



**DEPARTMENT OF THE AIR FORCE  
AIR FORCE CIVIL ENGINEER CENTER  
INSTALLATION SUPPORT SECTION  
EDWARDS AIR FORCE BASE, CALIFORNIA**

26 June 2021

MEMORANDUM FOR DISTRIBUTION

FROM: AFCEC/CZOW  
120 North Rosamond Boulevard  
Edwards AFB CA 93524

SUBJECT: Minutes of the Edwards Air Force Base (AFB) Restoration Advisory Board (RAB)  
Meeting, 21 November 2019

1. Time: 5:31 p.m.
2. Place: Mojave, California
3. Chairman: Dr. David Smith, Air Force Co-chair
4. The following RAB members were present:

| <u>Name</u>        | <u>Position</u>   |
|--------------------|---|
| Ms. Nicole Bradley | Edwards AFB Base Housing Representative   |
| Mr. Kevin Depies   | California Environmental Protection Agency (Cal/EPA)<br>Department of Toxic Substances Control (DTSC) Remedial<br>Project Manager (RPM) |
| Ms. Judy Huang     | United States Environmental Protection Agency (U.S.EPA)<br>RPM  |
| Ms. Amanda Lopez   | Cal/EPA Lahontan Regional Water Quality Control Board<br>(LRWQCB) RPM   |
| Mr. John Lovell    | Edwards AFB South Base Public Representative  |
| Dr. Joseph Mabry   | Air Force Research Laboratory, Detachment 7 (AFRL) Public<br>Representative   |
| Mr. Alonzo Poach   | Cal/EPA LRWQCB RPM  |
| Mr. Paul Schiff    | Edwards AFB RPM   |
| Mr. David Soltis   | Edwards AFB Base Housing Representative (Alternate)   |
| Ms. Alexia Svejda  | California City Public Representative   |

5. The following members were absent:

| <u>Name</u>                     | <u>Position</u>                             |
|---------------------------------|---|
| Mr. Richard Francis             | U.S. EPA RPM                                |
| Mr. William Gaddis              | Rosamond Public Representative              |
| Mr. Raj Malhi                   | Lancaster Public Representative (Alternate) |
| Ms. Angela Underwood-<br>Jacobs | Lancaster Public Representative             |
| Mr. Victor Yaw                  | Mojave Public Representative                |

|               |   |
|---------------|---|
| Mr. Otto Zahn | Edwards AFB Main Base Test Wing Public Representative |
| Vacant        | Edwards AFB North Base Public Representative          |
| Vacant        | Boron Public Representative                           |
| Vacant        | National Aeronautics and Space Administration (NASA)  |
|               | Armstrong Public Representative                       |
| Vacant        | North Edwards Public Representative                   |

6. The following advisors were present:

| <u>Name</u>        | <u>Organization</u>  |
|--------------------|--|
| Ms. Claudia Basura | AFCEC/CZOW   |
| Mr. Joe Dunwoody   | Air Force Civil Engineer Center (AFCEC)/Installation Support Section-West (CZOW) |
| Mr. Gary Hatch     | 412th Test Wing Public Affairs   |
| Mr. Craig Nathe    | AFCEC/CZOW   |
| Mr. Herb Roraback  | 412th Civil Engineer Group, Environmental Management                             |
| Dr. Nash Saleh     | AFCEC/CZOW   |
| Ms. Julia Tseng    | AFCEC/CZOW   |

7. Others present were as follows:

| <u>Name</u>            | <u>Organization</u>                             |
|------------------------|---|
| Mr. Ranney Adams       | Public  |
| Mr. Richard Gonzales   | Media Fusion                                    |
| Ms. Maribel Harms      | BB&E (Recorder)                                 |
| Ms. Kayla Hastings     | BB&E  |
| Mr. Jacques Marcillac  | Sustainment and Restoration Services, LLC (SRS) |
| Ms. Leilani Richardson | BB&E  |
| Ms. Jena Romo          | Media Fusion                                    |
| Mr. Kenneth Simon      | Sustainment and Restoration Services, LLC (SRS) |

8. Dr. Smith read the *Statement of Purpose and Conduct*.

9. Dr. Smith introduced five new RAB members: Ms. Svejda, primary California City public representative; Ms. Bradley, primary Base Housing public representative; Mr. Soltis, alternate Base Housing public representative; Mr. Lovell, primary South Base public representative; and Ms. Huang from the U.S. EPA.

10. Dr. Smith presented the 16 May 2019 RAB meeting minutes for acceptance. The RAB accepted the minutes as presented.

11. New Business—*Environmental Restoration Program (ERP) Update* (Attachment 1).

a. Mr. Schiff said the Air Force respectfully requests that the public representatives sign a consent form officially granting the Air Force permission to publicize their contact information,

including personal cell phone numbers and personal e-mail addresses, if necessary. He explained that public representatives need to provide contact information so that community members may contact them outside of the semiannual meetings. The Air Force publicizes the representatives' contact information on the RAB's Facebook website and the *Report to Stakeholders* newsletter to facilitate communication between the public and the RAB.

b. Mr. Schiff provided an overview of the budget for the base cleanup program, consisting of three recently awarded contracts totaling \$15 million.

(1) The contracts will allow the Air Force to finalize a Feasibility Study (FS) for five cleanup areas: Operable Unit (OU) 2 Site 5 Carbon Tetrachloride Plume, OU4/9 Northeast AFRL, OU4/9 Mars Boulevard, OU5/10 North Base, and Site 25. Additional efforts will be underway to develop a Proposed Plan for OU7 Miscellaneous Sites, finalize a Record of Decision (ROD) for AFRL Arroyos, finalize an Explanation of Significant Differences (ESD) for South AFRL, update conceptual site models for Site 25 and OU4/9 South AFRL, and finalize vapor intrusion (VI) assessments at OU1/8 Main Base and OU4/9 AFRL Arroyos.

(2) Mr. Schiff added that the Air Force contracts will support ongoing basewide groundwater monitoring and treatment system operation and maintenance (O&M) efforts, facilitate VI assessment at South AFRL, and provide contractor support for the Technical Working Group (TWG) meetings.

c. Mr. Schiff briefed on emerging contaminants at Edwards Air Force Base—which are also present across the nation—called perfluorooctane sulfonate (PFOS)/perfluorooctanoic acid (PFOA). He said the Air Force is conducting an Expanded Site Inspection (SI) to determine whether there are any complete pathways to drinking water receptors. He said the original SI identified 24 PFOS/PFOA sites across the base, and those sites will move forward into a Remedial Investigation (RI) at a later date. The first phase of the Expanded SI was conducted in October 2019, when 10 groundwater samples were collected from on-base sentinel wells adjacent to the installation boundary at OU5/10 North Base. The sampling results are expected in mid-December 2019 and will determine whether any off-base wells need to be sampled. The second phase of the Expanded SI will collect 11 groundwater samples closer to the North Base fire station and 14 samples near a former fire training area at OU2 South Base Site 14. All of the sampling results will be published in a final report.

(1) Dr. Smith asked if there are any areas on base that contain PFOS/PFOA above the U.S. EPA Lifetime Health Advisory (LHA) of 70 parts per trillion. Mr. Schiff confirmed that there are 24 sites on base that have concentrations above the LHA, including the fire station at OU5/10 North Base. He said the Air Force will delineate the extent of the PFOS/PFOA contamination and sample additional wells during the RI. Mr. Schiff noted that some sites may potentially have 30 to 50 new wells installed for the RI effort.

(2) Mr. Depies explained that PFOS/PFOA can be found wherever firefighting activity and training occurred that involved releases of a specific type of aqueous film-forming foam (AFFF).

(3) Dr. Smith explained that the Air Force previously believed AFFF was safe for humans and the environment, but immediately took action when PFOS/PFOA was identified as an emerging contaminant. Mr. Schiff added that the Air Force has been proactive in addressing PFOS/PFOA concerns and the regulators have been involved in the process from the beginning. Mr. Depies agreed that the Air Force has been very proactive in trying to determine the extent of PFOS/PFOA releases, considering that the contaminants are not officially regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

d. Mr. Schiff briefed the status of two formal disputes at Edwards AFB.

