# Air Force PFOS/PFOA Snapshot

Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are synthetic fluorinated organic chemicals that were used in many industrial and consumer products such as nonstick cookware, stain-resistant fabric and carpet, some food packaging and specialized foam.

PFOS and PFOA are part of a family of synthetic fluorinated chemicals called per- and polyfluoroalkyl substances (PFAS). PFOS and PFOA are the only two compounds of this group with established Environmental Protection Agency health advisories for drinking water.

## **Significant Information**

- In 1970, the Air Force 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 (LHA) level of 70 parts per trillion for PFOS and/or PFOA in drinking water. The LHA is non-regulatory and not enforceable; however, under the Comprehensive Environmental Response, Compensation and Liability Act the Air Force uses it to determine an acceptable level of PFOS/PFOA in drinking water.

203 Installations Require Preliminary Assessments (PAs)

99% of PAs Complete

\*Estimated completion for last base, Joint Base Elmendorf-Richardson, Alaska is Spring 2020.

of those 203, 189 Installations Expected to Require a Site Inspection (SIs)

46% of SIs Complete

39 BRAC

89 Active/Reserve

IDENTIFY

**75** ANG

30 BRAC

84 Active/Reserve

**75** ANG

## **RESPOND**



# Air Force Drinking Water Mitigation:

- Bottled water
- Point-of-use filtration
- Whole-house filtration
- Municipal water supply hookup

#### **BRAC**

K.I. Sawyer March Pease Plattsburgh Reese Wurtsmith

## **ACTIVE/RESERVE**

Cannon
Dover
Eielson
Ellsworth
Fairchild
JB McGuire-Dix-Lakehurst
Mountain Home
New Boston
Peterson
Wright-Patterson

#### **ANG**

JB Cape Cod Gabreski Horsham 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

91%

Installations finished retrofitting vehicles with ecologic system kits 979,000

Gallons of legacy AFFF incinerated \$10.8M

Cost to date to replace and incinerate legacy AFFF in stockpiles and fire trucks



\$321M \* total expenditure

PFOS/PFOA Actions to Date

investigations | mitigations | prevention \*through end of 1st Qtr FY19

## **Installations Status Update**

## On-base Air Force Drinking Water Mitigation

#### Mountain Home AFB, ID

Two on-base drinking water wells above LHA; 1 filtration system installed; bottled water provided for second well

#### New Boston AFS, NH

One on-base drinking water well above LHA; filtration system installed

#### Wright-Patterson AFB, OH

Two wells above LHA, filtration system installed

## Off-base Air Force Drinking Water Mitigation

#### Dover AFB, DE

One off-base residential well above LHA; filtration system provided

#### Ellsworth AFB, SD

16 off-base residential wells above LHA; 2 locations connected to base water supply, 107 residences provided bottled water

#### Fairchild AFB, WA

Two municipal wells above LHA; wells taken offline. 81 off-base residential wells above LHA. 20 filtration systems installed; remaining provided bottled water

#### Former K.I. Sawyer AFB, MI

One residential well above LHA; filtration system provided

#### Former March AFB. CA

One public well above LHA; shut off, cooperative agreement in place. 2 residential wells above LHA; connected to public water supply

#### Former Pease AFB, NH

One public well above LHA; shut off, cooperative agreements in place. 5 residential wells above LHA, filtration systems installed at 4 residences, 1 residence provided bottled water

#### Former Plattsburgh AFB, NY

Four residential wells above LHA; 3 filtration systems provided, 1 residence provided bottled water

#### Former Wurtsmith AFB, MI

One residential well above LHA; connected to municipal water supply

#### Gabreski ANGB, NY

County wells above LHA; 1 residential well above LHA; ANG providing bottled water from the city to the residence

#### JB Cape Cod, MA

One municipal well above LHA; taken offline, wellhead treatment under construction. 3 residential wells above LHA. 3 receiving bottled water; 9 filtration systems installed, 107 municipal water connections completed

#### Peterson AFB, CO

42 municipal wells above LHA; wells taken offline, 8 back on line with treatment systems. 17 off-base locations provided bottled water; 37 private wells above LHA; 26 residences provided filtration systems; 1 location connected to municipal water supply

#### Toledo ANG, OH

One off-base residential well above LHA. Residence connected to municipal water supply; well closed

#### Former Reese AFB, TX

196 residential wells and 3 public wells above the LHA and/or Texas Commission on Environmental Quality Tier 1 Residential Protective Concentration Limits; 169 filtration systems installed, remaining provided bottled water

#### Cannon AFB, NM

Three off-base drinking water sources above LHA; bottled water provided

## **Both On-base and Off-base Air Force Drinking Water Mitigation**

#### Horsham ANG, PA

Under Administrative Order. Two on-base drinking water wells above LHA; temporary carbon filtration installed and bottled water provided. 61 off-base private wells and 5 municipal wells above LHA. Currently providing alternate water sources to surrounding townships while carbon filtration systems are constructed

#### Eielson AFB, AK

Six-vessel GAC system installed at on-base water treatment plant. 170 off-base wells above LHA; 164 filtration systems installed, remaining residences provided bottled water

#### JB McGuire-Dix-Lakehurst, NJ

Two on-base backup wells above LHA; wells taken offline. 5 off-base wells above LHA; 3 filtration systems installed, 2 properties provided bottled water.
Installing connection to municipal water as permanent solution

## **Other Drinking Water Mitigation**

New Castle ANG, DE: 14 public wells above LHA; all have carbon treatment installed

Stewart ANG, NY: City of Newburgh drinking water reservoir above LHA; alternate water provided through New York State aqueduct. State-funded public drinking water system for Newburgh construction is complete but not operating

Joe Foss Field, SD: 10 public wells above LHA; alternate water supply provided by other public wells

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

Barnes ANGB, MA: Two municipal wells above LHA; wells taken offline. Three private wells above LHA for which state is providing alternate water source

Martinsburg ANG, WV: One municipal well above LHA. GAC system installed by city and functioning starting in December 2017

## Non-drinking Water Mitigation

Burlington ANG, VT

Former Chanute AFB, IL

Former March AFB, CA

Former Mather AFB, CA
Former Pease AFB, NH

Stewart ANG, NY

Former Wurtsmith AFB, MI Current as of 31 December 2018