Perfluorooctane Sulfonate and Perfluorooctanoic Acid at Base Realignment and Closure Locations



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Office of the Under Secretary of Defense for Acquisition and Sustainment

The estimated cost of this report or study for the Department of Defense is approximately \$3,750 in Fiscal Years 2022. This includes \$1,390 in expenses and \$2,360 in DoD labor.

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Appendix A: The Cleanup Process

I. INTRODUCTION

House Report 116-445, page 29, accompanying H.R. 7609, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2021, requests that the Deputy Assistant Secretary of Defense for Environment submit quarterly reports to the congressional defense committees on the progress the Department of Defense (DoD) is making on identifying and remediating perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) at Base Realignment and Closure (BRAC) locations and recommendations for improving transparency. Additionally, House Report 117-81, page 22, accompanying H.R. 4355, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2022, and the Joint Explanatory Statement accompanying H.R. 2471, the Consolidated Appropriations Act, 2022, request that the Deputy Assistant Secretary of Defense for Environment and Energy Resilience prepare a comprehensive report for the congressional defense committees that establishes a baseline of information regarding PFOS/PFOA at BRAC locations. This report covers all remaining quarterly reports requested for fiscal year 2021 and the baseline of information regarding PFOS/PFOA at closed military installations as requested in the FY2022 reporting language. Specifically, this report includes (1) background on the cleanup process; (2) recommendations for improving transparency in DoD's cleanup process; (3) a list of all BRAC locations; (4) an indication of whether PFOS/PFOA has been detected in drinking water and groundwater; (5) the level of PFOS/PFOA that has been detected; (6) information on the likely sources of PFOS/PFOA; (7) an explanation of current mitigation efforts and proposed remediation plans; (8) the status of remediation; (9) a timeline for cleanup; and (10) an estimate of the current and future costs to investigate and clean up per- and polyfluoroalkyl substances (PFAS) at BRAC locations.

PFOS and PFOA are two chemicals in the larger class of PFAS. PFAS are a national issue that requires national solutions. PFAS are found in everyday consumer items, from nonstick cookware to water-resistant clothing, and in a type of firefighting foam known as "aqueous film forming foam" (AFFF). DoD is one of many users of AFFF, with other major users including commercial airports, the oil and gas industry, and local fire departments. DoD is taking cleanup actions to address PFAS from DoD activities nationwide, including at BRAC locations. DoD's cleanup program follows the federal cleanup law (i.e., the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [CERCLA], also known as "Superfund") to address DoD releases of PFAS. CERCLA provides a consistent national approach for addressing cleanup.

II. THE CLEANUP PROCESS

DoD conducts investigations and takes other actions under CERCLA at active military installations, Formerly Used Defense Sites properties, BRAC locations, and National Guard facilities where there are known or suspected DoD releases of PFAS. DoD's plan for cleanup consists of following CERCLA to investigate releases, prioritize responses, and determine appropriate cleanup actions based on risk to human health and the environment. Refer to Appendix A for additional information about the cleanup process.

III. TRANSPARENCY

DoD works in collaboration with regulatory agencies, communities, and other stakeholders throughout the CERCLA process, as discussed in Appendix A. The Department is engaged in several initiatives to ensure it communicates its efforts to address PFAS in a consistent, open, and transparent manner. For example, DoD maintains a DoD PFAS website (https://www.defense.gov/pfas/) to provide the public with access to PFAS-related information. DoD also developed PFAS Snapshots for installations where PFOS/PFOA sampling results exceeded the U.S. Environmental Protection Agency's (EPA's) lifetime drinking water Health Advisories (HAs) of 70 parts per trillion in DoD-owned and operated on-base drinking water, off-base drinking water, and/or groundwater that is not consumed as drinking water. DoD then posted these PFAS Snapshots on a publicly available website (https://www.denix.osd.mil/dod-pfas/index.html). Additionally, the DoD Components maintain websites that provide information about their efforts to address PFAS.

Moving forward, the Department will continue to engage in initiatives to ensure it effectively communicates with regulatory agencies, communities, and other stakeholders. DoD will also continue working to improve its publicly available PFAS websites to provide PFAS information more readily to members of the Armed Forces, their families, and the surrounding communities.

IV. PFOS/PFOA DETECTIONS; REMEDIATION PLANS, STATUS, AND TIMELINES; AND MITIGATION EFFORTS

Appendix B lists the 239 BRAC locations where the Department has conducted or is conducting cleanup under CERCLA. As of the end of Fiscal Year (FY) 2021, DoD has determined that 115 of these locations (48 percent) require an assessment of PFAS use or potential release. For each BRAC location DoD has assessed or is assessing, Appendix B provides the highest validated detections of PFOS/PFOA in drinking water and groundwater for those locations where DoD detected PFOS/PFOA above the method reporting limit. Where there was PFOS/PFOA in drinking water above EPA's drinking water HAs resulting from DoD activities, the Department immediately took actions to address the drinking water exposure. These actions include providing bottled water, point-of-use water filters, municipal connections, and filtration systems. As of the end of FY 2021, the DoD Components detected PFOS/PFOA in drinking water above EPA's HAs from DoD activities at 13 of the BRAC locations (11 percent) being assessed. The DoD Components implemented short- and long-term actions at all 13 locations, ensuring that no one – on or off base – is drinking water above EPA's lifetime HAs where DoD is the known source.

To satisfy the request for site remediation plans and timelines, mitigation efforts, and the status of cleanup, Appendix B includes the current investigation phase(s), actual and projected phase start date(s), and projected phase completion date(s) for the 115 BRAC locations being assessed as of the end of FY 2021. This appendix also identifies the BRAC locations where no further action is required. Additionally, Appendix B shows where the DoD Components have implemented a removal action to quickly address PFOS/PFOA in drinking water over the HA from DoD activities. A removal action typically does not provide a final response action, and the

site will continue through the CERCLA remedial process following completion of the removal action.

V. LIKELY SOURCES OF PFAS RELEASE

The DoD Components followed a comprehensive approach to compile the list of BRAC locations where DoD may have used or potentially released PFAS. These sites include fire training areas, aircraft crash sites, aircraft hangars, and AFFF spray test areas.

VI. ESTIMATED CURRENT AND FUTURE COSTS

Through the end of FY 2021, DoD has obligated approximately \$431.9 million to investigate and clean up PFAS at BRAC locations, as shown in Appendix B. Appendix B also shows that DoD anticipates obligating \$82.9 million in FY 2022, and an additional \$1.35 billion after FY 2022, to continue these efforts. DoD expects this estimate to increase as the DoD Components complete the initial assessments and learn more about the extent of the cleanup required. The Department will plan and program for these requirements as they are defined.

The funding data presented in Appendix B represents a snapshot in time of the obligations and estimated costs to investigate and clean up PFAS at BRAC locations as of September 30, 2021. The DoD Components developed the cost estimates prior to the enactment of the FY 2022 Appropriations Act, which may affect their planned obligations. Additionally, DoD does not track funding by contaminant, and the cost data in Appendix B represents the DoD Components' best estimates of the funding obligated through FY 2021, and to be obligated in FY 2022 and beyond, for investigations and cleanup of DoD releases of PFAS. However, the Department of Defense Base Closure Account is adequately funded to pursue all executable remediation activities in FY 2022.

VII. CONCLUSION

DoD is taking action under CERCLA to address PFAS releases from DoD activities at BRAC locations. The Department identified 115 BRAC locations requiring an assessment of PFAS use or potential release to determine what future cleanup activities, if any, are required; no further action is required at 11 percent of these locations. DoD has obligated \$431.9 million through the end of FY 2021 and plans to obligate \$82.9 million in FY 2022 to address its PFAS releases at BRAC locations. The Department plans to obligate an additional \$1.35 billion after FY 2022 to address PFAS releases, based on information available as of the end of FY 2021. DoD expects this estimate to increase as the DoD Components complete the initial assessments and learn more about the extent of the cleanup required. The Department will plan and program for these requirements as they are defined.