(1) The South AFRL ESD dispute received a final decision from the U.S. EPA Headquarters Administrator in May 2019, after the 16 May 2019 RAB meeting. The final decision states that the Air Force will retain the perchloroethene (PCE) value cited in the South AFRL ROD, which was finalized in 2007. As a result, the South AFRL ESD dispute is now resolved.

(2) The AFRL Arroyos ROD dispute is still ongoing. Mr. Schiff said he collaborated with the regulatory RPMs to finalize a status report for the Dispute Resolution Committee (DRC). He explained that the RPMs were previously working to informally resolve disputed items in order to finalize the AFRL Arroyos ROD. However, the Air Force decided to re-engage the DRC to request official resolution of the disputed items. The status report will advise the DRC of each agency's recommendations that should be taken into consideration when DRC discussions resume. The Air Force will schedule a DRC meeting to resolve the three remaining disputed issues, including: cumulative risk triggers; industrial pathway cleanup standards for vapor intrusion; and toxicity criteria. Mr. Schiff noted that the regulators visited five AFRL Arroyos buildings in October 2019 to collaborate on selecting indoor air sampling locations. He said the sampling results will help resolve a VI issue related to the dispute.

e. Mr. Schiff presented the progress of the base's cleanup program, highlighting restoration activities performed within the last 6 months.

(1) Mr. Schiff reported that quarterly indoor air sampling results from Building 1807 confirmed that trichloroethene (TCE) levels remain below all action levels with the new heating, ventilation, and air conditioning (HVAC) unit operating continuously. He said the indoor air sampling frequency changed from quarterly to semiannually, and the first semiannual sampling event occurred on 15 November 2019. All of the sampling results will be documented in an annual report.

(2) Referring to OU2 South Base, Mr. Schiff briefed that groundwater treatment systems continue to operate at Sites 5/14, 76, and 86, with annual reports submitted to the regulators. Sites 81 and 102, two former skeet shooting sites, were covered with crushed concrete to eliminate a pathway for graveling birds to ingest skeet and lead-shot debris.

(3) Mr. Schiff reported that the Air Force continues to perform groundwater monitoring at OU4/9 AFRL and Land Use Controls are in place for South AFRL and the AFRL Soil and Debris Sites.

(4) Mr. Schiff reported that an interim treatment system at Site 285 in OU5/10 North Base continues to operate to address perchlorate in groundwater. The Air Force plans to submit a revised draft OU5/10 Feasibility Study to the regulators in November 2021.

(5) Mr. Schiff reported that 14 new wells were recently installed on the lakebed to better delineate the leading edge of the OU6 NASA Armstrong plume. The Air Force plans to submit a report summarizing the delineation activities to the regulators in December 2019/January 2020.

(6) Mr. Schiff briefed that the Air Force plans to submit a draft Proposed Plan for seven OU7 Miscellaneous sites to the regulators in October 2020. He said the public will have an opportunity to review the final Proposed Plan and their comments will be incorporated into the OU7 Miscellaneous ROD.

(7) Mr. Schiff explained that the Air Force will begin installing the last portion of the cap/cover at OU7 Site 3, an inactive landfill, as soon as an on-base soil source is identified and approved.

(8) When Mr. Schiff briefed the status of OU7 Chemical Warfare Materiel (CWM) Site 442, Mr. Depies clarified that it is not known whether there are any buried munitions in the area because the trenches were not dug up, due to safety concerns. Mr. Schiff noted that annual status reports are submitted to the regulators and finalized for public viewing.

(9) Mr. Schiff briefed the Multisite Five-Year Review (FYR), which reviewed the current cleanup remedies in place at OU2 Sites 5/14, 76, and 86; OU7 Site 3; and OU7 CWM Site 442 to determine whether they remain protective of human health and the environment. In September 2019, the U.S. EPA concurred with the protectiveness of the cleanup remedies for the short term. Mr. Schiff noted that the Air Force needs to address some FYR recommendations to ensure long-term protectiveness before the next Multisite FYR is due. He said the final FYR report is not expected to be available to the public until the spring of 2020 because of funding and contractual issues.

(10) Mr. Schiff reported that the Air Force is intensively working with the regulators in the TWG meetings to determine a path forward for a revised Site 25 Feasibility Study. He said a recent pilot test using soil vapor extraction (SVE) in the Site 25 source area proved to be effective at reducing contaminant concentrations. As a result, the Air Force plans to restart the SVE treatability study, with the addition of air sparging, in February/March 2020. The air sparging is expected to help move volatile contaminants from the groundwater into the soil for the SVE system to remove as a vapor.

(11) Mr. Schiff briefed that the Air Force conducted extensive investigations on Military Munitions Response Program (MMRP) sites to confirm that the probability of munitions is very low. He explained that the Air Force sought to further investigate an on-base site, AL504, because there was a significant amount of material in the subsurface and evidence of craters. Mr. Schiff noted that the Air Force will ensure there is fencing and signage to keep people out of that area.

(a) Mr. Depies commented that at the MMRP site near Boron, California, an extensive amount of surface debris was found and removed by the Air Force. He added that MMRP investigations have been limited because the Air Force uses a statistical evaluation to

determine whether further investigation is warranted. Mr. Depies said he believes a live munition was found at Site AL505-4, which is an extremely remote area. He and Mr. Schiff agreed that the munition may have been an anomaly. Mr. Depies explained that, using a statistical approach, there is a very low probability that there are any live munitions in the off-base areas.

(b) Mr. Schiff said the Air Force conducted a supplemental investigation at Sites AL505-3 and AL505-5 to acquire more coverage because the land is privately owned. It took the Air Force 2 years to acquire right-of-entry approval from the landowners, which helped the Air Force investigate 80 to 90 percent of both sites. Mr. Schiff said the Air Force recommends No Further Action (NFA) at Sites AL505-3 and AL505-5, and are still determining a path forward with the regulatory agencies on Sites AL501A, AL505-2, and AL505-4. Site AL504 will require a cleanup remedy.

12. Opportunity for Public Comment—Mr. Hatch reported that no public comment cards were received.

13. Old Business—*Status of RAB Vacancies.*

a. Mr. Hatch welcomed the new public representatives who were introduced at the beginning of the meeting. He noted that Mr. Bruce Davies, the former Public Co-chair and North Edwards public representative, retired and moved from the local area. Mr. Hatch explained that Ms. Ericka Buckreis is no longer able to represent Boron on the RAB because she now works at Environmental Restoration, which creates a potential or perceived conflict of interest for her to be a board member.

b. Mr. Hatch reported that there are currently four public representative vacancies for Boron, North Edwards, NASA Armstrong, and North Base. He said the Air Force will continue to advertise the vacancies in the local newspapers, by distributing flyers, and in basewide e-mail announcements.

c. Mr. Hatch said there will soon be a public representative vacancy at South Base because the individual who was recently selected is moving from the local area much sooner than anticipated.

d. Mr. Hatch announced that there is an opportunity for one of the public representatives to take over co-chair duties now that Mr. Davies is retired. He said the Air Force will send an e-mail to the public representatives with an explanation about the Public Co-chair nomination process. Mr. Hatch said the primary role of the Public Co-chair is to alternate chairing the RAB meetings with the Air Force Co-chair and sign meeting minutes approved by the board. Dr. Smith added that the co-chairs share responsibilities to help facilitate the RAB meetings. He and Mr. Depies encouraged the public representatives to nominate themselves if they are interested in becoming a co-chair. Mr. Hatch suggested the nominees provide a brief biography to help the other public representatives vote for a Public Co-chair.

14. Reports from Public Representatives.

a. Mr. Lovell, Edwards AFB South Base, had nothing to report.

- b. Ms. Bradley, primary Edwards AFB Base Housing, had nothing to add.
- c. Mr. Soltis, alternate Edwards AFB Base Housing, had no comment.
- d. Ms. Svejda, California City, said she is looking forward to learning more about the base cleanup program.
- e. Dr. Mabry, AFRL, had nothing to report.

15. Reports from RPMs.

a. Mr. Depies, Cal/EPA DTSC, welcomed the new public representatives and suggested the Air Force provide training for new RAB members to help them better understand the CERCLA process and base cleanup program. Mr. Schiff said the Air Force can provide training and offer short tours of cleanup sites. Several public representatives expressed interest in attending the tours. Mr. Depies also encouraged the public representatives to contact the regulatory RPMs as another resource to gain understanding of the concepts presented during the meetings or with reviewing material or information conveyed by the Air Force. The RPM contact information can be found on the RAB's Facebook website or the back of the Report to Stakeholders newsletter.

