Cannon and Holloman AFB NMED PFAS Project Update

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Introduction

- The NMED Hazardous Waste Bureau contracted with Daniel B. Stephens & Associates, Inc. (DBS&A) to characterize per- and polyfluoroalkyl substances (collectively referred to as PFAS) in groundwater on and in the vicinity of Cannon Air Force Base (AFB) in Curry County and Holloman AFB in Otero County.
- Work to date has included Phase 1 (FY2022) and Phase 2 (FY2023) activities.



Introduction (cont.)

- PFAS are a large family of manmade organofluorine compounds that were developed in the early 1940s.
- Certain PFAS, such as perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), are mobile, persistent, and bioaccumulative, and are not known to degrade in the environment.
- Both sites had historic use of aqueous film forming foam (AFFF) to extinguish fires involving highly flammable liquids.



Cannon Phase 1 Project Scope

FY2022, August 2021 to June 2022

- Compiled and reviewed all existing documents and data
- Developed planning documents and a conceptual site model
- Installed and sampled one downgradient monitor well
- Groundwater sampling (split sampling of 15 wells on base; 29 wells off base)



Holloman Phase 1 Project Scope (cont.)

FY2022, August 2021 to June 2022

- Groundwater sampling (15 wells on base)
- Biological sampling at and near Lake Holloman
 - Collected 128 birds representing 37 species
 - Collected 282 small mammals representing 11 species
- Analysis of a subset of the biological samples (40 samples)



Holloman Phase 1 Project Scope

FY2022, August 2021 to June 2022

- Compiled and reviewed all existing documents and data
- Developed planning documents and a conceptual site model
- Numerical modeling
- Sediment sampling (10 locations)
- Surface water sampling (3 locations, Lake Holloman)



Cannon Phase 2 Project Scope

FY2023, March to June 2023

- Reviewed the U.S. Air Force (USAF)'s Cannon AFB Remedial Investigation (RI) work plan
- Groundwater sampling (9 domestic wells + project specific downgradient monitor well)
- Numerical modeling
- Recommendations



Holloman Phase 2 Project Scope

FY2023, March to June 2023

- USAF and private landowner coordination regarding site access
- Analysis of additional biological samples
 - 58 bird and small mammal samples
 - 2 composite plant samples
- Atmospheric dispersion and deposition modeling
- Recommendations



Cannon Recommendations

- Establish a technical dialogue between NMED, USAF, and EPA to determine the nature and extent of the USAF's plans for off-site investigation, and to coordinate field and data collection efforts.
- Obtain progress reports on activities associated with the USAF RI from the USAF or EPA, including access to preliminary data.



Holloman Recommendations

- Expand the monitoring network, install and sample new monitor wells, and establish a regular groundwater monitoring program.
- Holloman AFB access will be required.



Questions?

All DBS&A NMED PFAS project reports are available at https://www.env.nm.gov/pfas

