



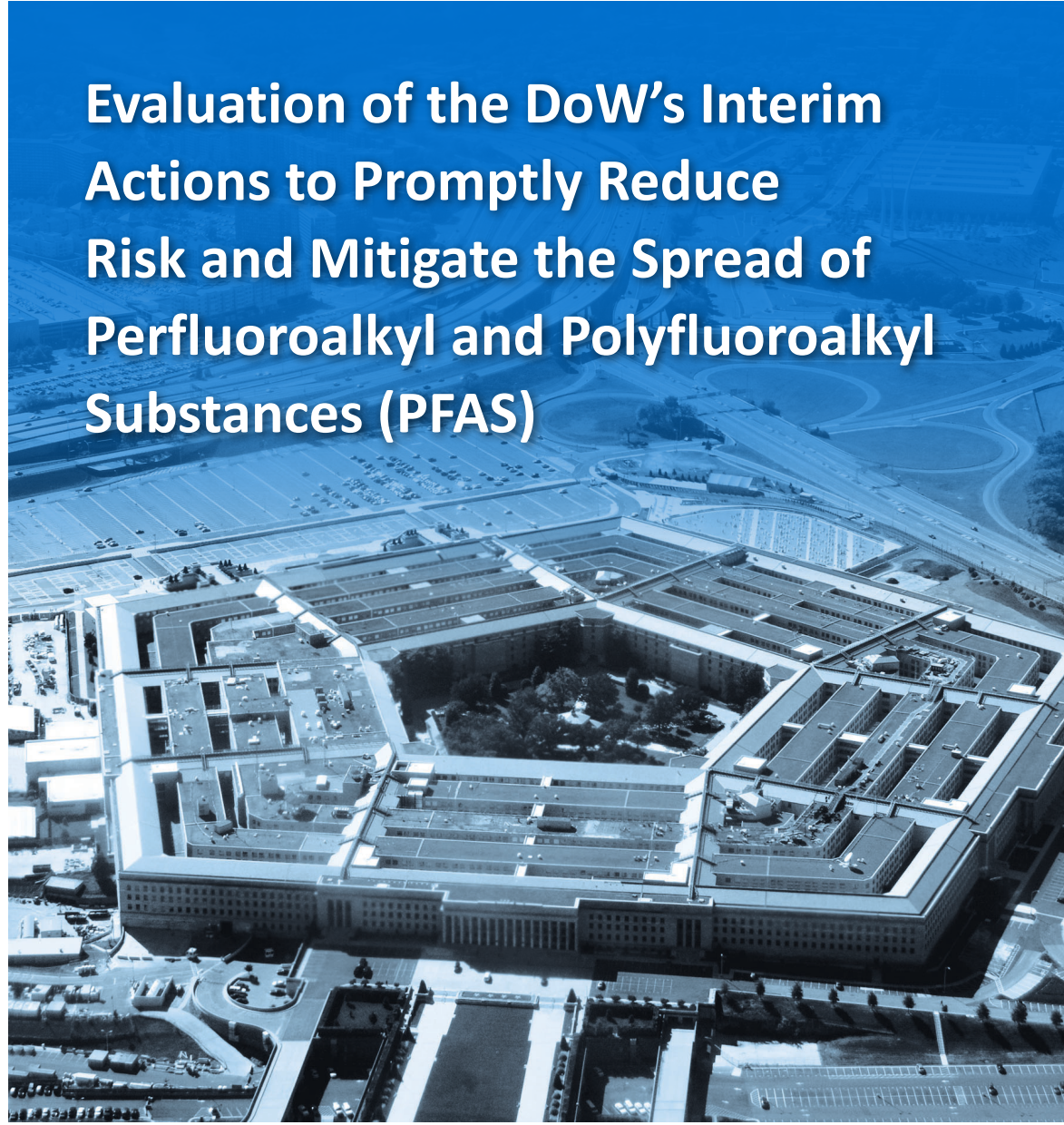
INSPECTOR GENERAL

U.S. Department of War

AUGUST 4, 2026



Evaluation of the DoW's Interim Actions to Promptly Reduce Risk and Mitigate the Spread of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)





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Results in Brief

Evaluation of the DoW's Interim Actions to Promptly Reduce Risk and Mitigate the Spread of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

August 4, 2026

Objective

The objective of this evaluation was to determine the effectiveness of the DoW's interim actions to promptly reduce risk and mitigate the further spread of perfluoroalkyl and polyfluoroalkyl substances (PFAS) at current and former DoW installations.

Background

PFAS are a large group of artificially made chemicals that have been used in a variety of military applications, do not break down easily in the environment, and may reach and affect sources of food and drinking water. Exposure to certain PFAS may cause health problems. In July 2019, the Secretary of War established the DoW PFAS Task Force to ensure that the DoW had a coordinated approach to DoW-wide efforts to proactively address the effects of PFAS exposure caused by DoW activities. Federal law and DoW policy provide authority for DoW officials to respond to threats to public health or welfare of the United States or the environment with interim actions. Interim actions are actions taken to promptly reduce risk and mitigate the further spread of PFAS while progressing sites through the Environmental Restoration Process.

Finding

As of February 2025, DoW officials identified interim actions at 69 of the 722 installations (9.5 percent) where PFAS were used or potentially released. We selected 23 of the installations where the DoW identified interim actions and found that DoW officials reduced risk and mitigated the spread of PFAS at 22 of the 23 selected installations. However, DoW officials may

Finding (cont'd)

not have identified all installations where PFAS were used or potentially released. Additionally, the DoW identified a typical Environmental Restoration Process timeline, but the DoW's progress exceeded the timeframes in that timeline. Although valid reasons may exist for exceeding the typical timeline, longer timeframes could impact the opportunity for DoW officials to identify and implement interim actions where they may be warranted.

Furthermore, 512 installations were proceeding through the Environmental Restoration Process without interim actions. We used four factors to identify where indicators existed of site-specific circumstances that may warrant an interim action. Specifically, we reviewed 60 installations and identified 19 installations (32 percent) with one or more factors that may warrant an interim action. However, DoW officials did not document whether an interim action was warranted at those 19 installations.

These conditions occurred because the DoW lacked sufficient processes and procedures for performing Site Discovery and documenting whether interim actions were warranted. As a result, the DoW may miss opportunities to reduce immediate risk at installations without interim actions, and interim actions may not occur where PFAS risks are high.

Recommendations, Management Comments, and Our Response

We made five recommendations to the Under Secretary of War for Acquisition and Sustainment and Assistant Secretary of War for Energy, Installations, and Environment with specific actions to improve environmental restoration processes and procedures. The Assistant Secretary of War for Energy, Installations, and Environment, responding for the Under Secretary of War for Acquisition and Sustainment and themselves, agreed to implement all five recommendations, which are resolved but will remain open. We will close the recommendations when we verify that management has implemented corrective actions. Please see the Recommendations Table on the next page for the status of the recommendations.

Recommendations Table

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Under Secretary of War for Acquisition and Sustainment	None	1, 3.a, 3.b, 4	None
Assistant Secretary of War for Energy, Installations, and Environment	None	2	None

Note: The following categories are used to describe agency management's comments to individual recommendations.

- **Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** – The DoW OIG verified that the agreed-upon corrective actions were implemented.



OFFICE OF INSPECTOR GENERAL
DEPARTMENT OF WAR
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

August 4, 2026

MEMORANDUM FOR UNDER SECRETARY OF WAR FOR ACQUISITION AND SUSTAINMENT
CHIEF, NATIONAL GUARD BUREAU
DIRECTOR, DEFENSE LOGISTICS AGENCY
AUDITOR GENERAL, DEPARTMENT OF THE ARMY
AUDITOR GENERAL, DEPARTMENT OF THE NAVY
AUDITOR GENERAL, DEPARTMENT OF THE AIR FORCE

SUBJECT: Evaluation of the DoW's Interim Actions to Promptly Reduce Risk and Mitigate the Spread of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
(Report No. DOWIG-2026-106)

This final report provides the results of the DoW Office of Inspector General's evaluation. We previously provided copies of the draft report and requested written comments on the recommendations. We considered managements' comments on the draft report when preparing the final report. These comments are included in the report.

The Assistant Secretary of War for Energy, Installations, and Environment, responding for the Under Secretary of War for Acquisition and Sustainment and themselves, agreed to address all of the recommendations presented in the report; therefore, we consider the recommendations resolved and open. We will close the recommendations when you provide us documentation showing that all agreed-on actions to implement the recommendations are complete. Therefore, please provide us within 90 days your response concerning specific actions in process or completed on the recommendations. Send your response to either [REDACTED] if unclassified or [REDACTED] if classified SECRET.

If you have any questions, please contact [REDACTED]

Randolph R. Stone
Assistant Inspector General for Evaluations
Space, Intelligence, Engineering, and Oversight

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Introduction

Objective

The objective of this evaluation was to determine the effectiveness of the DoW's interim actions to promptly reduce risk and mitigate the further spread of perfluoroalkyl and polyfluoroalkyl substances (PFAS) at current and former DoW installations.¹

Background

PFAS are a large group of artificially made chemicals that are fire-resistant and repel oil and water. PFAS have been used in a wide variety of commercial and industrial products and in manufacturing processes since the 1940s. PFAS have also been used in military applications, such as in the fire suppressant known as aqueous film-forming foam, and can be released from DoW activities, such as aircraft maintenance and metal plating.

According to the U.S. Environmental Protection Agency (EPA), people may be exposed to PFAS when using products that contain PFAS, through occupational exposure, and through consuming contaminated food or drinking water.² Many PFAS do not break down easily in the environment. As a result, PFAS released in the environment may reach and affect sources of food and drinking water. Most people in the United States have been exposed to PFAS and even have them in their blood.³

Federal and DoW Actions Related to PFAS

In July 2019, the Secretary of War established the DoW PFAS Task Force to ensure that the DoW had a coordinated approach to DoW-wide efforts to proactively address the effects of PFAS exposure caused by DoW activities.⁴ Additionally, Congress included various PFAS requirements for the DoW in the FY 2019 through FY 2024 National Defense Authorization Acts, including the requirement to maintain a DoW PFAS Task Force website with information on PFAS cleanup.⁵

¹ For the purposes of this evaluation, risks are human health and environmental risks associated with PFAS.

² "EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan," February 2019.

³ Agency for Toxic Substances and Disease Registry Webpage, "Per- and Polyfluoroalkyl Substances (PFAS) and Your Health—Fast Facts: PFAS in the U.S. Population," accessed January 28, 2025, <https://www.atsdr.cdc.gov/pfas/data-research/facts-stats/index.html>.

⁴ The Secretary of War required the Assistant Secretary of War for Sustainment to chair the DoW PFAS Task Force. The FY 2022 National Defense Authorization Act modified the chair position and assigned it to the Assistant Secretary of War for Energy, Installations, and Environment. According to 10 U.S.C § 2714, the Secretary of War "shall establish a task force to address the effects of the release of [PFAS] from activities of the Department of Defense." Secretary of War Memorandum, "Per- and Polyfluoroalkyl Substances Task Force," July 23, 2019. National Defense Authorization Act for Fiscal Year 2022, Pub. L. No.117–81, 135 Stat. 1541 (2021).

⁵ DoW PFAS Task Force Website, "Welcome," accessed July 25, 2025, <https://www.acq.osd.mil/eie/eer/ecc/pfas/index.html>. National Defense Authorization Act for Fiscal Year 2020, Pub. L. No.116–92, 133 Stat. 1198 (2019).

Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are the two types of PFAS that were made in the greatest quantities in the United States and are the most well-studied types of PFAS. In April 2024, the EPA established drinking water standards under the Safe Drinking Water Act with a maximum contaminant level (MCL) of 4 parts per trillion for PFOS and PFOA and finalized a rule to designate PFOS and PFOA as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).⁶ See Appendix C for a selected chronology of DoW and other Federal actions related to PFAS.

Environmental Restoration Process and Interim Actions

DoW officials use the Environmental Restoration Process to address PFAS in accordance with the requirements and authorities identified in Table 1.⁷ During the Environmental Restoration Process, the DoW can take interim actions to promptly reduce risk and mitigate the further spread of PFAS while continuing to use the Environmental Restoration Process.⁸ However, interim actions may not necessarily remove all risk and prevent all spread of PFAS.

As shown in Table 1, CERCLA authorizes two broad categories of responses to releases or threatened releases of hazardous substances: removal actions and remedial actions. Removal actions include: (1) emergency removal, (2) time-critical removal, and (3) non-time-critical removal actions, all of which could be interim actions. Additionally, one type of remedial action is an interim remedial action. Throughout this report, we refer to interim actions as any of these four types of interim actions.

⁶ In 1980, Congress enacted CERCLA, commonly known as Superfund, to provide Federal authority to clean up contaminated sites and make potentially responsible parties financially liable for the cleanup. PFOS and PFOA were considered pollutants or contaminants before the EPA designated them as hazardous substances under CERCLA. Comprehensive Environmental Response, Compensation, and Liability Act, Pub. L. No. 96–510, 94 Stat. 2767 (1980). Safe Water Drinking Act, Pub. L. No. 93–523, 88 Stat. 1660 (1974). EPA Report. No. EPA-800-K-24-002, “EPA’s PFAS Strategic Roadmap: Three Years of Progress,” November 2024.

⁷ DoD Manual 4715.20 “Defense Environmental Restoration Program (DERP) Management,” March 9, 2012 (Incorporating Change 1, August 31, 2018), describes the Environmental Restoration Process, which DoW officials also refer to as the CERCLA process.

⁸ CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan, and the DERP provide authority for DoW officials performing environmental restoration to respond to threats to public health or welfare of the United States or the environment with interim actions.

Table 1. Environmental Restoration Process Requirements and Authorities

Criteria	Relevant Requirements and Authorities
CERCLA ¹	Provides Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment in the United States Authorizes: (1) removal actions including actions to “prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release,” and (2) remedial actions “consistent with permanent remedy taken instead of or in addition to removal actions”
Executive Order 12580 ²	Delegates presidential authorities under CERCLA to the Secretary of War to address “releases or threatened releases where either the release is on or the sole source of the release is from any facility or vessel under the jurisdiction, custody, or control” of the DoW
National Oil and Hazardous Substances Pollution Contingency Plan ³	CERCLA's implementing regulation for preparing for and responding to releases of hazardous substances, pollutants, and contaminants
DERP ⁴	Established to identify, investigate, perform research and development, and to clean up contamination from hazardous substances, pollutants, or contaminants in accordance with CERCLA requirements Requires that the DERP be carried out in consultation with the Administrator of the EPA
DoD Instruction 4715.07 ⁵	Establishes policy, assigns responsibilities, and provides procedures for implementing the DERP Requires all DoW organizations to identify, evaluate, and, where appropriate, respond to a release or threat of a release of hazardous substances, contaminants, or hazardous waste into the environment from DoW activities
DoD Manual 4715.20	Accompanies DoD Instruction 4715.07 and implements policy, assigns responsibilities, and provides guidance and procedures for managing the DERP
December 22, 2021 ASW(S) Memorandum ⁶	Provides clarifying guidance on what triggers the need for removal actions and how the DoW should address properly promulgated state PFAS drinking water standards as part of a CERCLA removal action
July 11, 2023 ASW(EI&E) Memorandum ⁷	Directs DoW Components to evaluate the data gathered during Preliminary Assessments, Site Inspections, and Remedial Investigations and assess where an interim action can be taken to mitigate further PFAS plume migration or ongoing impacts to groundwater, surface water, and sediment from DoW sources of PFAS

Table 1. Environmental Restoration Process Requirements and Authorities (cont'd)

Criteria	Relevant Requirements and Authorities
September 3, 2024 ASW(EI&E) Memorandum ⁸	Describes how the DoW will incorporate the April 2024 EPA drinking water standards into ongoing PFAS cleanup and prioritize private drinking water wells with the highest levels of PFAS from DoW activities States that, under CERCLA, the MCLs for PFAS “can be used as a risk trigger level to take interim actions (i.e. removal actions), but exceeding an MCL does not in itself trigger a removal action” Directs DoW Components to initiate removal actions to address private drinking water wells impacted by PFAS from DoW activities where concentrations are known to be at or above three times the MCL values

LEGEND

ASW(EI&E) Assistant Secretary of War for Energy, Installations, and Environment

ASW(S) Assistant Secretary of War for Sustainment

¹ 42 U.S.C. § 9601 et seq.