- b. Ms. Lopez, Cal/EPA LRWQCB, had nothing to report.
- c. Mr. Poach, Cal/EPA LRWQCB, had nothing to add.

d. Ms. Huang, U.S. EPA, said she is one of two RPMs from the U.S. EPA who oversee the cleanup program at Edwards AFB. She explained that her colleague, Mr. Francis, was unable to attend the RAB meeting due to a scheduling conflict. Ms. Huang said she looks forward to working with the community and the Air Force. Mr. Schiff noted that all of the regulatory agencies assigned two RPMs to oversee the base cleanup program, which serves to demonstrate the complexity of the program.

16. The next RAB meeting is proposed for 21 May 2020 in North Edwards.

17. In closing, Dr. Smith stated that the Air Force seeks to be transparent about the activities involving the Environmental Restoration program. He noted that any formal disputes between the Air Force and regulatory agencies are less of a conflict and more of a disagreement in defining the cleanup levels that apply to an Air Force installation. Dr. Smith emphasized that, regardless of the disagreement, the Air Force will continue to protect human health and the environment.

18. The meeting was adjourned at 6:45 p.m.

**//originally signed by//**

**//original signed by Victor Yaw//**

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DAVID G. SMITH, NH-IV, DAF  
Air Force Co-chair  
Restoration Advisory Board

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N/A  
Public Co-chair  
Restoration Advisory Board

Attachment:

Environmental Restoration Program Update for Edwards AFB, California, 21 November 2019

**DISTRIBUTION:**

AFCEC

412 TW/DS/JA/PAE/SE

412 AMDS/SGPB

AFRL

RAB Members

Cal/EPA DTSC

Cal/EPA LRWQCB

U.S. EPA



# Air Force Civil Engineer Center

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## Environmental Restoration Program Update for Edwards AFB, California

Paul Schiff  
AFCEC/CZOW  
21 NOV 2019

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*Battle Ready...Built Right!*

1



## List of Acronyms

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- AFRL = Air Force Research Laboratory, Detachment 7
- ARASR = Annual Remedial Action Status Report
- DRC = Dispute Resolution Committee
- CSE = Comprehensive Site Evaluation
- CSM = conceptual site model
- DTSC = Dept. of Toxic Substances Control
- ESD = Explanation of Significant Differences
- FS = Feasibility Study
- FYR = Five-Year Review
- HVAC = heating, ventilation, and air conditioning
- MMRP = Military Munitions Response Program
- O&M = operations and maintenance
- OU = Operable Unit
- PCE = perchloroethene
- PFOS/PFOA = perfluorooctane sulfonate/perfluorooctanoic acid
- RAB = Restoration Advisory Board
- ROD = Record of Decision
- RPM = Remedial Project Manager
- SI = Site Inspection
- SVE = soil vapor extraction
- TCE = trichloroethene
- TWG = technical working group
- VI = vapor intrusion

2



## Contact Release Forms



- **Public representatives should be available to community members outside of the semiannual Restoration Advisory Board (RAB) meetings**
  - To facilitate availability, the Air Force publishes each representative's contact information on the RAB's Facebook page and Report to Stakeholders newsletter
  - Please sign the form (in your folder) to officially grant the Air Force permission to publicize your contact information, including personal cell phone numbers and personal e-mail addresses

3



## Budget



- **Awarded three contracts totaling \$15M**
  - **Finalize a Feasibility Study (FS) for:**
    - Operable Unit (OU) 2 Site 5 Carbon Tetrachloride Plume
    - OU4/9 Northeast Air Force Research Laboratory (AFRL)
    - OU4/9 Mars Blvd
    - OU5/10 North Base
    - Site 25
  - **Develop Proposed Plan for OU7 Miscellaneous sites**
  - **Finalize a Record of Decision (ROD) for AFRL Arroyos**
  - **Finalize an Explanation of Significant Differences (ESD) for South AFRL**
  - **Update conceptual site model (CSM) for Site 25 and OU4/9 South AFRL**
  - **Finalize vapor intrusion (VI) assessment of OU1/8 Main Base and OU4/9 AFRL Arroyos**

4



## Budget (continued)



- Basewide groundwater monitoring
- Treatment systems operations and maintenance (O&M)
- Conduct VI assessment at OU4/9 South AFRL
- Technical working group (TWG) facilitation/meeting support for OU1/8, OU4/9, and Site 25

5

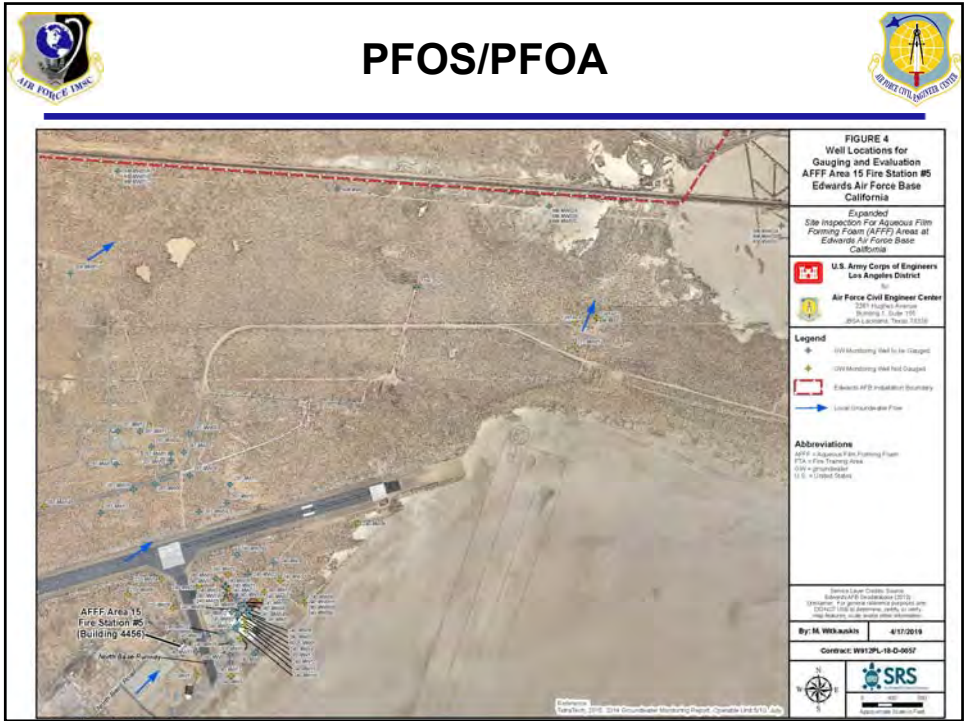


## Perfluorooctane Sulfonate (PFOS)/ Perfluorooctanoic Acid (PFOA)



- **Expanded SI effort underway**
  - **June 2019: Draft Work Plan provided locations and methods for on-base sampling**
    - Phase I:
      - Fire Station #5: 10 groundwater samples adjacent to base installation boundary at North Base
    - Phase II:
      - Fire Station #5: 11 additional groundwater samples closer to the fire station
      - OU2 Site 14: 14 additional groundwater samples near former fire training area

6



- ## PFOS/PFOA
- **Expanded SI effort underway**
    - Phase I sampling completed 31 Oct 2019
    - Sampling results expected mid-December 2019 and will determine next steps
    - Results will be published in a final report
- 8



## Status of Formal Disputes



- **South AFRL ESD**
  - Dispute invoked by California's Dept. of Toxic Substances Control (DTSC) in August 2014
  - In May 2019, U.S. EPA Headquarters Administrator issued a final decision to retain the perchloroethene (PCE) toxicity value in the 2007 Final ROD for the South AFRL

