

Air Force Civil Engineer Center



Cannon AFB PFAS Public Update

16 June 2021



Agenda



- **Introductions**
- **Engineering Evaluation/Cost Analysis – Pilot Study**
- **Response Actions to Date**
- **Remedial Investigation**
- **Investigation Spending to Date**
- **Additional Information**
- **Common Acronyms**



Introductions



- **Community Members**
- **Clovis, NM Representatives**
- **Environmental Protection Agency**
- **New Mexico Environmental Department**
- **Air Force Installation and Mission Support Center**
- **Air Force Civil Engineer Center**
- **Office of the Secretary of Defense**
- **Cannon Air Force Base**



Engineering Evaluation/Cost Analysis – Pilot Study



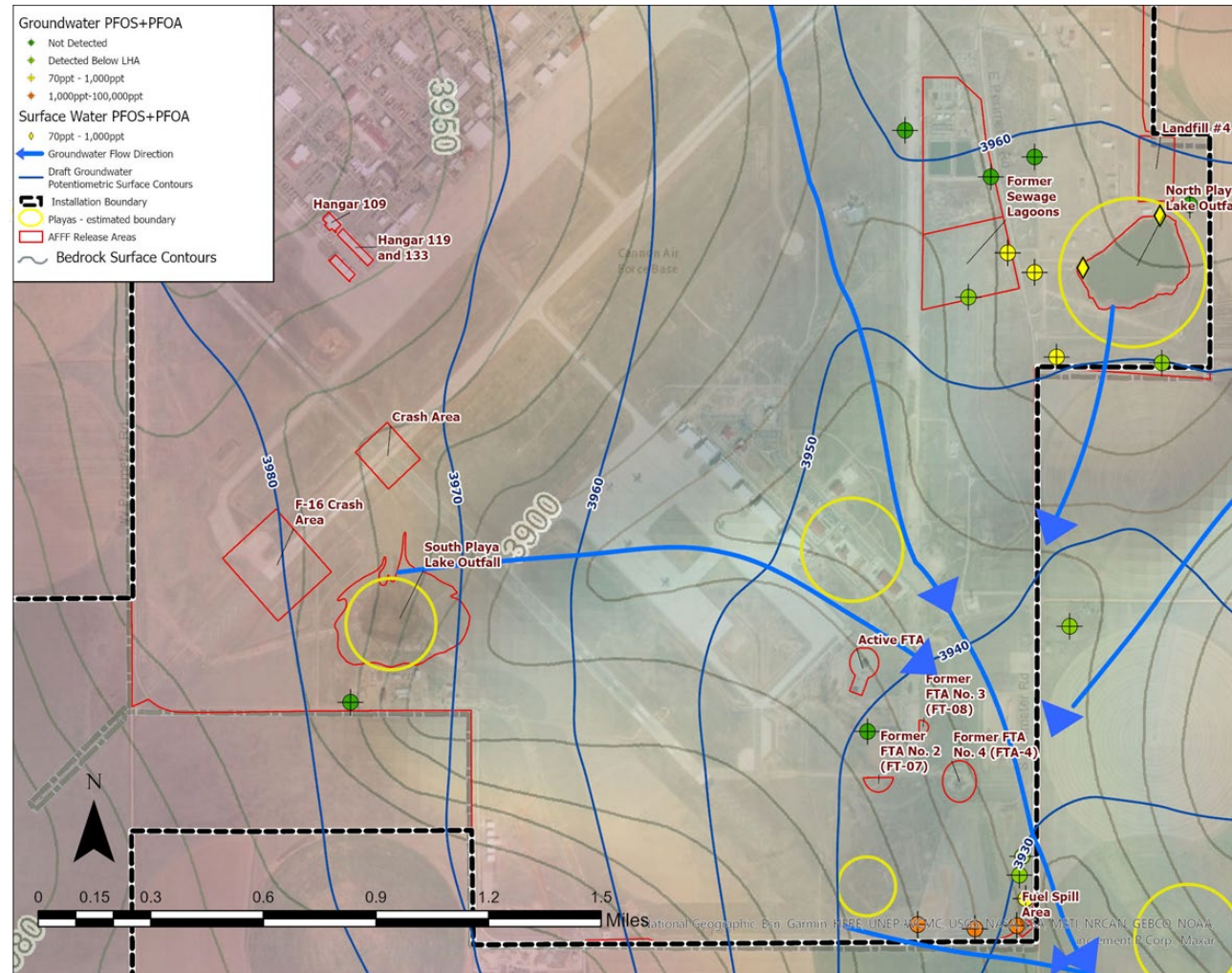
- **Air Force awarded \$16.6M contract on 27 May 2021 for an Engineering Evaluation/Cost Analysis (EE/CA) – Pilot Study**
- **In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) framework, an EE/CA is required to satisfy environmental review requirements for removal actions**
 - **EE/CA identifies objectives of removal action and evaluates effectiveness, feasibility and cost of various alternatives**
- **Design/Work plan will be coordinated with NMED and EPA**