² Executive Order 12580, “Superfund Implementation,” January 23, 1987, Amended by Executive Order 13016, “Amendment to Executive Order 12580,” August 28, 1996.

³ 40 C.F.R. Part 300.

⁴ 10 U.S.C. § 2701 et seq.

⁵ DoD Instruction 4715.07, “Defense Environmental Restoration Program (DERP),” May 21, 2013 (Incorporating Change 2, August 31, 2018).

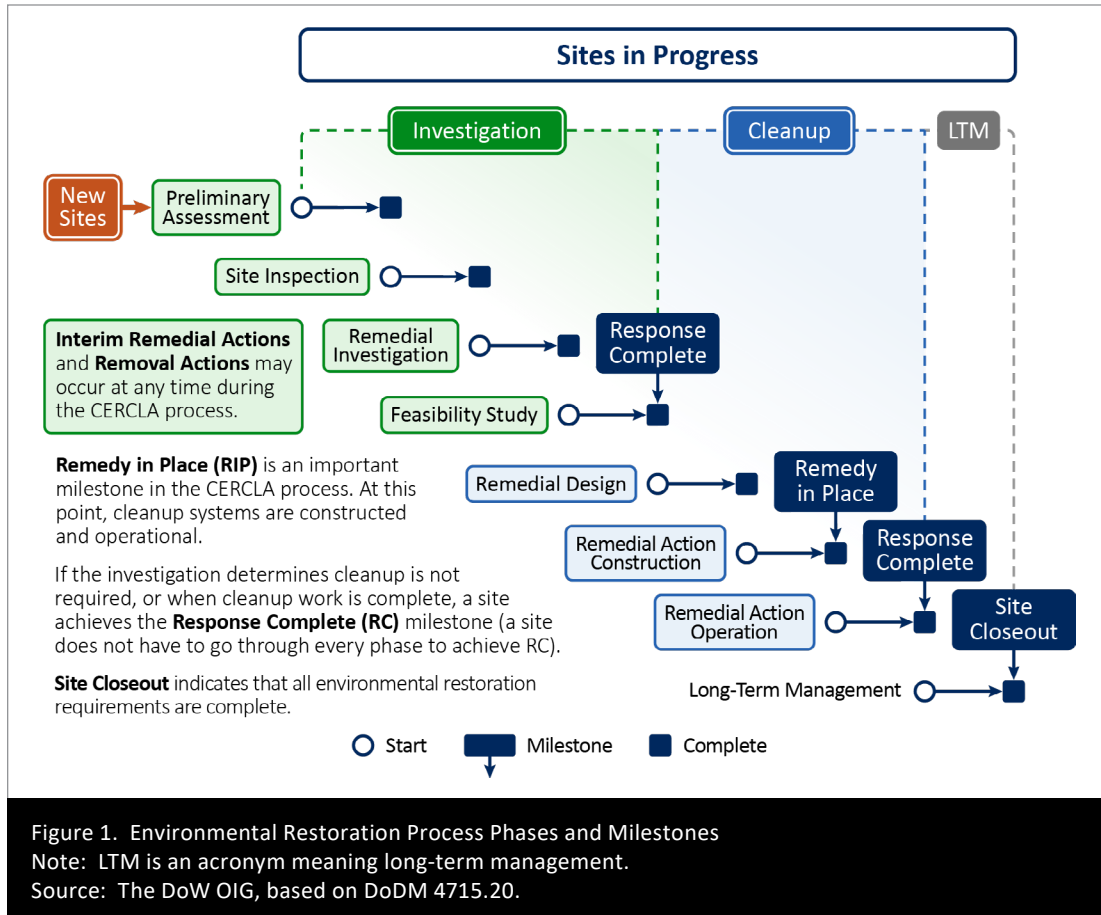
⁶ Office of the Assistant Secretary of War for Sustainment Memorandum, “Department of Defense Guidance on Using State Per- and Polyfluoroalkyl Substances Drinking Water Standards in Comprehensive Environmental Response, Compensation, and Liability Act Removal Actions,” December 22, 2021.

⁷ Assistant Secretary of War for Energy, Installations, and Environment Memorandum, “Memorandum for Taking Interim Actions to Address Per- and Polyfluoroalkyl Substances Migration from DoD Installations and National Guard Facilities,” July 11, 2023.

⁸ Assistant Secretary of War for Energy, Installations, and Environment Memorandum, “Prioritization of Department of Defense Cleanup Actions to Implement the Federal Drinking Water Standards for Per- and Polyfluoroalkyl Substances Under the Defense Environmental Restoration Program,” September 3, 2024.

Source: The DoW OIG.

DoD Manual (DoDM) 4715.20 outlines the Environmental Restoration Process phases and milestones, as shown in Figure 1. DoDM 4715.20 states that interim actions (interim remedial actions and removal actions) may happen at any time in the Environmental Restoration Process.



Removal actions were the most common type of interim action DoW officials identified. According to the National Oil and Hazardous Substances Pollution Contingency Plan, at any release where the DoW “makes the determination based on [identified] factors ... there is a threat to public health or welfare of the United States or the environment, the [DoW] may take any appropriate

removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of release.” Table 2 describes eight factors that “shall be considered [by the DoW] in determining the appropriateness of a removal action.”⁹

Table 2. Eight Factors to Consider When Determining Whether a Removal Action Is Warranted

Number	Factor
1	Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants, or contaminants
2	Actual or potential contamination of drinking water supplies or sensitive ecosystems
3	Hazardous substances, pollutants, or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release
4	High levels of hazardous substances, pollutants, or contaminants in soils largely at or near the surface that may migrate
5	Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released
6	Threat of fire or explosion
7	The availability of other appropriate Federal or state response mechanisms to respond to the release
8	Other situations or factors that may pose threats to public health or welfare of the United States or the environment

Source: 40 C.F.R. § 300.415, numbered by the DoW OIG.

⁹ 40 C.F.R. § 300.415.

According to the National Oil and Hazardous Substances Pollution Contingency Plan, “[i]f the lead agency determines that a removal action is appropriate, actions shall, as appropriate, begin as soon as possible to abate, prevent, minimize, stabilize, mitigate, or eliminate the threat to public health or welfare of the United States or the environment.”

Additionally, a February 2000 EPA memorandum states that, in addition to considering the eight factors, “decision makers should also consider the following additional factors in determining whether to employ a non-time critical removal action or a remedial action in a particular situation: (1) time-sensitivity of the response; (2) the complexity of both the problems to be addressed and the action to be taken; (3) the comprehensiveness of the proposed action and (4) the likely cost of the action.” Furthermore, courts provided additional context to the application of the eight factors in the National Oil and Hazardous Substances Pollution Contingency Plan, such as in the Court of Appeals for the Ninth Circuit, in *U.S. v. W.R. Grace & Co.*, 429 F.3d 1224, 1242 (9th Cir. 2005). For example, the Court explained that, “[a]lthough ‘immediacy’ is not used in the definition of ‘removal’ either in CERCLA or the National Contingency Plan, the examples in 40 C.F.R. [Section] 300.415(e) imply a level of urgency in addressing the threat both by expressly using the word ‘immediately’... and by describing looming threats against which prompt action is needed.” In another example, the Court also explained that, although removal actions are often permanent solutions, the National Oil and Hazardous Substances Pollution Contingency Plan descriptions, combined with other interpretations, “provide a persuasive interpretation that removal actions encompass interim, partial, time-sensitive responses taken to counter serious threats to public health.”

EPA Memorandum, “Use of Non-Time Critical Removal Authority in Superfund Response Actions,” February 14, 2000.

Our Evaluation

We performed this evaluation as a continuation of our oversight work related to PFAS and in consideration of October 2024 letters we received from congressional members.¹⁰ As of September 30, 2024, DoW officials identified 722 active military installations, Base Realignment and Closure (BRAC) locations, National Guard facilities, and Formerly Used Defense Sites where PFAS were used or potentially released.¹¹ Of those 722 current and former installations, DoW officials identified that interim actions were planned, underway, or implemented at 69 installations as of February 12, 2025. DoW officials identified the following two broad categories of interim actions.

- Reduce exposure to drinking water impacted by PFAS in off-base drinking water wells at 55 installations
- Mitigate the further spread of PFAS plume migration at 30 installations¹²

We visited the following six installations based on the type of interim action planned or ongoing.

1. Camp Grayling Joint Maneuver Training Center, Michigan (Army National Guard)
2. Former Naval Air Station Joint Reserve Base Willow Grove, Pennsylvania
3. Former Naval Air Warfare Center Warminster, Pennsylvania
4. Naval Research Laboratory–Chesapeake Bay Detachment, Maryland
5. Former Wurtsmith Air Force Base, Michigan
6. Selfridge Air National Guard Base, Michigan

¹⁰ We received letters from congressional members requesting additional information related to PFAS cleanup on October 4, 2024, October 9, 2024, and December 8, 2025. See Appendix E for a copy of all three letters.

¹¹ See Appendix D for a summary of the reported status as of September 30, 2024. During our evaluation, the number of active military installations, BRAC locations, National Guard facilities, and Formerly Used Defense Sites where PFAS were used or potentially released increased to 723 as of March 31, 2025.

¹² At some installations, DoW officials identified interim actions for both off-base drinking water wells and to mitigate the further spread of PFAS.

Finding

DoW Officials Took Interim Actions, but Additional Interim Actions May Be Warranted

As of February 12, 2025, DoW officials identified interim actions at 69 of the 722 installations (9.5 percent) where PFAS were used or potentially released. We selected 23 of the 69 installations for further review. We found that DoW officials reduced risk and mitigated the further spread of PFAS at 22 of the 23 selected installations by providing alternate drinking water to off-base residents, removing or treating soil with high amounts of PFAS, and installing water treatment systems to prevent PFAS plume migration.

However, DoW officials may not have identified all installations where PFAS were used or potentially released. Specifically, we could not verify whether DoW officials analyzed all current and former installations for PFAS releases during Site Discovery. For example, we found an additional 82 BRAC installations that were not on the list of 722 installations, and DoW officials did not document their analysis of whether PFAS were used or released.

Additionally, the DoW identified a typical Environmental Restoration Process timeline, but we found that the DoW's progress exceeded the timeframes within that timeline. Although valid reasons for exceeding the typical timeline may exist, longer timeframes may impact the opportunity for DoW officials to identify and implement interim actions where they may be warranted.

Furthermore, 512 installations (71 percent) were proceeding through the Environmental Restoration Process without interim actions. We reviewed 60 of the 512 installations. Of those 60, we identified sites at 19 installations (32 percent of our sample) with one or more of the factors described in Table 2 that may warrant an interim action. However, DoW officials did not document whether an interim action was warranted at these 19 installations.

These conditions occurred because the DoW lacked sufficient processes and procedures for performing Site Discovery and documenting whether interim actions were warranted. As a result, the DoW may miss sites that warrant entry into the Environmental Restoration Process and opportunities for interim actions at those sites. Additionally, the DoW may miss opportunities to reduce immediate risk at installations without interim actions, and interim actions may not occur where PFAS risks are high.

DoW Officials Took Interim Action at 69 Installations

As of February 12, 2025, DoW officials identified interim actions at 69 of the 722 installations (9.5 percent) where PFAS were used or potentially released. We selected 23 of the 69 installations for further review. We found that DoW officials reduced risk and mitigated the further spread of PFAS at 22 of the 23 selected installations.¹³ Specifically, 18 of 23 selected installations had actual or potential PFAS contamination of off-base drinking water supplies (Table 2, Factor 2). We also determined that DoW officials reduced risk by providing alternate drinking water to off-base residents at all 18 installations.

Additionally, we found interim actions that were focused on mitigating the further spread of PFAS at 8 of the 23 selected installations. Specifically, DoW officials removed or treated soil with high amounts of PFAS and installed water treatment systems to prevent PFAS plume migration. For example, as shown in Figure 2, we observed that DoW officials removed soil at three installations we visited that had high concentrations of PFAS in the soil and groundwater (Table 2, Factor 4).

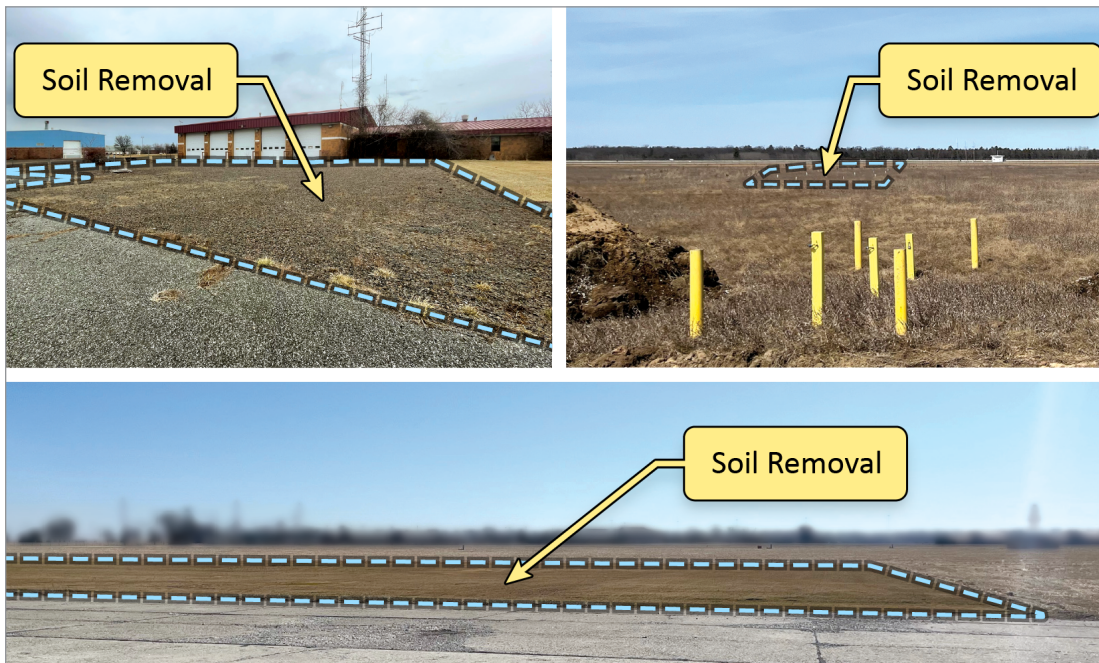


Figure 2. Soil Removal Sites at Former Naval Air Station Joint Reserve Base Willow Grove, Former Wurtsmith Air Force Base, and Selfridge Air National Guard Base

Note: The image on the top left shows the former fire station at the former airfield at Former Naval Air Station Joint Reserve Base Willow Grove. The image on the top right shows the airfield at Former Wurtsmith Air Force Base. The image on the bottom shows an area of soil removal at the Selfridge Air National Guard Base airfield.

Source: The DoW OIG, observed February and March 2025.

¹³ We selected 23 of the 69 installations with identified interim actions for this evaluation. However, at one selected installation, BRAC Program North Penn Memorial U.S. Army Reserve Center, Pennsylvania, we found that the Army did not take any interim actions. Therefore, we reviewed the remaining 22 selected installations with interim actions to determine whether the taken interim actions would effectively reduce risk and mitigate the further spread of PFAS.