9



## Status of Formal Disputes

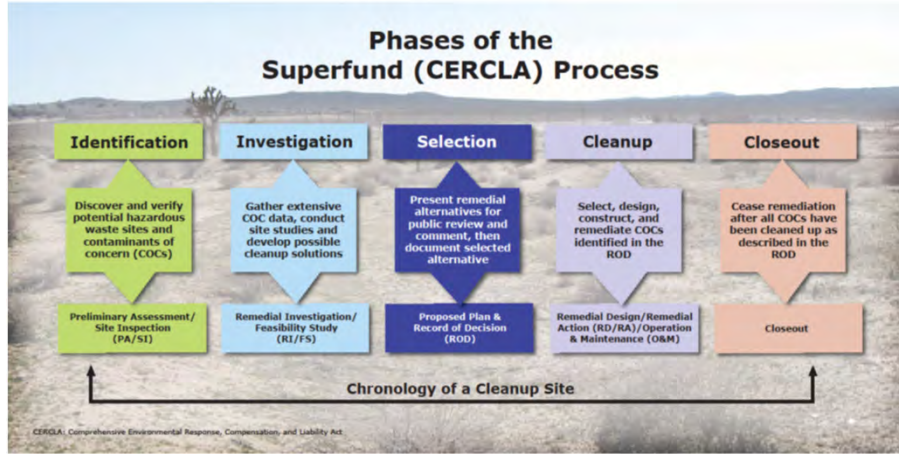


- **AFRL Arroyos ROD**
  - Dispute invoked by the U.S. EPA and DTSC in November 2014
  - Remedial Project Managers (RPMs) prepared a status report for Dispute Resolution Committee (DRC) summarizing outstanding dispute issues that need resolution and recommendations on issues that have been resolved
  - Air Force to schedule a DRC meeting to resolve three major disputed items (i.e., cumulative risk; industrial pathway cleanup standards for vapor intrusion; and toxicity criteria)
  - Regulators visited five Arroyos buildings in mid-October 2019 to select locations for a VI sampling work plan
    - Results will determine whether continued VI sampling is necessary in the ROD

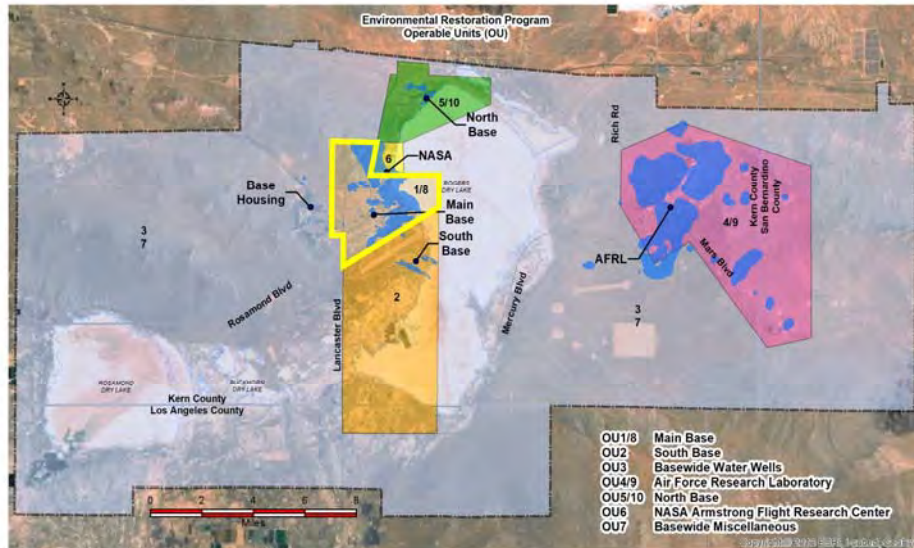
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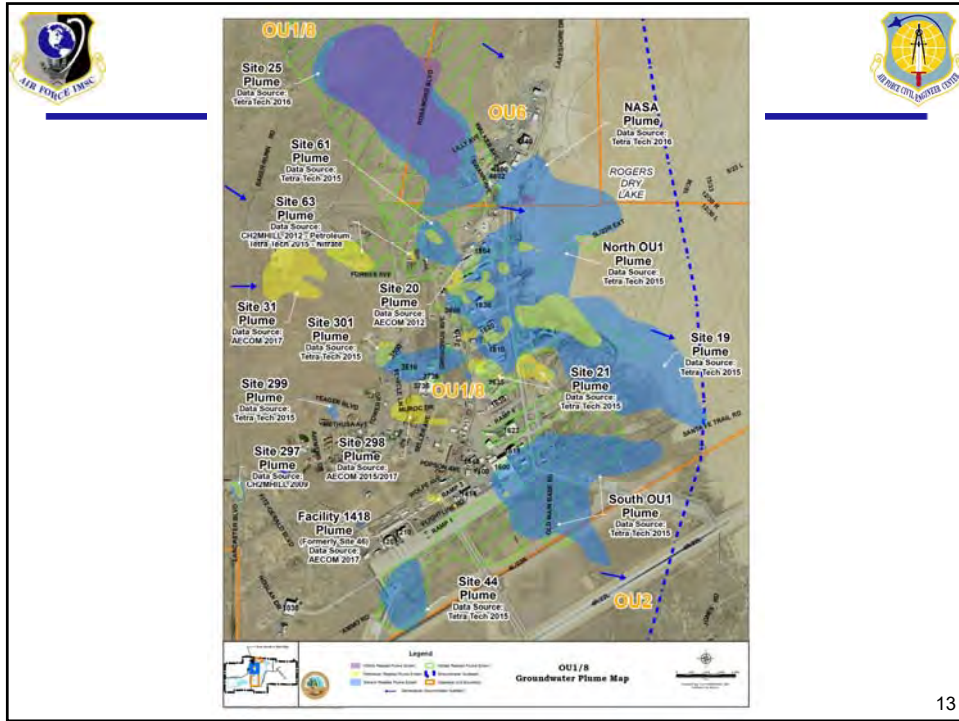


# Superfund Phases



# OU1/8 Main Base (Pre-ROD)





## OU1/8 Main Base (Pre-ROD)

- **Continue OU1/8 TWG meetings to resolve issues for incorporation into the FS Addendum**
  - Further VI evaluation and soil gas sampling
  - Groundwater issues/plume stability
  - Data gaps
  - Risk assessment
  - Natural attenuation
  - Restoration potential
  - Remediation technologies



## OU1/8 Main Base (Pre-ROD)

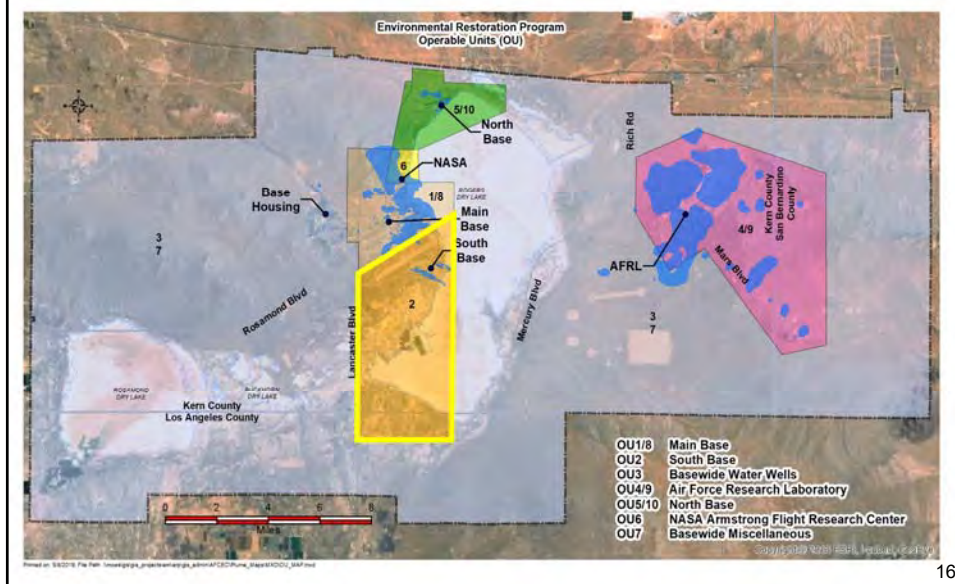


- **Building 1807**
  - November 2018, February 2019 and May 2019 quarterly indoor air sampling results confirmed that trichloroethene (TCE) levels are below all action levels with new heating, ventilation, and air conditioning (HVAC) operating continuously (i.e., 24/7)
  - Path Forward: Indoor air sampling frequency changed from quarterly to semiannually. First semiannual sampling event conducted 15 Nov 2019 and the results will be documented in an annual report