Background

The Department of Defense (DoD) conducts investigations and takes other actions under the federal cleanup law (i.e., the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [CERCLA], also known as "Superfund") at active military installations, Base Realignment and Closure (BRAC) locations, and National Guard facilities where there are known or suspected DoD releases of per- and polyfluoroalkyl substances (PFAS). DoD's plan for cleanup consists of following the CERCLA process to investigate releases, prioritize responses, and determine appropriate cleanup actions based on risk to human health and the environment. The Defense Environmental Restoration Program (10 U.S. Code §§ 2700-2711) provides authorities to DoD to perform and fund these actions and requires that they be carried out in accordance with CERCLA. The steps in the CERCLA process include the following:

- Preliminary Assessment/Site Inspection (PA/SI)
- Remedial Investigation/Feasibility Study (RI/FS)
- Remedial Design (RD)/Remedial Action-Construction (RA-C)
- Remedial Action-Operation (RA-O)
- Long-Term Management (LTM)

In addition to the steps listed above, CERCLA can include short-term actions called "removal" or "interim" actions, which DoD conducts to address contaminants quickly to prevent, minimize, or mitigate damage to public health or welfare or to the environment. Removal actions can occur at any time during the CERCLA process. If there is drinking water exposure to perfluorooctane sulfonate/perfluorooctanoic acid (PFOS/PFOA) above the U.S. Environmental Protection Agency's (EPA's) lifetime Health Advisories (HAs) of 70 parts per trillion on or off base resulting from DoD activities, the Department initiates short-term actions (e.g., providing bottled water, point-of-use water filters) and long-term actions (e.g., municipal connections, filtration systems) so that no one – on or off base – is drinking water that is above EPA's lifetime HAs. Typically, a removal action does not provide a final response action, and the site will continue through the CERCLA remedial process after completion of the removal action.

DoD tailors the actual sequence, timing, and scope of cleanup actions to site-specific conditions. Additionally, the Department prioritizes resources and addresses sites where risk to human health is the highest. As DoD moves through the CERCLA process, it works in collaboration with regulatory agencies, communities, and other stakeholders to ensure open and transparent information sharing. The following sections explain in more detail DoD's plan for addressing sites impacted by PFAS from DoD activities at BRAC locations.

Preliminary Assessment/Site Inspection (Initial Study Phase)

During the PA, DoD reviews existing information to identify locations where DoD activities may have caused a PFAS release. This phase involves reviewing historical operations, documents, and maps located both on the installations and in national archives, as well as

¹ Sites do not have to progress through all CERCLA phases. For example, no further action may be required at the end of the PA/SI or RI/FS phases. In addition, some sites may not require an RA-O or LTM phase if response actions completed during the RD/RA-C phase are sufficient to clean up the sites.

interviewing Military Service members and civilians who have historical knowledge of the operations that may have contributed to a potential PFAS release. Once completed, the PA identifies sites that may require a CERCLA response action and will continue in the CERCLA process.

The next step in the CERCLA process is to perform an SI on locations identified during the PA to confirm whether a PFAS release occurred. The SI typically involves sampling environmental media, such as soil or groundwater, and collecting and analyzing other data to determine the need for further action. DoD drafts the SI report, provides a copy to regulators for review, and makes the final report available to the public in the information repository located at or near the cleanup site. A typical PA/SI takes approximately one to three years to complete.

Once the DoD Components have information from the PA/SI, they can make informed decisions about which sites need to move to the next phase (i.e., the RI/FS phase). On October 15, 2019, the Department issued clarifying technical guidance to the Military Departments to ensure they consistently use screening levels at DoD cleanup sites to determine if advancing to the RI phase is warranted. DoD is using the same screening number EPA provided in its December 19, 2019, publication titled "Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS." On September 15, 2021, DoD updated its October 15, 2019, memorandum to include EPA's new screening level for perfluorobutanesulfonic acid.

For sites moving to the RI phase, DoD uses the data it gathered during the PA and SI to prioritize further action. DoD follows the federal cleanup law, which includes prioritizing sites for cleanup using a risk-based process — essentially, "worst first." The Department's focus is the health and safety of its men and women in uniform, their families, its civilian workforce, and the communities surrounding its installations. Therefore, DoD addresses sites that pose a greater potential risk to human health or the environment before it addresses sites posing a lesser risk.

Remedial Investigation/Feasibility Study (Detailed Study)

During the RI, DoD collects detailed information through field investigations to characterize site conditions. This phase involves determining the nature and extent of the PFAS (e.g., the PFAS source, how widespread the PFAS are); assessing actual and potential exposure pathways; and evaluating risks to human health (e.g., conducting a human health risk assessment) and the environment. The RI/FS phase typically takes approximately three to six years to complete.

Under EPA's longstanding risk assessment policies, toxicity information is used to determine a site-specific risk-based cleanup level for groundwater that is a current or potential source of drinking water. This includes consideration of EPA's lifetime HA toxicity information when assessing risk to human health under CERCLA during the RI. The National Defense Authorization Act for Fiscal Year 2020 and EPA's December 19, 2019, publication titled "Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS" support this course of action. If PFAS at a site are below the unacceptable risk level, no further work is required.

If PFAS result in an unacceptable risk to human health and the environment based on EPA's risk assessment policies, then DoD will conduct an FS. During the FS, DoD develops, screens, and evaluates remedial cleanup alternatives in detail; assesses the potential performance of each alternative to meet site-specific cleanup goals; and works with regulators to select a permanent solution that is protective of human health and the environment. All cleanup remedy evaluations must be based on an analysis using the nine criteria found in the CERCLA regulations (i.e., National Oil and Hazardous Substances Pollution Contingency Plan [NCP]).²

CERCLA also requires a proposed plan, which summarizes the RI/FS; provides a brief description of the cleanup alternatives evaluated; discusses the rationale that supports the preferred cleanup alternative; and summarizes formal comments received from supporting agencies. After the completion of the proposed plan, and the opportunity for public comment, DoD selects the remedy in the decision document. In the decision document, DoD identifies the final selected cleanup remedy and the cleanup level it is working to achieve, and considers public comments and community concerns. DoD provides the decision document to regulators for review. For sites on EPA's National Priorities List, DoD must obtain regulatory concurrence on the decision document.

Remedial Design/Remedial Action-Construction/Remedial Action-Operation (Cleanup)

During the Cleanup phase, DoD develops the design plans and specifications of the selected cleanup remedy in the decision document, which regulators review, and constructs or implements the selected cleanup remedy. DoD documents that it has constructed and installed the remedy and provides this documentation to the regulators. The RD/RA-C process typically takes approximately two to four years to complete.

After constructing the remedy, DoD operates, maintains, and monitors the cleanup system and site until it achieves the cleanup level(s) in the decision document. The RA-O phase may also include implementation, management, and maintenance of land use controls (LUCs) and may take from 1 to 30 or more years to complete, or in some cases may continue in perpetuity. During this time, DoD optimizes the systems, ensures the systems are operating properly, performs sampling to monitor progress, and verifies that the sites are protective of human health and the environment.

The Department measures cleanup progress against the Response Complete milestone, which occurs when cleanup activities are complete and DoD has documented this determination and sought regulatory agreement (although DoD or a subsequent landowner may continue to monitor the site).

