990
1011A.1013	BPF-016_LANDFILL 5	8/31/1990
1011A.1014	BPF-017_LANDFILL 6	8/31/1990
1011A.1015	BPF-018_LANDFILL 7	11/30/1996
1011A.1016	BPF-019_LANDFILL 8	8/31/1990
1011A.1017	BPF-022_SHORELINE STABILIZATION AREA	8/31/1990
1011A.1018	BPF-023_DETONATION/BURNING AREA 1	8/31/1990
1011A.1019	BPF-024_DETONATION AREA 2	8/31/1990
1011A.1020	BPF-025_BURN PIT	8/31/1990
1011A.1021	BPF-026_BRITISH ORDNANCE DETONATION AREA	8/31/1990
1011A.1022	BPF-027_HERBICIDE CONTAMINATED AREA	8/31/1990
1011A.1023	BPF-028_PESTICIDE STORAGE AREA	8/31/1990
1011A.1024	BPF-029_SEPTIC TANK/DRY WELL	8/31/1990
1011A.1025	BPF-030_MAINTENANCE SHOP, BLDG 507	8/31/1990
1011A.1026	BPF-031_FORMER AMMO STORAGE AREA	8/31/1990
1011A.1029	BPF-001-R-01_Mortar Range Fan	3/31/2007
1011A.1030	BPF-002-R-02_Potomac River North	3/31/2007
1011A.1032	PBA@MR BPF_PBA@MR BPRF	1/15/2012

## COMMUNITY INVOLVEMENT

<b>Community Involvement Plan (Date Last Reviewed):</b>	12/15/2012
<b>Technical Review Committee Establishment Date:</b>	N/A
<b>Restoration Advisory Board (RAB) Establishment Date:</b>	N/A
<b>RAB Adjournment Date:</b>	N/A
<b>RAB Adjournment Reason:</b>	N/A
<b>Reasons for Not Establishing RAB:</b>	No sufficient, sustained community interest in a RAB has been expressed by the community
<b>RAB Date of Solicitation from Community:</b>	4/15/2016
<b>RAB Results of Solicitation:</b>	N/A
<b>Current Technical Assistance for Public Participation (TAPP):</b>	N/A
<b>TAPP Title:</b>	N/A
<b>Potential TAPP:</b>	N/A
<b>Administrative Record Location:</b>	Aberdeen Proving Ground Building E6182
<b>Information Repository Location:</b>	Aberdeen Proving Ground Building E6182

**FIVE-YEAR / PERIODIC REVIEW SUMMARY**

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
PLANNED	PR	1/28/2023	5/24/2024	To have sampling data ready for the Corp of Engineers to start their report.	Conducting the sampling for the 5-year review is currently underway.	TBD