



Air Force Response

Background continued



IDENTIFY:

✓ Preliminary Assessment

- A base-wide records review identifies fire training areas, crash sites and other areas at installations where AFFF may have been released.

✓ Site Inspection

- AFCEC conducts groundwater, surface water, soil and sediment sampling to verify and map releases, and identify potential pathways to drinking water.
- If SI sampling indicates potential pathways to drinking water supplies, AFCEC expands the SI footprint and may test public water systems and private wells.
- Once SI is complete, AFCEC determines if investigation yielded adequate data to fully map potential impact or if more investigation work is needed.

➔ Remedial Investigation

- Phase I – determine nature and extent of contamination in all media (soil, surface water, groundwater); develop a Conceptual Site Model.
- Phase II – conduct human health and ecological risk assessments using established cleanup standards. (No established PFOS/PFOA cleanup standards at this time.)



Air Force Response

Background continued



RESPOND:

➔ Response Actions

When AFCEC determines PFOS/PFOA levels exceed the Lifetime HAs in drinking water, the US Air Force will take measures to reduce risk and, if needed, provide an alternate drinking water source, like bottled water, until a permanent solution is in place.





Air Force Response

Background continued



PREVENT (as of March 2021):

- ✓ **Legacy AFFF Disposal:** The US Air Force eliminated legacy AFFF through incineration at authorized disposal facilities.
- ✓ **AFFF Replacement:** AFCEC replaced legacy AFFF in fire vehicles, stockpiles and hangar systems with more environmentally responsible formulations.
- ✓ **Retrofit fire vehicles:** AFCEC retrofitted fire vehicles with an ecologic system that prevents foam discharge during equipment testing.