Long-Term Management

Following achievement of the Response Complete milestone, DoD may monitor the long-term protectiveness of the remedy during the LTM phase. The LTM phase is required when the

² The NCP nine criteria include overall protection of human health and the environment; compliance with applicable or relevant and appropriate requirements; long-term effectiveness and permanence; reduction of toxicity, mobility, or volume; short-term effectiveness; implementability; cost; state acceptance; and community acceptance.

cleanup levels do not allow unrestricted use of the property. Actions during this phase may involve monitoring site conditions, implementing and managing LUCs, and performing five-year reviews. DoD closes out a site only when there is no future environmental liability at the site (i.e., when cleanup goals have been achieved that allow for unlimited use and unrestricted exposure). However, not all sites can achieve unlimited use and unrestricted exposure; some may remain in the LTM phase in perpetuity.

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
			PFOS/PFOA:	PFOS/PFOA:				l			
		AL AAB	Determination	Determination	5.4	E)/ 0004 00	E)/ 0000 04	No Removal	440	400	0
Army	Alabama	ALAAP	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	140	420	0
A rmov	Alahama	COOSA RIVER STORAGE ANNEX	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Alabama	ANNEX	Not Applicable PFOS/PFOA:	Not Applicable PFOS/PFOA:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			Determination	Determination				No Removal			
Army	Alabama	Fort McClellan BRAC	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	149	426	0
Army Army	Alaska	FORT GREELY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Alliy	Alaska	TOKT GILLET	PFOS/PFOA:	PFOS/PFOA:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			Determination	Determination				No Removal			
Army	Arkansas	Fort Chaffee	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	148	394	0
Army Army	California	EAST FORT BAKER	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Allily	California	FORT HUNTER LIGGETT	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	California	BRAC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Airiiy	California	Вісло	PFOS/PFOA:	Not Applicable	Not Applicable	140t Applicable	Not Applicable	140t Applicable	140t Applicable	140t Applicable	Not Applicable
			Determination	PFOS: 447				No Removal			
Army	California	Fort Ord	Pending	PFOA: 270	PA/SI	FY 2021 Q1	FY 2023 Q1	Action Planned	564	0	0
, anny	Gamorria	T OIL OIL	PFOS/PFOA:	PFOS/PFOA:	17001	1 1 202 1 0(1	1 1 2020 Q1	7 tottori i idilii od	001	, , ,	Ü
			Determination	Determination				No Removal			
Army	California	Hamilton Airfield	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	20	523	0
,y	- Cambrida	. rammen / minera	PFOS/PFOA:	PFOS/PFOA:	. , ,	112021 02	1 1 2020 Q1	7.00.011 1.0111100		020	Ü
			Determination	Determination				No Removal			
Army	California	Lompoc	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	5	523	0
Army	California	OAKLAND ARMY BASE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		PRESIDIO OF SAN			1.1	''			11	1.1	
Army	California	FRANCISCO	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			PFOS/PFOA:	PFOS/PFOA:					1.	1.	.,
			Determination	Determination				No Removal			
Army	California	Rio Vista	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	67	523	0
				PFOS/PFOA:							
		Riverbank Army Ammunition	PFOS/PFOA:	Determination				No Removal			
Army	California	Plant	<2.0	Pending	PA/SI	FY 2021 Q2	FY 2023 Q1	Action Planned	392	34	0
			PFOS/PFOA:	PFOS/PFOA:							
			Determination	Determination				No Removal			
Army	California	Sacramento Army Depot	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	107	361	0
			PFOS/PFOA:	PFOS/PFOA:							
			Determination	Determination				No Removal			
Army	California	Sierra Army Depot BRAC	Pending	Pending	PA	FY 2020 Q4	FY 2022 Q4	Action Planned	13	394	0
		BENNETT ARNG TRAINING						<u> </u>			
Army	Colorado	SITE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
1		FITZSIMONS ARMY						1			
Army	Colorado	MEDICAL CENTER	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			PFOS/PFOA: Not					No Removal			
Army	Colorado	Pueblo Army Depot BRAC	Detected	Detected	SI	FY 2020 Q2	FY 2022 Q4	Action Planned	371	1,544	0
		FAMILY HOUSING									
Army	Connecticut	BRIDGEPORT NIKE 04	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
		FAMILY HOUSING									
Army	Connecticut	BRIDGEPORT NIKE 15	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Δ	0	FAMILY HOUSING	Nat Amaliaahla	Nat Amalianda	Niet Ammlieskie	Nat Ameliaabla	Nat Applicable	Niet Ameliaebie	Niet Ammliechie	Nict Applicable	Net Ameliashia
Army	Connecticut	BRIDGEPORT NIKE 65	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
A may	Connecticut	FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Connecticut	HARTFORD NIKE 67 FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
A rmy	Connecticut	HARTFORD NIKE 8	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Connecticut	FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Connecticut	MANCHESTER, CT 25	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
/ tilly	Connecticut	FAMILY HOUSING	14017 приновые	140t7 (ppiloable	140t / tppiloable	ТОСТОРИВОВИЕ	140t7 (ppiloable	140t Applicable	Тесттринавис	Тесттринавис	140t7tppiloable
Army	Connecticut	MIDDLETOWN 48	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,y	Commodicat	FAMILY HOUSING MILFORD,	. 1017 (pp.:/oca.o.	7101716611000010		110171000000		110171001100110			
Army	Connecticut	CT 17	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING NEW		- L L				''	1.1	1.1	
Army	Connecticut	BRITAIN, CT 57	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING									
Army	Connecticut	PORTLAND CT 36	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING SHELTON									
Army	Connecticut	CT 74	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING									
Army	Connecticut	WESTPORT CT 73	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Connecticut	MIDDLETOWN USARC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		STRATFORD ARMY ENGINE									
Army		PLANT	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Connecticut	WINDSOR LOCKS USARC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Δ	District of Oslowsk	WALTER REED ARMY	Nat Amaliaahla	Nat Amalianda	Niet Ammlieskie	Nat Ameliaabla	Nat Applicable	Niet Ameliaebie	Niet Ammliechie	Nict Applicable	Net Ameliashia
Army	Florida	MEDICAL CENTER CAPE ST GEORGE	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable
Army	Fioriua	CAFE 31 GEORGE	PFOS/PFOA:	PFOS/PFOA:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			Determination	Determination				No Removal			
Army	Georgia	Fort Gillem	Pending	Pending	PA/SI	FY 2021 Q2	FY 2023 Q1	Action Planned	371	0	0
, u.i.i.y	Coorgia	T OIL GIROTT			No further action is		1 1 2020 Q1	7 totion i lamou	07.1	Ŭ	Ŭ
Army	Georgia	Fort McPherson	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	0	0	0
,		KAPALAMA MILITARY							,		
Army	Hawaii	RESERVATION	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,		SFC MINORU KUNIEDA				· · ·					1
Army	Hawaii	USARC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			·	•							
Army	Illinois	FAMILY HOUSING ADDISON	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Illinois	FAMILY HOUSING WORTH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			PFOS/PFOA:	PFOS/PFOA:							
			Determination	Determination				No Removal			
Army	Illinois	Fort Sheridan	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	150	426	0
			PFOS/PFOA: Not	PFOS: 530	<u>_</u> .			No Removal			
Army	Illinois	Savanna Army Depot	Detected	PFOA: 470	RI	FY 2021 Q4	FY 2023 Q4	Action Planned	1,483	518	0