DoW officials implemented interim actions that ranged from simple, passive PFAS treatment systems to pump-and-treat technologies. For example, as shown in Figure 3, we observed a passive stormwater treatment system that consisted of concrete vaults containing filter media to treat PFAS-contaminated stormwater as it migrated from Camp Grayling Joint Maneuver Training Center–Cantonment into nearby surface water.

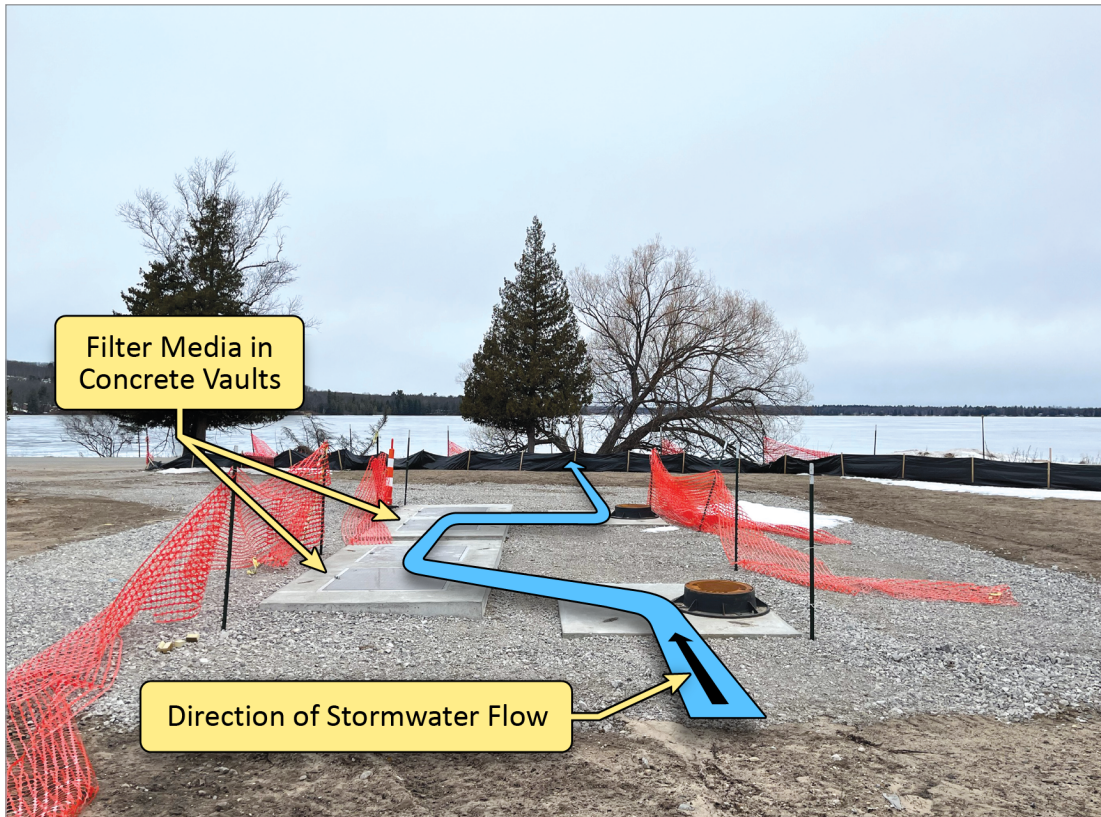


Figure 3. Passive Stormwater Treatment System at Camp Grayling Joint Maneuver Training Center–Cantonment

Note: This image shows the passive stormwater treatment system at Camp Grayling Joint Maneuver Training Center–Cantonment with a blue arrow to indicate the direction of stormwater flow from Camp Grayling Joint Maneuver Training Center–Cantonment to surface water in Lake Margarethe.

Source: The DoW OIG, observed March 2025.

Additionally, at Former Wurtsmith Air Force Base, we observed six pump-and-treat groundwater treatment systems, including five granular-activated carbon systems and an ion exchange resin system, that Air Force officials told us have treated approximately 2 billion gallons of water since the interim actions began in 2015. Figure 4 shows parts of the systems we observed.



Figure 4. Groundwater Pump-and-Treat Systems at Former Wurtsmith Air Force Base

Note: The image on the top left shows the granular-activated carbon tanks that are a component of the FT002 interim action. The image on the top right shows the Mission ion exchange resin treatment system. The image on the middle left shows the Central Treatment System-1 granular-activated carbon tanks. The image on the middle right shows the Central Treatment System-2 granular-activated carbon tanks. The image on the bottom shows the Alert Aircraft Area granular-activated carbon system.

Source: The DoW OIG, observed March 2025.

List of Installations Where PFAS Were Used or Potentially Released May Not be Complete

As of September 30, 2024, DoW officials identified 722 current and former installations where PFAS were used or potentially released. However, we determined that DoW officials may not have identified all installations where PFAS were used or potentially released for inclusion in the Environmental Restoration Process.

To address the effects from any release of PFAS from all defense activities, the DoW first needs to identify all sites and installations where the DoW used, stored, or disposed of materials containing PFAS.¹⁴ According to DoDM 4715.20, as shown in Figure 1, new sites enter the Environmental Restoration Process. This occurs during Site Discovery when, according to DoDM 4715.20, DoW Components “perform record searches and visual inspections to determine which candidate sites warrant further investigation.”

Although new sites may enter the Environmental Restoration Process at any time, between 2014 and 2016, the DoW Components directed installation officials to identify installations and sites where the DoW used or potentially released PFAS because PFAS were emerging chemicals of environmental concern. However, DoW officials did not document their analysis for installations that did not proceed into a Preliminary Assessment. Without documentation, we could not verify whether DoW officials analyzed all current and former installations for DoW usage, storage, or disposal of materials containing PFAS. For example, we asked DoW officials for an inventory of installations that were eligible for the Defense Environmental Restoration Program (DERP). The list we received included 199 BRAC installations in the United States. However, the list of 722 installations where PFAS were used or potentially released only identified 117 BRAC installations. We could not determine whether DoW officials assessed the other 82 BRAC installations for usage, storage, or disposal of materials containing PFAS.

If DoW officials do not analyze all DERP-eligible installations for DoW use or release of PFAS, they may miss sites that warrant entry into the Environmental Restoration Process and opportunities for interim actions.

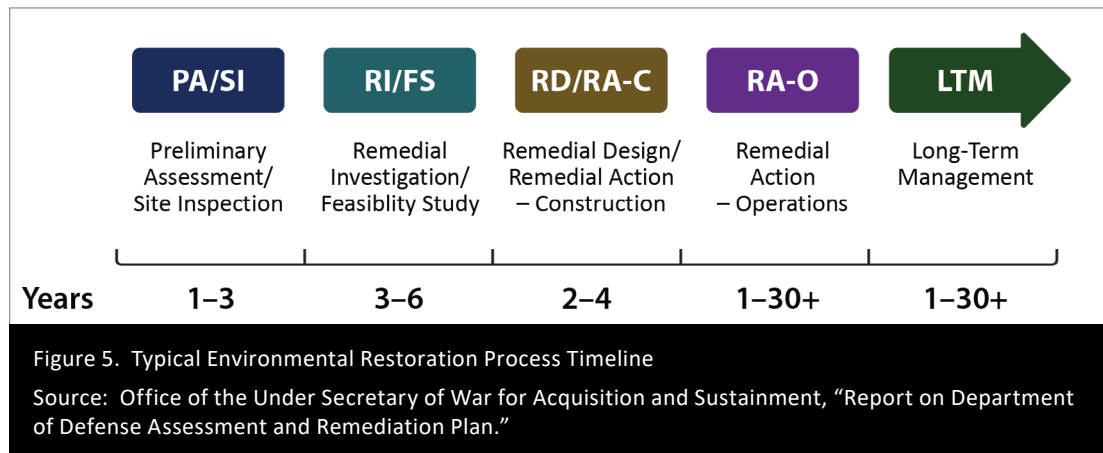
¹⁴ According to the July 1919 Secretary of War memorandum, “Per- and Polyfluoroalkyl Substances Task Force,” that established the DoW PFAS Task Force, “[t]he Department is committed to taking a strong and proactive stance to address the effects arising out of any releases of these substances from all defense activities including the National Guard and Reserves. We must approach the problem in an aggressive and holistic way, ensuring a coordinated DoD-wide approach to the issue.”

DoW PFAS Task Force Timeline

According to the DoW PFAS Task Force website:

CERCLA takes time and each site has different characteristics that affect the timeframe of the cleanup (e.g., type of soil, depth to groundwater, concentration of chemicals in the groundwater). The timeline may change as investigations are completed and more is known about the sites as it collects information on the nature and extent of the releases, emerging chemicals are discovered, or regulatory standards change.¹⁵

The DoW identified a typical Environmental Restoration Process timeline, shown in Figure 5, to investigate releases, prioritize responses, and determine cleanup actions based on risk to human health and the environment.¹⁶



However, we found that the DoW's progress exceeded the timeframes within the DoW's typical timeline. Specifically, as of September 30, 2024, we found that, on average, DoW officials took 4.87 years to complete Preliminary Assessments and Site Inspections.¹⁷ Additionally, we found that, on average, DoW officials projected the Remedial Investigation and Feasibility Study phases will take 6.87 years to complete where the Remedial Investigation phase was underway.¹⁸ Finally, an average of 1.73 years elapsed after completing the Site Inspection phase

¹⁵ Office of the Assistant Secretary of War for Energy, Installations, and Environment Website, "PFAS 101 Overview of CERCLA," accessed January 29, 2025, <https://www.acq.osd.mil/eie/eer/ecc/pfas/pfas101/cercla.html>.

¹⁶ Office of the Under Secretary of War for Acquisition and Sustainment, "Report on Department of Defense Assessment and Remediation Plan," September 2025.

¹⁷ As of September 30, 2024, the DoW identified Preliminary Assessments and Site Inspections complete at 712 installations. The longest reported timeframe for completing the Preliminary Assessment and Site Inspection phases at an installation was 10 years.

¹⁸ As of September 30, 2024, the DoW had 392 installations that had begun the Remedial Investigation phase. The completion dates for the Remedial Investigation and Feasibility Study phases at 55 installations were projected to take more than 10 years.

at 182 installations without starting the Remedial Investigation phase.¹⁹ We concluded that, although valid reasons for exceeding the typical timeline may exist, longer timeframes may impact the opportunity for DoW officials to identify and implement interim actions where they may be warranted.²⁰

Installations with Factors That May Warrant Interim Actions

We selected 60 of 512 installations where DoW officials identified that the installation was proceeding through the Environmental Restoration Process without interim actions.²¹ Of these, we identified sites at 19 installations (32 percent of our sample) with one or more factors that may warrant an interim action.

The National Oil and Hazardous Substances Pollution Contingency Plan states that when the DoW “makes the determination,” based on the eight factors, that “there is a threat to public health or welfare of the United States or the environment,” the DoW may take any appropriate removal action, the most common type of interim action. Because the Plan states that these are factors to consider when determining the appropriateness of a removal action, we compared the conditions described in Preliminary Assessment and Site Inspection reports to the factors to identify where indicators of site-specific circumstances exist that may warrant an interim action.²² Specifically, we analyzed the Preliminary Assessment and Site Inspection reports for the selected installations for the first four factors shown in Table 2 because they are associated with immediate threats to public health and PFAS plume migration.²³

However, DoW officials did not document whether an interim action was warranted at the 19 installations. DoW officials told us that the need for an interim action is obvious based on professional experience and the data in the Preliminary Assessment and Site Inspection reports. Additionally, DoW officials stated that

¹⁹ As of September 30, 2024, more than 5 years had elapsed at 7 installations.

²⁰ During our evaluation, DoW officials updated the status of the Environmental Restoration Process, as of March 31, 2025. This status update included longer estimated timelines for the Environment Restoration Process.

²¹ At 3 of 60 selected installations, DoW officials determined that action was necessary in the Remedial Investigation phase but had not completed either the Preliminary Assessment or Site Inspection phase. Additionally, one installation had a Preliminary Assessment report but did not have a Site Inspection report that included sampling data. Therefore, we reviewed the Preliminary Assessment or Site Inspection reports for 57 installations and only the Preliminary Assessment report at one installation.

²² This does not mean that the DoW is required to take an interim action but instead means indicators exist that interim actions may be warranted.

²³ During our evaluation, we identified additional installations within our sample of 60 with Factors 1, 2, 3, or 4. However, at these installations, DoW officials provided us site-specific justification for why they determined that interim actions were not warranted. For example, we identified one installation with Factor 3—hazardous substances, pollutants, or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release. DoW officials provided a site-specific explanation for why they determined that an interim action was not warranted.

when they proceed to the next phase of the Environmental Restoration Process without an interim action, an implied decision exists that DoW officials deemed an interim action unnecessary. Without a documented assessment and determination of whether an interim action was warranted, we could not verify whether DoW officials considered the need for an interim action.

Installations with Removal Factor 1 That May Warrant Interim Action

We identified Factor 1, “[a]ctual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants,” at sites on three selected installations.²⁴ Specifically, we identified Factor 1 at Marine Corps Base Hawaii, Kaneohe Bay; Joint Base Langley-Eustis, Virginia; and the National Guard Base at Portland International Airport, Oregon.²⁵ For example, PFAS levels were extremely high at four sites at Joint Base Langley-Eustis, Virginia, which also had “potentially complete pathways for direct human exposure and for PFOA and PFOS to enter the food chain.”²⁶

Installations with Removal Factor 2 That May Warrant Action

As shown in Table 3, we identified Factor 2, “[a]ctual or potential contamination of drinking water supplies or sensitive ecosystems” at 15 selected installations.²⁷ For example, we identified drinking water laboratory test results from December 2024 that exceeded three times the maximum contaminant levels (MCLs) for PFAS resulting from DoW activities in off-base drinking water at one installation—Loring Air Force Base, Maine. In July 2025, Air Force officials told us that they would conduct additional confirmation testing in the wells to confirm laboratory test results were above three times the MCLs for PFAS.²⁸

²⁴ 40 C.F.R. § 300.415.

²⁵ Air Force officials cited the existence of other potentially responsible parties in the vicinity of Portland International Airport. Executive Order 12580 delegates presidential authorities under CERCLA to the Secretary of War to address “releases or threatened releases where either the release is on or the sole source of the release is from any facility or vessel under the jurisdiction, custody or control” of the DoW. DoDM 4715.20 states that, “As early as possible in the [E]nvironmental [R]estoration [P]rocess, the DoD Component shall establish processes to identify other [potentially responsible parties] eligible for cost-recovery...” and describes procedures for DoW officials to have other potentially responsible parties either conduct response actions or contribute to the cost of response actions.

²⁶ According to the Site Inspection report for Joint Base Langley-Eustis, the potentially complete pathways for direct human exposure and for PFOA and PFOS to enter the food chain were through the Back River and Big Bethel Reservoir. According to the Preliminary Assessment report for Joint Base Langley-Eustis, stormwater on the installation drains to the Back River, and consumption of seafood from this area is a potential human pathway for PFAS. One sample of surface soil found PFOS at 200,000 parts per billion, which far exceeds the screening level used by the DoW at the time of the Joint Base Langley-Eustis Site Inspection and the screening level as of January 2025—0.63 parts per billion. Similarly, a sample of groundwater identified PFOS at 2,200,000 parts per trillion, which far exceeds the screening level used by the DoW as of January 2025 of 4 parts per trillion.

²⁷ 40 C.F.R. § 300.415.

²⁸ According to Air Force officials, “Air Force [Base Realignment and Closure] tested four private drinking water wells above [three times] the MCLs. Two drinking water wells are being tested seasonally in 2025 to confirm results above [three times the] MCL. [...] The Maine Department of Environmental Protection installed [point-of-entry treatment systems] at two impacted drinking water wells ahead of DoD prioritization.” In June 2026, Air Force officials told us that “additional sampling was complete and mitigation actions are under contract.”