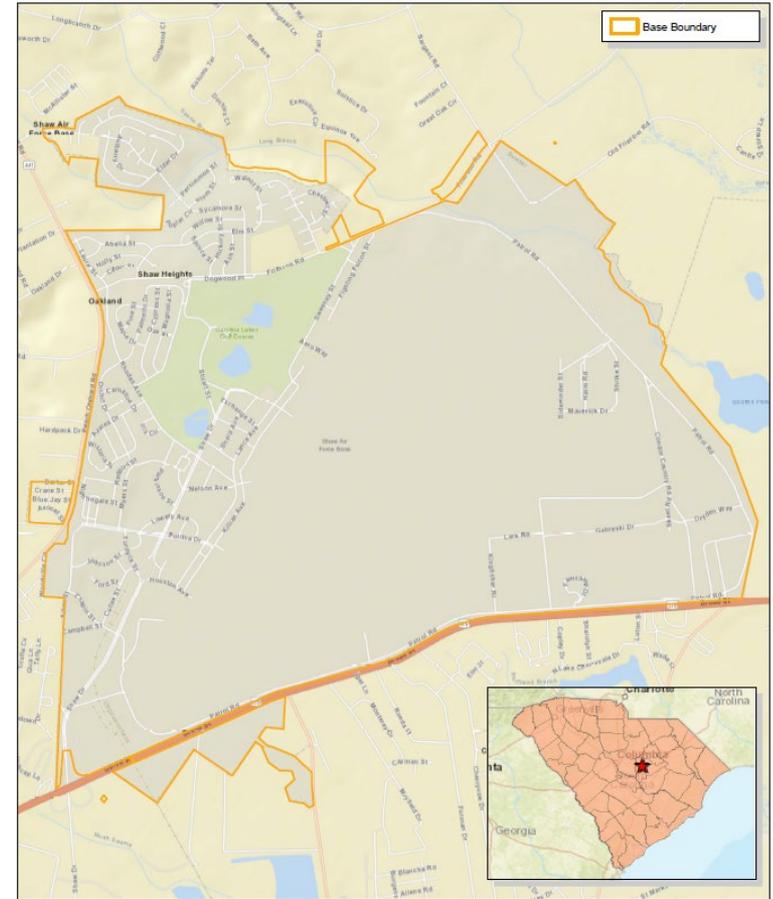




Shaw AFB Response

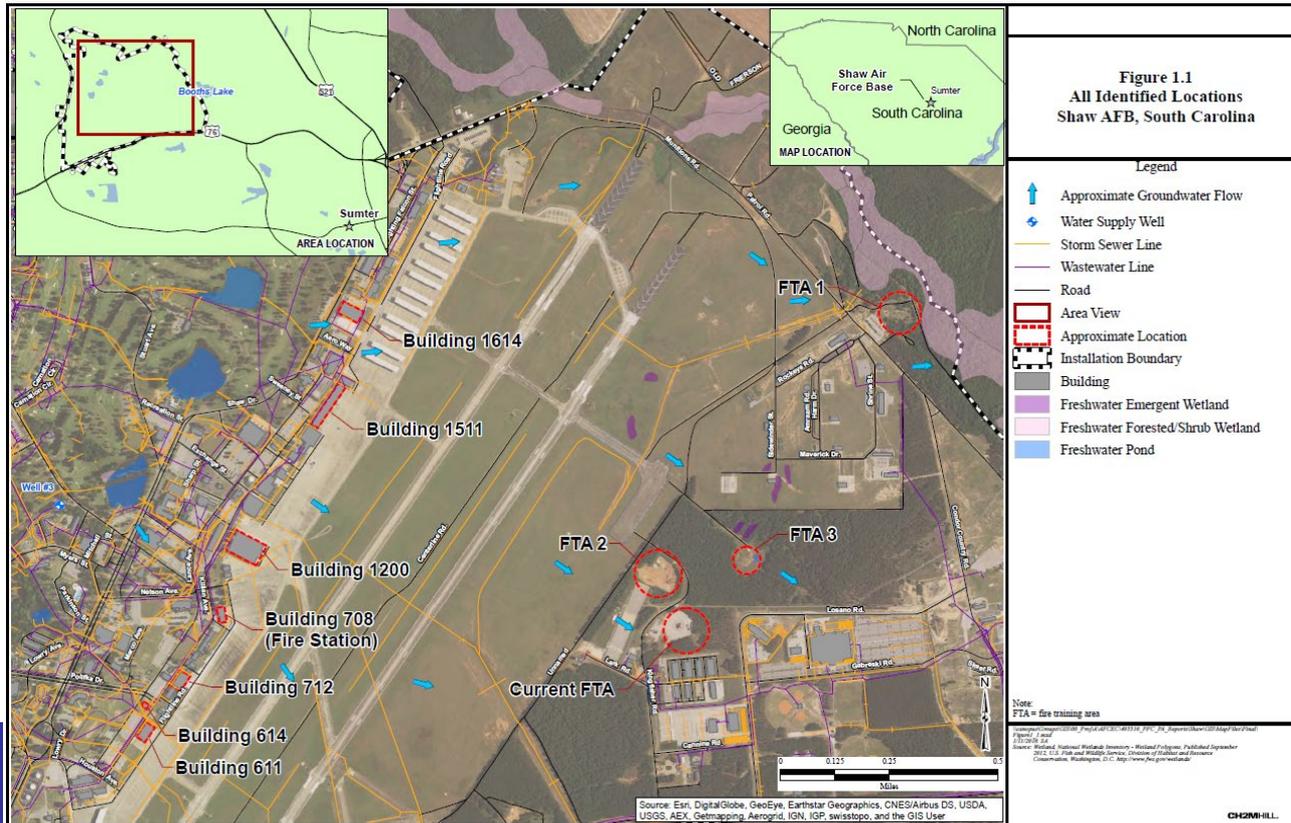


- ✓ **Preliminary Assessment (PA)**
- ✓ **Site Inspection (SI)**
- ✓ **Expanded SI**
- ➔ **Remedial Investigation (RI), Phase 1**
- ➔ **Potential Pathways to Off-Base Drinking Water Supplies**
- ➔ **Test Off-base Drinking Water Sources**
- ➔ **Off-Base Water Well Survey and Sampling Timeline**