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
			PFOS/PFOA:	PFOS/PFOA:				No Domond			
A	la dia a	Fart Daniansia Hamisan	Determination	Determination	DA/CI	EV 2024 02	EV 2022 O4	No Removal	407	42	0
Army	Indiana	Fort Benjamin Harrison INDIANA ARMY	Pending	Pending	PA/SI	FY 2021 Q2	FY 2023 Q1	Action Planned	407	42	U
Army	Indiana	AMMUNITION PLANT	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
7 tilly	iridiaria	JEFFERSON PROVING	14017 (рріїоцьіс	14017 приновые	140t / tppiloabic	140t / tppilodbic	140t7tppiloable	140t7tppiloabic	Тесттринавис	140t7tpplioable	140t7 (ppiloable
Army	Indiana	GROUND	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
, arriny	irraidrid	CROONE	PFOS/PFOA:	PFOS/PFOA:	110t7 tppiloabio	11017 (ppiloable	110t7 tppiloable	110t7 tppilodalo	11017 (ppilodbio	11017 (ppiloable	14017 (ppilodbio
			Determination	Determination				No Removal			
Army	Indiana	Newport Chemical Depot	Pending	Pending	PA/SI	FY 2021 Q2	FY 2023 Q1	Action Planned	699	42	0
Army	lowa	FORT DES MOINES	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			PFOS/PFOA:	PFOS/PFOA:	• •		•		•	1	
		Kansas Army Ammunition	Determination	Determination				No Removal			
Army	Kansas	Plant	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	159	256	0
			PFOS/PFOA:	PFOS/PFOA:							
			Determination	Determination				No Removal			
Army	Kentucky	Bluegrass Army Depot BRAC	Pending	Pending	PA/SI	FY 2021 Q2	FY 2023 Q1	Action Planned	774	42	0
		NEW ORLEANS MILITARY									
Army	Louisiana	OCEAN TERMINAL	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING NIKE									
Army	Maryland	WASH BALT 35 CROOM	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Maryland	FORT HOLABIRD	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			DE00/DE04 N. /	5500 10000	5.4.6.	PA/SI: FY 2021	PA/SI: FY 2022				
			PFOS/PFOA: Not	PFOS: 43,000	PA/SI	Q1	Q1	No Removal	4 000	0	200
Army	Maryland	Fort Meade FORT RITCHIE	Detected	PFOA: 3,400	RI	RI: FY 2021 Q4	RI: FY 2025 Q4	Action Planned	1,802	O Net Amplicable	826
Army	Maryland	HARRY DIAMOND	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		LABORATORY									
Army	Maryland	GAITHERSBURG	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Airiy	Maryland	ARMY RESEARCH	Not Applicable	Not Applicable	Not Applicable	140t Applicable	140t Applicable	Not Applicable	140t Applicable	140t Applicable	Not Applicable
		LABORATORY-									
Army	Massachusetts	WATERTOWN	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		ARTHUR MACARTHUR									
Army	Massachusetts	USARC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,			PFOS: 51.7	PFOS: 36.000			.,	Initial Action, Long-term Drinking Water		.,	
Army	Massachusetts	Devens	PFOA: 65.6	PFOA: 3,000	RI	Prior to FY 2020	FY 2024 Q4	Solution	16,290	7,555	43,954
		FAMILY HOUSING								.,,,,,,	,
Army	Massachusetts	BEDFORD 85	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING BEVERLY		11	11 =:-		11	11 272	11	11	
Army	Massachusetts	15	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING									
Army	Massachusetts	BURLINGTON NIKE 84	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING HULL, MA					·				
Army	Massachusetts	36	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
		FAMILY HOUSING NAHANT,					l				
Army	Massachusetts	MA 17	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Δ		FAMILY HOUSING	Nat Ameliaalda	Nat Ammlianda	Nat Ammlianda	Not Applicable	Nat Applicable	Nat Ameliaabla	Niet Ammliechie	Nict Applicable	Nat Ammliaabla
Army	Massachusetts	RANDOLPH 55 FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
A rmv	Massachusetts	SWANSEA 29	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Massachusetts	FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Massachusetts	TOPSFIELD 5	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Allily	พลรรสตานระแร	FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Massachusetts	WAKEFIELD 3	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Massachusetts	HINGHAM ANNEX	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
, umy	Massacriasetts	THE COLUMN AND LESS	PFOS/PFOA:	PFOS/PFOA:	110t7 tppilodolo	11017 (ppiloabio	ттог присавіс	110t7 tppiloabio	ттот тррпоавіо	11017 (ppiloable	110t7 tppiloubio
			Determination	Determination				No Removal			
Army	Massachusetts	Sudbury	Pending	Pending	SI	Prior to FY 2020	FY 2022 Q2	Action Planned	1,505	0	0
,		,	PFOS/PFOA:	PFOS/PFOA:					,	-	-
			Determination	Determination				No Removal			
Army	Michigan	Detroit Arsenal	Pending	Pending	SI	FY 2021 Q2	FY 2023 Q1	Action Planned	0	232	0
	Ĭ	PONTIAC STORAGE	· ·	Ĭ							
Army	Michigan	ACTIVITY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		US ARMY GARRISON-									
Army	Michigan	MICHIGAN	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		MISSISSIPPI ARMY									
Army	Mississippi	AMMUNITION PLANT	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING ST LOUIS									
		AREA SUPPORT CENTER									
Army	Missouri	ANNEX	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Missouri	NIKE KANSAS CITY 30	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Montana	FORT MISSOULA	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Δ	Nieus Iemees	BAYONNE MILITARY OCEAN TERMINAL	Nat Ameliaalda	Nat Ammlianda	Nat Ammlianda	Not Applicable	Nat Applicable	Nat Ameliaabla	Niet Ammliechie	Nict Applicable	Nat Ammliaabla
Army Army	New Jersey New Jersey	CAMP KILMER	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable
Army	New Jersey	CAMP PEDRICKTOWN	Not Applicable	Not Applicable	Not Applicable	Not Applicable Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Ailiy	New delacy	FAMILY HOUSING NIKE NY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	140t Applicable	140t Applicable	140t Applicable	Not Applicable
Army	New Jersey	54 HOLMDEL	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
, umy	now colocy	FAMILY HOUSING NIKE NY	14017 (ppilodolo	11017 tppilodbio	110t7 tppilodolo	11017 (ppiloabio	110t7 (ppilodbio	110t7 tppiloabio	11017 tppilodbio	11017 (ppiloable	140t7 tppiloubio
Army	New Jersey	60 OLD BRIDGE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,		FAMILY HOUSING NIKE NY									
Army	New Jersey	79 80 LIVINGSTON	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING NIKE NY	11	11	11	1, 372	1,	1	11	1,	11
Army	New Jersey	93 94 FRANKLIN LKS	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
ĺ	•	FAMILY HOUSING NIKE	• •		• •						
Army	New Jersey	PHILA 41 43 CLEMENTON	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	New Jersey	FORT DIX BRAC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	New Jersey	FORT MONMOUTH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		SGT J.W. JOYCE KILMER									
Army	New Jersey	USARC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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Army	New Mexico	Fort Wingate	PFOS/PFOA: Determination Pending	PFOS/PFOA: Determination Pending	PA	FY 2021 Q2	FY 2023 Q1	No Removal Action Planned	155	394	0
Army	New Mexico	BELLMORE MAINTENANCE	rending	rending	FA	FT ZUZT QZ	F1 2023 Q1	Action Flameu	100	394	U
Army	New York	FACILITY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	New York	FAMILY HOUSING DRY HILL WATERTOWN	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,		FAMILY HOUSING	71217 4 2 1 1 1 1 1								
Army	New York	MANHATTAN BEACH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Armu	Navy Vanle	FAMILY HOUSING NIKE NY 1 ORANGEBURG	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	New York	FAMILY HOUSING NIKE NY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	New York	25 BROOKHAVEN	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING NIKE NY									
Army	New York	99 SPRING VALLEY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	New York	FORT TOTTEN	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		Seneca Army Ammunition	PFOS/PFOA: Determination	PFOS: 8,300				No Removal			
Army	New York	Plant	Pending	PFOA: 89,000	PA/SI	Prior to FY 2020	FY 2023 Q1	Action Planned	1,955	1,544	0
		USARC NIAGARA FALLS	N A P I.	N. (A . P. 1.1							
Army	New York	(AMSA 5)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	North Carolina	FORT BRAGG RECREATION CENTER #2	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			PFOS/PFOA: Not	PFOS/PFOA: Determination				No Removal			
Army	Oregon	Umatilla Chemical Depot	Detected	Pending	PA	FY 2020 Q2	FY 2023 Q1	Action Planned	139	394	0
,	Ŭ	CHARLES E KELLY		· ·							
Army	Pennsylvania	SUPPORT FACILITY BRAC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING 36 IRWIN									
Army	Pennsylvania	SPT DET ANNEX	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Pennsylvania	FAMILY HOUSING CORAOPOLIS SITE 71	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	i	FAMILY HOUSING		••			• •		•		
Army	Pennsylvania	CORAOPOLIS SITE 72	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Pennsylvania	FAMILY HOUSING PITT 2	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Pennsylvania	FAMILY HOUSING PITT 25 MONROEVILLE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
, unity	i Gillisylvallia	FAMILY HOUSING PITT 3	140t Applicable	140t Applicable	140t Applicable	140t Applicable	140t Applicable	140t Applicable	140t Applicable	140t Applicable	140t Applicable
Army	Pennsylvania	NIKE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Pennsylvania	FAMILY HOUSING PITT 37	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		FAMILY HOUSING PITT 42									
Army	Pennsylvania	NIKE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
1.		FAMILY HOUSING PITT 52				 					[
Army	Pennsylvania	NIKE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Δrmv	Penneylyania	FAMILY HOUSING PITTSBURGH 43	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army Army	Pennsylvania Pennsylvania	FORT INDIANTOWN GAP	Not Applicable Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
1.				PFOS/PFOA: Not				No Removal		_	
Army	Pennsylvania	Letterkenny Army Depot	Detected	Sampled	PA/SI	FY 2021 Q2	FY 2022 Q2	Action Planned	13	0	0
Army	Pennsylvania	N Penn	PFOS/PFOA: 183	PFOS: 33,000 PFOA: 270	RI	FY 2021 Q4	FY 2023 Q4	Long-term Drinking Water Solution	4,396	1,222	0
Army	Pennsylvania	TACONY WAREHOUSE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Puerto Rico	FORT BUCHANAN	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Rhode Island	FAMILY HOUSING DAVISVILLE FAMILY HOUSING NORTH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Rhode Island	SMITHFIELD 99	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Rhode Island	QUINTA-GAMELIN USARC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Tennessee	DDMT	PFOS/PFOA: Determination Pending	PFOS/PFOA: Determination Pending	PA	FY 2021 Q2	FY 2023 Q1	No Removal Action Planned	140	0	0
			PFOS/PFOA: Determination	PFOS/PFOA: Determination				No Removal			
Army	Texas	Lone Star AAP	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	148	394	0
Army	Texas	Red River Army Depot	PFOS/PFOA: Determination Pending	PFOS/PFOA: Determination Pending	PA	FY 2021 Q2	FY 2023 Q1	No Removal Action Planned	148	394	0
A	1.141.	DEFENSE DIST DEPOT OGDEN UTAH	Nat Ameliaabla	Nat Applicable	Nat Applicable	Niet Ammlieshie	Nat Applicable	Not Applicable	Nat Ammliaabla	Nat Ammlianda	Niet Ameliaeleia
Army Army	Utah Utah	FORT DOUGLAS	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable	Not Applicable Not Applicable
Alliy	Otan	TONT BOOGLAS	PFOS/PFOA: Determination	PFOS/PFOA: Determination	Not Арріісавіе	пот дрисавіе	пот Арріісавіе	No Removal	Пот Арріісавіе	Not Applicable	Not Applicable
Army	Utah	Tooele Army Depot	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	156	436	0
Army	Utah	TOOELE ARMY DEPOT SOUTH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Virginia	ARMY RESEARCH LABORATORY- WOODBRIDGE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Virginia	CAMERON STATION	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		DEFENSE MAPPING									
Army	Virginia	AGENCY - HERNDON FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Virginia	MANASSAS FAMILY HOUSING NIKE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Virginia	NORFOLK 85 FAMILY HOUSING	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Virginia	WOODBRIDGE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	, <i>r</i>	F	PFOS/PFOA: Determination	PFOS/PFOA: Determination		E) (0 0 5 1 5 5	E) (0 G =	No Removal			_
Army	Virginia	Fort Monroe	Pending PFOS/PFOA:	Pending PFOS/PFOA:	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	148	426	0
Army	Virginia	Fort Pickett	Determination Pending	Determination Pending	PA	FY 2021 Q2	FY 2023 Q1	No Removal Action Planned	139	426	0

