



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-9
600 ARMY PENTAGON
WASHINGTON DC 20310-2400

REPLY TO
ATTENTION OF

DAIN-ISE

30 October 2023

MEMORANDUM FOR RECORD

SUBJECT: Army Base Realignment and Closure (BRAC) Remedial Investigation for Per- and Polyfluoroalkyl Substances (PFAS) at Sierra Army Depot (SIAD)

1. Purpose:

This Memorandum for Record (MFR) documents the initiation of a PFAS Remedial Investigation (RI) on the BRAC portion of Sierra Army Depot. The RI will be completed per the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the Defense Environmental Restoration Program, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The RI will include the review of historical information pertaining to the BRAC portion of SIAD to determine whether historical use, storage, or release of PFAS containing materials may have resulted in a release of PFAS compounds into the environment, as well as document the nature and extent of the PFAS releases, and determine if any off-post exposure pathways or unacceptable risks exist. The purpose of an RI is to collect data necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives. The term PFAS includes but is not limited to perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluorobutanoic acid (PFBA), perfluorobutanesulfonic acid (PFBS), perfluorononanoic acid (PFNA), perfluorohexanoic acid (PFHxA), perfluorohexanesulfonic acid (PFHxS), and hexafluoropropylene oxide dimer acid (HFPO-DA, or GenX).

2. Background:

a. Sierra Army Depot was identified for realignment in the 1995 Defense BRAC Commission Report. The result of this realignment led to the Army excessing 67,120 acres. The Army (active Army) retained a 32,437 acre enclave. Approximately 62,632 acres have been transferred outside of Army ownership, and approximately 4,488 acres remain to be transferred.

b. Starting in 1997, the property has been transferred to Bureau of Indian Affairs, Bureau of Prisons, the Local Redevelopment Authority, State of California, a local school district, and a local Community Services District.

c. In May 2016, the U.S. Environmental Protection Agency (EPA) declared a Lifetime Health Advisory (LHA) for PFOS and PFOA, individually or combined, of 0.07 micrograms per liter ($\mu\text{g/L}$) or 70 parts per trillion (ppt) in drinking water.

d. In September 2018, the Army issued guidance and instructions to complete historical research to find potential PFAS source areas. In August 2023, the Office of

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the Secretary of Defense confirmed the services will utilize the Environmental Protection Agencies screening levels (SLs) of target PFAS compounds. The screening levels are as follows:

Screening Levels from the 2023 OSD Memorandum

Chemical	Residential Tap Water HQ = 0.1 (ng/L or ppt)	Residential Soil HQ = 0.1 (µg/kg or ppb)
HFPO-DA	6	23
PFBA	1,800	7,800
PFBS	601	1,900
PFHxA	990	3,200
PFHxS	39	130
PFNA	5.9	19
PFOA	6	19
PFOS	4	13

e. On the adjacent, Army retained portion of SIAD, the Active Army completed a Preliminary Assessment and Site Inspection (PA/SI) to determine if there had been a release of PFAS compounds into the environment at several Areas of Potential Interest (AOPIs). The report is publically available in the following location: <https://aec.army.mil/PFAS/CA/SIAD>. Please note, at the time of the report higher screening levels were used. This MFR documents the decision to move to a RI based on the current screening levels above.

f. During the completed PA/SI activities, an AOPI referred to as “Excavated Laydown Area” was sampled for PFAS compounds. In section 5.2.7, it is noted that the Excavated Soil Laydown Area was a temporary laydown yard and received approximately 3,700 cubic yards (cy) of soil excavated from SIAD-007 Fire Training Area in the mid-1990s. SIAD-007 is located on the BRAC property. The groundwater results at this AOPI were detected at values above the updated 2023 SLs for PFOA. The maximum detected value was 18 ppt.

g. In section 4.3 of the Active Army PA/SI, two cleanup sites were identified as potential sources of PFAS releases (SIAD-007 and SIAD-013). Both of these cleanup sites are located on BRAC property. The PA/SI confirmed the presence of PFAS above SLs in various places throughout the adjacent Army property. This provides enough information to determine that the activities from these locations may be contributing to the contamination. Since there is enough information to make that assumption, a RI will be required to determine the nature and extent of PFAS contamination.

3. Analysis:

a. The AOPI “Excavated Laydown Area” was a disposal area where detections of PFAS were identified and are the result of activities located on the BRAC property at cleanup site SIAD-007, Fire Training Area. Since there were detections of PFAS above the SLs at this AOPI, it is logical to assume that the primary source would also have detections above the identified SLs.

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b. The completed PA/SI confirmed that there were potential release areas from the BRAC property. The types of AOPs were related to firefighting activities. Throughout BRAC other AOPs and Army wide AOPs, almost all fire training areas have soil and/or groundwater exceedances of SLs, which require a RI.

4. Path-forward:

a. Per the September 2018 guidance, an RI is required at the BRAC property at SIAD. The RI will be completed in accordance with CERCLA, DERP, the NCP, and Army and EPA policy and guidance. The purpose of the RI will be to determine the nature and extent of the contamination, look for secondary AOPs where other PFAS sources may have been used, stored, disposed of, or released at. The RI will also include updates to the conceptual site models to identify the exposure pathways, as well as take into consideration how current land use and land use controls (LUCs) may affect the final remedy.

b. During the RI process, an assessment will be made to determine if there are off-post (never owned by Army) receptors by completing an off-post potable well survey. If off-post drinking water supply wells are identified, sampling will be coordinated and completed. As required by Army Regulation (AR) 200-1, a thru and to memo will be generated to notify of this off-post activity.

c. The RI will be completed in a phased approach by identifying other potential contributing release sites, deed searches, off-post potable wells and research of potential post transfer activities that may have affected the PFAS contamination. This effort will be funded in FY24.

d. SIAD is not on the National Priorities List (NPL) and per the NCP, the regulatory support agencies are the California Department of Toxic Substances Control and the California Regional Water Quality Control Board. Documents, including scoping documents and work plans will be coordinated with them.

5. The point of contact for this action is Erin Mauer, BRAC Environmental Program Manager at Erin.C.Mauer.Civ@army.mil.

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