✓ **January 2016: Preliminary Assessment (PA)**

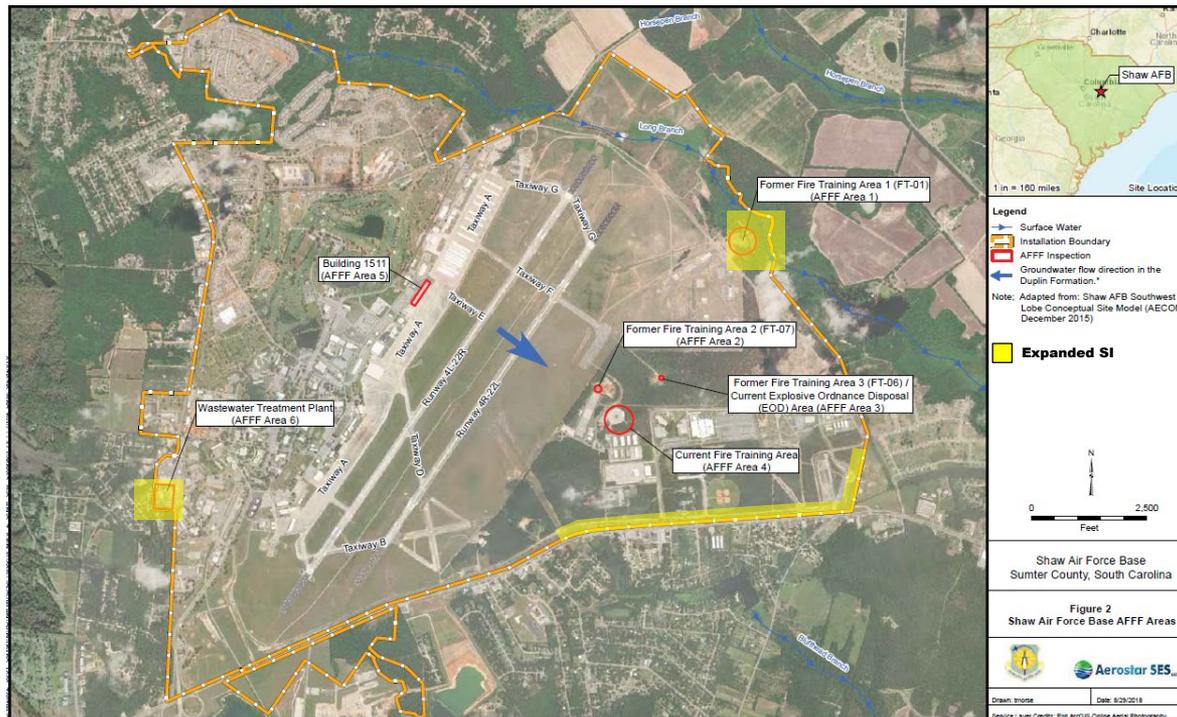
- Eleven areas assessed (record reviews, interviews, field visits)
- Identified six AFFF areas for SI (for field sampling)
 - PA recommended four for SI; two more added during SI site survey



IDENTIFY

✓ January 2019: Site Inspection (SI)

- Groundwater samples (from all six SI areas) exceeded the EPA LHA
- Identified potential impacts to human health and the presence of drinking water supply wells within 4 miles downgradient of each area
- Recommended Expanded SI (add'l step-out sampling) for all six AFFF areas followed by a Remedial Investigation (delineate extent of impact)