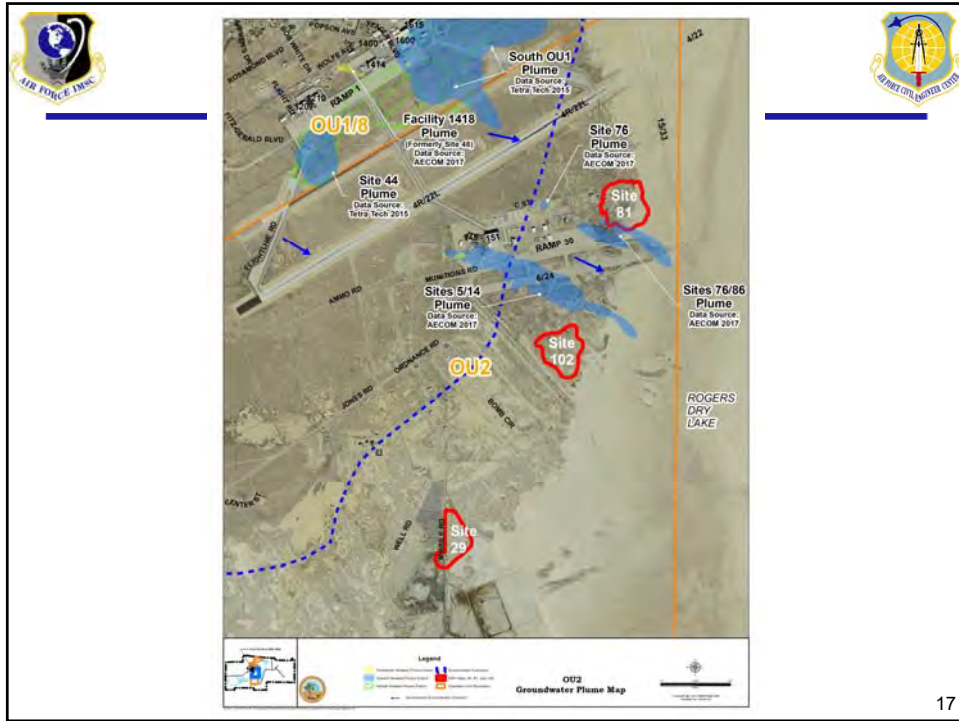
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## OU2 South Base (Post-ROD)

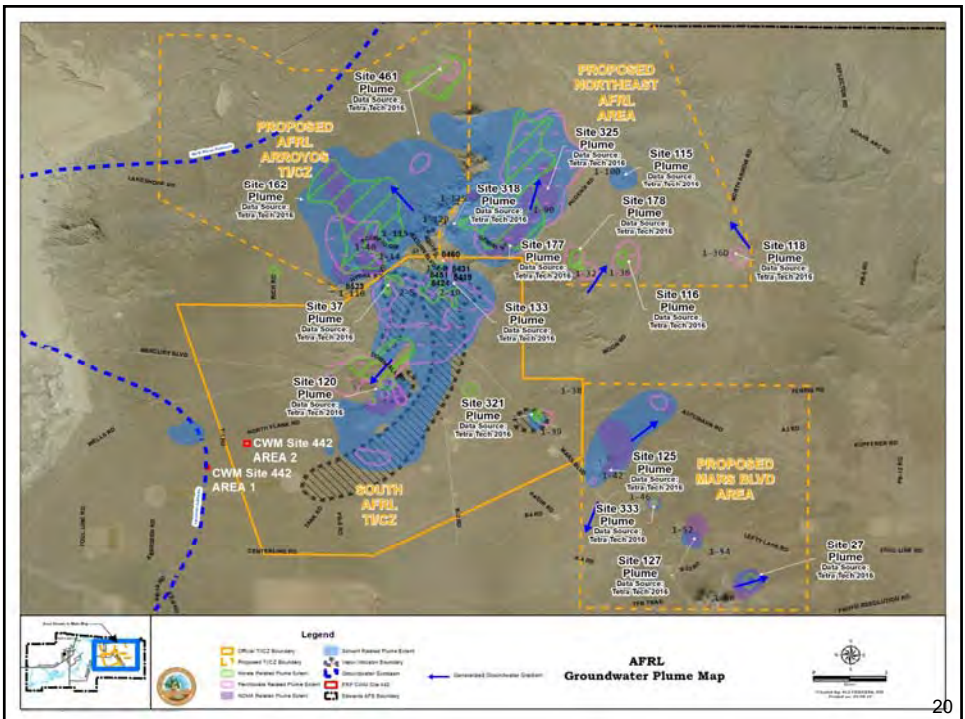
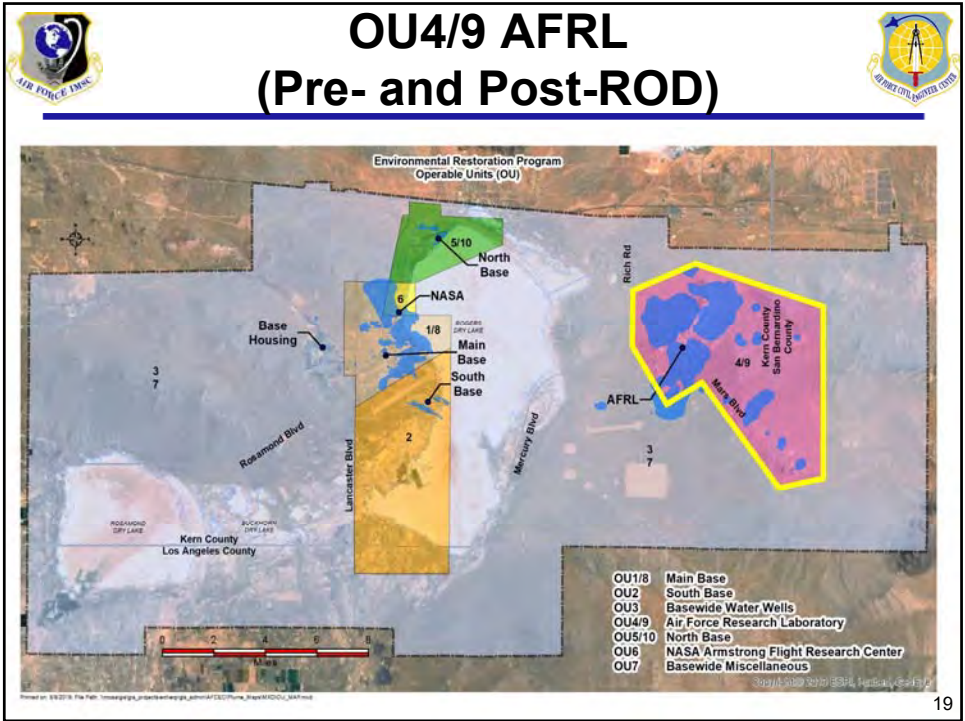






## OU2 South Base (Post-ROD)

- **Sites 5/14, 76, and 86**
  - Treatment systems continue operating
  - Annual Remedial Action Status Reports (ARASRs) submitted to the regulators
- **Sites 81 and 102**
  - The former skeet sites have been covered with crushed concrete and native seed will be spread in specific locations





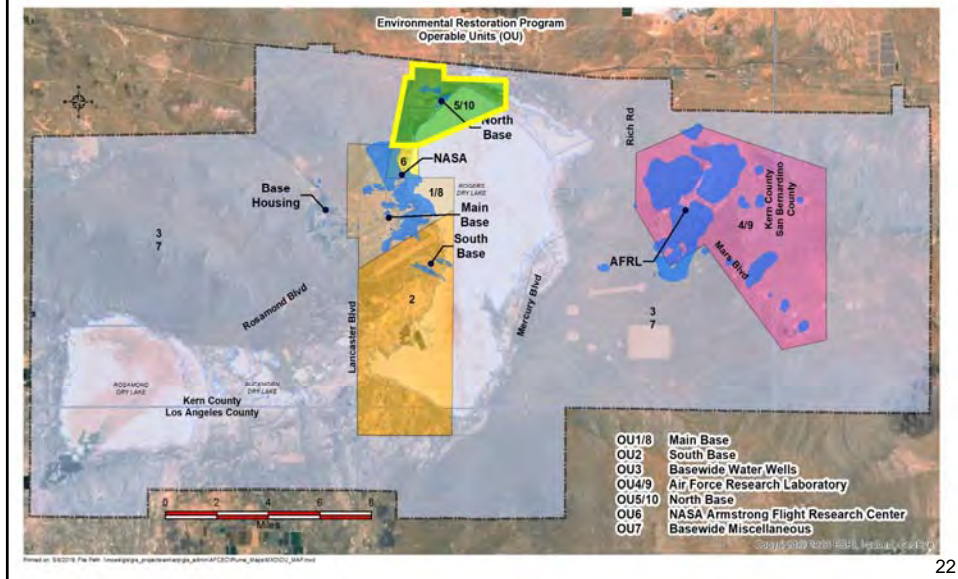
## OU4/9 AFRL (Pre- and Post-ROD)

