FORT GEORGE G MEADE

Army Cleanup Program

Installation Action Plan Final

June 2024

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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: FORT GEORGE G MEADE

Installation City: FORT MEADE

Installation County: ANNE ARUNDEL

Installation State: MD

Regulatory Participation - Federal: US Environmental Protection Agency (USEPA), Region III

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

ACRONYMS

Acronym	Definition
AOC	Areas of Concern
AOI	Area of Interest
AOPI	Areas of Potential Interest
ASP	Ammo Supply Point
BEHP	bis (2-ethylhexyl phthalate)
BRAC	Base Realignment and Closure
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operations)
CMS	Corrective Measures Study
COC	Contaminant of Concern
CS	Confirmation Sampling
CSF	Covered Storage Facility
CRL	Cleanup Restoration & Liabilities
CSL	Closed Sanitary Landfill
DD	Decision Document
DES	Design
DLA	Defense Logistics Agency
DPDO	Defense Property Disposal Office
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
ENV	Environmental
FFS	Focused Feasibility Study
FGGM	Fort George G. Meade
FS	Feasibility Study
FYR	Five-Year Review
HHRA	Human Health Risk Assessment
HRS	Hazard Ranking Score
IAL2	Inactive Landfill No. 2
IAP	Installation Action Plan
ID	Identification
IR	Installation Restoration
IRA	Interim Remedial Action
LEL	Lower Explosive Limit

Acronym	Definition
LTM	Long-Term Management
LUC	Land Use Control
MCL	Maximum Contaminant Level
MD	Maryland
MDE	Maryland Department of the Environment
MEC	Munitions and Explosives of Concern
MGW	Methane Generating Waste
mm	millimeter
MPPEH	Material Potentially Presenting an Explosive Hazard
MR	Munitions Response
MRA	Munitions Response Area
MRS	Munitions Response Sites
MRSPP	Munitions Response Site Prioritization Protocol
NFA	No Further Action
NPL	National Priorities List
NTCRA	Non-Time Critical Removal Action
O&M	Operation and Maintenance
OSD	Office of Secretary of Defense
OU	Operable Unit
OWS	Oil/Water Separator
PA	Preliminary Assessment
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene
PFAS	Polyfluoroalkyl Substances
PP	Proposed Plan
RA	Remedial Action
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RAO	Remedial Action Objectives
RAR	Removal Action Report
RAWP	Remedial Action Work Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation

Acronym	Definition
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SC	Site Closeout
SI	Site Inspection
SLERA	Screening-Level Ecological Risk Assessment
SSI	Supplemental Site Investigation
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
TCE	Trichloroethylene
ug/L	micrograms per liter
USEPA	US Environmental Protection Agency
UU/UE	Unlimited Use / Unrestricted Exposure
VOC	Volatile Organic Compound

PHASE TRANSLATION TABLE

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

PROGRAM SUMMARY

Number of Open Sites with Response Complete/Total Open IR Sites: 0/19

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

Number of Open Sites with Response Complete/Total Open CC Sites: 1/1

SITE-LEVEL INFORMATION

24355.1003_FGGM 07_DRMO DRUM SITE (OPERABLE UNIT 5)

Env Site ID: FGGM 07

Cleanup Site: DRMO DRUM SITE (OPERABLE UNIT 5)

Alias: FGGM-07

Regulatory Driver: CERCLA

RIP Date: 11/2/2027

RC Date: 9/30/2057

RC Reason: Not assigned

SC Date: 9/30/2057

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.6

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	5/31/1992	5/31/1994
SI:	5/31/1992	5/31/1994
RI/FS:	9/30/1994	5/30/2026
RD:	6/1/2019	11/1/2026
IRA:	3/31/1995	9/30/1997
RA(C):	11/1/2026	11/1/2027
RA(O):	11/2/2027	9/30/2057
LTM:	- -	- -

Site Narrative: Fort George G. Meade (FGGM)-07 Defense Reutilization and Marketing Office (DRMO) Drum Site (Operable Unit (OU)-5) encompasses nine acres at the intersection of Rock Avenue and Remount Road along the southern boundary of the installation. OU-5 includes the Covered Storage Facility (CSF) located at the former salvage yard portion of the former Defense Property Disposal Office (DPDO). The DPDO was an open storage/disposal area for automobiles, drums, water heaters, heating units, dry cleaning machines, spent battery transformers, pipe, and scrap metal. Operation of the DPDO Salvage Yard ceased in 1994 in preparation for the CSF warehouse construction. A total of 267 drums, two transformers, one high voltage box, and 3,500 tons of contaminated soil were removed in 1995. Test results of the drums contents found solvents, degreasers, petroleum products, metals, pesticides, and polychlorinated biphenyl (PCB). Soil test results found volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC) (primarily fuel compounds), PCBs, and metals were present. After the investigation the site was covered with concrete and the operation of the DRMO resumed along with the newly constructed CSF. The site currently operates as Defense Logistics Agency (DLA) Disposition Services. The primary contaminant of concern (COC) is tetrachloroethylene (PCE) in groundwater detected at elevated levels over 100 micrograms per liter (ug/L), which exceeds the maximum contaminant level (MCL) of 5 ug/L. The PCE plume is approximately 5,000 feet long and extends southeast off-post onto the Patuxent Research Refuge. Remedial investigation (RI)/feasibility study (FS) activities began in 1994, and data gap sampling has occurred to address Maryland Department of the Environment (MDE) and US Environmental Protection Agency (USEPA) comments to the RI and focused feasibility study (FFS). A round of baseline sampling for all existing wells was completed in 2017. The RI was revised in June 2023, the Final FFS was submitted in December 2023, and the draft proposed remedial action plan was submitted in January 2024. The record of decision (ROD) and remedial design (RD)/remedial action (RA) are expected to be completed in 2026. It is anticipated that the final remedy for the site will be dynamic groundwater recirculation, long-term management (LTM) of groundwater, five-year reviews, and land use controls (LUC).