Table 3. Installations Where We Identified Factor 2

Installations with Factor 2	Installations with Factor 2 and Without Off-Base Testing
• Naval Air Station Alameda, California • Dallas Naval Weapons Industrial Reserve Plant, Texas • Cape Canaveral Space Force Station, Florida • Loring Air Force Base, Maine • New Boston Space Force Station, New Hampshire*	• Army Air Support Facility #3, Bates Field, Mobile, Alabama • Bangor Training Site, Maine • Duncan Armory Army Air Support Facility, Delaware • Rickenbacker Military Training Area—Army Air Support Facility #2, Ohio • Santa Fe Army Air Support Facility, New Mexico • Springfield Aviation Classification Repair Activity Depot, Missouri • Stafford Training Site, New Hampshire • Theatre Aviation Support Maintenance Group Gulfport, Mississippi • Portland International Airport, Oregon • Salt Lake City, Utah

Note: Throughout this report, we refer to installations where PFAS were used or potentially released by the installation names published on the DoW PFAS Task Force website.

* We identified Factor 2 in on-base drinking water at New Boston Space Force Station. According to Air Force officials, the Air Force is working to comply with the Safe Drinking Water Act for the on-base public water system. Specifically, Air Force officials are conducting a planning charrette to install permanent treatment systems at New Boston Space Force Station. DoW officials can also respond to PFAS in accordance with legal authorities other than CERCLA, such as the Safe Drinking Water Act.

Source: The DoW OIG.

On September 3, 2024, the Assistant Secretary of War for Energy, Installations, and Environment (ASW[EI&E]) issued a memorandum that directed DoW Components to “initiate removal actions to address private drinking water wells impacted by PFAS from DoD activities where concentrations are known to be at or above three times the MCL values...”²⁹ Our analysis of the Preliminary Assessment and Site Inspection reports found PFAS in groundwater upstream of off-base sources of drinking water at 10 selected installations that exceeded three times the MCLs; therefore, an exposure pathway to off-base sources of drinking water may exist.³⁰ However, DoW officials did not test the off-base sources of drinking water, including private drinking water wells, and, therefore, could not determine whether interim actions were warranted at these 10 installations.³¹

²⁹ The September 3, 2024 ASW(EI&E) memorandum states that, under CERCLA, the MCLs for PFAS “can be used as a risk trigger level to take interim actions” For PFOS and PFOA, three times the MCL is 12 parts per trillion.

³⁰ At the Air National Guard Base in Salt Lake City, the Site Inspection report specifically recommended “an expanded [Site Inspection]” for off-base drinking water to determine whether contaminated groundwater from the installation “is migrating off base and presents a possible threat to human health via ingestion of contaminated drinking water.” The Preliminary Assessment and Site Inspection reports for the remaining nine installations where we identified Factor 2 stated that either the groundwater exposure pathway for off-base receptors was potentially complete or a drinking water pathway off base could not be ruled out.

³¹ During our evaluation, we identified additional installations within our sample of 60 where laboratory test results identified PFAS in groundwater on the installation that exceeded screening levels and where the Preliminary Assessment or Site Inspection reports described off-base drinking water wells located downstream of the PFAS-contaminated groundwater. However, at each of the installations, DoW officials provided a site-specific explanation for why they determined testing was not warranted.

All 10 installations where officials did not test off-base drinking water wells were Army or Air Force National Guard installations. We asked Army and Air Force officials why they did not test off-base drinking water wells at these 10 installations. The officials cited the existence of other potentially responsible parties in the vicinity of the installations.

Installations with Removal Factor 4 That May Warrant Interim Action

As shown in Table 4, we identified Factor 4, “[h]igh levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate,” at 6 of 60 selected installations (10 percent).³² At each of the six installations, the PFAS laboratory test results that exceeded screening levels in soil were associated with or near locations where the PFAS laboratory test results in groundwater were also high. We concluded that PFAS contamination may be migrating from the soil to the groundwater.

Table 4. Installations Where We Identified Factor 4

Installations with Factor 4
• Crows Naval Auxiliary Landing Field, California • Marine Corps Base Hawaii, Kaneohe Bay, Hawaii • Dobbins Air Reserve Base, Georgia • Joint Base Langley-Eustis, Virginia • Portland International Airport, Oregon • Salt Lake City, Utah

Source: The DoW OIG.

We compared the levels of PFAS in soil and groundwater at the six installations to the levels of PFAS at four selected installations where DoW officials removed contaminated soil. The reports described levels of PFAS that were higher than the comparable soil and groundwater PFAS levels at installations where DoW officials took interim actions to remove soil. For example, at one site on Marine Corps Base Hawaii, Kaneohe Bay, levels of perfluorooctane sulfonic acid (PFOS) in soil were 31,200 parts per billion and in groundwater were 130,000 parts per trillion, indicating that contamination from the soil may be migrating to groundwater. At one site on Joint Base Langley-Eustis, levels of PFOS in soil were 200,000 parts per billion and in groundwater were 2,200,000 parts per trillion. These levels were

³² 40 C.F.R. § 300.415.

higher than the levels that prompted DoW officials to take interim actions at three of the installations we visited: Former Naval Air Station Joint Reserve Base Willow Grove, Former Wurtsmith Air Force Base, and Selfridge Air National Guard Base.³³

Defense Environmental Restoration Processes and Procedures Need Improvement

The DoW lacks sufficient processes and procedures for performing Site Discovery and documenting whether interim actions are warranted. Specifically, the first step in the Environmental Restoration Process is Site Discovery. However, DoDM 4715.20 does not define comprehensive procedures to ensure all DoW installations are reviewed during Site Discovery when an emerging chemical of environmental concern warrants an Environmental Restoration Process response, such as the DoW's coordinated response to PFAS. Additionally, DoDM 4715.20 does not require DoW officials to document which installations are reviewed during Site Discovery.

DoW officials told us that the DoW's response time has been affected by the changing science surrounding PFAS. Specifically, DoW officials began the Environmental Restoration Process for PFAS when these chemicals were considered pollutants or contaminants under CERCLA. Each time the screening levels for PFAS are lowered or new regulatory changes are announced, DoW officials must reassess sites and adjust interim actions and plans for final remedies to achieve new targets.

DoDM 4715.20 requires DoW officials to prepare a Decision Document "prior to implementing response actions," including interim actions.³⁴ However, DoDM 4715.20 only requires this documentation after DoW officials determine that an interim action is warranted. Additionally, neither DoD Instruction 4715.07 nor DoDM 4715.20 require DoW officials to document that they considered whether an interim action was warranted for all release sites. As shown in Figure 5, the Environmental Restoration Process takes years. This means that documentation throughout the Environmental Restoration Process is vital for preserving institutional knowledge.³⁵ A well-documented history of decisions and the rationale behind them allows for

³³ For example, at Naval Air Station Joint Reserve Base Willow Grove, laboratory tests showed that the level of PFOS in the soil before it was removed was 98,000 parts per billion and PFOA was 670 parts per billion. In soil, 1 part per billion is equivalent to 1 microgram per kilogram. In groundwater, the combined level of PFOS and PFOA was 102,000 parts per trillion.

³⁴ According to DoDM 4715.20, the Decision Document "include[s] all facts, technical rationale, and site-specific policy determinations considered in the course of identifying the selected response." Additionally, DoDM 4715.20 does not require a Decision Document before an emergency removal action but states that it must be prepared as soon as possible after the DoW initiates the action.

³⁵ Deputy Secretary of War Memorandum, "DoD Record Strategy," May 22, 2023.

historical consistency and analytical rigor, which in turn enhances current-day planning and decision-making and enables future professionals to learn from past professionals.

Furthermore, on July 11, 2023, the ASW(EI&E) issued a memorandum that directed DoW Components to:

evaluate the data gathered during Preliminary Assessments/Site Inspections and Remedial Investigations and assess where an interim action can be taken to mitigate further PFAS plume migration or ongoing impacts to groundwater, surface water, and/or sediment, from an on-base PFAS source area. The DoD Components are further directed to prioritize implementation of interim actions as expeditiously as possible to address PFAS under CERCLA, such as removal of soil or sediment ‘hot spots’ and installation of groundwater extraction systems, where supported by site-specific information.

However, this memorandum did not require DoW Component officials to document the evaluation and assessment that the ASW(EI&E) directed them to perform.

People and the Environment May Be Exposed to Risks from PFAS

The EPA states that “exposure to certain PFAS may lead to adverse health outcomes.”³⁶ PFAS health effects are determined by factors such as the type of PFAS, dose, frequency, route, and duration of exposure. Although research is ongoing to fully understand PFAS health effects, the EPA and Agency for Toxic Substances and Disease Registry state that known health effects include increased cholesterol levels; weakened immune system; decreased fertility; increased risk of prostate, kidney, and testicular cancer; and hormonal interference.³⁷

DoW officials have not reported any installations in the cleanup phases of the Environmental Restoration Process, shown in Figure 1. The timeline of the Environmental Restoration Process and the DoW’s progress through the investigation phases means that permanent PFAS remedies have not been implemented at DoW installations.

Finally, the DoW may miss opportunities to reduce immediate risk to public health or welfare of the United States or the environment at installations without interim actions, and interim actions may not occur where PFAS risks are high.

³⁶ EPA Webpage, “Our Current Understanding of the Human Health and Environmental Risks of PFAS,” accessed January 28, 2025, <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>.

³⁷ Agency for Toxic Substances and Disease Registry Webpage, “Per- and Polyfluoroalkyl Substances (PFAS) and Your Health—How PFAS Impacts Your Health.”

Management Comments on the Finding and Our Response

The ASW(EI&E) provided comments on the finding from Air Force officials related to Joint Base Langley-Eustis, Loring Air Force Base, Air National Guard installations, and New Boston Space Force Station. Specifically, the Air Force comments, provided as an attachment to the ASW(EI&E) comments, describe the hydrogeology at Joint Base Langley-Eustis and state that, based on the hydrogeology, it is highly unlikely that off-base private drinking water wells are impacted by PFAS plumes migrating off base.

Additionally, the Air Force comments related to Loring Air Force Base state that, as of July 2025, four private drinking water wells tested above three times the MCLs and two were undergoing required seasonal testing in 2025 to confirm results before action could be taken. The Maine Department of Environmental Protection proactively installed point-of-entry treatment systems at two impacted wells. The Air Force comments state that, as of the second quarter of FY 2026, the Air Force had completed the additional sampling and issued a contract for mitigating actions.

The Air Force comments also request that we include additional context regarding the DoW's legal authorities when installations have other potentially responsible parties, such as the Air National Guard installations we discuss in this report that are co-located with commercial airports and industrial areas, because co-locating may result in comingled PFAS plumes.

Finally, the Air Force comments request that New Boston Space Force Station be removed from Table 3 because the Air Force is working to comply with the Safe Drinking Water Act for the on-base public water system, including legal requirements to comply with the MCLs for PFAS by April 2029. The Air Force comments state that Air Force officials are conducting a planning charrette to install permanent treatment systems at New Boston Space Force Station to meet this deadline. The Air Force comments also state that no off-base private drinking water wells, sampled in 2024, exceeded three times the individual MCLs.

Our Response

Air Force comments for Joint Base Langley-Eustis focus on the hydrogeological context related to Factor 2; however, our analysis and reporting of Joint Base Langley-Eustis is related to Factor 1. We previously considered the information provided in these comments in July 2025 when performing our analysis and did not identify Joint Base Langley-Eustis as an installation with Factor 2 that may warrant an interim action. Although we acknowledge the Air Force comments related to Factor 2, we determined that they did not warrant a change to the report related to Factor 1.

Additionally, we updated this report to include the context provided by Air Force officials regarding Loring Air Force Base and Air National Guard installations.

Furthermore, although we acknowledge the Air Force comments related to off-base private drinking water wells, we included New Boston Space Force Station in Table 3 because we identified Factor 2 in on-base drinking water. We updated this report to describe the Air Force's response for on-base drinking water at New Boston Space Force Station. We did not remove New Boston Space Force Station from Table 3 because including it and adding information on actions taken pursuant to the Safe Drinking Water Act emphasize the possible applicability of multiple environmental statutory provisions.

Recommendations, Management Comments, and Our Response

Recommendation 1

We recommend that the Under Secretary of War for Acquisition and Sustainment direct the Heads of the DoW Components with Defense Environmental Restoration Program responsibilities to perform and document Site Discovery for each of their respective current and former installations to verify whether perfluoroalkyl and polyfluoroalkyl substances were used or potentially released.

Assistant Secretary of War for Energy, Installations, and Environment Comments

The ASW(EI&E), responding for the Under Secretary of War for Acquisition and Sustainment (USW[A&S]), agreed and stated that they would issue a policy memorandum that directs the Heads of the DoW Components with DERP responsibilities to perform and document Site Discovery for each of their respective current and former installations to verify whether PFAS were used or potentially released. The ASW(EI&E) plans to issue the policy memorandum by December 31, 2026.

Our Response

Comments from the ASW(EI&E) addressed all specifics of the recommendation; therefore, it is resolved but will remain open. We will close the recommendation when the ASW(EI&E) provides us with the policy memorandum and we verify that it directs the Heads of the DoW Components with DERP responsibilities to perform and document Site Discovery for each of their respective current and former installations to verify whether PFAS were used or potentially released.

Recommendation 2

We recommend that the Assistant Secretary of War for Energy, Installations, and Environment update the typical timeline to accurately reflect the DoW's progress through the Environmental Restoration Process phases for perfluoroalkyl and polyfluoroalkyl substances.

Assistant Secretary of War for Energy, Installations, and Environment Comments

The ASW(EI&E) agreed and stated that they will update the typical timeline to more accurately reflect the DoW's progress through the Environmental Restoration Process phases in addressing releases of PFAS. The ASW(EI&E) plans to update the typical timeline by December 31, 2026.

Our Response

Comments from the ASW(EI&E) addressed all specifics of the recommendation; therefore, it is resolved but will remain open. We will close the recommendation when the ASW(EI&E) provides us with the updated typical timeline and we verify that it more accurately reflects the DoW's progress through the Environmental Restoration Process for PFAS.

Recommendation 3

We recommend that the Under Secretary of War for Acquisition and Sustainment update the DoD 4715 series policies to require processes and procedures for:

- a. Performing and documenting Site Discovery.**
- b. Determining and documenting whether sites at each installation warrant an interim action, including identifying when this should occur.**

Assistant Secretary of War for Energy, Installations, and Environment Comments

The ASW(EI&E), responding for the USW(A&S), partially agreed. The ASW(EI&E) stated that the DoW has not historically required the DoW Components to formally document when the information from Site Discovery indicates that no potential exists for a release because that documentation is not required under CERCLA. Additionally, the ASW(EI&E) stated that, although CERCLA does not require documentation when site conditions do not warrant an interim action, the DoW

recognizes the benefit of documenting a negative determination at the end of the Site Inspection phase. According to the ASW(EI&E), the USW(A&S) plans to issue a policy memorandum to include processes and procedures for performing and documenting Site Discovery and determining and documenting whether sites at each installation warrant an interim action at the end of the Site Inspection phase. The ASW(EI&E) plans to issue the policy memorandum by March 31, 2027, and incorporate the changes into the next update of DoDM 4715.20, which the ASW(EI&E) stated was underway.

Our Response

Comments from the ASW(EI&E) addressed all specifics of the recommendation; therefore, it is resolved but will remain open. We will close the recommendation when the ASW(EI&E) provides us with the policy memorandum and we verify that it includes processes and procedures for performing and documenting Site Discovery and determining and documenting whether sites at each installation warrant an interim action at the end of the Site Inspection phase.

Recommendation 4

We recommend that the Under Secretary of War for Acquisition and Sustainment direct the Heads of the DoW Components with Defense Environmental Restoration Program responsibilities to document the evaluation, assessment, and determination of whether interim actions are warranted for all sites proceeding to the Remedial Investigation without interim action and whether additional testing of off-base receptors is warranted.