Engineering Evaluation/Cost Analysis – Pilot Study

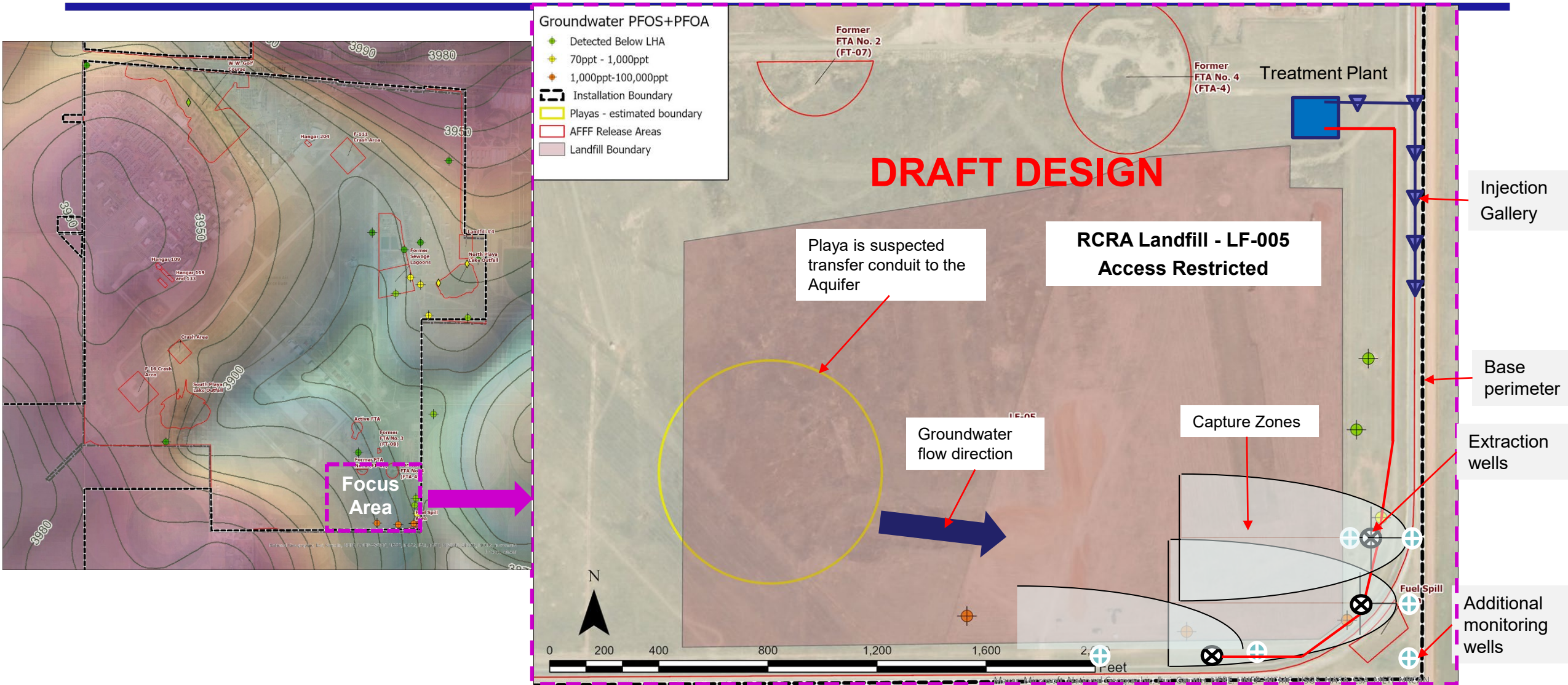


Groundwater Flow





Engineering Evaluation/Cost Analysis – Pilot Study Draft Design





Engineering Evaluation/Cost Analysis – Pilot Study



- **The Pilot Study treatment system is entirely on base**
- **First step is collection of samples to perform bench scale test to determine best filtration system to inform full design and work plan**
- **System construction**
 - **Three groundwater extraction wells will capture impacted waters**
 - **The treated effluent may be returned to the aquifer via injection wells along the southeastern perimeter**
- **System operation/Data collection – EE/CA finalization**
- **The design allows for flexibility**
 - **Can be expanded to incorporate additional treatment options resulting from future investigations**



Engineering Evaluation/Cost Analysis – Pilot Study Draft Timeline



- **Awarded - 27 May 2021**
- **Initial Site Visit - 2 Jun 2021**
- **Kick-Off Meeting - 8 Jun 2021**
- **Sampling Event - 14 Jun 2021**
- **Treatability Study - Sep 2021**
- **Design/Work Plan - Jan 2022**
 - (30-day NMED/EPA comment period)
- **Construction Start - Mar 2022**
- **Operation Start - Apr 2023**
- **EE/CA Final - Jan 2024**
 - (30 day NMED/EPA comment period)



Response Actions to Date



- **Notified impacted community members of concentrations exceeding LHA for drinking water**
- **Immediately provided alternate drinking water to impacted users, severing the pathway**
- **Installed point of use drinking water filtration system at locations that exceeded the LHA for drinking water 23 Mar 2021; planning 1 additional installation**
- **Transitioned to C6 Aqueous film forming foam (AFFF) in fire suppression systems; more environmental friendly**
- **Air Force no longer utilize AFFF in training; eliminates new sources**



Remedial Investigation

- **Remedial Investigation (RI) Status – (Awarded 28 Aug 2020)**
 - **RI goal: define the nature and extent of impact in environmental media on and off base**