24355.1004_FGGM 08_COMP AMMO SUPPLY POINT #1

Env Site ID: FGGM 08

Cleanup Site: COMP AMMO SUPPLY POINT #1

Alias: FGGM 08

Regulatory Driver: CERCLA

RIP Date: 10/15/2026

RC Date: 10/15/2026

RC Reason: Not assigned

SC Date: 10/16/2026

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	10/31/1995	4/30/1996
SI:	10/31/1995	12/7/2011
RI/FS:	9/30/2001	10/15/2026
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: This site is located within the Closed Sanitary Landfill (CSL) site, FGGM-17. At Ammunition Supply Point (ASP)1, chemical munitions were used including smoke grenades and riot control agents for training purposes. These items were stored at the site. In the 1950s, an unknown number of chemical agent identification sets were also stored at the site. The final disposition of these sets is unknown. Over the course of previous investigations, 21 surface soil, six subsurface soil, one surface water sample, and six sediment samples were collected and submitted for laboratory analysis. In addition, both shallow and deep groundwater at the CSL site has been monitored for VOCs and SVOCs, metals, and other parameters including explosives and explosive constituents. Some of the FGGM-17 monitoring wells are located near ASP1. Soil samples were collected around the magazine locations. One surface and one subsurface soil sample were collected from each of six former magazine locations in the former ASP area to assess the potential for soil contamination due to spills or leaks. Based on a risk analysis of the analytical results, the risk numbers are below site-specific action levels and, therefore, no further actions (NFA) are anticipated. Since the site is located completely within the boundary of the CSL, it will be included in the ROD for the CSL (FGGM-17). The CSL ROD will recommend NFA for this site. The CSL proposed plan (PP) was finalized in 2017. A revised PP for the CSL is underway.

24355.1007_FGGM 13_PEST. SHOP BLDG. 6621

Env Site ID: FGGM 13

Cleanup Site: PEST. SHOP BLDG. 6621

Alias: FGGM 13

Regulatory Driver: CERCLA

RIP Date: 8/15/2014

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1997	4/30/1997
SI:	1/31/1997	4/30/1997
RI/FS:	10/31/2004	9/30/2012
RD:	1/31/2009	10/15/2013
IRA:	- -	- -
RA(C):	9/15/2012	8/14/2014
RA(O):	8/15/2014	9/30/2054
LTM:	- -	- -

Site Narrative: FGGM-13, the former Pesticide Shop (former Building 6621), encompasses one acre at the northwest intersection of York Avenue and Gordon Street. Between 1958 and 1978, the site was used as a pesticide shop. Releases of pesticides during this time were due to spills and the mishandling of pesticides. Building 6621 was demolished in 1996. Remedial action objectives (RAO) were established to address unacceptable risk posed by pesticides in soil and chlorinated VOC concentrations in groundwater. The remedy selected in the ROD was soil excavation with off-site disposal, enhanced reductive dechlorination with LTM of groundwater, and LUCs. Implementation of the selected remedy was conducted December 2013 through June 2014 and included excavation and disposal of 1,726 tons of pesticide-impacted soil; segregation and stockpiling of non-impacted soil; collection of confirmation soil samples from excavation sidewalls and stockpiled soil; backfill of the excavation with stockpiled soil and imported fill; completion of a baseline groundwater sampling event; injection of 17,685 gallons of a two percent emulsified vegetable oil and one percent molasses solution at six injection points using direct-push technologies; implementation of LUCs including engineering controls (i.e., retention of the existing chain-link fence and installation of signage restricting uncontrolled and unauthorized intrusive activities) and institutional controls (i.e. prohibition of residential land use and groundwater use). A five-year review was completed in 2016 and 2022. Remedial action (operations) (RA(O)) including groundwater monitoring, five-year reviews, and LUCs will continue until remedial objectives are met. Because 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 until UU/UE is achieved.

24355.1009_FGGM 17_CLOSED SANITARY Landfill

Env Site ID: FGGM 17

Cleanup Site: CLOSED SANITARY Landfill

Alias: FGGM 17

Regulatory Driver: CERCLA

RIP Date: 10/15/2028

RC Date: 9/30/2058

RC Reason: Not assigned

SC Date: 9/30/2058

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.6

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	11/30/1980	12/31/1992
SI:	11/30/1980	12/31/1992
RI/FS:	9/30/2001	10/15/2026
RD:	10/15/2026	10/15/2027
IRA:	3/31/2020	10/15/2026
RA(C):	10/15/2027	10/15/2028
RA(O):	10/15/2028	9/30/2058
LTM:	- -	- -

Site Narrative: FGGM-17 CSL is located along the southeastern boundary of the installation, south of State Route 32 and adjacent to the Amtrak railroad tracks. The landfill was used for the disposal of mixed residential, commercial, and nonhazardous industrial wastes from 1958 to 1996. The landfill was constructed as an unlined facility with no leachate collection system. It is divided into Cell 1 and Cell 2. Cell 3 was investigated separately under CCFFGM-97. Cells 1 and 2 were capped and closed under Resource Conservation and Recovery Act (RCRA) in 1996 and 1999, respectively. Cap design for both cells included a synthetic liner and a passive gas venting system. A landfill-gas collection and treatment system operate along the eastern edge to control emissions. A semiannual sampling program of groundwater and surface water monitoring is in place under RCRA, as well as a methane gas monitoring program. Arsenic, benzene, and nitrate in the shallow aquifer have routinely exceeded MCLs in groundwater. The presence of benzene in groundwater near the southeastern boundary was delineated in 2013. Arsenic was detected off-post at concentrations exceeding the MCL. An FFS for Cells 1 and 2 was finalized in 2014, which evaluated alternatives for benzene and arsenic at the property boundary. The PP was finalized in 2017; however, USEPA wanted to see remedial data before approving a ROD, so an interim ROD was finalized on March 31, 2021, in order to facilitate the construction of a remedial system, which was part of an interim remedial action (IRA). The RAOs are to prevent human exposure to site-related COCs in shallow groundwater exceeding MCLs or posing potential risk and to remediate site-related MCL exceedances in shallow groundwater beyond the CSL/installation boundary. The preferred RA is air sparging, LUCs, RA(O) of groundwater, and continued post-closure care monitoring of the landfill initiated through RCRA. The air sparging system was started on Dec. 16, 2020, and data from this system will be used to address USEPA concerns and prepare the ROD. A screening-level ecological risk assessment (SLERA) was conducted under FGGM-97 for all three CSL cells. A human health risk assessment (HHRA) and revised PP for all three cells including 24355.1034 are underway. NFA is recommended for ASP1, which is located within the footprint of the CSL. Five-year reviews are expected

including 24355.1034 and 24355.1062. The cost of five-year reviews is included under Pesticide Shop 24355.1007.

24355.1016_FGGM 33_BATTERY SHOP BLDG. 2283

Env Site ID: FGGM 33

Cleanup Site: BATTERY SHOP BLDG. 2283

Alias: FGGM 33

Regulatory Driver: OTHER

RIP Date: 10/15/2026

RC Date: 10/15/2026

RC Reason: Not assigned

SC Date: 10/16/2026

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2026
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: FGGM-33 Battery Shop (former Building 2283) was located in the southeast portion of the installation approximately 500 feet west of the intersection of Morrison Street and Huber Road. FGGM-33 is within the geographic boundary of OU-4. Building T-2283 was formerly used as a motor repair shop or storage facility (from 1941 through 1982) and battery disposal facility (from 1982 through 1992) and was demolished in the mid-1990s. From 1982 through 1985, battery acid was discharged directly to surface soil in a bermed area along the north wall of the former building. After installation of an acid neutralization tank in 1985, treated fluids from the neutralization tank were discharged to the surface at the northern end. In 1987, discharge of battery acid to the tank ended, but battery rinsing, and cleaning operations continued in a sink in the northeast corner of the building; a drainpipe from the sink discharged to the surface soil outside the building. Battery repair and maintenance operations ceased in 1992. FGGM-33 is currently part of a picnic pavilion with grass and tree coverage. The RI concluded that this site is not a contributor to the OU-4 groundwater plume and soils do not pose a risk. Therefore, this site will be included in the OU-4 ROD as NFA. OU-4 groundwater will be addressed within the sites that are primary and secondary contributors to the OU-4 groundwater plume (FGGM 47 and 86, respectively).