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
			PFOS: 410	PFOS: 450	PA/SI	PA/SI: Prior to FY 2020	PA/SI: FY 2022 Q1				
A rmy	Virginia	Vint Hill Farms	PFOS: 410 PFOA: 1,200	PFOS: 450 PFOA: 1,300	RI	RI: FY 2021 Q4		Initial Action	5,399	3,119	872
Army	viigiilia	VIII IIII FAIIIIS	PFOS/PFOA:	PFOS/PFOA:	NI.	KI. FT 2021 Q4	KI. FT 2025 Q2	Initial Action	5,399	3,119	012
			Determination	Determination				No Removal			
Army	Washington	Camp Bonneville	Pending	Pending	PA	FY 2021 Q2	FY 2023 Q1	Action Planned	n	394	0
7 tilliy	vvasnington	FAMILY HOUSING NIKE	1 chaing	rending	170	112021 02	112023 Q1	7 tottori i i i i i i i i i i i i i i i i i i		004	
Army	Washington	SEATTLE 43 MIDWAY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Zurry	vvasnington	FAMILY HOUSING SEATTLE	14017 (рршоавіс	Not Applicable	Not Applicable	140t7tppiloable	110t/tppiloable	140t7 tppiloable	14017 (ppiloable	140t7tppiloable	ТОТТОРИОВЫС
Army	Washington	NIKE 32 33	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
, umy	vv domington	FORT LAWTON USAR	14017 (ppilodbio	11017 (ppilodolo	110t7 (ppilodolo	110t7 tppilodbio	110t/tppiloable	11017 (ppiloabio	11017 (ppilouble	11017 (ppiloable	11017 (ppilodalo
Army	Washington	COMPLEX	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	Washington	VANCOUVER BARRACKS	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	J	FAMILY HOUSING SUN	''			1.1	1.1	1.1			, ,
Army	Wisconsin	PRAIRIE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Army	N/A	N/A - Program Management				1.		1 1	0	0	0
	•				•	Arr	ny BRAC Fund	ing Subtotals:	38,552	23,398	45,652
			PFOS/PFOA: Not	PFOS: 3,630				No Removal	00,002		10,002
Navy	Alaska	Adak AK NAF	Sampled	PFOA: 716	SI	FY 2020 Q3	FY 2022 Q4	Action Planned	833	0	0
	, maorita		PFOS/PFOA: Not	PFOS: 302.000	SI	SI: FY 2021 Q4	SI: FY 2023 Q4	No Removal			
Navy	California	ALAMEDA NAS	Sampled	PFOA: 35,200	RI	RI: FY 2020 Q4		Action Planned	1,760	100	0
			PFOS/PFOA: Not	PFOS: 2				No Removal	,		
Navy	California	Concord NWS	Sampled	PFOA: 11	SI	FY 2021 Q4	FY 2023 Q4	Action Planned	818	0	0
			·	PFOS/PFOA:							
			PFOS: 3.83	Determination				No Removal			
Navy	California	Crows NALF	PFOA: 50.6	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	217	0	0
			PFOS/PFOA: Not	PFOS: 2,800				No Removal			
Navy	California	El Toro MCAS	Sampled	PFOA: 5,230	SI	Prior to FY 2020	FY 2022 Q1	Action Planned	928	750	0
			PFOS/PFOA: Not	PFOS: 38.2				No Removal			
Navy	California	Hunters Point Annex	Sampled	PFOA: 21.1	PA	Prior to FY 2020	FY 2022 Q1	Action Planned	473	0	0
				PFOS/PFOA:							
			PFOS/PFOA: Not	Determination				No Removal			
Navy	California	Long Beach NS	Sampled	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	30	0	0
1		LONG BEACH NS SAN			l						
Navy	California	PEDRO	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			DE00/DE01	PFOS/PFOA:							
	0 116 .		PFOS/PFOA: Not	Determination		D	=>/	No Removal			
Navy	California	Long Beach NSY	Sampled	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	30	0	0
Na.	Californaio	Mana Jaland NGV	PFOS/PFOA: Not	PFOS: 78.3	D.4	D=== 4= 5\(0000	EV 2000 OC	No Removal	4.070	_	اً
Navy	California	Mare Island NSY	Sampled	PFOA: 124	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	1,072	0	0
			PFOS/PFOA: Not	PFOS/PFOA: Determination	Additional Work will be Combined with Work Being Conducted by Another Federal						
1	California	Moffett Field NAS	Sampled	Pending	Agency	Not Applicable	Not Applicable	Not Applicable	45	0	0