Assistant Secretary of War for Energy, Installations, and Environment Comments

The ASW(EI&E), responding for the USW(A&S), partially agreed. The ASW(EI&E) stated that, although CERCLA does not require documentation of negative determinations, the DoW recognizes the benefit of documenting these types of negative determinations, particularly when the Site Inspection phase is complete but Remedial Investigation phase activities have not yet occurred. According to the ASW(EI&E), they plan to issue a policy memorandum directing the Heads of the DoW Components with DERP responsibilities to document the evaluation, assessment, and determination of whether interim actions are warranted for all sites without interim action that are proceeding to the Remedial Investigation but have not yet begun a Remedial Investigation. Additionally, the ASW(EI&E) will direct DoW Components to document whether sampling of off-base private

drinking water wells is warranted for sites that are proceeding to the Remedial Investigation but have not yet begun a Remedial Investigation. The ASW(EI&E) plans to issue the policy memorandum by December 31, 2026.

Our Response

Comments from the ASW(EI&E) addressed all specifics of the recommendation; therefore, it is resolved but will remain open. We will close the recommendation when the ASW(EI&E) provides us with the policy memorandum and we verify that it directs DoW officials to document the evaluation, assessment, and determination of whether interim actions are warranted, as well as whether additional sampling of off-base drinking water is warranted at all sites proceeding to the Remedial Investigation without an interim action. The Remedial Investigation phase emphasizes data collection and site characterization and includes sampling and monitoring, as necessary, which includes the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives. In some instances, this data could reveal a need for an interim action during the Remedial Investigation phase. Therefore, as information becomes available at sites where the Remedial Investigation phase has already begun, the DoW may benefit from documenting their evaluation, assessment, and determination of whether interim actions are warranted during the Remedial Investigation phase.

Appendix A

Scope and Methodology

We conducted this evaluation from December 2024 through September 2025 in accordance with the “Quality Standards for Inspection and Evaluation,” published in December 2020 by the Council of the Inspectors General on Integrity and Efficiency. Those standards require that we adequately plan the evaluation to ensure that objectives are met and that we perform the evaluation to obtain sufficient, competent, and relevant evidence to support the findings, conclusions, and recommendations. We believe that the evidence obtained was sufficient, competent, and relevant to lead a reasonable person to sustain the findings, conclusions, and recommendations.

For this evaluation, we reviewed applicable criteria. Additionally, we held discussions with officials from the Office of the ASW(EI&E), DoW PFAS Task Force, Military Departments, and Defense Logistics Agency. To determine the effectiveness of DoW interim actions to promptly reduce risk and mitigate the further spread of PFAS, we analyzed the DoW’s list of 722 current and former installations to verify the status of the Environmental Restoration Process as of September 30, 2024. Specifically, we reviewed all 10 sites where the Preliminary Assessment and Site Inspection were not complete to determine the reason these phases were not completed and the estimated completion date.

Additionally, with assistance from the Data Services Directorate, we designed a stratified sample for our population of 712 installations where DoW officials reported the Preliminary Assessment and Site Inspection phases as complete.

- We selected a sample of 37 of 131 installations (using a 90-percent confidence level and a 5-percent precision) where the Preliminary Assessment and Site Inspection phases were identified as complete but where the DoW determined no further action was needed. We reviewed the Preliminary Assessment and Site Inspection reports to verify that DoW officials sought regulatory agreement that no further action was needed.
- We selected a sample of 60 of 512 installations (using a 90-percent confidence level and an 8.5-percent precision) continuing to the Remedial Investigation phase without interim action. We compared the respective Preliminary Assessment and Site Inspection reports to the CERCLA, National Oil and Hazardous Substances Pollution Contingency Plan, and DoW guidance to determine whether interim actions might be warranted.

- We selected a sample of 23 of 69 installations (using a 90-percent confidence level and a 5-percent precision) where interim actions were planned or taken. We reviewed the Preliminary Assessment and Site Inspection reports and interim action plans to verify whether DoW officials reduced risks or mitigated the further spread of PFAS at the installations.

However, we determined that the results could not be used to calculate estimates (projections) because the criteria for comparison and characteristics across the strata varied. Therefore, the conclusions were site-specific and not generalizable across the population.

Furthermore, we observed interim actions at the following six installations that we selected based on Military Service, type of interim action for plume migration and off-base drinking water, and ability to perform multiple observations with travel constraints.

- Camp Grayling Joint Maneuver Training Center, Michigan (Army National Guard)
- Former Naval Air Station Joint Reserve Base Willow Grove, Pennsylvania
- Former Naval Air Warfare Center Warminster, Pennsylvania
- Naval Research Laboratory–Chesapeake Bay Detachment, Maryland
- Former Wurtsmith Air Force Base, Michigan
- Selfridge Air National Guard Base, Michigan

Finally, we reviewed historical PFAS reports and guidance to identify a chronology of significant PFAS events.

Use of Computer-Processed Data

We relied on computer-processed data to perform this evaluation. Specifically, we reviewed Preliminary Assessment and Site Inspection reports that contain computer-generated data from contractor-owned databases, such as modeling and laboratory test results. We did not test the contractors' programs and integrity controls. However, we found that these are the same reports that DoW officials rely on to determine whether interim actions are warranted. Additionally, we obtained a list of installations that are eligible for the DERP from the Knowledge-Based Corporate Reporting System that we compared to the list of 722 installations where PFAS were used or potentially released. We tested the completeness of the list of 722 installations where PFAS were used or potentially released by comparing it to the reporting system list of installations that are eligible for DERP. We determined that the computer-processed data was sufficiently reliable for the purposes of this evaluation.

Appendix B

Prior Coverage

During the last 5 years, the DoW Office of Inspector General (DoW OIG), Government Accountability Office (GAO), and Army Audit Agency (AAA) issued 15 reports discussing PFAS.

Unrestricted DoW OIG reports can be accessed at <http://www.dodig.mil/reports.html/>.

Unrestricted GAO reports can be accessed at <http://www.gao.gov>.

DoW OIG

Report No. DODIG-2025-088, “Audit of DoD Management of Hazardous Waste Disposals in Japan,” April 30, 2025

The DoW OIG found that Air Force personnel at Yokota Air Base, Japan did not properly store materials contaminated with PFAS. Specifically, Air Force personnel stored the PFAS-contaminated waste in an uncontrolled area because the dedicated site for storing hazardous waste was full. Additionally, the DoW OIG issued a notice of concern in July 2023 identifying that Air Force officials at Yokota Air Base did not have a spill response plan for aqueous film-forming foam (AFFF) and shut off fire suppression systems, including water features, for nine buildings containing AFFF.

Report No. DODIG-2025-013, “Management Advisory: Concerns with the Navy’s Handling of Incidents Involving Aqueous Film-Forming Foam at Joint Base Pearl Harbor–Hickam,” November 8, 2024

The DoW OIG identified concerns with Navy officials’ handling of incidents involving AFFF. Specifically, Navy officials could not provide evidence indicating that they carried out required incident response actions, including reporting, and properly cleaned up areas affected by incidents involving AFFF in December 2019, September 2020, and October 2021.

Report No. DODIG-2025-017, “Audit of Cost Increases and Schedule Delays of Military Construction Projects Managed by Naval Facilities Engineering Systems Command,” November 5, 2024

The DoW OIG found that officials from the Naval Facilities Engineering Systems Command faced challenges on several military construction projects. In five selected military construction projects, the officials experienced cost increases and schedule delays because of, among other things, changing state policies for controlling PFAS-impacted soil and water.

Report No. DODIG-2021-105, “Evaluation of the Department of Defense’s Actions to Control Contaminant Effects from Perfluoroalkyl and Polyfluoroalkyl Substances at Department of Defense Installations,” July 22, 2021

The DoW OIG determined the extent that DoW officials took steps to identify, mitigate, and remediate contaminant effects from PFAS at DoW installations, identify populations exposed to PFAS, and inform them of the associated health and safety concerns. The DoW OIG found that the DoW was identifying, mitigating, and remediating contaminant effects from PFAS-containing AFFF; however, the DoW’s Emerging Chemical Program needed improvement. Furthermore, DoW officials took steps to identify populations exposed to PFAS at DoW installations and inform them of the associated health and safety concerns and developed a plan to implement PFAS blood testing for DoW firefighters by FY 2021. However, DoW officials did not have a plan to track, trend, and analyze the test results.

GAO

Report No. GAO-25-107401, “Persistent Chemicals: DoD Needs to Provide Congress More Information on Costs Associated with Addressing PFAS,” February 25, 2025

The GAO found that the DoW spent \$2.6 billion since 2017 addressing PFAS releases. According to the GAO, the DoW completed Preliminary Assessment and Site Inspection phases for PFAS at nearly all 718 identified installations and proceeded to the next step of the cleanup process at more than half, as of June 2024. However, no locations entered the long-term cleanup phases. Additionally, the GAO reported that DoW efforts to investigate its PFAS releases were generally thorough and that the DoW reported the pace and cost of its efforts to Congress. However, the GAO reported that the DoW did not communicate to Congress the full range of cost variables for future PFAS cleanup.

Report No. GAO-24-106523, “Persistent Chemicals: Additional EPA Actions Could Help Public Water Systems Address PFAS in Drinking Water,” September 24, 2024

The GAO found that the EPA established MCLs applicable to six types of PFAS in drinking water. The GAO reported that most public water systems in the United States had not fully implemented a PFAS treatment method. The GAO also reported that treatment methods generated PFAS-contaminated waste that must be safely managed. However, the GAO determined that most of the public water systems were unfamiliar with the EPA’s 2020 PFAS destruction and disposal guidance and were confused about the PFAS disposal requirements. The GAO determined that the EPA could further address public water systems’ confusion

and desire for guidance by creating a straightforward resource for public water systems that summarizes existing regulations, policies, and guidance relevant to the disposal of PFAS-contaminated waste.

Report No. GAO-24-107322, “Firefighting Foam: DoD Is Working to Address Challenges to Transitioning to PFAS-Free Alternatives,” July 8, 2024

The GAO found that the DoW took steps to eliminate use of AFFF at its installations after October 1, 2024. Specifically, the GAO reported that the Military Departments developed implementation plans, schedules, and costs for replacing AFFF in all land-based mobile assets and facilities worldwide. Additionally, the DoW wrote specifications for the development of a fluorine-free foam that provides a PFAS-free alternative. However, the Military Departments identified challenges that might affect the time and resources required to fully eliminate AFFF at DoW installations. According to the GAO, in February 2024, the DoW reported to Congress that it anticipated needing to submit waiver requests to the statutory deadline, thereby extending some AFFF use at DoW installations to October 1, 2026.

Report No. GAO-24-106812, “Persistent Chemicals: Navy Efforts to Address PFAS at Joint Base Pearl Harbor–Hickam,” April 15, 2024

According to the GAO, during November 2022 maintenance activities at Joint Base Pearl Harbor–Hickam in Hawaii, 1,300 gallons of AFFF concentrate was released from a pipe in a tunnel at the installation’s Red Hill Bulk Fuel Storage Facility. Some of the concentrate migrated out of the tunnel and into the environment. Because AFFF contains PFAS, this incident raised concerns about how the Navy would remediate PFAS contamination at the installation. The GAO found that, as of February 2024, testing had not detected PFAS in the active drinking water shaft at Joint Base Pearl Harbor–Hickam. The GAO reported that the Navy, as part of the DoW’s Department-wide environmental restoration program, identified 32 sites of known or potential PFAS contamination at Joint Base Pearl Harbor–Hickam. The GAO found that the Navy took steps to assess these sites and, where appropriate, developed plans for long-term cleanup.

Report No. GAO-23-106970, “Persistent Chemicals: Detecting, Limiting Exposure to, and Treating PFAS Contamination,” September 2023

The GAO reported that the Federal government could take actions to better detect PFAS occurrence in drinking water, limit human exposure to PFAS, and treat PFAS contamination. Among other findings, the GAO reported that Congress directed the DoW to stop purchasing certain products—such as rugs and cookware—that contain specific PFAS by April 2023. The GAO found that

the DoW took some steps to implement the prohibition but had not assessed how to prevent military Exchanges from procuring and reselling certain PFAS-containing items or updated its sustainable procurement guidance to implement PFAS-related policies and legislation.

Report No. GAO-23-105982, “Persistent Chemicals: Actions Needed to Improve DoD’s Ability to Prevent the Procurement of Items Containing PFAS,” April 26, 2023

The GAO found that the DoW faced challenges implementing statutory prohibitions on procurement of items containing PFAS. Specifically, starting April 2023, the DoW was prohibited from procuring items in four categories if they contained certain PFAS. However, the GAO determined that the DoW did not have all of the information needed to fully implement the prohibitions because no federal law required items to be labeled as containing PFAS, and no EPA-validated methods existed to detect PFAS in products. Additionally, the GAO found that the DoW had not assessed how to prevent military Exchanges from procuring and reselling certain goods that might contain PFAS. Furthermore, the GAO found that the DoW had not updated its sustainable procurement guidance to reflect the statutory PFAS prohibitions.

Report No. GAO-22-105207, “Base Realignment and Closure: DoD Should Provide Congress More Complete and Transparent Information,” September 28, 2022

The GAO determined that the DoW expenditures for Base Realignment and Closure (BRAC)-related activities exceeded initial estimates through FY 2020. According to the GAO, this was caused, in part, by environmental restoration costs, which could not be fully captured in initial estimates. The GAO also found that new environmental regulations to address emerging contaminants might require the DoW to add new sites or reopen completed CERCLA milestones. According to the GAO, the DoW anticipated increases in the future costs of PFAS cleanup at BRAC sites. Furthermore, the GAO determined that the DoW reported some future BRAC costs but did not provide complete and transparent information to Congress regarding long-term costs.

Report No. GAO-21-421, “Firefighting Foam Chemicals: DoD Is Investigating PFAS and Responding to Contamination but Should Report More Cost Information,” June 2021

The GAO determined that the DoW was early in the environmental cleanup process at or near 687 military installations with a known or suspected release of PFAS-containing AFFF. The DoW took actions to address PFAS in sources of drinking water above the EPA’s 2016 lifetime health advisory levels; however, it had not taken actions to address PFAS in sources of drinking water that were above state-imposed PFAS standards but below the EPA’s 2016 lifetime health advisory levels. Additionally, the DoW had not reported estimated costs for

future PFAS cleanup in its annual environmental report to Congress. The GAO also found that none of the AFFF alternatives fully met or exceeded firefighting performance requirements. The DoW was continuing to fund research to identify AFFF alternatives without PFAS.

Army Audit Agency

Report No. A-2025-0033-FIZ, “Follow-up Audit of Per- and Polyfluoroalkyl Substances (PFAS) Contamination Reporting,” March 20, 2025

The AAA conducted a follow-up audit to determine if the Army implemented the six recommendations in AAA Report A-2020-0050-FIZ. The AAA found that Army officials implemented recommendations to fund PFAS remediation and update PFAS reporting guidance. However, the AAA found that additional updates were needed to account for changing requirements. The AAA also found that the Commander of the U.S. Army Materiel Command implemented a recommendation to ensure required PFAS assessments were completed and reported, but the Director of the Army National Guard did not.

Report No. A-2022-0075-FIZ, “Army Drinking Water Inspection Program,” August 17, 2022

The AAA determined that Army installations followed the process to monitor the quality of drinking water by sampling and reporting EPA regulated and unregulated contaminants. Sampling results were generally within EPA requirements; however, reported results had inaccuracies in consumer confidence reports.

Report No. A-2020-0050-FIZ, “Per- and Polyfluoroalkyl Substances (PFAS) Contamination on Army Installations,” May 2020

The AAA determined that Army installations took actions to mitigate contaminants and meet the EPA’s 2016 lifetime health advisory limits. The AAA reviewed 7 of 13 installations with drinking water that exceeded the EPA limits and determined that those bases took actions to reduce contamination levels of perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). The AAA also found that even though most Army installations generally completed quarterly assessments to monitor contamination levels, Sierra Army Depot did not. Furthermore, 32 of 64 Army installations with Army-owned water systems did not record their assessments in the DoW’s official system of record, Defense Occupational and Environmental Health Readiness System, for PFOS and PFOA results.