24355.1020_FGGM 47_POST LAUNDRY (OPERABLE UNIT 4)

Env Site ID: FGGM 47

Cleanup Site: POST LAUNDRY (OPERABLE UNIT 4)

Alias: FGGM 47

Regulatory Driver: CERCLA

RIP Date: 11/15/2028

RC Date: 9/30/2058

RC Reason: Not assigned

SC Date: 9/30/2058

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.6

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2026
RD:	10/15/2026	10/15/2027
IRA:	3/15/2013	10/15/2026
RA(C):	10/15/2027	11/15/2028
RA(O):	11/15/2028	9/30/2058
LTM:	- -	- -

Site Narrative: FGGM-47 (former Post Laundry facility) is Building 2250, located northeast of the intersection of Rock Avenue and Huber Road. FGGM-47 is part of OU-4. OU-4 includes- FGGM-33 Battery Shop (former Building 2283), FGGM-45 calibration laboratory (Building 2220), FGGM-47 former Post Laundry facility (Building 2250), FGGM-49 Directorate of Logistics Buildings 2286 and 2246, FGGM-51 spill site (Building 2217), FGGM-86 former MP maintenance facility (Building 2286 and 2276), FGGM-88 former tank maintenance facility shop 1 (Building 2207), FGGM-89 former tank maintenance facility shop 2 (Former Building 2217), FGGM-90 former tank cleaning warehouse (Building 2240), FGGM-91 former missile repair shop (Building 2220), FGGM-92 former heavy gun cleaning shop (Buildings 2244, 2245, 2246, 2246D, and 2253). In 2013, an engineering evaluation/cost analysis and action memorandum authorized the non-time critical removal action (NTCRA) to expedite an interim cleanup of the groundwater plume migrating off-post from OU-4 and to address soil impacts at two source areas. Interim removal actions were completed in 2013 and include in situ chemical oxidation at Buildings 2286/2276, air sparging/soil vapor extraction at Building 2250, and a downgradient hydraulic containment of the plume migrating from OU4. Interim removal action reports have been completed for these actions. FGGM-47 (Building 2250) was identified as a source of groundwater contamination at OU-4 and identified as an area of concern (AOC) 2. FGGM-86 (Buildings 2286/2276) is an additional source and identified as AOC 1. An additional in situ chemical oxidation treatment was completed in 2023 at Buildings 2286/2276 to address rebounding of VOC concentrations in groundwater. The OU-4 ROD is expected to include NFA for soils at all sites except for the two source areas (FGGM-97 and 86). Long-term groundwater monitoring and operation and maintenance (O&M) of the treatment systems will continue in accordance with the interim removal work plan and annual reports until a final remedy is determined. Supplemental RI and FS addendums were completed to address USEPA comments and were approved by USEPA on April 22, 2019, and Oct. 7, 2020. A revised PP and ROD are currently underway. The final remedy for groundwater is expected to be continued containment of the OU4 groundwater plume supplemented with additional source treatment at FGGM-47 (Building 2250/AOC 2). Five-year

reviews and LUCs are planned. The cost of five-year reviews is included under Pesticide Shop 24355.1007. Since FGGM-47 is a source area for OU-4 groundwater contamination and will likely require additional soil remediation all future actions associated with the sites in OU-4 will be captured under FGGM-47.

24355.1033_FGGM 83_TRAP AND SKEET RANGE

Env Site ID: FGGM 83

Cleanup Site: TRAP AND SKEET RANGE

Alias: FGGM 83

Regulatory Driver: CERCLA

RIP Date: 9/30/2027

RC Date: 9/30/2027

RC Reason: Not assigned

SC Date: 9/30/2057

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	1/31/1999	5/31/1999
SI:	1/31/1999	5/31/1999
RI/FS:	9/30/1999	9/30/2024
RD:	6/15/2019	11/1/2025
IRA:	- -	- -
RA(C):	11/2/2025	9/30/2027
RA(O):	- -	- -
LTM:	11/3/2027	9/30/2057

Site Narrative: The former Trap and Skeet Range (FGGM-83 and OU-1) was used for recreational purposes from the mid-1970s through 1994. OU-1 is located at the eastern extent of 20th Street, approximately 1,400 feet east of the intersection with State Route 175. Approximately 44 acres of the 66-acre site were used as a trap and skeet range. The former range consisted of a firing line, skeet houses, and a man-made pond. To assess potential exposure to human and ecological receptors at OU-1, HHRA and site-specific SLERA were conducted during the RI. The RI concluded that there was a potential for unacceptable ecological risk in soil and sediment from lead and lead shot; polycyclic aromatic hydrocarbons have been determined to not pose an unacceptable ecological risk. No unacceptable risk to human health exists based on the reasonably anticipated future land use of professional/institutional. An FS was completed and evaluated multiple RA alternatives. A PP and public meeting were completed in 2023. The preferred remedy included soil removal with LUCs. The ROD is currently underway. Future work includes preparing a remedial action work plan (RAWP)/decision document (DD) and removal action report (RAR). Soil removal, five-year reviews and LUCs are anticipated.