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
		NOVATO DOD HOUSING									
Navy	California	FACILITY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	California	OAKLAND FISC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	California	OAKLAND FISC ALAMEDA ANNEX	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	California	OAKLAND NAVMEDCOM NWREG	Not Applicable	Not Applicable PFOS/PFOA:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	California	Point Molate NFD	PFOS/PFOA: Not Sampled	Determination Pending	PA	FY 2020 Q3	FY 2022 Q2	No Removal Action Planned	30	0	0
ivavy	CalilOffila	FOIRT WORKE NFD	Sampled	reliality	FA	F1 2020 Q3	F1 2022 Q2	Action Flammed	30	U	U
Navy	California	SALTON SEA TEST RANGE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	California	SAN DIEGO NTC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,	- Camorria	0.11.0.00111.0	PFOS/PFOA: Not	PFOS: 30,000	SI	SI: FY 2021 Q4	SI: FY 2023 Q4	No Removal	11017166888	11017.600.000.0	110171000000
Navy	California	Treasure Island NS	Sampled	PFOA: 2,100	RI	RI: FY 2020 Q4		Action Planned	2,671	100	370
,			PFOS/PFOA: Not	PFOS: 41,900				No Removal	,		
Navy	California	Tustin MCAS	Sampled	PFOA: 1,010,000	SI	Prior to FY 2020	FY 2022 Q1	Action Planned	2,502	0	0
Navy	Florida	Cecil Field NAS	PFOS: 3.92 PFOA: Not Detected	PFOS: 980,000 PFOA: 29,000	SI	Prior to FY 2020	FY 2022 Q2	No Removal Action Planned	854	0	0
rtuvy	Tionad	OGGITT TOTAL THE TOTAL	PFOS/PFOA: Not	PFOS/PFOA: Determination	01	1 1101 101 1 2020	T T LULL QL	No Removal	301		, , ,
Navy	Florida	KEY WEST FL NAS	Sampled	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	45	0	0
		ORLANDO NRL UWS REF									
Navy	Florida	DET	Not Applicable	Not Applicable	Not Applicable	Not Applicable PA: Prior to FY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			PFOS/PFOA: Not	PFOS: 84.18		2020		No Removal			
Navy	Florida	Orlando NTC	Sampled	PFOA: 7,241	PA/SI	SI: FY 2020 Q2	FY 2022 Q2	Action Planned	295	0	0
Navy	Guam	Guam Agana NAS	PFOS/PFOA: Not Sampled	PFOS: 45 PFOA: 330	PA	Prior to FY 2020	FY 2022 Q2	No Removal Action Planned	172	_	0
Navy	Guam	GUAM FISC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	Guam	GUAM NAVACTS	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,	-		PFOS/PFOA: Not	PFOS: 11.4	rtot/tpp://daile		110171551100010	No Removal	11017166888	11017.600.000.0	110171000000
Navy	Hawaii	Barbers Point NAS	Sampled	PFOA: 24.1	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	310	0	0
			PFOS/PFOA: Not	PFOS/PFOA: Determination				No Removal			
Navy	Illinois	Glenview NAS	Sampled	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	310	0	0
Navy	Illinois	LIBERTYVILLE TRAINING SITE	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
			PFOS/PFOA: Not	PFOS/PFOA: Determination				No Removal			
Navy	Indiana	Indianapolis	Sampled	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	660	0	0
Ĺ		Louisville Crane Division Det	PFOS/PFOA: Not	PFOS: 26.9				No Removal			
Navy	Kentucky	NOS/NSWC	Sampled	PFOA: 5.1	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	520	0	0
Navy	Maine	Brunswick NAS	PFOS: 10.7 PFOA: 1.9	PFOS: 24,000 PFOA: 15,000	RI	FY 2020 Q3	FY 2023 Q1	No Removal Action Planned	6,262	1,024	12,363

