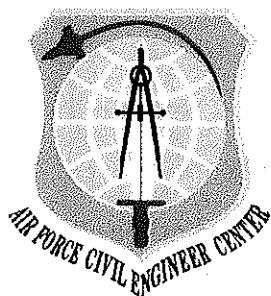

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**PFOA/PFOS Site
Inspection Update**

Fairchild Air Force Base

November 15, 2018



Overview

- **PFOA/PFOS Background**
- **Air Force Response**
- **Timeline of Events**
- **Preliminary Assessment and Site Inspection**
- **Time Critical Removal Actions**
- **On-Going Study/Evaluation Efforts**

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Background

- PFOS and PFOA are in a class of synthetic fluorinated organic chemicals used in consumer and industrial products, including Aqueous Film Forming Foam
 - Nonstick cookware
 - Some food packaging
 - Aqueous Film Forming Foam (AFFF)
- Air Force began using AFFF in 1970
- In June 2009, DoD established policy and assigned responsibilities for the identification, assessment, and risk management of emerging contaminants (DoDI 4715.18) such as PFOS/PFOA

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Background

- PFOS and PFOA qualify as emerging contaminants based on the following criteria:
 - They have reasonably possible pathways to enter the environment
 - They present a potential unacceptable human health or environmental risk
 - Regulatory standards are evolving

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Air Force Response

The Air Force is aware of PFOS and PFOA contamination from AFFF releases on active duty and closed installations and is working with state and federal regulators to identify affected sites and take responsive action to protect human health and the environment.

The Air Force developed a three-step method of PFC release identification and confirmation, delineation, and mitigation to address possible PFC releases.

1. Identify
2. Respond
3. Prevent

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Air Force Response

Identify - Respond - Prevent

- Base records were reviewed to identify potential release areas
- On-base sampling conducted to determine if a release occurred
- Off-base sampling conducted to evaluate potential drinking water source impact
- When drinking water sample results indicate contaminant levels exceed the health advisory, AF provides alternate water source
- AF continues to monitor locations of detections in order to track changes and provide an alert if additional action is needed
- The Air Force is taking steps to prevent future AFFF releases.
 - Legacy AFFF has been replaced with environmentally sound options
 - AFFF use is limited to emergency responses with immediate containment

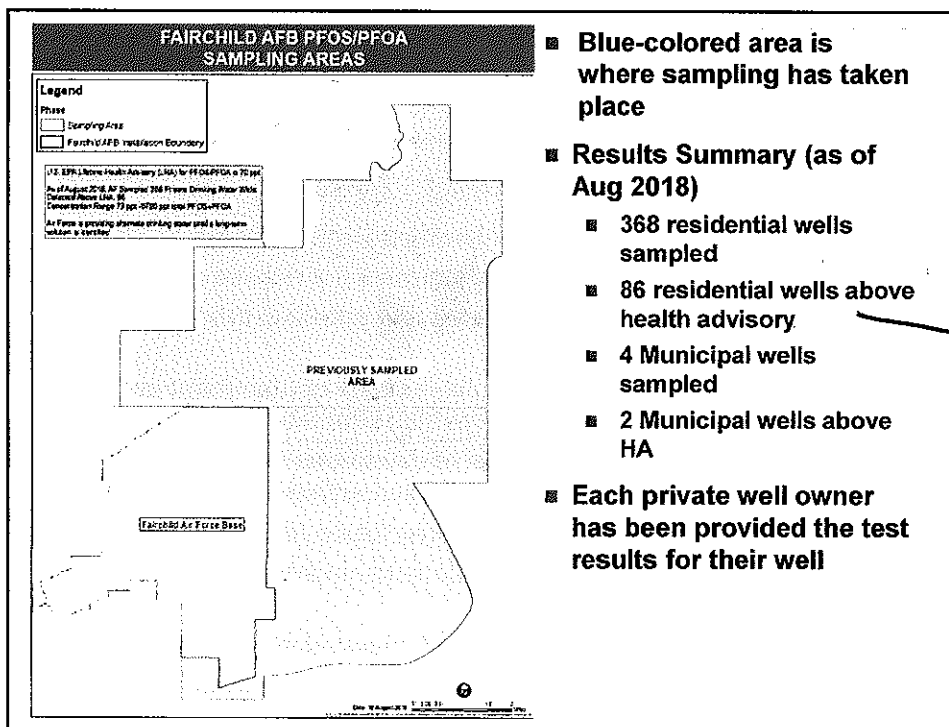
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Timeline of Events