IDENTIFY



Shaw AFB Response

Continued



- ✓ **January 2020: Expanded SI Work Plan**
 - On-base sampling along west, south, and east base boundaries
 - Base boundary sampling (and drilling) completed in Mar 2020
 - Apr 2021 Expanded SI Report being finalized
- ➔ **September 2020 thru 2024: Remedial Investigation (RI)**
 - SI recommended all six AFFF release areas for RI
 - Expanded SI identified additional areas for RI consideration
 - Phase 1 RI contract awarded Sep 2020, for four years
 - Purpose - start delineating extent of PFOS/PFOA impact
 - Anticipating PFOS/PFOA regulatory standards will be established in the near future, prepare for Phase 2 RI to assess human health and ecological risks

IDENTIFY



Shaw AFB Response

Continued



Potential Pathways to Off-Base Drinking Water Supplies

- ✓ **No impacts to the municipal water system around Shaw**
 - High Hills Rural Water Company is the primary drinking water provider
 - City of Sumter Water Department also provides drinking water to households within the focus area
 - Shaw produces own drinking water with base wells, results were mixed
- ➔ **Looking at human drinking water wells (not at agricultural use water wells) within the focus areas to the east, west, and south of the base:**
 - Notification letters are sent to identified well owners to request permission to sample if drinking water wells are present