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		Annapolis NSWC Carderock	PFOS/PFOA: Not	PFOS: 42,000				No Removal			
Navy	Maryland	DIV Det	Detected	PFOA: 28,000	RI	Prior to FY 2020	FY 2024 Q4	Action Planned	1,116	0	0
		White Oak- NSWC Dahlgren	PFOS/PFOA: Not	PFOS: 1,230				No Removal			
Navy	Maryland	DIV Det (Silver Spring)	Sampled	PFOA: 135	PA	Prior to FY 2020	FY 2022 Q1	Action Planned	785	0	0
			PFOS: 9.3	PFOS: 195,000	PA	PA: Prior to FY 2020 RI: Prior to FY	PA: FY 2022 Q2	No Removal			
Navy	Massachusetts	South Weymouth NAS	PFOA: 9.9	PFOA: 60,700	RI	2020	RI: FY 2024 Q4	Action Planned	4,624	6,097	22,588
ivavy	Massacriusetts	Coddi Weymoddi We	PFOS/PFOA:	PFOS/PFOA:	141	2020	141. 1 1 202 1 Q 1	7 totion i iamioa	1,021	0,001	22,000
			Determination	Determination				No Removal			
Navy	Midway Islands	MIDWAY ISLAND NAF	Pending	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	45	l n	0
ivavy	Wildway Islanas	WIDWAY TOEAND TWA	PFOS/PFOA:	PFOS/PFOA:	17.	1 1101 10 1 1 2020	1 1 2022 Q2	7 tottori i i i i i i i i i i i i i i i i i i	40	Ŭ	Ŭ
			Determination	Determination				No Removal			
Navy	Missouri	KANSAS CITY MO	Pending	Pending	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	45	l n	0
ivavy	MISSOUT	TO THE OTHER WILL	PFOS: 18.9	PFOS: 25,800	17.	1 1101 10 1 1 2020	1 1 2022 Q2	No Removal	40	Ŭ	Ŭ
Navy	New Jersey	Trenton NAWC-AD	PFOA: 16.7	PFOA: 2,000	RI	FY 2020 Q3	FY 2024 Q4	Action Planned	2,897	80	2,160
ivavy	14CW OCISCY	NEW YORK NS FORT	11071. 10.7	11071. 2,000	TU	1 1 2020 00	1 1 202+ 00+	7 totion i lamioa	2,001		2,100
Navy	New York	WADSWORTH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	Pennsylvania	PHILADELPHIA NAVHOSP	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
,	,		PFOS/PFOA: Not	PFOS: 1,500			1	No Removal		1.	1
Navy	Pennsylvania	Philadelphia NS	Sampled	PFOA: 27,000	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	152	551	0
Navy	Pennsylvania	PHILADELPHIA NSY	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	•		PFOS: 1,510	PFOS: 16,000				• •	•		
Navy	Pennsylvania	Warminster NAWC AD	PFOA: 905	PFOA: 4,600	RI	Prior to FY 2020	FY 2024 Q4	Initial Action	29,470	300	29,433
			PFOS: 5,200	PFOS: 150,479							
Navy	Pennsylvania	Willow Grove NASJRB	PFOA: 5,000	PFOA: 37,700	RI	Prior to FY 2020	FY 2024 Q4	Initial Action	53,466	9,189	44,871
Navy	Puerto Rico	Puerto Rico NA/NAVACT	PFOS/PFOA: Determination Pending	PFOS: 491,401 PFOA: 351,375	SI	Prior to FY 2020	FY 2022 Q4	No Removal Action Planned	687	0	0
-			PFOS/PFOA: Not	PFOS: 15	No further action is						
Navy	Rhode Island	DAVISVILLE NCBC	Sampled	PFOA: 970	required.	Not Applicable	Not Applicable	Not Applicable	66	0	0
Navy	South Carolina	CHARLESTON FISC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	South Carolina	CHARLESTON FMWTC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	South Carolina	CHARLESTON NRC	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Navy	South Carolina	Charleston NS	PFOS/PFOA: Determination Pending	PFOS: 290 PFOA: 490	No phases are currently underway; the SI is planned.	FY 2022 Q1	FY 2023 Q4	No Removal Action Planned	755	0	0
,	Count Caronia	J100.011 110	, onding	110/1. 400	No phases are	1 1 2022 0(1	1 1 2020 Q-1	. totion / lamited	, 55	<u> </u>	
			PFOS/PFOA:		currently						
			Determination	PFOS: 290	underway; the SI is			No Removal			
Navy	South Carolina	Charleston NSY	Pending	PFOA: 490	planned.	FY 2022 Q1	FY 2023 Q4	Action Planned	150	0	0
. vavy	Count Carollila	Chanodon NO I	PFOS/PFOA: Not	PFOS: 5,700	piarifica.	1 1 2022 0(1	1 1 2020 Q+	No Removal	130	,	H 4
Navy	Tennessee	Memphis NAS (Millington)	Sampled	PFOA: 730	PA	Prior to FY 2020	FY 2022 Q2	Action Planned	569	266	0
,	. 5111100000		PFOS/PFOA: Not	PFOS: 1,470			3	No Removal	500	200	†
Navy	Texas	Chase Field NAS	Detected	PFOA: 9,330	SI	Prior to FY 2020	FY 2022 Q2	Action Planned	1,956	877	4,188

DoD Component	State/Territory	Installation Name	Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	Planned Obligations after FY 2022 (\$000)^
			PFOS/PFOA: Not	PFOS: 124,331				No Removal			
Navy	Texas	Dallas NAS	Sampled	PFOA: 296,299	RI	FY 2020 Q2	FY 2022 Q4	Action Planned	894	0	0
					No further action is						_
Navy	Virginia	Driver NRTF	Sampled	Detected	required.	Not Applicable	Not Applicable	Not Applicable	314	0	0
		D 40 11100 15:4			No further action is			N (A P 11	4.5		
Navy	Washington	Puget Sound NS Sand Point	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	45	0	0
Navy	N/A	N/A - Program Management				N.	DD40.5	 	115	0	32,327
			•			Na	vy BRAC Fund		118,990	19,334	148,300
		Galena Forward Operating	PFOS: 6.8	PFOS: 140,000				No Removal			
Air Force	Alaska	Location	PFOA: 11.3	PFOA: 253,000	RI	FY 2021 Q4	FY 2026 Q4	Action Planned	3,431	0	23,478
			PFOS/PFOA: Not	,				No Removal			
Air Force	Alaska	Kulis Air National Guard Base	Detected	PFOA: 8,440	RI	FY 2021 Q3	FY 2026 Q4	Action Planned	3,658	0	7,257
		Air Force Research Laboratory									
Air Force	Arizona	Mesa	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	74	0	0
			PFOS/PFOA: Not	PFOS: 2,440	No phases are currently underway; the RI is			No Removal			
Air Force	Arizona	Williams AFB	Detected	PFOA: 322	planned.	FY 2023 Q4	FY 2028 Q4	Action Planned	1,997	0	26,061
			There are no downgradient drinking water	PFOS: 149,000	No phases are currently underway; the RI is			No Removal			
Air Force	Arkansas	Eaker AFB	wells to sample.	PFOA: 116,000	planned.	FY 2024 Q4	FY 2029 Q4	Action Planned	787	0	8,421
			PFOS: 1,000	PFOS: 19,600				Initial Action,			
Air Force	California	Castle AFB	PFOA: 150	PFOA: 1,000	RI	FY 2021 Q4	FY 2026 Q4	Action Pending	12,827	119	30,533
Air Force	California	George AFB	PFOS: 1.96 PFOA: 3.84	PFOS: 1,690 PFOA: 5,210	No phases are currently underway; the RI is planned.	FY 2023 Q4	FY 2028 Q4	No Removal Action Planned Initial Action,	1,211	0	16,473
Air Force	California	March AFB	PFOS: 108 PFOA: 59.5	PFOS: 9,170 PFOA: 1,090	RI	FY 2020 Q4	FY 2025 Q4	Long-term Drinking Water Solution	16,081	316	14,095
			PFOS: 107	PFOS: 891,000			,	Initial Action,	,		,
Air Force	California	Mather AFB	PFOA: 65.4	PFOA: 19,000	RI	FY 2021 Q4	FY 2026 Q4	Action Pending	11,303	1,073	44,131
Air Force	California	McClellan AFB	There are no downgradient drinking water wells to sample.	PFOS: 3,000 PFOA: 2,100	No phases are currently underway; the RI is planned. No phases are	FY 2024 Q4	FY 2029 Q4	No Removal Action Planned	1,435	0	10,120
Air Force	California	Norton AFB	PFOS/PFOA: Not Sampled	PFOA: 21.9	currently underway; the RI is planned.	FY 2025 Q4	FY 2030 Q4	No Removal Action Planned	1,337	0	25,410
Air Force	California	Onizuka Air Force Station	Sampled	Sampled	No further action is required.	Not Applicable	Not Applicable	Not Applicable	59	0	0
Air Force	California	Ontario Air Force Station	PFOS/PFOA: Not Sampled	PFOS/PFOA: Not Sampled	No further action is required.	Not Applicable	Not Applicable	Not Applicable	74	0	0