Appendix C

Chronology of Significant Events

PFAS have been used in a wide variety of commercial and industrial products and in manufacturing processes since the 1940s, and many Federal agencies, including the DoW and EPA, are responding to PFAS concerns. Table 5 provides a chronology of PFAS-related events relevant to our evaluation.

Table 5. Chronology of PFAS-Related Events

Date	Description
1970s	The DoW began using the fire suppressant foam, AFFF, which contained PFAS, to fight petroleum-based fires.
1980	Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
2000	The EPA worked with U.S. manufacturers to begin the voluntary phase out of PFOS and PFOA production in the United States.
2006	DoW officials initiated a program to evaluate and manage risks from emerging chemicals of environmental concern.
2009	DoW officials formally established the EC Program with DoD Instruction 4715.18. ³⁸
2009	The EPA published provisional health advisories (PHAs) for PFOS and PFOA found in sources of drinking water at 200 parts per trillion (ppt) and 400 ppt, respectively. ³⁹
May 2016	The EPA replaced the 2009 PHAs with lifetime health advisories for PFOS and PFOA. The EPA established the lifetime health advisory level of 70 ppt. ⁴⁰

³⁸ DoD Instruction (DoDI) 4715.18 was first published in 2009 and superseded in 2019 and 2024. DoDI 4715.18, “Emerging Contaminants (ECs),” June 11, 2009 (Superseded). DoDI 4715.18, “Emerging Chemicals (ECs) of Environmental Concern,” September 4, 2019 (Superseded). DoDI 4715.18, “Emerging Chemicals (ECs) of Environmental Concern,” February 9, 2024,” September 4, 2019 (Implementing Change 1, February 9, 2024). We discussed the EC Program management of PFOS and PFOA in Report No. DODIG-2021-105.

³⁹ As discussed in Report No. DODIG-2021-105, according to the EPA, the EPA developed the non-regulatory Health Advisory Program in 1978 to provide information for public health officials or other interested groups on contaminants that can affect drinking water quality but are not regulated under the Safe Drinking Water Act. According to the EPA, the “EPA develops health advisories to provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. The EPA’s health advisories are non-enforceable and non-regulatory.”

⁴⁰ EPA, “Fact Sheet: PFOA & PFOS Drinking Water Health Advisories,” May 2016.

Table 5. Chronology of PFAS-Related Events (cont'd)

Date	Description
January 2016	Under the authority of DoD Instruction 4715.18 and EC Program, the Office of the ASW(EI&E) issued a memorandum that directed DoW officials to take specific actions to reduce the risk of AFFF containing PFAS. Specifically, DoW officials were required to: “prevent routine uncontrolled land-based releases of AFFF during maintenance, testing, and training activities,” including restricting nonessential use of AFFF and requiring engineered containment systems or spill response measures for AFFF releases, and “replace existing stocks of AFFF concentrates containing PFOS and PFOA with AFFF concentrates with little to no PFOS or PFOA.”⁴¹
2017	The EPA announced that U.S. manufacturers phased out the manufacturing of PFOS and PFOA.
February 2019	The EPA issued a PFAS action plan with multiple planned actions, including proposals for the potential regulation of PFAS.
July 2019	The Secretary of War established the DoW PFAS Task Force. ⁴²
October 15, 2019	The Assistant Secretary of War for Sustainment issued a memorandum describing how DoW Components should incorporate the EPA’s latest regional screening levels (RSLs) into the DERP. ⁴³
February 2020	The EPA updated the 2019 PFAS action plan that describes the status of its actions.
2020	The FY 2020 National Defense Authorization Act (NDAA) required the Secretary of War to, among other things: - prohibit uncontrolled AFFF use at military installations, - work cooperatively with states to address PFAS from DoW activities and share PFAS monitoring data, - provide PFAS blood testing to DoW firefighters,⁴⁴ and - maintain a publicly available website with information on testing, clean-up, and available PFAS treatment methods.⁴⁵ The FY 2020 NDAA also required the Secretary of the Navy to publish a military specification for a fluorine-free firefighting agent by January 31, 2023, and ensure the agent was available for use no later than October 1, 2023. The FY 2020 NDAA prohibited AFFF use on or after the earliest of October 1, 2024, or the date the Secretary of War determined that prohibition is possible.

⁴¹ ASW(EI&E) Memorandum, “Emerging Contaminants Governance Council (ECGC) Meeting Results,” January 28, 2016.

⁴² Secretary of War Memorandum, “Per- and Polyfluoroalkyl Substances Task Force,” July 23, 2019.

⁴³ Assistant Secretary of War for Sustainment Memorandum, “Investigating Per- and Polyfluoroalkyl Substances Within the Department of Defense Cleanup Program,” October 15, 2019.
Regional screening levels are chemical-specific concentrations for individual contaminants, such as PFOS and PFOA, in air, drinking water, and soils that, if exceeded, warrant further investigation. As of September 2025, the DoW PFAS Task Force website showed that responsible DoW PFAS Task Force officials in the Office of the Under Secretary of War for Acquisition and Sustainment issued five memorandums since 2019 titled “Investigating Per- and Polyfluoroalkyl Substances Within the Department of Defense Cleanup Program.” The DoW PFAS Task Force officials issued the memorandums to describe how DoW Components should incorporate the EPA’s latest regional screening levels into the Environmental Restoration Process. Each new memorandum superseded the older memorandums.

⁴⁴ We discussed this in Report No. DODIG-2021-105.

⁴⁵ National Defense Authorization Act for Fiscal Year 2020.

Table 5. Chronology of PFAS-Related Events (cont'd)

Date	Description
March 2020	In a progress report to Congress, DoW PFAS Task Force officials reported that no one on or off base drank water containing PFOS or PFOA in levels higher than the EPA's 2016 lifetime health advisories where PFAS contaminant effects were caused by DoW activities. ⁴⁶
2021	The FY 2021 NDAA required a DoW representative to join an interagency working group to coordinate Federal activities related to PFAS research and development, involving the removal of PFAS from the environment, safe destruction of PFAS, development of alternative substances functionally similar to PFAS, understanding sources of PFAS contamination and pathways to public exposure, and understanding of the toxicity of PFAS. ⁴⁷ The EPA established the EPA Council on PFAS and developed the EPA's PFAS Strategic Roadmap.
July 22, 2021	The DoW Office of Inspector General (DoW OIG) issued Report No. DODIG-2021-105, "Evaluation of the Department of Defense's Actions to Control Contaminant Effects from Perfluoroalkyl and Polyfluoroalkyl Substances at Department of Defense Installations." ⁴⁸
September 15, 2021	The Acting Assistant Secretary of War for Sustainment issued a memorandum describing how DoW Components should incorporate the EPA's latest RSLs into the DERP. ⁴⁹
December 22, 2021	The Acting Assistant Secretary of War for Sustainment issued a memorandum describing the triggers for removal actions under CERCLA and how DoW Components should incorporate state PFAS drinking water standards as part of a removal action. ⁵⁰
2022	The FY 2022 NDAA required the Secretary of War to complete Preliminary Assessments and Site Inspections for PFAS at all military installations and facilities of the National Guard located in the United States that were identified as of March 31, 2021, as having a release of PFAS.
July 6, 2022	The Deputy ASW(EI&E) issued a memorandum describing how DoW Components should incorporate the EPA's latest RSLs into the DERP. ⁵¹

⁴⁶ DoW PFAS Task Force, "Progress Report," March 2020.

⁴⁷ National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116-283, 134 Stat. 3388 (2021).

⁴⁸ Report No. DODIG-2021-105, "Evaluation of the Department of Defense's Actions to Control Contaminant Effects from Perfluoroalkyl and Polyfluoroalkyl Substances at Department of Defense Installations," July 22, 2021.

⁴⁹ Acting Assistant Secretary of War for Sustainment Memorandum, "Investigating Per- and Polyfluoroalkyl Substances Within the Department of Defense Cleanup Program," September 15, 2021.

⁵⁰ Office of the Assistant Secretary of War for Sustainment Memorandum, "Department of Defense Guidance on Using State Per- and Polyfluoroalkyl Substances Drinking Water Standards in Comprehensive Environmental Response, Compensation, and Liability Act Removal Actions," December 22, 2021.

⁵¹ Deputy ASW(EI&E) Memorandum, "Investigating Per- and Polyfluoroalkyl Substances Within the Department of Defense Cleanup Program," July 6, 2022.

Table 5. Chronology of PFAS-Related Events (cont'd)

Date	Description
2023	The FY 2023 NDAA required the Under Secretary of War for Acquisition and Sustainment to report to Congress annually for 4 years on known or suspected contamination on or around military installations located in the United States and resulting from the release of PFAS originating from a source other than AFFF.⁵² The FY 2023 NDAA required the Secretary of War to publish on the DoW PFAS Task Force website information on research projects supported or conducted by the DoW related to fluorine-free firefighting agents, health effects of PFAS, and treatment options for drinking water, surface water, groundwater, and the safe disposal of PFAS.⁵³
July 11, 2023	The ASW(EI&E) published a memorandum directing DoW Components to assess where an interim action could be taken to mitigate further PFAS plume migration or ongoing impacts to environmental media and to prioritize implementation of interim actions as quickly as possible. ⁵⁴
August 24, 2023	The ASW(EI&E) issued a memorandum describing how DoW Components should incorporate the EPA's latest RSLs into the DERP. ⁵⁵
2024	The FY 2024 NDAA required the Secretary of War to submit a budget justification that consolidated all information related to DoW PFAS activities, including funding and descriptions of research and development efforts, testing, remediation, contaminant disposal, and community outreach.⁵⁶ The FY 2024 NDAA required the Secretary of War to publish on the DoW PFAS Task Force website timely and regularly updated information on the status of PFAS cleanup at sites for which the DoW obligated funds for environmental restoration activities.
February 2024	The EPA proposed regulating nine PFAS as hazardous waste under the Resource Conservation and Recovery Act.

⁵² National Defense Authorization Act for Fiscal Year 2023, Pub. L. No. 117–263, 136 Stat. 2395 (2022).

⁵³ We reviewed the DoW PFAS Task Force website and found that it describes PFAS research projects, as required by the FY 2023 National Defense Authorization Act. Specifically, it states that the “DoD’s Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) funded more than 170 projects since 2011, addressing the management of PFAS in the environment, as well as the development of PFAS-free alternatives to AFFF.” Additionally, the website includes links to the SERDP and ESTCP program website, located at: <https://serdp-estcp.mil/focusareas/e18ec5da-d0de-47da-99f9-a07328558149/pfas-afmf#subtopics>. Our review of the SERDP and ESTCP program website found that it addresses subtopics such as ecotoxicity of PFAS, treatment of PFAS-impacted matrices, and occurrence, fate, and transport. According to the website, “SERDP and ESTCP projects improve the current understanding of PFAS toxicity and behavior in the environment, as well as sampling and analysis of PFAS, to conduct efficient site investigations. We have funded hundreds of projects that have quickly and significantly advanced our understanding and management of PFAS in the environment by evaluating a range of potential treatment technologies, ecotoxicological effects, and improved site characterization. Our programs also fund the development and demonstration of PFAS-free firefighting formulations...”

⁵⁴ ASW(EI&E) Memorandum, “Memorandum for Taking Interim Actions to Address Per- and Polyfluoroalkyl Substances Migration from DoD Installations and National Guard Facilities,” July 11, 2023.

⁵⁵ ASW(EI&E) Memorandum, “Investigating Per- and Polyfluoroalkyl Substances Within the Department of Defense Cleanup Program,” August 24, 2023.

⁵⁶ National Defense Authorization Act for Fiscal Year 2024, Pub. L. No. 118–31, 137 Stat. 136 (2023).

Table 5. Chronology of PFAS-Related Events (cont'd)

Date	Description
April 2024	The EPA: - designated PFOS and PFOA as hazardous substances under CERCLA, - established nationwide drinking water standards for PFOS and PFOA in public drinking water systems under the Safe Drinking Water Act, and - updated interim guidance on the destruction and disposal of materials containing PFAS.
September 3, 2024	The ASW(EI&E) published a memorandum for the prioritization of DoW's cleanup actions to implement Federal drinking water standards for PFAS under the DERP. The memorandum states that the MCLs promulgated in April 2024 for PFAS "can be used as a risk trigger level to take interim actions," but exceeding an MCL does not in itself trigger a removal action. ⁵⁷
November 2024	The EPA published a report that describes its accomplishments in accordance with the EPA's PFAS Strategic Roadmap. ⁵⁸
October 4, 2024	Eight members of Congress requested a "comprehensive report demonstrating how the [DoW's] efforts to remediate harmful per- and polyfluoroalkyl substances (PFAS) have progressed, with a particular focus on military sites and surrounding communities in Michigan."
October 9, 2024	A Congressperson from Michigan requested a comprehensive report from the DoW OIG demonstrating how the DoW's efforts to remediate PFAS progressed since the 2019 DoW OIG report, with a particular focus on Former Wurtsmith Air Force Base, Camp Grayling Joint Maneuver Training Center, and surrounding communities of Oscoda and Grayling, Michigan.
December 18, 2024	The DoW OIG announced this evaluation.
January 21, 2025	The ASW(EI&E) issued a memorandum describing how DoW Components should incorporate the EPA's latest RSLs into the DERP. ⁵⁹

Source: The DoW OIG.

⁵⁷ ASW(EI&E) Memorandum, "Prioritization of Department of Defense Cleanup Actions to Implement the Federal Drinking Water Standards for Per- and Polyfluoroalkyl Substances Under the Defense Environmental Restoration Program," September 3, 2024.

⁵⁸ The EPA's November 2024 progress report was the third and latest in a series of progress reports since the EPA established the EPA Council on PFAS and developed the EPA's PFAS Strategic Roadmap in 2021.

⁵⁹ ASW(EI&E) Memorandum, "Investigating Per- and Polyfluoroalkyl Substances Within the Department of Defense Cleanup Program," January 21, 2025.

Appendix D

The DoW's Reported Completion Status for the Environmental Restoration Process for PFAS as of September 30, 2024

Throughout this report, we refer to information published on the DoW PFAS Task Force website. According to the website, as of September 30, 2024, DoW officials identified 722 current and former installations where PFAS were used or potentially released. Additionally, the website reported that both the Preliminary Assessment and Site Inspection phases of the Environmental Restoration Process were complete at 712 current and former installations. Table 6 summarizes the DoW PFAS Task Force's reported completion status for 722 installations in the Environmental Restoration Process for PFAS as of September 30, 2024.

Table 6. Summary of the DoW PFAS Task Force's Reported Completion Status for 722 Installations in the Environmental Restoration Process for PFAS (as of September 30, 2024)

DoW PFAS Task Force Reported Status	DoW Reported Count of Installations
Preliminary Assessment (PA) /Site Inspection (SI) Completed – No Further Action	131
PA/SI Completed – Additional Work Will Be Combined with Work Being Conducted at Another Installation or Federal Agency*	7
PA/SI Completed – Remedial Investigation Planned	182
PA/SI Completed – Remedial Investigation Underway	392
Subtotal of Installations Reported as PA and SI Complete:	712
PA/SI Planned	1
PA/SI Underway	7
PA/SI and Remedial Investigation Underway	2
Subtotal of Installations Reported as PA and SI Incomplete:	10
Total:	722

Appendix E

Congressional Request Letter, October 4, 2024

Congress of the United States
Washington, DC 20510

October 4, 2024

The Honorable Robert P. Storch
Inspector General
Office of Inspector General
U.S. Department of Defense
4800 Mark Center Drive
Alexandria, VA 22350-1500

Dear Inspector General Storch:

We are writing to request a comprehensive report demonstrating how the Department of Defense’s (DoD) efforts to remediate harmful per- and polyfluoroalkyl substances (PFAS) have progressed, with a particular focus on military sites and surrounding communities in Michigan.