24355.1034_CCFGGM-97_Cell 3

Env Site ID: CCFGGM-97

Cleanup Site: Cell 3

Alias: CCFGGM-97

Regulatory Driver: CERCLA

RIP Date: 10/15/2028

RC Date: 9/30/2058

RC Reason: Not assigned

SC Date: 9/30/2058

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.6

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	9/15/1990	9/15/1991
SI:	9/15/1991	9/15/1992
RI/FS:	8/15/2013	10/15/2026
RD:	10/15/2026	10/15/2027
IRA:	9/25/2015	9/30/2020
RA(C):	10/15/2027	10/15/2028
RA(O):	10/15/2028	9/30/2058
LTM:	- -	- -

Site Narrative: The CSL Cell 3 (CCFGGM-97) was closed in 1976 with the placement of a two-foot soil cover (AEHA 1990). The 2007 groundwater RI for the CSL included limited trenching and sampling but did not evaluate Cell 3 in its entirety; thus, a comprehensive RI was conducted. Additionally, the Cell 3 RI includes a SLERA for all three CSL cells. Data collection activities were completed in 2016 to determine the lateral extent, thickness of existing soil cover, the volume and quantity of stockpiled soil, and the topography of Cell 3. The waste boundary of Cell 3 encompasses approximately 38 acres. The results of the baseline HHRA and the SLERA (RI/FS) indicate that there are no unacceptable risks to human health and the environment under current and future land use scenarios. However, buried waste remains in place at Cell 3, prohibiting unrestricted land use. An RI/FS was finalized on Oct. 29, 2020, which identified failures in the soil cover. Maintenance of this soil cover was conducted as part of an IRA and completed in September 2020. An HHRA is underway, and a PP/ROD will be completed presenting the proposed and selected remedial alternatives for Cell 3 and will be included as part of the final ROD for the CSL including Cells 1 and 2 under FGGM-17 (24355.1009). The eastern portion of Cell 3 is currently used for the soil stockpile, and the western portion is used as a contractor staging and storage area. Groundwater monitoring will be conducted under the CSL site. LUCs and five-year reviews are anticipated and will be included under 24355.1009.

24355.1036_FGGM 86_MOTORPOOL FAC (OPERABLE UNIT 4)

Env Site ID: FGGM 86

Cleanup Site: MOTORPOOL FAC (OPERABLE UNIT 4)

Alias: FGGM 86

Regulatory Driver: CERCLA

RIP Date: 11/15/2029

RC Date: 9/30/2059

RC Reason: Not assigned

SC Date: 9/30/2059

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2026
RD:	10/15/2026	10/15/2027
IRA:	3/15/2013	10/15/2026
RA(C):	10/15/2028	11/15/2029
RA(O):	11/15/2029	9/30/2059
LTM:	- -	- -

Site Narrative: FGGM-86 Motor Pool Maintenance Facility (Building 2286) is located north of Morrison Street and is within the geographic boundary of OU-4. FGGM-86 consists of Building 2286 and former buildings 2285 and 2290. Past operations included vehicle painting, sheet metal stamping, and battery charging, which resulted in elevated levels of VOCs in the groundwater including PCE and trichloroethylene (TCE). FGGM-86 is currently used for storage and administration. FGGM-86 was identified as a contaminant source area and a contributor to the groundwater plume at OU-4. Therefore, 2013 interim removal actions were focused on this location and consisted of in situ chemical oxidation. This area is also identified as AOC 1. Downgradient groundwater from this location is further treated utilizing a groundwater extraction, treatment, and reinjection system (identified as AOC 3). This site will be included in the OU-4 ROD and although the RI concluded that this site is an OU-4 contaminant source area, no unacceptable risk exists for soils and NFA is expected. FGGM-47 is also a source area for OU-4 groundwater contamination and likely will require additional soil remediation, therefore, all actions for future OU-4 phases will be captured in FGGM-47 (24355.1020). An additional in situ chemical oxidation treatment is scheduled for 2022 at Buildings 2286/2276 to address rebounding of VOC concentrations in groundwater.

24355.1037_FGGM 87_NIKE CONTROL SITE (OU-3)

Env Site ID: FGGM 87

Cleanup Site: NIKE CONTROL SITE (OU-3)

Alias: FGGM 87

Regulatory Driver: CERCLA

RIP Date: 1/2/2029

RC Date: 9/30/2058

RC Reason: Not assigned

SC Date: 9/30/2058

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	12/31/1998	2/28/1999
SI:	12/31/1998	2/28/1999
RI/FS:	7/31/2003	9/30/2025
RD:	11/1/2025	11/1/2026
IRA:	- -	- -
RA(C):	11/2/2026	1/1/2029
RA(O):	1/2/2029	9/30/2058
LTM:	- -	- -

Site Narrative: The Nike Control Site (FGGM-87 and OU-3) is a former missile master complex that supported the Nike missile program from 1955 to 1972. The COCs identified in previous investigations include arsenic, cobalt, and TCE in groundwater, and bis (2-ethylhexyl phthalate) (BEHP) in soil. TCE was also detected in surface water from an intermittent creek at concentrations below water quality criteria. An HHRA and SLERA concluded that contaminants of potential concern in surface and subsurface soils have minimal potential for impact to receptors. BEHP was eliminated as a risk by the previous RI but remains a regulator concern. A SLERA was performed on sediment samples from the intermittent creek and no unacceptable risk to ecological receptors was identified. Data gap actions were completed to address outstanding regulatory comments, including 1) baseline groundwater sampling; 2) additional groundwater monitoring wells and subsurface soil samples to delineate the TCE plume; 3) additional soil samples to delineate BEHP soil contamination; and 4) vapor intrusion screening. This data was used to revise the RI/FS and determine the appropriate remedial approach. The RI was finalized in November 2022. The FFS was finalized in 2023. Future work includes preparing a PP/ROD, RAWP/RD and RAR. Monitored natural attenuation, LUCs, and five-year reviews are anticipated.

24355.1038_FGGM 88_TANK MNT FAC. SHOP-1 (OP UNIT 4)

Env Site ID: FGGM 88

Cleanup Site: TANK MNT FAC. SHOP-1 (OP UNIT 4)

Alias: FGGM 88

Regulatory Driver: CERCLA

RIP Date: 10/15/2025

RC Date: 10/15/2025

RC Reason: Not assigned

SC Date: 10/16/2025

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2025
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The former Tank Maintenance Facility Shop-1 (FGGM-88) includes Building 2207 (Solid Waste Management Unit (SWMU) 37, Directorate of Public Works (DPW) Storage and Receiving Warehouse, Building 2201 (DPW Storage and Supply Warehouse), Building 2206 (thrift store), Building 2205 (storage building), and Building 2200 (metal canopy for outdoor storage). Constructed in 1918, Building 2207 was used as a tank maintenance facility prior to 1973. Since at least the mid-1980s it has been used by the DPW as a receiving and storage facility. The grounds are also used for storing construction materials, non-PCB-containing transformers, and fluorescent light bulbs. Records indicate that a spill occurred from a transformer in the yard; however, the material was tested, and no PCBs were found. FGGM 88 is located in the geographic boundary of OU-4 and is being addressed as part of OU-4. An interim removal action was completed for OU-4, and associated LTM and O&M activities continue. FGGM-88 (Former Tank Maintenance Facility Shop–1, Building 2207) is located southwest of the intersection of 1st Street and Chisholm Avenue. FGGM-88 is within the geographic boundary of OU-4 and is being addressed as part of OU-4 under FGGM-47. The RI concluded that this site is not a contributor to the OU-4 groundwater plume and soils do not pose a risk. Therefore, this site will be included in the OU-4 ROD as NFA. OU-4 groundwater will be addressed within the sites that are primary and secondary contributors to the OU-4 groundwater plume (FGGM 47 and 86, respectively).

