

Department of the Air Force PFAS Snapshot

Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic fluorinated chemicals. Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) are two organic chemicals within the PFAS group that were used in industrial and consumer products such as nonstick cookware, stain-resistant fabric and carpet, some food packaging and specialized foam. PFOS and PFOA are the only two compounds of the PFAS group with established Environmental Protection Agency health advisories for drinking water.

In 1970, the Department of the Air Force (DAF) began using the firefighting agent Aqueous Film Forming Foam (AFFF) which contained PFOS and PFOA. AFFF is the most efficient extinguishing method for petroleum-based fires and is widely used across the firefighting industry, to include all commercial airports, to protect people and property. On May 19, 2016, the EPA established a lifetime Health Advisory or HA level of 70 parts per trillion for PFOS and/or PFOA in drinking water. The EPA HAs are non-regulatory and not enforceable; however, under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), DAF uses it to determine an action level for PFOS/PFOA in drinking water. The illustration depicts DAF progress through the CERCLA process.

IDENTIFY

203 Installations Require Preliminary Assessments (PAs)

100% of PAs Complete

Of those 203, 190 Installations Conducting a Site Inspection (SI)

35% of SIs Complete

Of those, 190 Installations Planning a Remedial Investigation (RI)

26% of RIs Initiated

BRAC: 7 RIs awarded: 1 (FY19) 4 (FY20) 2 (FY21)
ACTIVE/Reserve: 31 RIs awarded: 1 (FY19) 29 (FY20) 1 (FY21)
ANG: 12 RIs awarded: 1 (FY16) 1 (FY19) 10 (FY20)

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|----|----------------|
| 39 | BRAC |
| 89 | Active/Reserve |
| 75 | ANG |
| 30 | BRAC |
| 85 | Active/Reserve |
| 75 | ANG |
| 30 | BRAC |
| 85 | Active/Reserve |
| 75 | ANG |

RESPOND

35 Installations

Air Force Drinking Water Response Actions:

- Bottled water
- Point-of-use filtration
- Whole-house filtration
- Municipal Water Supply hookup
- Municipal Water Treatment
- New well drilling

BRAC

Castle
K.I. Sawyer
March
Mather
Pease
Plattsburgh
Reese
Wurtsmith

ACTIVE/RESERVE

Cannon
Dover
Eielson
Ellsworth
Fairchild
Goodfellow
Homestead
Hurlburt Field
JBMDL
JBSA Randolph
Little Rock

ANG

Biddle (formerly Horsham)
Gabreski
Montana
Morris
Otis/JB Cape Cod
Toledo

PREVENT

176/176

Installations transitioned to new C6 AFFF in stockpiles and fire trucks

\$5.3M

Cost for ecologic system kits for fire vehicles

100%

Installations finished retrofitting vehicles with ecologic system kits

979,000

Gallons of legacy AFFF disposed

\$10.8M

Cost to date to replace and dispose of legacy AFFF in stockpiles and fire trucks

\$822M

total force expenditures

PFAS Actions to Date

investigations | response actions | prevention



Installations Status Update

Active/Reserve Installations

Cannon AFB, NM: 3 off-base drinking water sources above EPA HA; BWP,FSI at 2. Engineering Evaluation/Cost Analysis – Pilot Study Project began May '21

Dover AFB, DE: 9 off-base private wells above EPA HA; FSI at 8, BWP to 1, sampling ECD July '23

Eielson AFB, AK: GAC system installed at on-base water treatment plant. 173 off-base private wells above EPA HA; 178 water systems installed, BWP to 3 residences. AF signed interim ROD. Cooperative agreement signed with City of North Pole to connect residents to municipal water. Construction began April '20

Ellsworth AFB, SD: 24 off-base residential wells serving 94 residences above EPA HA; 2 residences (1 well) connected to base water supply, 4 residences (3 wells) connected to city water; FSI at 20 residences (17 wells), 1 ion exchange system installed at a mobile home park, BWP to 4 residences (4 wells)

Fairchild AFB, WA: 2 municipal wells above EPA HA; FSI and 1 well in non-active. 97 off-base residential wells above EPA HA; 81 FSI, 6 residences connected to city water, BWP to 16 residences

Goodfellow AFB, TX: 22 residential wells above EPA HA, BWP

Homestead ARB, FL: 3 off-base private wells above EPA HA; BWP; POETS installation in-process

Hurlburt Field, FL: 1 well above EPA HA; BWP

JB McGuire-Dix-Lakehurst, NJ: 2 on-base wells above EPA HA; FSI. Treatment system under construction for new public water system. 6 off-base wells above EPA HA; 2 FSI, 3 BWP, 1 connected to municipal water; municipal water connection under design for permanent solution

JBSA Randolph, TX: 4 residential wells above EPA HA; BWP; sampling ECD Aug '21

Little Rock AFB, AR: 4 off-base residential wells above EPA HA; BWP

Luke AFB, AZ: 3 off-base residential wells above EPA HA; BWP. 3 public utility wells and 2 distribution points above EPA HA; FSI and community of ~1,630 residences transitioning off BW over the next month. Hot-tap hookup or POETS being explored for the 3 residential wells.