PFAS chemicals remain a grave danger to the health of our constituents. Residents in Michigan communities with former and current military bases continue to suffer the consequences of their decades-long exposure to these toxic forever chemicals. While we are pleased that some Interim Remedial Actions (IRA) are underway at these sites, we remain concerned about the health and well-being of residents in these communities.

In 2019, members of Michigan’s congressional delegation sent a letter to then DoD Acting Inspector General Glenn Fine, requesting a review of the DoD’s use of PFAS at military sites around the country and the exposure to both military personnel and civilians living near those sites. While we appreciate the resulting report from the DoD OIG, many questions remain unanswered.

Therefore, we request an updated analysis of the DoD’s efforts to address PFAS contamination at former and current military bases that build on questions originally brought to your office’s attention in 2019:

1. What methodology is the DoD using to determine the scope of the problem and how to allocate its resources to address it?
 - a. Has the DoD updated this methodology to account for the new maximum contaminant levels (MCLs) and if so, how? If not, what is the timeline and plan for updating the methodology as soon as possible?
 - b. As PFAS bioaccumulates, how is the DoD sampling fish and benthic organisms within the food web in nearby bodies of water to determine the extent of contamination that could impact human health?
 - c. How is the DoD sampling at each site to determine the highest concentrations of PFAS as well as the complete plumes of contamination? To what extent is vertical aquifer sampling and sampling at the groundwater-surface water interface prioritized?

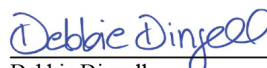
Congressional Request Letter, October 4, 2024 (cont'd)

- d. When collecting and reporting plume data to determine the scope of the problem, how and when does DoD determine whether that data is dated and needs to be updated?
2. Can you describe what work the DoD has done with service members, their families, and impacted communities to remediate drinking water contamination and mitigate health risks?
 - a. What public engagement strategies have been effective? Where does the DoD need to improve collaboration?
 - b. How does DoD determine the most technically competent staff to discuss remedial actions during technical sessions with Restoration Advisory Boards and communities? What expertise and familiarity with the site must they have?
3. What is the DoD's plan to discontinue the use of PFAS chemicals?
 - a. The Fiscal Year 2020 National Defense Authorization Act prohibited the DoD's use of fluorinated aqueous film-forming foam (AFFF) on military installations by October 1, 2024, unless the Secretary of Defense waives the prohibition of use. Has DoD met this timeline, and if not, what more needs to be done to achieve this requirement?
4. Can you describe the DoD's efforts and future plans to rapidly mitigate the further spread of PFAS and clean up current PFAS contamination in the environment, including in soil, groundwater, and drinking water?
 - a. How is the DoD prioritizing its cleanup strategy within each contaminated site, including across its sites currently undergoing interim remedial actions (IRAs)?
 - b. How is the DoD investing in research to identify novel ways to efficiently remediate PFAS contamination in water, soil, or other media, and what plans if any are in place to test and implement these technologies when available?
 - c. How is the DoD ensuring that filtration technologies such as granular activated carbon, ion exchange resins, and other inorganic treatment strategies are properly disposed of after use to prevent water and soil contamination?

Sincerely,



Daniel T. Kildee
Member of Congress



Debbie Dingell
Member of Congress

Congressional Request Letter, October 4, 2024 (cont'd)



Haley M. Stevens
Member of Congress



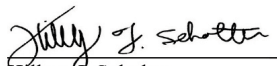
Jack Bergman
Member of Congress



Lisa C. McClain
Member of Congress



Shri Thanedar
Member of Congress



Hillary J. Scholten
Member of Congress



Elissa Slotkin
Member of Congress

Congressional Request Letter, October 9, 2024

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United States Senate

COMMITTEE ON
HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
WASHINGTON, DC 20510-6250

DAVID M. WEINBERG, STAFF DIRECTOR
WILLIAM E. HENDERSON III, MINORITY STAFF DIRECTOR
LAURA W. KILBRIDE, CHIEF CLERK

October 9, 2024

The Honorable Robert P. Storch
Inspector General
Office of Inspector General
U.S. Department of Defense
4800 Mark Center Drive
Alexandria, VA 22350-1500

Dear Inspector General Storch:

I am writing to request a comprehensive report demonstrating how the Department of Defense's (DoD) efforts to remediate harmful per- and polyfluoroalkyl substances (PFAS) have progressed, with a particular focus on the former Wurtsmith Air Force Base (Wurtsmith), Camp Grayling Joint Maneuver Training Center (Camp Grayling), and surrounding communities of Oscoda and Grayling, Michigan. I am further writing to clarify unanswered questions regarding this toxic exposure that remain a concern for me, members of our Armed Forces, and residents of Michigan.

PFAS chemicals remain a grave danger to the health of our communities and environment. Residents of Oscoda and Grayling, Michigan, continue to cope with exposure from toxic PFAS chemicals stemming from the decades of extensive use of Aqueous Film Forming Foam (AFFF) fire suppressant at Wurtsmith and Camp Grayling. While I am pleased that we have been able to increase resources and personnel to remedy these harmful chemicals, I remain concerned for the health and well-being of my constituents in these communities. These toxic "forever chemicals" persist in the environment and cause extensive contamination to drinking water sources and freshwater ecosystems.

In 2019, I sent a letter to then Secretary of the Air Force, Heather Wilson, expressing concern over the Air Force PFAS cleanup operations at Wurtsmith and the surrounding Oscoda community.¹ That same year, Representative Dan Kildee, led a letter to then DoD Acting Inspector General Glenn Fine, requesting a review of the DoD's use of PFAS at military sites around the country and the exposure to both military personnel and civilians living near these sites.² In 2021, I then sent another letter to BRAC Environmental Coordinator, Dr. Catharine Varley, expressing my concern regarding the accuracy of the reported spread of PFAS into the Van Etten Lake area surrounding Wurtsmith.³ This spring, my staff met with leadership from the United States Air

¹ Letter from Chairman Gary C. Peters, United States Senate, to Secretary Heather Wilson (Jan. 31, 2019).

² Congressman Dan Kildee: Congressman Dan Kildee Leads Efforts to Press the Defense Department on Accountability for PFAS Contamination (July 25, 2019).

³ Letter from Chairman Gary C. Peters, and Debbie Stabenow, United States Senate, Daniel T. Kildee, and Elissa Slotkin, United States Congress, to Dr. Catharine Varley (April 20, 2021).

Congressional Request Letter, October 9, 2024 (cont'd)

Force, Army National Guard, DoD, State of Michigan, and the communities in Oscoda and Grayling to examine the PFAS remediation efforts underway and the extent of progress. The findings from this visit solidified my resolve for the continued evaluation of the DoD's actions from the Office of Inspector General (OIG).

While I appreciate the resulting report from the DoD OIG, five years later, many questions remain unanswered. With the recent progress on developing maximum contaminant levels (MCLs) and viable cleanup methods for PFAS, some Interim Remedial Actions (IRAs) are now underway at Wurtsmith and Camp Grayling. These IRAs are not the final solution, and more work is required to fully address these contaminated sites. Therefore, I request an updated analysis of the DoD's efforts to address PFAS contamination at current and former military bases across the country that build on questions originally brought to your office's attention in 2019. Your timely response to my questions would provide meaningful insight into the DoD's PFAS remediation efforts:

1. What methodology is the DoD using to determine the scope of the problem and how to allocate its resources to address it?
 - a. Has the DoD updated this methodology to account for the new maximum contaminant levels (MCLs) and if so, how? If not, what is the timeline and plan for updating the methodology as soon as possible?
 - b. As PFAS bioaccumulates, how is the DoD sampling fish and benthic organisms within the food web in nearby bodies of water to determine the extent of contamination that could impact human health?
 - c. How is the DoD sampling at each site to determine the highest concentrations of PFAS as well as the complete plumes of contamination? To what extent is vertical aquifer sampling and sampling at the groundwater-surface water interface prioritized?
 - d. When collecting and reporting plume data to determine the scope of the problem, how and when does DoD determine whether that data is dated and needs to be updated?
2. Can you describe what work the DoD has done with service members, their families, and impacted communities to remediate drinking water contamination and mitigate health risks?
 - a. What public engagement strategies have been effective? Where does the DoD need to improve collaboration?
 - b. How does DoD determine the most technically competent staff to discuss remedial actions during technical sessions with Restoration Advisory Boards and communities? What expertise and familiarity with the site must they have?
3. What is the DoD's plan to discontinue the use of PFAS chemicals?
 - a. The Fiscal Year 2020 National Defense Authorization Act prohibited the DoD's use of fluorinated aqueous film-forming foam (AFFF) on military installations by October 1, 2024, unless the Secretary of Defense waives the prohibition of use.⁴

⁴National Defense Authorization Act of 2020, Pub. L. 116-92, Sec. 322.

Congressional Request Letter, October 9, 2024 (cont'd)

Has DoD met this timeline, and if not, what more needs to be done to achieve this requirement?

4. Can you describe the DoD's efforts and future plans to rapidly mitigate the further spread of PFAS and clean up current PFAS contamination in the environment, including in soil, groundwater, and drinking water?
 - a. How is the DoD prioritizing its cleanup strategy within each contaminated site, including across its sites currently undergoing interim remedial actions (IRAs)?
 - b. How is the DoD investing in research to identify novel ways to efficiently remediate PFAS contamination in water, soil, or other media, and what plans if any are in place to test and implement these technologies when available?
 - c. How is the DoD ensuring that filtration technologies such as granular activated carbon, ion exchange resins, and other inorganic treatment strategies are properly disposed of after use to prevent water and soil contamination?

Thank you for your prompt attention to this matter. If you or members of your staff have any questions, please contact Chelsea Davis on the Homeland Security and Governmental Affairs Committee staff at (202) 578-8009.

Sincerely,



Gary C. Peters
Chairman
Committee on Homeland Security
and Governmental Affairs

Congressional Request Letter, December 8, 2025

RAND PAUL, KENTUCKY, CHAIRMAN
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ELISSA SLOTNIN, MICHIGAN

United States Senate
COMMITTEE ON
HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
WASHINGTON, DC 20510-6250

December 8, 2025

The Honorable Steven Stebbins
Acting Inspector General
U.S. Department of Defense – Office of Inspector General
4800 Mark Center Drive
Alexandria, VA 22350-1500

Dear Acting Inspector General Stebbins:

As Ranking Member of the Senate's Chief Oversight Committee, I am writing today with concern for how the Department of Defense (DOD) is handling its per- and polyfluoroalkyl substances (PFAS) cleanup responsibilities nationwide.

I am pleased that the DOD Office of Inspector General (OIG) responded to my 2024 request and will soon be releasing a report evaluating DOD's interim actions to promptly reduce risk and mitigate the spread of PFAS.¹ I look forward to reviewing these findings as soon as possible. However, recent events necessitate an expeditious follow-up investigation.

In September, reporting uncovered that DOD delayed PFAS cleanups at nearly 140 military installations across the country, stalling progress at sites for up to a decade.² DOD released the revised cleanup schedule in September without a public announcement explaining these changes. Additionally, the revised timetable is dated March 31, 2025, but DOD waited roughly 6 months to make this information available.³ DOD has a clear responsibility to address cleanup related to its own activities with urgency and transparency.⁴ However, DOD's latest actions suggest a shirking of their responsibility and unnecessarily extend public health risks.

¹ Memorandum from Randolph Stone, Assistant Department of Defense Inspector General for Evaluations, to Under Secretary of Defense for Acquisition and Sustainment, Chief of the National Guard Bureau, Director of the Defense Logistics Agency, and Auditors General of the Army, Navy, and Air Force on the evaluation of DOD's interim actions to reduce risk and mitigate the spread of PFAS (Dec. 18, 2024) (media.defense.gov/2024/Dec/27/2003619053/-1/-1/1/D2025-DEV0SR-0048.000_REDACTED.PDF).

² *Defense Department Delays Cleanup of 'Forever Chemicals' Nationwide*, New York Times (Sept. 23, 2025) (www.nytimes.com/2025/09/23/climate/military-defense-pfas-forever-chemicals-cleanup-delay.html).

³ Department of Defense, *Progress at the 723 Installations Being Assessed for PFAS Use or Potential Release* (March 31, 2025) (www.acq.osd.mil/eie/eer/ecc/pfas/docs/data/DoD-PFAS-Progress-31MAR25.pdf).

⁴ Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Pub L. 96-510.

Congressional Request Letter, December 8, 2025 (cont'd)

Every American deserves access to clean, safe drinking water and should be able to rely on their government to promptly address imminent public health threats. Exposure to PFAS is associated with a range of harmful health effects, from increased risk of certain cancers to elevated cholesterol and blood pressure. I therefore request an urgent review of the delays announced by DOD, focusing on the following questions:

1. What factors, metrics, or other information did the Department of Defense assess in deciding to delay estimated completion dates for preparatory work at military installations, as documented in the March 31 document and released publicly in September?
 - a. What are the specific resource, staffing, or other constraints that the Department of Defense assessed in this decision-making process? How did those factors contribute to the decision to delay estimated completion dates?
 - b. What steps, if any, did the Department of Defense take to evaluate the potential impact on local communities that would result from these delays?
2. What steps, if any, did the Department of Defense take to communicate with local communities regarding potential cleanup delays prior to the timetables being amended and released publicly?

Thank you for your prompt attention to this matter. If you or members of your staff have any questions, please contact Chelsea Davis on the Homeland Security and Governmental Affairs Committee staff at (202) 224-2627.

Sincerely,



Gary C. Peters
United States Senator
Ranking Member, Committee
on Homeland Security and
Governmental Affairs

Management Comments

Assistant Secretary of War for Energy, Installations, and Environment



ENERGY, INSTALLATIONS,
AND ENVIRONMENT

THE ASSISTANT SECRETARY OF WAR
3400 DEFENSE PENTAGON
WASHINGTON, DC 20301-3400

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR SPACE,
INTELLIGENCE, ENGINEERING, AND OVERSIGHT

SUBJECT: Review of Draft Inspector General Report, "Evaluation of the Department of War's Interim Actions to Promptly Reduce Risk and Mitigate the Spread of Perfluoroalkyl and Polyfluoroalkyl Substances at Department of Defense Installations," Project Number D2025-DEVOSR-0048.000

I appreciate the Department of War (DoW) Office of Inspector General's (IG) review of the Department's interim actions for per- and polyfluoroalkyl substances (PFAS). The Department implements environmental restoration at its military installations, locations, and facilities under the Defense Environmental Restoration Program (DERP) in accordance with federal cleanup law, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). As the report notes, starting around 2014, DoW undertook a comprehensive review to determine which installations may have used PFAS and should be evaluated for potential release in a CERCLA preliminary assessment. The existing processes within the DoW's mature restoration management program allowed installations and program managers to react quickly. As a result, 723 of our installations initiated the first stage of the CERCLA process to evaluate potential PFAS releases. The Department can, and does, contemplate interim response actions throughout the CERCLA process. Indeed, the DoW has conducted interim actions at sites where a PFAS release must be addressed quickly to prevent, minimize, or mitigate damage to public health or welfare or to the environment. Implementing the DoW IG recommendations will enhance stakeholder communications and further improve DERP documentation and procedures.

I am providing responses to recommendations contained in the subject report for the Under Secretary of War for Acquisition and Sustainment and the Assistant Secretary of War for Energy, Installations, and Environment in Attachment 1. I also endorse additional comments specific to the U.S. Air Force in Attachment 2.

Please contact the Acting Deputy Assistant Secretary of War for Environmental Management and Restoration, [REDACTED] if additional information is required.