24355.1039_FGGM 89_TANK MAIN. FAC. SHOP-2 (OU-4)

Env Site ID: FGGM 89

Cleanup Site: TANK MAIN. FAC. SHOP-2 (OU-4)

Alias: FGGM 89

Regulatory Driver: CERCLA

RIP Date: 10/15/2025

RC Date: 10/15/2025

RC Reason: Not assigned

SC Date: 10/16/2025

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2025
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: FGGM-89 (former Tank Maintenance Facility Shop–2, former Building 2217) is located on 2nd Street between Pepper Road and Chisholm Avenue. FGGM-89 is within the geographic boundary of OU-4. Former Building 2217 was located in the southeast corner of the site with a former washrack (SWMU 41), and oil/water separator (OWS) (SWMU 40) located in the northwest corner of the site. Constructed in 1918, Building 2217 was used as a tank maintenance facility until 1973. The building was used to store military vehicles, equipment, and small motors. The associated washrack was used to wash vehicles and construction equipment; waste wash water was discharged to the OWS and then to the sanitary sewer system. In 1999 or 2000 the washrack and OWS were demolished and removed. No permanent structures are located on-site, and the property is currently used for storage of vehicles and equipment. The RI concluded that this site is not a contributor to the OU-4 groundwater plume and soils do not pose a risk. Therefore, this site will be included in the OU-4 ROD as NFA. OU-4 groundwater will be addressed within the sites that are primary and secondary contributors to the OU-4 groundwater plume (FGGM 47 and 86, respectively).

24355.1040_FGGM 90_TANK CLEANING SUPPLY (OP UNIT 4)

Env Site ID: FGGM 90

Cleanup Site: TANK CLEANING SUPPLY (OP UNIT 4)

Alias: FGGM 90

Regulatory Driver: CERCLA

RIP Date: 10/15/2025

RC Date: 10/15/2025

RC Reason: Not assigned

SC Date: 10/16/2025

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2025
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: FGGM-90 (former Tank Cleaning Supply Warehouse, Building 2240) is located in the northwest corner of the intersection of Pepper Road and Rock Avenue. FGGM-90 is within the geographic boundary of OU-4. The complex includes Building 2240 (SWMUs 45, 46), Building 2241 (SWMUs 47, 48), Building 2242 (SWMUs 49, 50), Buildings 2243, 2247, and 2248 (SWMUs 51, 52) and Building 2249 (SWMUs 53, 54). Building 2240 is a separate single-story brick structure. Buildings 2241, 2242, and 2243 are connected in sequence and are elevated on wooden piers. Buildings 2247, 2248, and 2249 are smaller, wooden garage-type structures located behind the larger buildings. Building 2240 has been used as a storage and supply facility since its construction in 1934. Buildings 2241 and 2242 were constructed in 1918 and used for receiving and short-term storage of supplies and materials before shipping. Buildings 2247, 2248, and 2249, are currently being used for assorted military administrative/commercial/storage activities. The RI concluded that this site is not a contributor to the OU-4 groundwater plume and soils do not pose a risk. Therefore, this site will be included in the OU-4 ROD as NFA. OU-4 groundwater will be addressed within the sites that are primary and secondary contributors to the OU-4 groundwater plume (FGGM 47 and 86, respectively).

24355.1041_FGGM 91_MISSILE REPAIR SHOP (OP UNIT 4)

Env Site ID: FGGM 91

Cleanup Site: MISSILE REPAIR SHOP (OP UNIT 4)

Alias: FGGM 91

Regulatory Driver: CERCLA

RIP Date: 10/15/2025

RC Date: 10/15/2025

RC Reason: Not assigned

SC Date: 10/16/2025

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2025
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: FGGM-91 (former Missile Repair Shop, Building 2220 / SWMU 42) is located approximately 150 feet north of the intersection of 2nd Street and Pepper Road. FGGM-91 is within the geographic boundary of OU-4 and was identified as a site by the building's use as a Missile Repair Shop and SWMU 42. Building 2220 was constructed in the late-1950s or early-1960s as an electronic maintenance shop and equipment calibration laboratory then used as a warehouse and troop training center. In the late-1960s, the building was a missile repair shop using solvents and producing solvent waste as SWMU 42. No hazardous chemicals are currently in use at the facility. Building 2220 is currently used for storage and administration. The OU-4 RI concluded that this site is not a contributor to the OU-4 groundwater plume and soils do not pose a risk. Therefore, this site will be included in the OU-4 ROD as NFA. OU-4 groundwater will be addressed within the sites that are primary and secondary contributors to the OU-4 groundwater plume (FGGM 47 and 86, respectively).

24355.1042_FGGM 92_HEAVY GUN CLEAN/REPAIR (OU-4)

Env Site ID: FGGM 92

Cleanup Site: HEAVY GUN CLEAN/REPAIR (OU-4)

Alias: FGGM 92

Regulatory Driver: CERCLA

RIP Date: 10/15/2025

RC Date: 10/15/2025

RC Reason: Not assigned

SC Date: 10/16/2025

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	5/31/1990	6/30/1990
SI:	5/31/1990	6/30/1990
RI/FS:	8/31/1991	10/15/2025
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: FGGM-92 (former Heavy Gun Cleaning and Repair facility) is located by Pepper and Huber Roads. FGGM-92 is within the geographic boundary of OU-4. FGGM-92 includes Buildings 2246 and 2253. The maintenance facility includes two main structures, Building 2246 (SWMUs 55-56) and two smaller structures, buildings 2244 and 2245. Building 2246 includes a wing containing vehicle service bays. A washrack (SWMU 58) and associated OWS (SWMU 57) are at the southwest side of Building 2246D. Building 2246 has been used as a warehouse and vehicle and equipment maintenance facility since 1934. From 1934 until the mid-1980s it was used as a heavy gun repair shop. A portion of the building is also believed to have been used as a tank repair shop. The facility currently provides all levels of maintenance and repair of heavy equipment and base vehicles. Building 2253 was constructed in 1934, and has been used for administration, vehicle maintenance, as a warehouse, and for the storage and maintenance of grounds-keeping equipment and supplies (e.g., tractors, gas cylinders). The FGGM-92 current use is industrial and administrative. The RI concluded that this site is not a contributor to the OU-4 groundwater plume and soils do not pose a risk. Therefore, this site will be included in the OU-4 ROD as NFA. OU-4 groundwater will be addressed within the sites that are primary and secondary contributors to the OU-4 groundwater plume (FGGM 47 and 86, respectively).