McConnell AFB, KS: 3 residential wells above EPA HA; 1 location connected to municipal water supply; BWP; sampling ECD July 2021

Mountain Home AFB, ID: 2 on-base drinking water wells above EPA HA; one well taken offline and replaced by another well below EPA HA; second well decommissioned and facility connected to base drinking water supply system below EPA HA

New Boston SFS, NH: 1 on-base drinking water well above EPA HA; FSI

Peterson AFB, CO: 39 municipal wells with FSI, 21 private wells with FSI (servicing 30 residences), 2 private wells with FSI at a mobile home park, 2 private wells connected to city and BWP at one 1 private well

Scott AFB, IL: One off-base residential well above EPA HA; FSI; additional sampling contingent upon confirmation of FSI sampling results

Shaw AFB, SC: 3 public water systems, 3 business and 31 residential wells above EPA HA, BWP to 229 residences and 3 businesses; sampling ECD Mar '24

Tinker AFB, OK: 6 off-base private wells above EPA HA; BWP; sampling ECD Sept '21

Non-AF led Drinking Water Response Actions

Barnes ANG, MA: 2 municipal wells above EPA HA; wells taken offline. 3 private wells above EPA HA for which state is providing alternate water source

Harrisburg IAP, PA: Municipal supplier delivered water with elevated PFOS in 2014; the supplier responded to the problem and conducted periodic monitoring. The current wells utilized and drinking water are currently below the EPA HA

Joe Foss Field, SD: 10 municipal wells above EPA HA; alternate water supply provided by other municipal wells

Luke AFB, AZ: 2 off-base utility wells above EPA HA; filtrations system installed

Current as of 31 August 2021

Travis AFB, CA: 3 off-base residential wells above EPA HA; FSI and BWP pending confirmation of sampling results

Wright-Patterson AFB, OH: 2 on-base wells above EPA HA, FSI

BRAC Installations

Former Castle AFB, CA: 3 private wells above EPA HA, FSI at 3

Former K.I. Sawyer AFB, MI: 1 private well above EPA HA; FSI

Former March AFB, CA: 1 public well above EPA HA; treatment system on-line, cooperative agreement in place. 2 private wells above EPA HA; connected to public water supply.

Former Mather AFB, CA: 2 public wells above EPA HA; Cooperative agreement in progress to fund operation and maintenance of treatment system of one well. Existing alternate well used for replacement of the other public well.

Former Pease AFB, NH: 2 public wells above the EPA HA; 1 shut off, 1 treatment system on line, cooperative agreement in place. 5 private wells above EPA HA, 2 connected to public water supply, FSI at 2, BWP at 1.

Former Plattsburgh AFB, NY: 4 private wells above EPA HA; FSI at 3, 1 with BWP

Former Reese AFB, TX: 242 private wells and 2 public wells above the EPA HA and/or Texas Protective Concentration Limits; 1 public well replaced by connection to City of Lubbock supply, FSI at 233, remaining BWP

Former Wurtsmith AFB, MI: 1 private well above EPA HA; connected to public water supply.

ANG Installations

Biddle ANG (Formerly Horsham), PA: Under Administrative Order. 2 on-base drinking water wells above EPA HA; temporary carbon filtration installed and BWP. 62 off-base private wells and 5 municipal wells above EPA HA. Providing alternate water sources to surrounding townships while carbon filtration systems are constructed

Gabreski ANG, NY: County wells above EPA HA; all residential wells hooked up to municipal water

Montana ANG, MT: 1 drinking water well above EPA HA; BWP

Morris ANG, AZ: 3 off-base residential wells above EPA HA; BWP to 2, 1 residence unoccupied

Otis ANG (JB Cape Cod), MA: Based on EPA HA: 3 residential wells above EPA HA, BWP to 1, FSI at 3, 108 municipal water connections. Wellhead treatment on 1 municipal well began operation 14 Feb 2020. Routine sampling of 45 private wells; no ECD at this time due to ongoing RI. Based on Massachusetts MCLs: 3 additional public water supply wells (all shut down) and 9 private wells impacted. MassDEP BWP

Toledo ANG, OH: 1 off-base residential well above EPA HA. Residence connected to municipal water supply; well closed

Martinsburg ANG, WV: 1 municipal well above EPA HA. GAC system installed by city and functioning since December '17

New Castle ANG, DE: 14 municipal wells above EPA HA; all have carbon treatment installed

Stewart ANG, NY: City of Newburgh drinking water reservoir above EPA HA; alternate water provided through New York State aqueduct. State-funded public drinking water treatment system constructed for reservoir, but not operating as a drinking water source

Key

BWP = Bottled Water Provided

ECD = Estimated Completion Date

EPA HA = Environmental Protection Agency

Health Advisory

FSI = Filtration System Installed

GAC = Granular Activated Carbon

MassDEP = Massachusetts Department of Environmental Protection

MCL = Maximum Contaminant Levels

POETS = Point of Entry Treatment System