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l					No further action is						
Air Force	Colorado	Buckley Annex	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	49	0	0
Air Force	Colorado	Lowry AFB	PFOS/PFOA: Not Sampled	PFOA: 5.47	No phases are currently underway; the RI is planned. No further action is	FY 2025 Q4	FY 2030 Q4	No Removal Action Planned	230	0	748
Air Force	Florida	Homestead AFB	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	176	0	0
7111 1 0100	Tiorida	Fiornesicad / (i B	There are no	Campica	No phases are	14017 (ppiloable	Not Applicable	110t / tppilodbic	170	- C	0
Air Force	Illinois	Chanute AFB	downgradient drinking water wells to sample.	PFOS: 1,960,000 PFOA: 151,000	currently underway; the RI is planned.	FY 2024 Q4	FY 2029 Q4	No Removal Action Planned	1,796	69	36,451
Air Force	Illinois	O'Hare Air Reserve Station	There are no downgradient drinking water wells to sample.	PFOS: 1,520 PFOA: 13,600	No phases are currently underway; the RI is planned.		FY 2030 Q4	No Removal Action Planned	939	0	15,908
Air Force	Indiana	Grissom AFB	PFOS: Not Detected PFOA: 1.3	PFOS: 114,000 PFOA: 18,000	No phases are currently underway; the RI is planned.	FY 2023 Q4	FY 2028 Q4	No Removal Action Planned	584	0	4,812
Air Fanns	Lautatana	England AED	There are no downgradient drinking water		No phases are currently underway; the RI is		F)/ 0000 O 4	No Removal	005	0	10.000
Air Force	Louisiana	England AFB	wells to sample. PFOS: 21.8	PFOA: 3,820,000 PFOS: 8.770	planned.	FY 2023 Q4	FY 2028 Q4	Action Planned No Removal	925	U	12,283
Air Force	Maine	Loring AFB	PFOA: 7.24	PFOA: 811	RI	FY 2021 Q3	FY 2026 Q3	Action Planned	7,829	0	55,432
Air Force	Michigan	KI Sawyer AFB	PFOS: 2.7 PFOA: 266	PFOS: 11,100 PFOA: 57,900	RI	FY 2021 Q4	FY 2026 Q4	Long-term Drinking Water Solution	11,638	27	38,840
			PFOS: 273	PFOS: 171,000,000				Long-term Drinking Water			
Air Force	Michigan	Wurtsmith AFB	PFOA: 2,650	PFOA: 210,000	RI	FY 2020 Q4	FY 2025 Q4	Solution	41,444	14,817	196,511
Air Force	Missouri	Richards-Gebaur AFB	There are no downgradient drinking water wells to a sample.	PFOS: 329,000 PFOA: 74,800	No phases are currently underway; the RI is planned.	FY 2024 Q4	FY 2029 Q4	No Removal Action Planned	733	0	4,808
Air Force	New Hampshire	Pease AFB	PFOS: 2,500 PFOA: 350	PFOS: 490,000 PFOA: 130,000	RI	FY 2020 Q4	FY 2025 Q4	Initial Action, Action Pending	76,116	18,175	151,368
	·		There are no downgradient drinking water	PFOS: 60,700	No phases are currently underway; the RI is			No Removal	·		,
Air Force	New York	Griffiss AFB	wells to sample.	PFOA: 1,100	planned.	FY 2025 Q4	FY 2030 Q4	Action Planned	1,847	0	11,374
Air Force	New York	Plattsburgh AFB	PFOS: 347 PFOA: 97.8	PFOS: 70,300 PFOA: 981,000	RI	FY 2020 Q4	FY 2025 Q4	Initial Action, Action Pending	7,201	245	31,894
Air Force	New York	Roslyn Air National Guard Station	Sampled	Sampled	No further action is required.	Not Applicable	Not Applicable	Not Applicable	53	0	0

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			There are no		No phases are						
			downgradient	5500 440	currently						
۸	01.	0 11 4: 5	drinking water	PFOS: 146	underway; the RI is		EV 2000 04	No Removal	070		4 004
Air Force	Ohio	Gentile Air Force Station	wells to sample. There are no	PFOA: 33.9	planned. No phases are	FY 2025 Q4	FY 2030 Q4	Action Planned	273	0	1,681
			downgradient		no pnases are currently						
			drinking water	PFOS: 435	underway; the RI is			No Removal			
Air Force	Ohio	Newark AFB	wells to sample.	PFOA: 221	planned.	FY 2025 Q4	FY 2030 Q4	Action Planned	302	0	1,369
All Folce	Offic	Newalk AFB	There are no	FFUA. 221	No phases are	F1 2025 Q4	F1 2030 Q4	Action Flammed	302	U	1,309
			downgradient		currently						
			drinking water	PFOS: 14,400	underway; the RI is			No Removal			
Air Force	Ohio	Rickenbacker	wells to sample.	PFOA: 45,800	planned.	FY 2025 Q4	FY 2030 Q4	Action Planned	494	0	38,265
	010	. Herrerization	welle to campio.		piaou.	<u>2</u> 020 Q .	2000 Q .	7101011 10111100		Ü	00,200
			PFOS: 9.6	PFOS: 2,490,000				No Removal			
Air Force	South Carolina	Myrtle Beach AFB	PFOA: 31	PFOA: 150,000	RI	FY 2021 Q4	FY 2026 Q4	Action Planned	3,735	0	14,212
			There are no		No phases are						
			downgradient		currently						
			drinking water	PFOS: 8,860	underway; the RI is			No Removal			
Air Force	Texas	Bergstrom AFB	wells to sample.	PFOA: 2,260	planned.	FY 2024 Q4	FY 2029 Q4	Action Planned	872	0	11,424
			PFOS/PFOA: Not	PFOS/PFOA: Not	No further action is						
Air Force	Texas	Brooks-City Base	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	66	0	0
			PFOS/PFOA: Not								
Air Force	Texas	Carswell AFB	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	66	0	0
			There are no		No phases are						
			downgradient	5566 646 666	currently						
۸. –	_	LC III AED	drinking water	PFOS: 249,000	underway; the RI is	E) / 000E O /	E)/ 0000 0 4	No Removal	4 0 4 7	0	04.047
Air Force	Texas	Kelly AFB	wells to sample.	PFOA: 30,000 PFOS: 1.820	planned.	FY 2025 Q4	FY 2030 Q4	Action Planned	1,917	0	34,817
Air Caraa	Texas	Reese AFB	PFOS: 1,580 PFOA: 3,250	PFOS: 1,820 PFOA: 5,460	RI	Prior to FY 2020	FY 2026 Q4	Initial Action, Action Pending	59,408	5,283	287,686
Air Force	TEXAS	Four Lakes Air National Guard				F1101 t0 F1 2020	F1 2020 Q4	Action Fending	39,400	5,265	201,000
Air Force	Washington	Station	Sampled	Sampled	required.	Not Applicable	Not Applicable	Not Applicable	50	0	0
All I Old	washington	Ctation	Gampicu	Campica	No phases are	Not Applicable	140t Applicable	140t Applicable	30	U	0
					currently						
		General Mitchell Air Reserve	PFOS/PFOA: Not	PFOS: 8.610	underway; the RI is			No Removal			
Air Force	Wisconsin	Station	Detected	PFOA: 10,800	planned.	FY 2023 Q4	FY 2028 Q4	Action Planned	1,294	0	4,041
		N/A - Program Management		-,	·				0	0	0
	-	Air Force BRAC Funding Subtota							274,311	40,124	1,159,902
DLA	Pennsylvania	DSC PHILADELPHIA	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
								unding Totals:	431,853		

^{*} Where the highest detection is "Not Detected," the validated test results confirmed that there were no detections of PFOS/PFOA above the method reporting limit.

Where the highest detection is "Not Sampled," the DoD Components did not sample because they determined during reviews of historic documentation that neither PFOS nor PFOA was used or potentially released. Where the highest detection is "Not Analyzed," the DoD Components either plan to conduct sampling or the validated test results are not yet available.

Where the highest detection is "Determination Pending," the DoD Components have not yet determined if sampling is necessary.

At some Air Force locations, there are no downgradient wells to sample.

DoD Component	State/Territory Installation	n Name Highest Detection of PFOS/PFOA in Drinking Water (ppt)*	Highest Detection of PFOS/PFOA in Groundwater (ppt)*	Current Phase	Actual or Estimated Start Date (Fiscal Year and Quarter)	Estimated Completion Date (Fiscal Year and Quarter)	Removal Action	Actual Obligations Through FY 2021 (\$000)	Planned Obligations in FY 2022 (\$000)	after FY 2022
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[^] These estimates are based on information available as of the end of FY 2021 and are expected to increase in the future as DoD completes investigations and defines future requirements. DoD will plan and program for future requirements at that time.