24355.1043_FGGM 93_MANOR VIEW DUMP SITE

Env Site ID: FGGM 93

Cleanup Site: MANOR VIEW DUMP SITE

Alias: FGGM 93

Regulatory Driver: CERCLA

RIP Date: 8/19/2020

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.4

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/2003	2/28/2003
SI:	3/31/2003	4/30/2003
RI/FS:	7/31/2003	9/30/2014
RD:	3/15/2014	10/15/2014
IRA:	1/31/2005	3/14/2013
RA(C):	10/16/2014	8/19/2020
RA(O):	8/19/2020	9/30/2054
LTM:	- -	- -

Site Narrative: FGGM-93 Manor View Dump Site is in the northern portion of FGGM bounded by residential housing and an open field to the north, 2nd Corps Boulevard to the south, Hayden Drive to the west, and Manor View Elementary School to the east. Landfilled material originating from the 1940s was discovered in 2003 during excavation activities associated with the housing privatization initiative. Methane generating waste (MGW) was determined to occupy an approximately one-acre area confined to the western portion of the site. Methane was consistently observed at concentrations exceeding the lower explosive limit (LEL) in this area. An NTCRA was conducted in 2012, which included the excavation and off-site disposal of approximately 27,700 tons of nonhazardous MGW and soil. The remaining approximate nine acres of the site contains construction and demolition debris/fill beneath a vegetative soil cover approximately 2- to 8-feet thick. The RA completion report summarizes the implementation of the selected remedy to address unacceptable risk for future use scenarios due to COCs in groundwater, soil, and indoor air, and the remaining buried waste. The remedy selected within the ROD was maintenance of existing soil cover, LUCs, and groundwater monitoring was implemented in 2014 and includes annual monitoring of COCs in groundwater (i.e., arsenic, cadmium, chromium, cobalt, lead, selenium, thallium, TCE, and vinyl chloride); annual monitoring of soil gas for methane; annual monitoring of indoor air in the crawl space at Manor View Elementary. Building renovations occurred at Manor View Elementary in 2019, sealing off the crawl space from outside fresh air, which caused soil vapors to build up. From Aug. 17-19, 2020, a membrane was installed with a sub-membrane depressurization system in the crawl space to extract soil vapors. The explanation of significant differences associated with this system installation was signed in 2021. RA(O) will commence in accordance with the selected remedy to include annual site inspections (SI), maintenance of the soil cover, O&M of depressurization system, and implementation of LUCs. Because 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 until UU/UE is achieved.

24355.1053_FGGM-95_LANDFILL SITES (Former)

Env Site ID: FGGM-95

Cleanup Site: LANDFILL SITES (Former)

Alias: FGGM-95

Regulatory Driver: CERCLA

RIP Date: 10/1/2027

RC Date: 9/30/2057

RC Reason: Not assigned

SC Date: 9/30/2057

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	6/30/2004	12/31/2007
SI:	6/30/2009	10/15/2020
RI/FS:	9/25/2015	10/15/2024
RD:	10/16/2024	1/31/2025
IRA:	- -	- -
RA(C):	2/1/2025	9/30/2027
RA(O):	10/1/2027	9/30/2057
LTM:	- -	- -

Site Narrative: FGGM-95 (former Landfill Sites) includes area of interest (AOI) where data from the 2007 preliminary assessment (PA)/SIand other studies identified site features indicative of past landfill and related activities. These AOIs have been combined into a single site (FGGM-95) due to their proximity and/or similarity in contaminants and affected media. The USEPA approved NFA consensus letters for the following AOIs- possible dump site 1957-C, -D, -F, and -G, possible dump sites 1970, site M parcel 1, 2, 3, 4, 5, 6, 7, 8, and 9, site Y, Taylor Avenue buried drum site, waste storage disposal area 1938, fill 1988, small pit 1952, and Pershing Hill Elementary School burn pit stockpile. Pre-WWII laundry on AOC property is addressed under FGGM-47 (OU-4). The final PA/SI recommended a supplemental site investigation (SSI) be conducted for possible dump site 1957-A, -B, and -E. The final SSI report 1 recommended NFA for possible dump site 1957-A, and USEPA approval was received. The final SSI report 2 recommended NFA for possible dump site 1957-B and possible dump site 1957-E (burning waste site) and was approved by USEPA. The only remaining AOI that could not be closed in the SI phase is inactive landfill 4 (IAL4), which will progress through Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). IAL4 is approximately two acres and was used from the 1950s until 1970 for the disposal of rubble. The site is currently an undeveloped wooded area located in the southwestern portion of the installation along Route 32. An RI/FS for inactive landfill 4 (IAL4) was finalized on June 12, 2020. A PP and public meeting were completed in 2021. The ROD is under preparation and anticipated in 2024. The selected remedy includes excavation of the majority of waste with a capping of remaining waste located next to Route-32 followed by LUC, cap maintenance, and groundwater monitoring. Because 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 until UU/UE is achieved.

24355.1054_FGGM-96_MOTOR POOLS_WASHRACKS_BLDGS (FMR

Env Site ID: FGGM-96

Cleanup Site: MOTOR POOLS_WASHRACKS_BLDGS (FMR

Alias: FGGM-96

Regulatory Driver: CERCLA

RIP Date: 10/1/2028

RC Date: 10/1/2028

RC Reason: Not assigned

SC Date: 10/2/2028

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	9/30/2004	12/15/2014
SI:	6/30/2009	10/15/2021
RI/FS:	10/1/2021	10/1/2028
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: FGGM-96 (former Motor Pools, Washracks, and Buildings) includes AOIs identified from the Army SWMU study and the 1990s USEPA historic aerial photograph study of the installation. These AOIs have been combined into a single site (FGGM-96) for motor pools, washracks, vehicle service and staging areas, and buildings where chemical storage and releases may have occurred. A summary of each AOI, including those previously approved by the USEPA for NFA, can be found in the annual site management plan update. The final PA/SI recommended an SSI be conducted for several AOIs. The final SSI report 1 recommended NFA for the following AOIs- Buildings 546, 940, 2630, 2728, (8549, 8550, 8551), 9581 MP-1/WR4, MP-6, MP-8, and MP-17, which was subsequently approved by the USEPA. The final SSI report 2 recommend NFA for- Buildings 2490, 2724, (2810, 2811, 2832), 4680, MP-5, and MP-9, which was also approved by the USEPA. A third SSI report recommended closing the remaining AOIs including- Buildings 100 7/MP15/WR0, 2120c, 2128, (2227, 2224), 2482, 2501, 4411, 8485, 8486, Chisholm Avenue and 6th St, former incinerator Building 1943, MP-7/WR6, MP-10, MP-11/WR7, MP-12/WR8, MP-13/WR9, MP-18/WR12, and stained soils at 3rd St. USEPA agreed with closure of each AOI except for the following (Buildings 2227 and 2224, stained soils along 3rd Street, Building 2501, Chisholm Avenue and 6th Street, and MP-7/WR6) due to the presence of cobalt in groundwater. These AOIs will be combined into one site and proceed to an RI/FS and through CERCLA. This site will represent all future cobalt site investigations and cleanup activities.