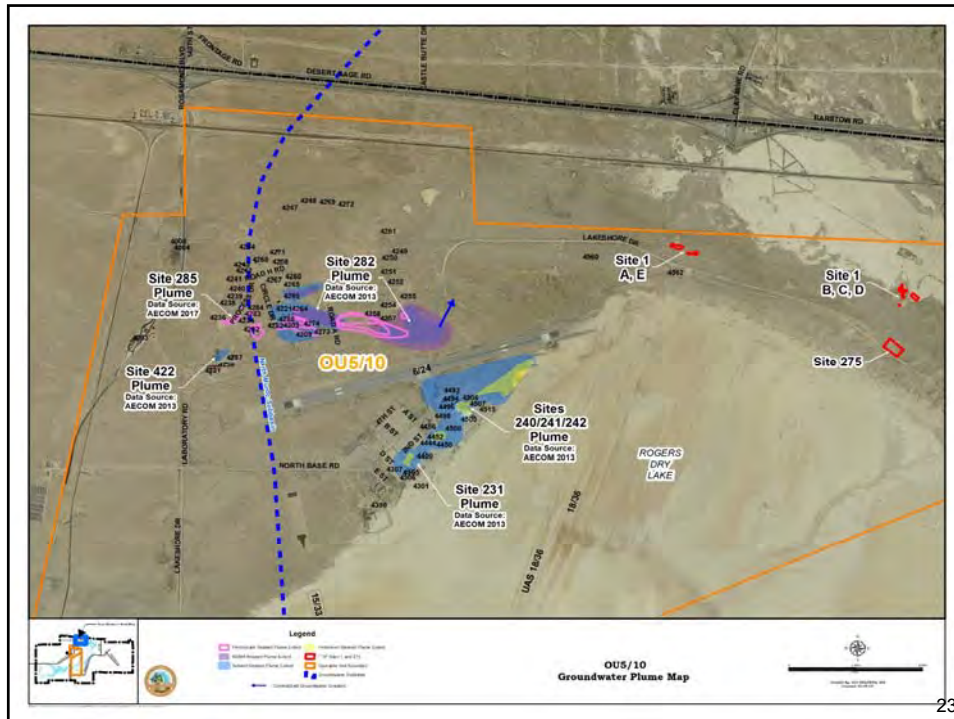


- One AFRL area in dispute
- Groundwater monitoring continuing
- Land Use Controls are in place for South AFRL and Soil and Debris Sites




## OU5/10 North Base (Pre-ROD)






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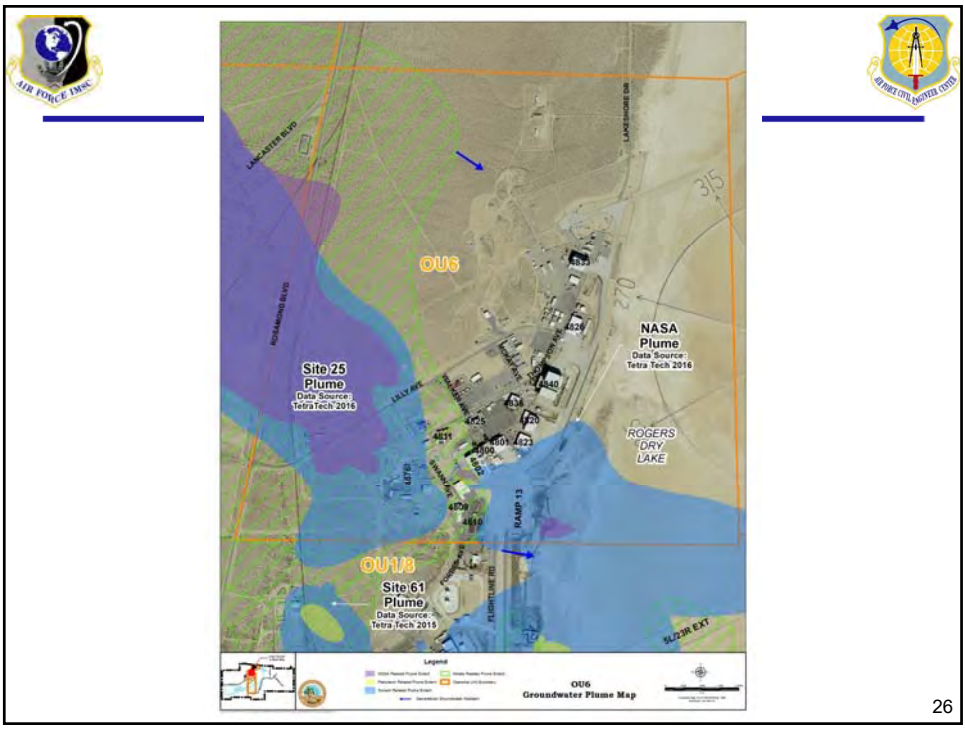
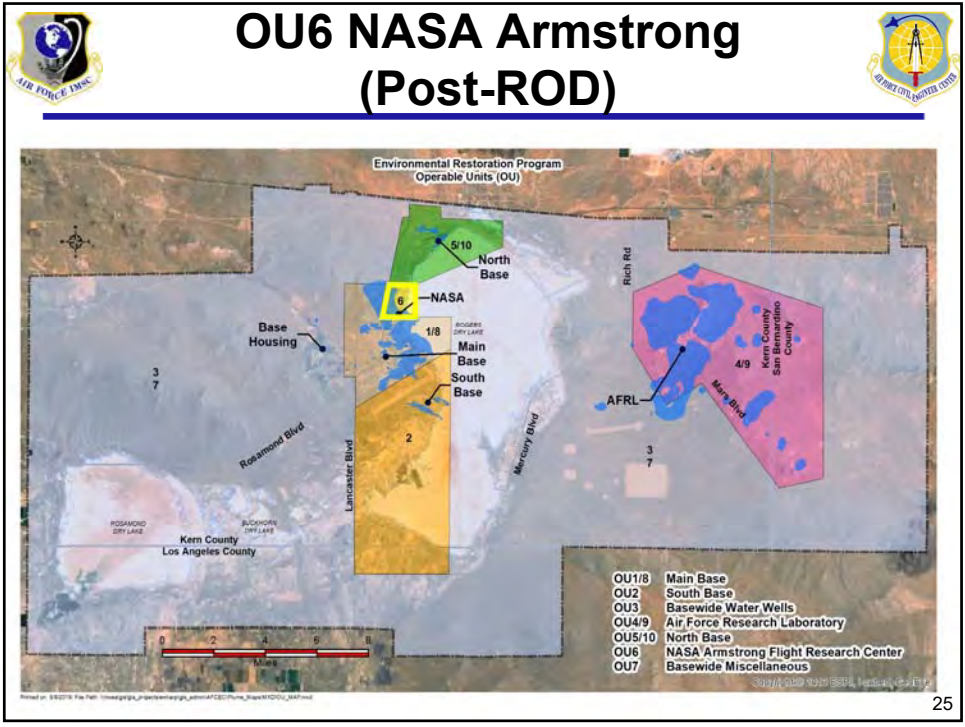
## OU5/10 North Base (Pre-ROD)



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- **Site 285 interim treatment system to address perchlorate in groundwater continues to operate**
- **Path Forward: Plan to submit Revised Draft OU5/10 FS to the regulators in November 2021**

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## OU6 NASA Armstrong (Post-ROD)