 - **New groundwater monitoring wells**
 - **Soil borings**
 - **Surface soil samples**
 - **Suction lysimeters installed at source locations**
 - **Currently preparing for Regulatory 30 day comment period**
 - **First field work to collect off base well samples and soil samples**



Investigation Spending to Date



- **Expenditures to date \$31,337,869**
 - **Preliminary Assessment (PA): \$38,754**
 - **Site Inspection (SI): \$2,024,231**
 - **Expanded Site Inspection (ESI): \$505,000**
 - **Remedial Investigation (RI): \$10,377,619**
 - **United States Geological Survey (USGS) work to understand groundwater flow: \$735,000 in FY20, \$1,065,000 in FY21**
 - **Engineering Evaluation/Cost Analysis (EE/CA) – Pilot System: \$16,592,265**



Additional Information



- **Admin Record Links to Cannon Air Force Base reports:**
 - Admin Record <https://ar.afcec-cloud.af.mil/>
 - PA: AR# 1941
 - SI: AR# 1938
 - ESI: AR# 1940
 - RRSE: AR# 2063
- **DAF Response**
<https://www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/>



Common Acronyms

- **Administrative Record (AR)**
- **Aqueous Film Forming Foam (AFFF)**
- **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**
- **Department of the Air Force (DAF)**
- **Department of Defense (DoD)**
- **Engineering Evaluation/Cost Analysis (EE/CA)**
- **Environmental Protection Agency (EPA)**
- **Expanded Site Inspection (ESI)**
- **Food and Drug Administration (FDA)**
- **Lifetime Health Advisory (LHA)**



Common Acronyms

- **National Defense Authorization Act (NDAA)**
- **Office Secretary of Defense (OSD)**
- **Parts Per Trillion (ppt)**
- **Per- and polyfluoroalkyl substances (PFAS)**
- **Perfluorooctanesulfonic acid (PFOS)**
- **Perfluorooctanoic acid (PFOA)**
- **Preliminary Assessment (PA)**
- **Remedial Investigation (RI)**
- **Relative Risk Site Evaluation (RRSE)**
- **Site Investigation (SI)**
- **United States Geological Survey (USGS)**



**Any question please contact
27SOCES.cannon.rpm@us.af.mil**