24355.1055_FGGM-105_PFAS

Env Site ID: FGGM-105

Cleanup Site: PFAS

Alias: #

Regulatory Driver: CERCLA

RIP Date: 2/2/2029

RC Date: 2/2/2029

RC Reason: Not assigned

SC Date: 2/3/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 52.6

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	5/21/2018	5/13/2019
SI:	5/14/2019	8/15/2022
RI/FS:	1/3/2022	2/2/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Per- and polyfluoroalkyl substances (PFAS) are widely used chemicals found in aqueous film forming foam for testing, training, firefighting, and other life-saving emergency responses. At the direction of the Assistant Chief of Staff for Installation Management, a PFAS site was created to track PFAS specific costs. A PA/SI is underway to identify releases to the environment at the installation. PFAS are the contaminant of concern and groundwater, surface water, subsurface soil and sediment are the media of concern. The PA was completed in 2019 and found 11 possible areas of potential interest (AOPI) where PFAS contamination is suspected to be present. After moving into the SI phase in 2020, it was determined that only five sites either have exceeded the Office of Secretary of Defense (OSD) defined screening levels for PFAS constituents in groundwater, and/or have data supporting further investigation. A 2022 Office of the Assistant Secretary of Defense rescreening resulted in all 11 AOPIs will move forward to begin an RI.

24355.1046_FGGM-003-R-01_MORTAR RANGE

Env Site ID: FGGM-003-R-01

Cleanup Site: MORTAR RANGE

Alias: FGGM-003-R

Regulatory Driver: CERCLA

RIP Date: 5/20/2014

RC Date: 5/20/2014

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 10

Phase	Start	End
PA:	8/28/2002	6/23/2003
SI:	9/30/2005	4/30/2007
RI/FS:	8/15/2009	9/27/2012
RD:	8/31/2009	5/29/2013
IRA:	- -	- -
RA(C):	8/31/2009	5/20/2014
RA(O):	- -	- -
LTM:	6/15/2014	9/30/2054

Site Narrative: The former Mortar Range Munitions Response Area (MRA) is a former training range and training area located in the west central portion of FGGM. The former Mortar Range MRA (FGGM-003-R) is comprised of the 62-acre mortar area (FGGM-003-R-01) and the 260-acre training area (FGGM-003-R-02) Munitions Response Sites (MRS). The MRA was used as a practice/training mortar range beginning in the early 1920s. Based on the 2011 RI, training was assumed to have ended in the 1940s. During the RI field activities, no munitions and explosives of concern (MEC) (except small arms ammunition) were found. However, a variety of munitions debris from 60 millimeter (mm) and 81mm training mortar rounds, 3-inch stokes training mortar rounds, a training landmine, flares, practice grenades, a dummy grenade, discarded small arms ammunition, and casings from expended small arms ammunition were found. Based on the results of the RI, safety hazards associated with MEC and material potentially presenting an explosive hazard (MPPEH) may exist at the Mortar Range MRA. Although the probability of MEC or MPPEH being encountered is low and slightly different between the two MRSs, the acute nature of the hazard warrants consideration of a munition's response action. Based on the result of HHRA and SLERA, no further investigation or munitions response actions related to MEC are warranted. The RAOs for both MRSs include- control and minimize the potential for contact of receptors with possible MEC at the surface and within the subsurface by controlling the specific exposure pathways identified. The 2012 ROD identified the selected remedy as LUCs with LTM. Annual inspections are required to establish that all on-site LUCs (e.g., signage) are in good condition, to confirm that the land use has not changed, and to confirm through instrument-assisted surface sweep that no MEC/MPPEH/munitions debris has been exposed through erosion or frost heave. The site is an active construction area. A five-year review was completed in 2016 and 2022. 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.

24355.1051_FGGM-007-R-01_Inactive Landfill 2

Env Site ID: FGGM-007-R-01

Cleanup Site: Inactive Landfill 2

Alias: FGGM-007-R

Regulatory Driver: CERCLA

RIP Date: 6/30/2000

RC Date: 6/30/2000

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 10

Phase	Start	End
PA:	5/31/1989	11/30/1989
SI:	5/31/1989	11/30/1989
RI/FS:	11/30/1989	1/31/1998
RD:	1/31/1998	6/30/1998
IRA:	- -	- -
RA(C):	1/31/2000	6/30/2000
RA(O):	- -	- -
LTM:	6/30/2000	9/30/2054

Site Narrative: The 23-acre Inactive Landfill No. 2 (IAL2) is part of the Tipton Maneuver and Buffer Area located immediately south of the Tipton Airfield. Historically, the site was included in the Tipton Airfield Area OU (FGGM-31 and FGGM-85) as part of the Base Realignment and Closure (BRAC) property; however, it was not transferred and remains under FGGM accountability. Other portions of FGGM-31 and FGGM-85 are addressed by BRAC. Historical aerial photographs show that IAL2 was initially operated as a soil borrow area from 1938 and 1943. According to the 1989 enhanced PA report, sometime after 1952 the area was operated as an unlined rubble disposal area that reached its maximum extent by 1963. IAL2 was used sparingly between the years 1963 and 1970 when aerial photographs show the area was being increasingly re-vegetated. A single northwest trending trench was reported visible along the east side of the access road in 1970. Continued disposal activities occurred after 1980 in the northern portion of IAL2 where graded and disturbed areas are visible in 1986. During the RI fieldwork, piles of rubble (brush, concrete, and asphalt debris), which appear to be of more recent origin, were observed in a pond/wetland area on the north side of IAL2. Approximately 10-acres within the fenced area was used for landfill operations. The site could not be cleared of ordinance due to large amounts of rubble debris and wetlands. In 1998 a DD was signed which states that engineering controls, a perimeter fence (with warning signs), be installed around IAL2 and that the fence be inspected annually, and any damage be repaired. To facilitate the annual inspections vegetation around the fence is cleared annually (5 feet inside and outside the fence), as detailed in the 2015 IAL2 site-specific maintenance and repairs report. IAL2 remains undeveloped and is vegetated with grass, shrubs, and mature trees. Regulated wetlands and wetland buffers, other waters of the US, and 100-year floodplains exist on this site. 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.