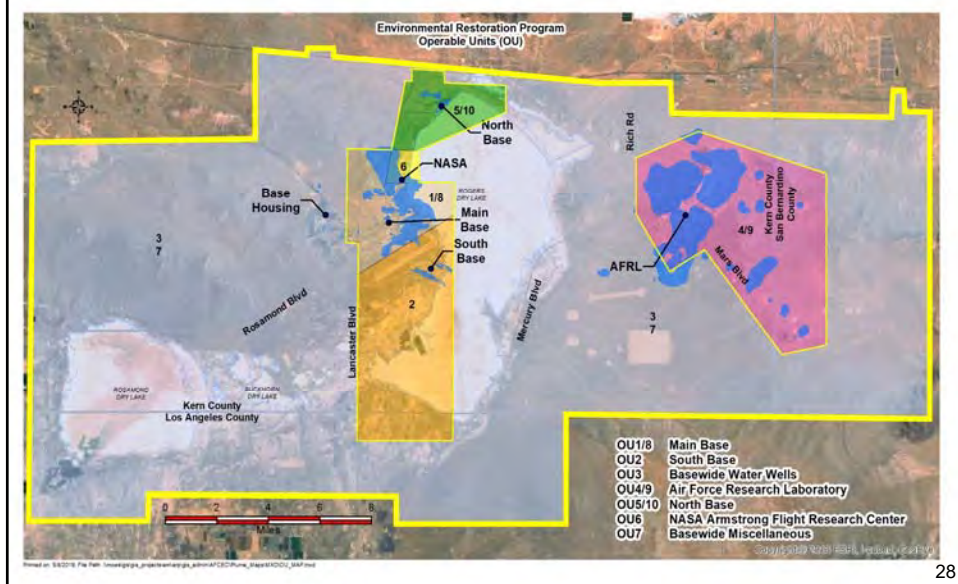


- **Draft Groundwater Plume Delineation Report will be submitted to the regulators in December 2019/January 2020**
  - This document summarizes the activities performed to delineate the OU6 groundwater plume from the 14 newly installed wells

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## OU7 Basewide Miscellaneous (Pre-ROD)



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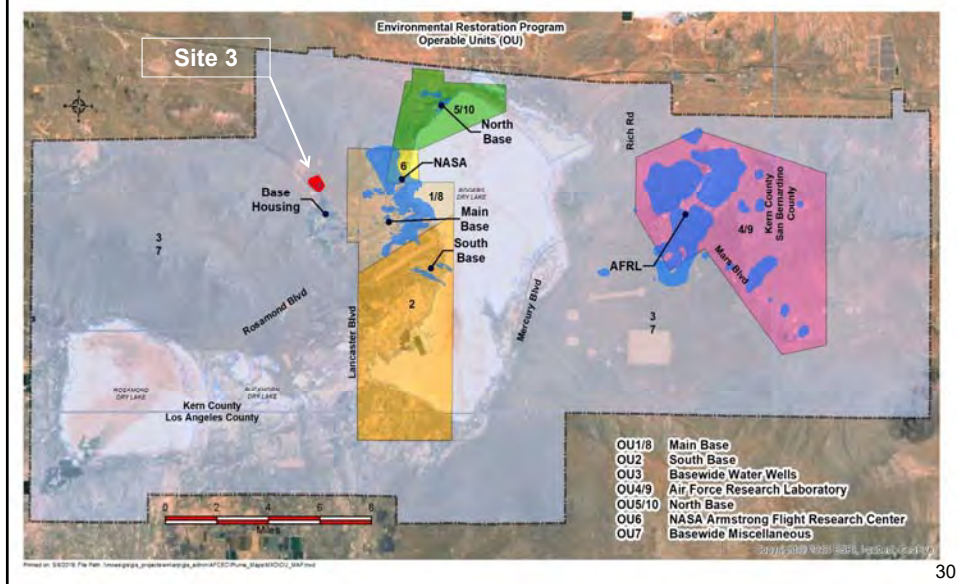
## OU7 Basewide Miscellaneous (Pre-ROD)



- **Path Forward: Anticipate submitting Draft Proposed Plan for Sites 267, 269, 272, 280, 292, 294, and 339 to the regulators October 2020**



## OU7 Site 3 (Post-ROD)



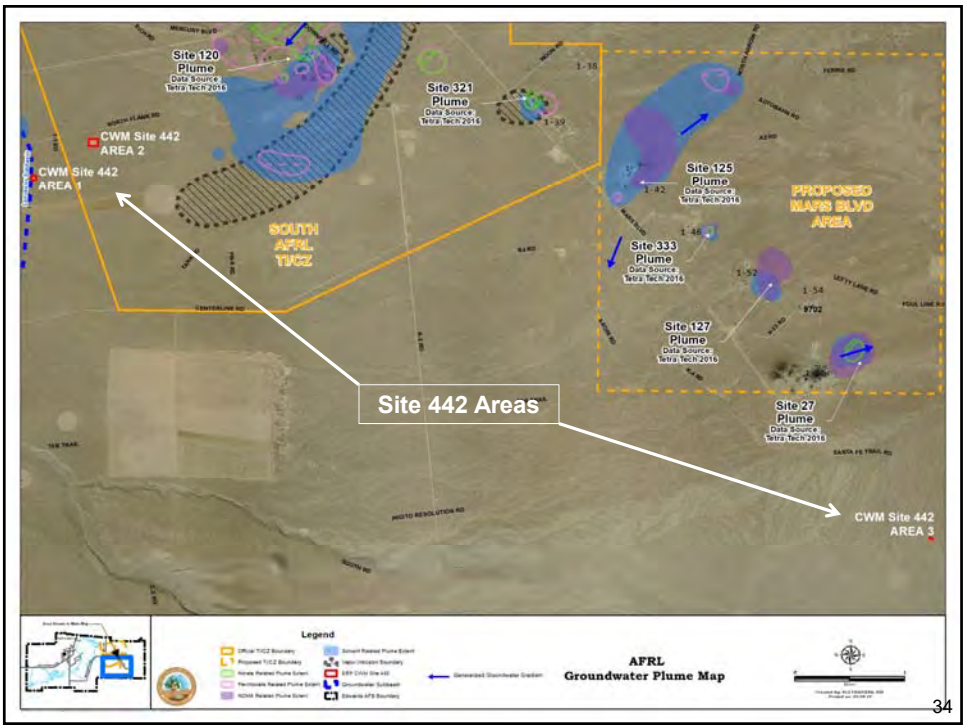
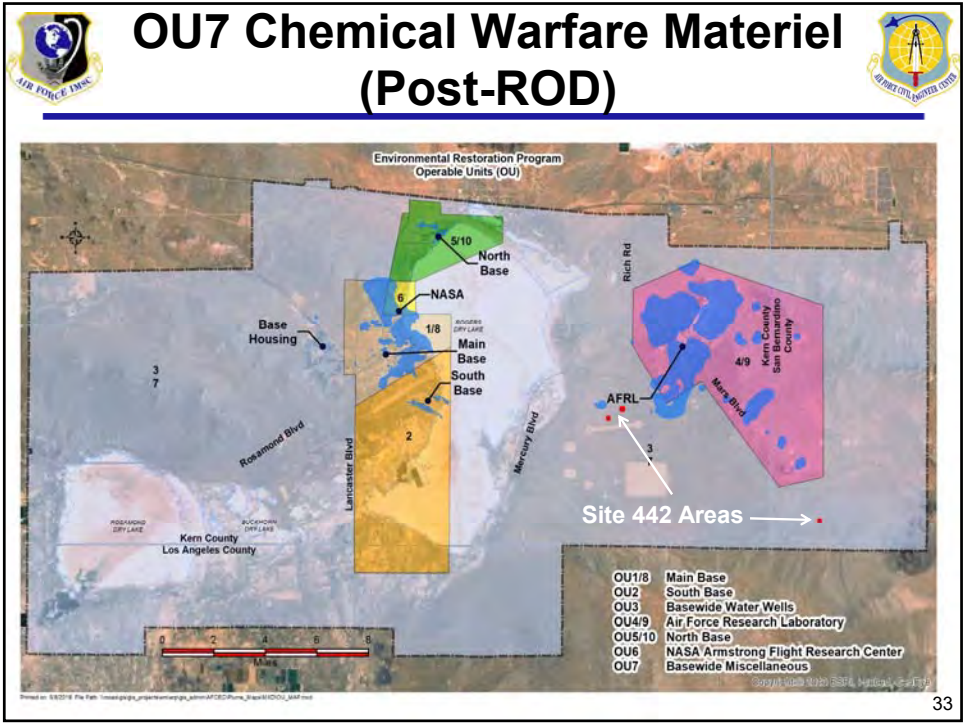