- 2015 – Preliminary Assessment identified AFFF release areas on Fairchild AFB
- Feb/Mar 2017 - Site Inspection of 5 on-base suspect AFFF release locations
- April 2017 – Initiated off-base sampling - residences and municipal wells (Airway Heights, Medical Lake)
- May 2017 thru April 2018 - Off-base sampling area stepped out in phases based upon analytical results and 3 Ps (probability, proximity, pathway)
- Aug 2018 – Current sampling area boundary established; no plans to expand until/unless additional info and 3 Ps support it
- Outreach
 - Town Hall – 23 May 2017 at Medical Lake High School
 - Open House - 19 April 2018 at Spokane Falls Comm College

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Preliminary Assessment Site Inspection (PA/SI)

- Preliminary Assessment (PA) consisted of records search and interviews
- Five areas were investigated based on results of PA
- Site Inspection (SI) looked at each of these five locations in detail
 - Soil and groundwater were sampled
- SI in the former fire training area identified significant Health Advisory exceedance
- PA report available at Administrative Record; SI report expected to be available by Jan 2019

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Residential Wells TCRA

- Time-Critical Removal Action (TCRA) initiated to mitigate exposures to water containing PFOS/PFOA above EPA health advisory of 70 parts per trillion in private residential wells
- Bottle water provided by Air Force until a treatment system could be installed
- System applied to well to treat water using granular activated carbon (GAC)
- Wells below the health advisory will be monitored regularly. If levels rise above HA, bottled water provided immediately with a treatment system to follow
- Installation of these systems is ongoing
- TCRA is available in Administrative Record

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Airway Heights Municipal Well TCRA

- Time-Critical Removal Action (TCRA) initiated to treat PFOS/PFOA in Airway Heights municipal well 9
- When contamination was discovered, Air Force and City of Airway Heights worked to provide city residents with bottled water
- Air Force, Airway Heights worked with the City of Spokane to provide Airway Heights with water from their distribution system
- Air Force has designed and installed a temporary treatment system on well 9 that supplement water supplied by the City of Spokane during high-demand summer and fall months
- System is designed to operate for three summer/fall seasons, during which time a longer-term solution will be identified and implemented
- TCRA is available in in Administrative Record

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Drinking Water Protection Study

- Objective is to improve AF ability to understand and address current and future potential impacts from PFOS/PFOA
- Includes comprehensive data analysis of existing information leading to identification of data gaps
- Detailed stratigraphy will be used to develop regional geologic setting
- Geologic cross sections to be developed as well as a groundwater surface map
- Conceptual site model to be completed in Spring 2019

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Action Memorandum for a Non-Time Critical Removal Action

- This effort will evaluate new alternate drinking water source(s) for the City of Airway Heights
- A hydrogeological study will be performed to demonstrate appropriateness of alternate source(s) considered for current use and future growth
- An Engineering Evaluation/Cost Analysis evaluates treatment alternatives as well as potential new source(s) that can be considered for implementation
- Public meeting will be held to present findings of the EE/CA and to obtain stakeholder input
- Action Memo will memorialize the final decision

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More Information

For more information on PFOS, PFAS and PFBS, visit:

Air Force Civil Engineer Center
www.afcec.af.mil/

Environmental Protection Agency
www.epa.gov/

Agency for Toxic Substances and Disease Registry
www.atsdr.cdc.gov/

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Questions?

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