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MARKS.DALE.R. [REDACTED]
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Dale R. Marks

Attachments:

As stated

Assistant Secretary of War for Energy, Installations, and Environment (cont'd)

Attachment 1 – Department of War Responses

**DOWIG DRAFT REPORT DATED APRIL 28, 2026
PROJECT NO. D2025-DEV0SR-0048.000**

**“EVALUATION OF THE DEPARTMENT OF WAR’S INTERIM ACTIONS TO
PROMPTLY REDUCE RISK AND MITIGATE THE SPREAD OF PERFLUOROALKYL
AND POLYFLUOROALKYL SUBSTANCES AT DEPARTMENT OF DEFENSE
INSTALLATIONS”**

**DEPARTMENT OF WAR RESPONSES
TO THE DOWIG RECOMMENDATIONS**

Recommendation 1:

We recommend the Under Secretary of War for Acquisition and Sustain[ment] direct the Heads of the DoW Components with Defense Environmental Restoration Program responsibilities perform and document the Site Discovery phase for each of their respective current and former installations to verify whether perfluoroalkyl and polyfluoroalkyl substances were used or potentially released.

Response 1: The Under Secretary of War for Acquisition and Sustainment (USW(A&S)) concurs with Recommendation 1.

The Assistant Secretary of War for Energy, Installations, and Environment (ASW(EI&E)) will issue a policy memorandum that directs Heads of the Department of War (DoW) Components with Defense Environmental Restoration Program (DERP) responsibilities to perform and document Site Discovery for each of their respective current and former installations to verify whether perfluoroalkyl and polyfluoroalkyl substances (PFAS) were used or potentially released at that installation that would require further review in a Preliminary Assessment (PA). Current and former installations who have previously conducted a PA have already completed this recommendation. The ASW(EI&E)’s estimated completion date is December 31, 2026.

Recommendation 2:

We recommend that the Assistant Secretary of War for Energy, Installations, and Environment update the typical timeline to accurately reflect the DoW’s progress through the Environmental Restoration Process phases for perfluoroalkyl and polyfluoroalkyl substances.

Response 2: The ASW(EI&E) concurs with Recommendation 2.

The ASW(EI&E) will update the typical timeline to more accurately reflect the DoW’s progress through the Environmental Restoration Process phases in addressing releases of PFAS. The ASW(EI&E)’s estimated completion date is December 31, 2026.

Assistant Secretary of War for Energy, Installations, and Environment (cont'd)

Attachment 1 – Department of War Responses

Recommendation 3:

We recommend that Under Secretary of War for Acquisition and Sustainment update the DoD 4715 series policies to require processes and procedures for:

- a. Performing and documenting the Site Discovery
- b. Determining and documenting whether sites at each installation warrant an interim action, including identifying when this should occur.

Response 3:

The USW(A&S) partially concurs with Recommendation 3.

a. Site Discovery. In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and DoW policy, the DoW Components perform site discovery to determine which candidate sites warrant further investigation. Based on this review, when there is an indication that a release may have occurred, DoW initiates a PA and documents the information found during site discovery in the PA document. Some installations do not warrant a PA-level review because operational history does not suggest any use or storage of PFAS containing materials. Historically in these situations, DoW has not required the DoW Components to formally document when the information from site discovery indicates that there is no potential for a release as that documentation is not required under CERCLA.

b. Interim Actions. Also, in accordance with CERCLA, the DoW Components continually assess the need for interim actions throughout the cleanup process. DoW's authority under CERCLA to conduct interim actions when there is an immediate need to address a threat to human health or the environment provides a useful tool to address a release more quickly. Using professional judgement, DoW cleanup teams continually evaluate new data that is received throughout the CERCLA process to determine whether site specific conditions warrant an interim action. In situations where DoW determines an interim action is warranted, CERCLA as well as DoW policy require documentation of that decision. For good reason, there is no requirement to document when site conditions do not warrant an interim action; site conditions may change as new information is discovered, thus, such "negative" documentation may stifle a cleanup team's ability to continuously evaluate site conditions.

While CERCLA does not require documentation when site conditions do not warrant an interim action, DoW recognizes the benefit of documenting a negative determination at the end of the Site Inspection (SI) phase when adequate data is typically available to make a determination of whether an interim action is warranted.

* * *

USW(A&S) will update the Department of Defense Manual (DoDM) 4715.20 to include processes and procedures for (a) performing and documenting Site Discovery and (b)

Assistant Secretary of War for Energy, Installations, and Environment (cont'd)

Attachment 1 – Department of War Responses

determining and documenting whether sites at each installation warrant an interim action at the end of the SI phase.

The USW(A&S) plans to issue a policy memorandum by the end of the second quarter of Fiscal Year 2027 to document the above process and changes that will be included in the next update of the DoDM, which is currently underway.

Recommendation 4:

We recommend the Under Secretary of War for Acquisition and Sustainment direct the Heads of the DoW Components with Defense Environmental Restoration Program responsibilities to document the evaluation, assessment, and determination of whether interim actions are warranted for all sites proceeding to the Remedial Investigation without interim action and whether additional testing of off-base receptors is warranted.

Response 4: The USW(A&S) partially concurs with Recommendation 4.

While CERCLA does not require documentation of negative determinations (i.e., that an interim action or off-base sampling is *not* warranted), DoW recognizes the benefit of documenting these types of negative determinations particularly when an SI is complete but Remedial Investigation (RI) activities that include sampling to delineate the nature and extent of a release have not yet occurred. The ASW(EI&E) will issue a policy memorandum that directs the Heads of the DoW Components with DERP responsibilities, to document the evaluation, assessment, and determination of whether interim actions are warranted for all sites proceeding to, but have not yet begun, the RI and that have not taken an interim action. Separately, for sites proceeding to, but have not yet begun an RI and have not tested potential off-base drinking water exposures, the ASW(EI&E) will further direct Components to document whether sampling of off-base private drinking water wells is warranted. The ASW(EI&E)'s estimated completion date is December 31, 2026.

Assistant Secretary of War for Energy, Installations, and Environment (cont'd)

Attachment 2 – Department of the Air Force Comments

DOWIG DRAFT REPORT DATED MONTH XX, YEAR
PROJECT NO. D2025-DEV0SR-0048.000

“EVALUATION OF THE DEPARTMENT OF WAR’S INTERIM ACTIONS TO PROMPTLY REDUCE RISK AND MITIGATE THE SPREAD OF PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES AT DEPARTMENT OF DEFENSE INSTALLATIONS”

DEPARTMENT OF THE UNITED STATES AIR FORCE COMMENTS ON THE DOWIG REPORT

Joint Base Langley-Eustis, VA (Active)

Regarding Joint Base Langley-Eustis (referenced on page 16 under *Installations With Factor 1 That May Warrant Interim Action*), the report notes potentially complete pathways for human exposure based on localized Site Inspection report data. The Department of the Air Force (DAF) would like to provide updated hydrogeological context to support the holistic decision-making process at this installation. Groundwater flow at both Joint Base Langley-Eustis is directed toward local surface water bodies (the James River, Black River, and ultimately the Chesapeake Bay). Furthermore, the depth to groundwater in the potable Yorktown-Eastover Aquifer typically begins at 25 feet. Based on this established hydrogeology, it is highly unlikely that off-base private drinking water wells are impacted by per- and polyfluoroalkyl substances (PFAS) plumes migrating off-base. This information was provided at the time of the report development (RFI #5 Submitted July 11, 2025) and the technical considerations are not adequately captured in the report.

Request: We respectfully request that this broader hydrogeological context be incorporated into the report to demonstrate that the data available did not support the implementation of an Interim Remedial Action.

Loring Air Force Base, ME (BRAC)

Regarding Loring Air Force Base (referenced on page 16 under the section *Installations With Factor 2 That May Warrant Interim Action*), the report currently notes test results exceeding three times the Maximum Contaminant Levels (MCLs) for PFAS and states that Air Force officials did not plan to take interim actions until additional testing was completed. To ensure the report reflects the most current data, DAF would like to provide an update. At the time of the report development (RFI #5 Submitted July 11, 2025), DAF confirmed four private wells tested above 3x the MCLs, and two were undergoing required seasonal testing in 2025 to confirm results before action could be taken. Furthermore, the Maine Department of Environmental Protection proactively installed Point of Entry Treatment systems at two impacted wells. As an

Assistant Secretary of War for Energy, Installations, and Environment (cont'd)

Attachment 2 – Department of the Air Force Comments

update, the DAF has completed the additional sampling, and mitigation projects are currently underway.

Request: To better reflect these positive steps, we respectfully recommend modifying lines 299-302 to focus on the action taken rather than the negative: *"As of July 2025, Air Force officials told us that they were conducting additional confirmation sampling to determine whether an interim action was warranted based on the confirmed laboratory test results."* Additionally, we recommend updating Footnote 25 to state: *"According to Air Force officials, 'The Maine Department of Environmental Protection installed [point-of-entry treatment systems] at two impacted drinking water wells ahead of DoD prioritization.' And as of FY26Q2, additional sampling was complete, and mitigation actions are under contract."*

Air National Guard Sites (Portland International Airport, OR & Salt Lake City, UT) – may be applicable to some Army locations as well

Regarding the Air National Guard (ANG) installations at Portland International Airport (pages 16-19) and Salt Lake City (pages 17, 19), the Department appreciates the report noting the existence of other potentially responsible parties. To provide a complete picture of the operational reality at these co-located sites, we recommend expanding upon the legal limitations of the Department's Defense Environmental Restoration Program (DERP) authority. As accurately noted on page 11 of the report, DERP authority is designed to address contamination where the Department is the sole source. Because these ANG installations are co-located at commercial airports and industrial areas, commingled plumes from multiple responsible parties are highly likely, and a direct exposure pathway from solely ANG releases to drinking water wells has not been identified.

Request: We respectfully request that the report incorporate the DERP "sole source" limitations for these specific sites to accurately contextualize why unilateral interim actions are legally and procedurally constrained either as similar text as provided on page 18, lines 317-321, or as a footnote for the factors where ANG sites are mentioned. Currently, the limitation is only identified/acknowledged under Factor 3.

New Boston Space Force Station, NH (Active)

Regarding New Boston Space Force Station (referenced on page 17), the DAF would like to offer clarification regarding the different statutory frameworks governing on-base public water systems versus off-base private wells. For the on-base public water system, the DAF is actively working to comply with the Safe Drinking Water Act (SDWA) National Primary Drinking Water Regulations. The legal requirement is to meet MCLs by April 2029, and the DAF is actively conducting a Planning Charrette to install permanent treatment systems to meet this deadline. The "3x MCL" interim action trigger applies specifically to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for off-base mitigation, not SDWA

Assistant Secretary of War for Energy, Installations, and Environment (cont'd)

Attachment 2 – Department of the Air Force Comments

public systems. Regarding off-base private wells sampled in 2024, no wells exceeded 3x the individual MCLs.

Request: We respectfully recommend that New Boston is removed from the report (Table 3) to separate the SDWA compliance efforts from the CERCLA interim action evaluation to ensure an accurate representation of the legal pathways and proactive actions currently underway.

Acronyms and Abbreviations

AFFF	Aqueous Film-Forming Foam
ASW (EI&E)	Assistant Secretary of War for Energy, Installations, and Environment
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DERP	Defense Environmental Restoration Program
DoDM	Department of Defense Manual
EPA	U.S. Environmental Protection Agency
MCL	Maximum Contaminant Level
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonate Acid
USW(A&S)	Under Secretary of Wary for Acquisition and Sustainment

Glossary

DoW Components. The Office of the Secretary of War; Military Departments; Joint Chiefs of Staff; Joint Staff; combatant commands; DoW OIG; Defense agencies, such as the Defense Logistics Agency; DoW field activities; and all other organization entities in the DoW.

Emergency Removal. Generally initiated within hours of determining that a removal action is appropriate.

Feasibility Study. A study undertaken by the lead agency to develop and evaluate options for remedial action. The Feasibility Study emphasizes data analysis and is generally performed concurrently and interactively with the Remedial Investigation, using data gathered during the Remedial Investigation. The Remedial Investigation data are used to define the objectives of the response action, develop remedial action alternatives, and undertake an initial screening and detailed analysis of the alternatives. The term also refers to a report that describes the results of the study.⁶⁰

Former Military Installations. Installations that are in the process of being closed, have been closed, or are being realigned by congressional authorization but are still under the jurisdiction of the DoW. Former military installations also include properties that have been transferred out of the DoW but for which the DoW retains environmental restoration responsibilities.

Formerly Used Defense Sites. A facility or site located in the United States that was under the jurisdiction of the Secretary of War and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances. The Formerly Used Defense Sites Program is limited to those real properties that were transferred from DoW control before October 17, 1986.

Groundwater. Water beneath the surface of land.

Installation. A base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the DoW, including any leased facility.

Interim Remedial Actions. A partial solution in a complex remedy or a solution at one site among a group of sites.

⁶⁰ 40 C.F.R. Part 300.

Non-Time Critical Removal Action. Occurs when a planning period of more than 6 months is available.

Preliminary Assessment. A review of existing information and an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A Preliminary Assessment may include an on-site reconnaissance, if appropriate.⁶¹

Plume. A contaminated groundwater plume exists when hazardous substances, pollutants, or contaminants are present in an aquifer system. A plume of contaminated groundwater may form when substances are released to soil and migrate to groundwater. The contaminated plume can spread horizontally, vertically, and transversely by means of infiltration, migration, interaquifer exchange, and interaction with surface water.

Remedial Action. Actions consistent with a permanent remedy taken instead of or in addition to removal actions.⁶²

Remedial Investigation. A process undertaken by the lead agency to determine the nature and extent of the problem presented by the release. The Remedial Investigation emphasizes data collection and site characterization and is generally performed concurrently and interactively with the feasibility study. The Remedial Investigation includes sampling and monitoring, as necessary, as well as the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives.⁶³

Remediate. Actions taken in accordance with CERCLA to remedy the effects of environmental contamination on human health and safety, ecological resources or receptors, and operations. These actions occur sometime after the release of contaminants into the environment, as opposed to immediately following and in response to a release incident, and are consistent with or intended to be the final and permanent solution for site releases.

Removal. Actions to “prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release.”⁶⁴

⁶¹ 40 C.F.R. Part 300.

⁶² 42 U.S.C. § 9601 et seq.

⁶³ 40 C.F.R. Part 300.

⁶⁴ 42 U.S.C. § 9601 et seq.

Safe Drinking Water Act. The Safe Drinking Water Act protects public health by regulating the nation's public drinking water supply and requiring many actions to protect drinking water and its sources. The Act authorizes the EPA to set limits for drinking water contaminants that present a risk to human health. According to the Act, MCLs are "the maximum permissible level of a contaminant in water which is delivered to any user of a public water system." The EPA established the MCLs individually and in mixtures for PFOS, PFOA, and four other PFAS.

Site. A distinct area of an installation containing one or more releases or threatened releases of hazardous substances treated as a discrete entity or consolidated grouping for response purposes. Installations may have more than one site. Former military installations may also be considered sites.

Site Inspection. An on-site investigation to determine whether a release or potential release occurred and the nature of the associated threats. The purpose is to augment the data collected in the Preliminary Assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.⁶⁵

Time-Critical Removal Action. Occurs within 6 months of determining that a removal action is appropriate and is the most common type of removal action.

⁶⁵ 40 C.F.R. Part 300.

Whistleblower Protection

U.S. DEPARTMENT OF WAR

Whistleblower Protection safeguards DoW employees against retaliation for protected disclosures that expose possible fraud, waste, and abuse in Government programs. For more information, please visit the Whistleblower webpage at www.dodig.mil/Components/Administrative-Investigations/Whistleblower-Reprisal-Investigations/Whistleblower-Reprisal/ or contact the Whistleblower Protection Coordinator at Whistleblowerprotectioncoordinator@dodig.mil

**For more information about DoW OIG
reports or activities, please contact us:**

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