## OU7 Site 3 (Post-ROD)

- Installation of the last portion of the cap/cover for the inactive landfill will begin as soon as an on-base soil source is identified/approved

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## **OU7 Chemical Warfare Materiel (Post-ROD)**



- **The ARASR for October 2017 through September 2018 has been finalized**
- **The ARASR for October 2018 through September 2019 will be submitted to the Air Force for review as a Preliminary Draft by January or February 2020**

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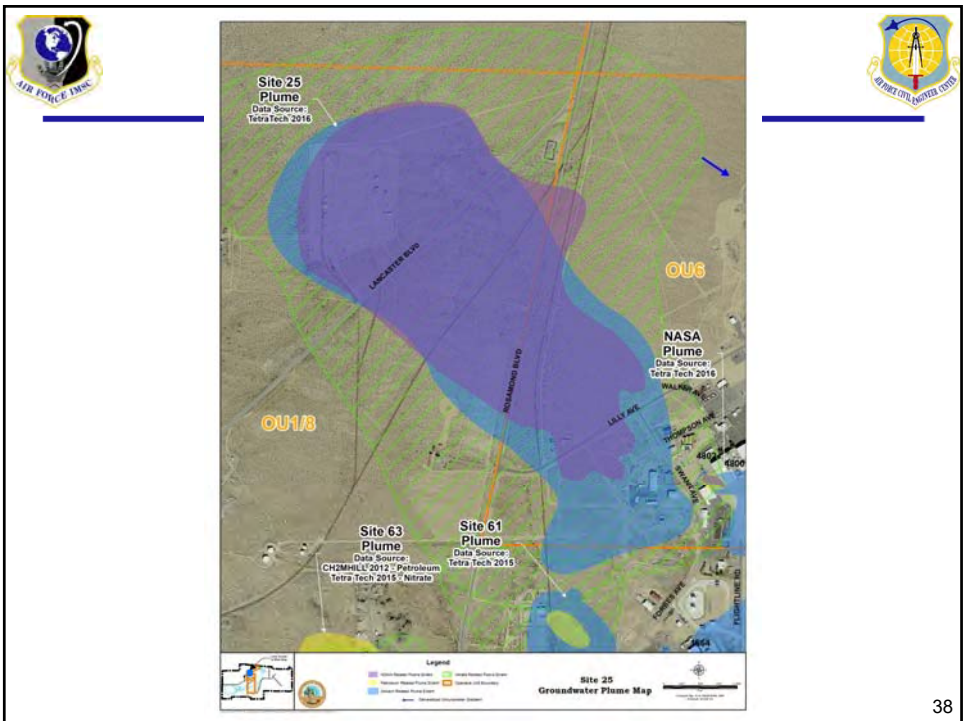
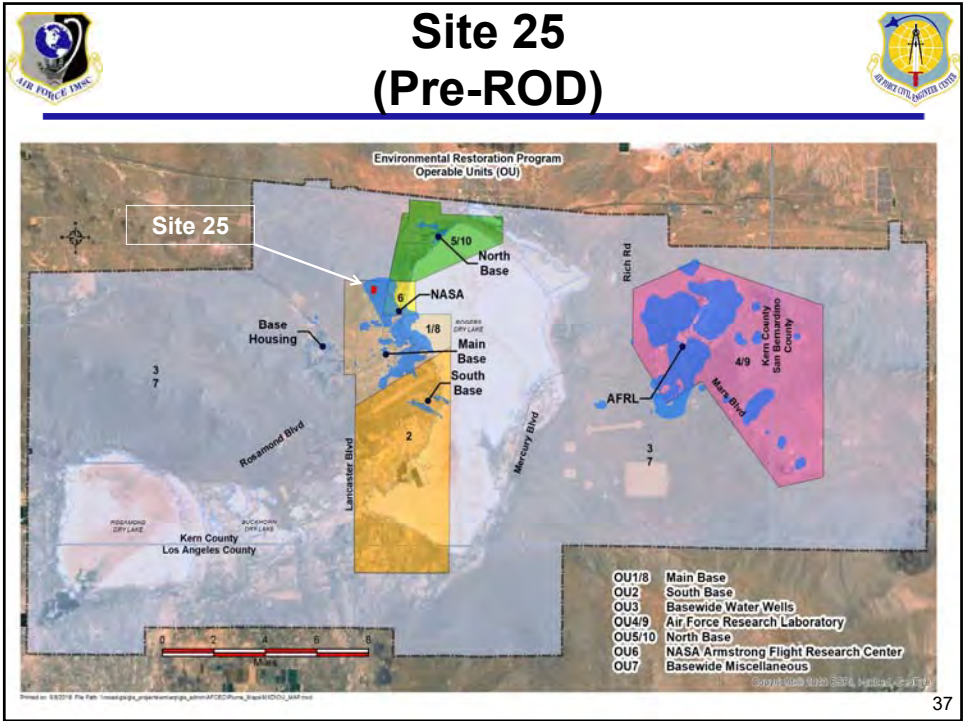


## **Schedule for Multisite FYR**



- **Multisite Five-Year Review (FYR)**
  - **Reviewed cleanup remedies at OU2 Sites 5/14, 76, and 86, OU7 Site 3, and OU7 Chemical Warfare Materiel Site 442 to determine whether they remain protective of human health and the environment**
  - **U.S. EPA concurred with protectiveness in the short-term**
  - **Air Force will address FYR recommendations to ensure protectiveness in the long term**
  - **Due to contractual and funding complications, the final report is not expected to be available to the public until the spring of 2020**

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## Site 25 (Pre-ROD)

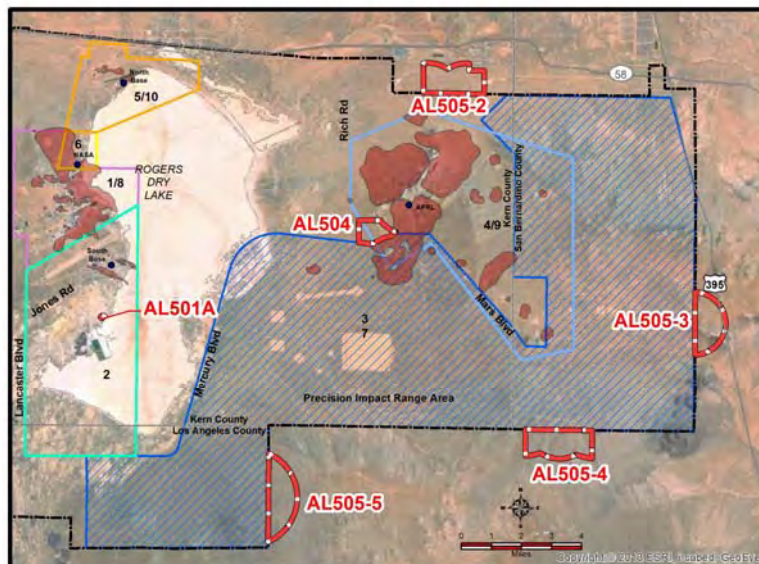


- Site 25 Technical Working Group is working on several groundwater data collection efforts to feed a revised Feasibility Study:
  - Nitrate plume concentrations
  - Recharge study
  - Treatment technology screening
- Expect to restart soil vapor extraction (SVE) treatability study in source area, with addition of air sparging, in February/March 2020

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## Military Munitions Response Program (MMRP) (Pre-ROD)



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## MMRP (Pre-ROD)



- **Comprehensive Site Evaluation (CSE) Phase II Report for AL505-3 and AL505-5, and Remedial Investigation/Feasibility Study Report for AL501A, AL504, AL505-2, and AL505-4**
  - Draft final reports were submitted to the regulators in March 2019
  - Awaiting comments from DTSC, which are expected at the end of November 2019

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## Questions?