24355.1061_FGGM-003-R-02_Training Area MRS

Env Site ID: FGGM-003-R-02

Cleanup Site: Training Area MRS

Alias: FGGM-003-R

Regulatory Driver: CERCLA

RIP Date: 5/20/2014

RC Date: 5/20/2014

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: Yes

Hazardous Ranking Score: 54

RRSE: N/A

MRSPP: 10

Phase	Start	End
PA:	1/31/2003	11/30/2003
SI:	12/31/2003	4/30/2007
RI/FS:	4/30/2007	9/27/2012
RD:	8/15/2009	4/29/2013
IRA:	- -	- -
RA(C):	8/15/2009	5/20/2014
RA(O):	- -	- -
LTM:	5/20/2014	9/30/2054

Site Narrative: The former Mortar Range MRA is a former range and training area located in the west-central portion of FGGM. The former Mortar Range MRA (FGGM-003-R) is comprised of the 62-acre mortar area (FGGM-003-R-01) and the 260-acre training area (FGGM-003-R-02) MRSs. This 260-acre training area MRS was used as a training area from the early-1920s to the early-1940s. Five munitions' debris items were found throughout the entire 260-acre training area MRS during the MEC RI fieldwork. These items include practice grenades, an expended flare and a small arms ammunition casings disposal pit. The practice grenades, and expended flare, are indicative of general troop training, and the small arms ammunition casings disposal pit is indicative of disposal. Because the Mortar Range MRS (FGGM-003-R-01) is very similar to this MRS, all CERCLA documents prepared have included this MRS. For more information on the CERCLA process at this MRS and the selected remedy, please refer to FGGM-003-R-01. The site is an active construction area. A five-year review was completed in 2016 and is final and signed in 2022. 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.

24355.1062_CC SITE-01_Fort Meade Closed Sanitary LF

Env Site ID: CC SITE-01

Cleanup Site: Fort Meade Closed Sanitary LF

Alias: CC-SITE-01

Regulatory Driver: RCRA-D

RIP Date: 1/31/1995

RC Date: 1/31/1995

RC Reason: Other

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: Yes

Hazardous Ranking Score: 51.4

RRSE: N/A

MRSPP:

Phase	Start	End
RFA:	1/31/1993	1/31/1994
CS:	1/31/1994	1/31/1995
RFI/CMS:	1/31/1994	1/31/1995
DES:	- -	- -
IRA:	- -	- -
CMI(C):	- -	- -
CMI(O):	- -	- -
LTM:	1/31/1998	9/30/2054

Site Narrative: The landfill is located in the southeast portion of the installation. The landfill is divided into two major cells, each separated by a drainage swale. It is divided into Cell 1 and Cell 2. The landfill does not have a liner or leachate collection system. Groundwater, surface water, and methane monitoring are ongoing. The landfill generates methane, which exceeds the LEL. Methane is controlled with passive gas venting and a methane extraction system, which is installed along the southeastern property boundary to prevent off-site methane migration. Methane monitoring at 18 landfill perimeter monitoring points and system O&M is performed weekly and reported quarterly. In 2008, the methane extraction system blower was replaced to improve the collection efficiency and correct exceedances in monitoring points at the installation boundary. An additional methane extraction well (MCW-1B) was added to the system to control methane migration at the southern boundary. The methane delineation was performed August through November 2009. In fiscal year 2010/2011, system optimization activities were completed including- an automated condensate transfer pump, installation of two additional methane monitoring points, conversion of a passive vent into and active extraction point and installed an electronic methane monitoring point at the system. In November 2013, the blower was replaced and additional modifications to the blower assembly were completed in March 2014. Efforts addressed by Compliance-related Cleanup (CC) will be for the monitoring/reporting/operation and maintenance of the methane extraction system. 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, LTM will continue indefinitely.

SITE SUMMARY

SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
24355.1001	FGGM 03_WATER TREATMENT PLT. BLDG 8688	7/30/2012
24355.1002	FGGM 05_TROOP BOILER PLT (OPERABLE UNIT	9/30/2013
24355.1006	FGGM 11_GAS TRAINING BUILDING (former)	3/15/2015
24355.1008	FGGM 14_HAZARDOUS WASTE STORAGE (former)	9/30/2011
24355.1011	FGGM 19_ADV. WASTEWATER TREATMENT FACILI	6/30/2012
24355.1017	FGGM 36_PHOTO LAB'S BLDG 4553, 6530	4/18/2017
24355.1018	FGGM 37_KIMBROUGH ARMY HOSPITAL	8/27/2020
24355.1019	FGGM 45_CALIBRATION LAB BUILDING 2220	3/1/2021
24355.1021	FGGM 49_DOL BUILDINGS 2286, 2246	3/1/2021
24355.1022	FGGM 51_BUILDING 2217	3/1/2021
24355.1023	FGGM 70_BLDG 6513 INDOOR RANGE	6/12/2018
24355.1024	FGGM 71_BLDG 6512 EX INDR RNG	3/15/2015
24355.1027	FGGM 74_ARCHITECT OF THE CAPITOL	11/15/2017
24355.1028	FGGM 75_USTS PRIOR TO 1984	2/15/2012
24355.1029	FGGM 78_GRANITE NIKE	1/31/2004
24355.1050	PBC at Meade_PBC AT FT. MEADE	2/15/2014
24355.1059	FGGM 101_SITE M PARCEL 8	12/31/2007
24355.1047	FGGM-004-R-01_GRENADE & BAYONET RANGE	4/30/2007
24355.1048	FGGM-005-R-01_PISTOL RANGE A	4/30/2007
24355.1049	FGGM-006-R-01_PISTOL RANGE B	4/30/2007
24355.1063	CC SITE-02_Buried Drum Site - Taylor Ave	9/30/2009
24355.1064	CC SITE-03_Buried UST Site-grassy area b	3/31/2007
24355.1065	CC SITE-04_Buried UST Site-grassy area b	3/31/2007
24355.1066	CC SITE-05_Former Motor Pool 2	3/31/2009
24355.1067	CC SITE-06_Former Motor Pool 19 and Wash	3/31/2009

COMMUNITY INVOLVEMENT

Community Involvement Plan (Date Last Reviewed):	8/13/2021
Technical Review Committee Establishment Date:	N/A
Restoration Advisory Board (RAB) Establishment Date:	4/30/1995
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Reasons for Not Establishing RAB:	N/A
RAB Date of Solicitation from Community:	N/A
RAB Results of Solicitation:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A
Administrative Record Location:	Fort Meade Environmental Division, 4216 Roberts Avenue, Fort Meade, Maryland 20755
Information Repository Location:	Fort Meade Environmental Division, 4216 Roberts Avenue, Fort Meade, Maryland 20755, and Odenton Library, 1325 Annapolis Road, Odenton, Maryland 21113

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
Completed	FYR	3/31/2015	9/28/2016	N/A	N/A	N/A
Completed	FYR	9/30/2020	7/26/2022	N/A	N/A	For FGGM-93, a protectiveness determination of the remedy cannot be made at this time until further information is obtained. Remedies for all other sites remain protective of human health and the environment. Recommendation: Conduct air sampling within the crawl space of the Manor View Elementary School to evaluate the potential for vapor intrusion of the school and perform system performance monitoring of the SDS to assess system performance.