IDENTIFY

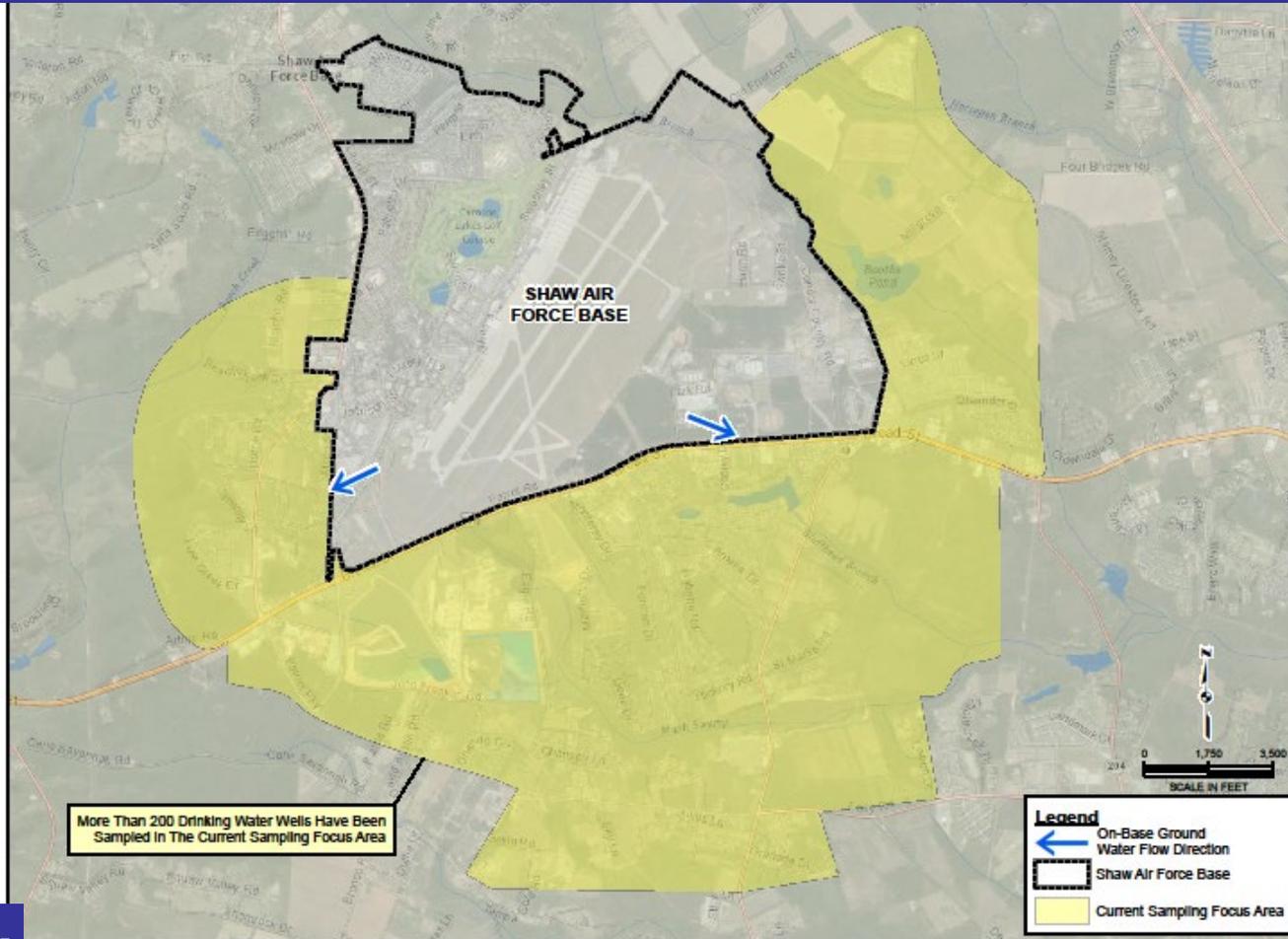


Shaw AFB Response

Continued



Focus Area – Test Off-Base Drinking Water Sources



IDENTIFY



Shaw AFB Response

Continued



Off-base Water Well Survey and Sampling Timeline

February 2020 to Present:

➔ Initiated Door-to-Door Survey

- Sent out Water Well Survey and Sampling Request Form to identified residents requesting information on wells and permission to sample their well
- Letter request was signed by the Installation Commander

➔ Off-Base Sampling

- Sampled water from privately owned wells used for human drinking water purposes (domestic use)
- Effort to identify domestic use wells conducted by government personnel and contractors
- With owners' consent, sampled and tested water from private wells used for domestic drinking water, determined if > 70 ppt EPA LHA

IDENTIFY



Shaw AFB Response



Continued

On-Base Response

March 2019:

- ✓ **Groundwater Treatment Plant (GWTP) for Sites OT016B, SS035, and SS036 was shut down due to elevated PFOS/PFOA levels**
 - Treated water being reinjected are adjacent, upgradient of base drinking water wells
 - Base wells' treatment systems cannot treat PFOS/PFOA

October 2020:

- ✓ **Completed construction of PFOS/PFOA-filtration system component of GWTP**



RESPOND



Shaw AFB Response



Continued

Off-Base Response

- ➔ February 2020 to Present: Provide bottled water to households and businesses with well water test results that are 70 ppt or greater
- ➔ June 2020 to Present: Conduct four quarters of water sampling for wells with initial test results that were below 70 ppt but at least 35 ppt
- ★ Planned Responses:
 - Seek permanent solutions for water supplies for households and businesses currently provided with bottled water
 - Permanent solutions include on-site water filtration systems and connection to municipal water services



RESPOND



Shaw AFB Response



Continued

Base Firefighting Operations

- ✓ **COMPLETED** elimination of legacy AFFF through incineration at authorized disposal activities
- ✓ **COMPLETED** replacement of legacy AFFF in fire vehicles, stockpiles and hangar systems with more environmentally responsible formulations
- ✓ **COMPLETED** retrofitting of fire vehicles with an ecologic system that prevents foam discharge during equipment testing



PREVENT



Next Steps

- ➔ **Public participation on Shaw's previous, current, and planned PFOS/PFOA response actions**
- ➔ **PFOS/PFOA Phase 1 Remedial Investigation**
 - **Field work to start Summer/Fall 2021**
 - **Both on and off base locations**
 - **Multi-media sampling (soil, surface water, and groundwater)**
- ★ **Seek permanent solutions for water supplies for households and businesses currently provided bottled water**



Public Comment



- **Members of the public have an opportunity to provide verbal comments to the RAB**
- **You will have three minutes to make your comment**
- **The RAB members may elect to respond briefly**
- **Public comments will be part of the Shaw RAB meeting minutes**