



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

19 May 2016

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, 19 November 2015

1. Time: 1735
2. Place: Boron, California
3. Chairman: Bruce Davies, Public Co-chair
4. The following RAB members were present:

<u>Name</u>	<u>Position</u>
Mr. Bruce Davies	Public Co-chair/North Edwards Public Representative
Mr. Kevin Depies	California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) Remedial Project Manager (RPM)
Mr. Ai Duong	Edwards AFB RPM
Mr. William Gaddis	Rosamond Public Representative
Ms. Christina Guerra	Lahontan Regional Water Quality Control Board (LRWQCB) RPM
Mr. Kevin Mayer	United States Environmental Protection Agency (U.S. EPA) RPM
MSgt Robert Sims, Jr.	Edwards AFB Main Base Test Wing Public Representative
Dr. David Smith	Air Force Co-chair
Ms. Jocelyn Swain	Lancaster Public Representative
Ms. Amber Sweeney	Edwards AFB Base Housing Public Representative
Mr. Otto Zahn	Edwards AFB Main Base Test Wing Public Representative (Alternate)

5. The following members were absent:

<u>Name</u>	<u>Position</u>
Mr. Marvin Crist	Lancaster Public Representative (Alternate)
Mr. Edward Fuller	California City Public Representative
Mr. Milton McKay	Air Force Research Laboratory, Det 7 (AFRL) Public Representative

Ms. Kerri Stewart	National Aeronautics and Space Administration (NASA)
	Armstrong Public Representative
Rev. Philip Thompson	Boron Public Representative
Dr. Leslie Uhazy	Rosamond Public Representative (Alternate)
Mr. Victor Yaw	Mojave Public Representative
Vacant	Edwards AFB North Base Public Representative
Vacant	Edwards AFB South Base Public Representative

6. The following advisors were present:

<u>Name</u>	<u>Organization</u>
Mr. Ranney Adams	AFRL Environmental Manager
Mr. Eric Barefoot	Air Force Civil Engineer Center (AFCEC)/Environmental Restoration Division (CZR)
Mr. Gary Hatch	412th Test Wing (412 TW)/Public Affairs (PA)
Ms. Rebecca Hobbs	AFCEC /Installation Support Team-West (CZOW)
Mr. Tom Merendini	AFCEC/CZOW
Mr. Craig Nathe	AFCEC/CZOW
Mr. Michael Rohall	AFCEC/CZOW
Dr. Nash Saleh	AFCEC/CZOW
Mr. Warren Seidel	412 TW/Judge Advocate (JA)

7. Others present were as follows:

<u>Name</u>	<u>Organization</u>
Mr. Edward Cannon	Media Fusion
Ms. Maribel Harms	JT3/CH2M
Mr. Manish Joshi	AECOM
Mr. Raymond Kelso	China Lake RAB Member
Ms. Sophia Merk	China Lake RAB Member
Mr. John Perry	Media Fusion
Ms. Leilani Richardson	JT3/CH2M (Recorder)
Mr. Peter Robles	AGEISS
Ms. Jena Romo	Media Fusion
Mr. Herb Roraback	412 CEG/Environmental Management (CEV)

8. Mr. Davies read the *Statement of Purpose and Conduct*.

9. Mr. Davies introduced MSgt Robert Sims, Jr., the new primary public representative for the Main Base Test Wing community.

10. Mr. Davies presented the 21 May 2015 RAB meeting minutes for acceptance. The RAB accepted the minutes as presented.

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

Mr. Davies introduced Dr. Saleh, an Environmental Restoration Program manager at Edwards AFB.

a. Dr. Saleh provided the status of two formal disputes at Edwards AFB. The South AFRL Explanation of Significant Differences dispute was elevated to the U.S. EPA Administrator, who will issue a final ruling on the dispute. Dr. Saleh noted the deadline for the final ruling has been extended twice; the current deadline is 15 December 2015. Dr. Saleh said the dispute for the AFRL Arroyos Record of Decision (ROD) was discussed informally by the Dispute Resolution Committee (DRC) in April 2015. During the informal meeting, the DRC preliminarily resolved eight issues. Three more issues—primarily regarding risk assessments and toxicity criteria—require further discussion. The DRC will decide if the three remaining issues need to be elevated to the Senior Executive Committee.

b. Dr. Saleh presented the progress of the base's cleanup program, highlighting restoration activities performed within the last 6 months.

(1) During Dr. Saleh's briefing of the Operable Unit (OU) 1/8 Main Base groundwater wells, Mr. Depies clarified the wells were being installed at the leading edge of some of the Main Base plumes because they are not well defined. Mr. Kelso asked if the 650 wells at the site are installed in and around the plumes. Mr. Depies replied affirmatively. Mr. Kelso asked the depth of the wells. Mr. Duong responded 30-100 feet. Mr. Depies said depth to groundwater at Main Base is shallow. Mr. Kelso asked if the wells were for direct sampling. Mr. Duong explained the groundwater monitoring program at Main Base was approximately 20 years old and included more than 1,000 wells. Most of the wells do not have direct sampling and must be performed manually.

(2) Dr. Saleh reported the Air Force performed a winter and a summer round of vapor intrusion pathway (VIP) sampling at 11 worst-case buildings located at Main Base and North Base. Based on the sampling results and analyses, the Air Force position is that no further VIP assessments are warranted at those locations. Mr. Duong noted the regulators may agree or disagree with the Air Force's position, as they have not received the VIP report yet. Mr. Duong explained the 11 buildings were selected because of their proximity to contaminated groundwater and soil, and neither sampling event at the 11 buildings found any VIP concerns.

(3) Dr. Saleh briefed the status of two treatment systems at OU1/8 Main Base. Mr. Gaddis asked if the Air Force was waiting to turn on the Site 18 interim dual extraction system after a regulatory agency decision on the VIP sampling. Mr. Duong answered there may be some discussion when the regulators receive the VIP report. He noted DTSC has already asked when the Site 18 system will be turned back on. Mr. Duong said the Site 58 interim soil vapor extraction system will remain offline until a cleanup action is selected in the OU1/8 Main Base ROD. Mr. Davies asked if the VIP report will show contaminant concentrations below the disputed values. Mr. Duong responded that nothing was found in the 11 buildings for indoor air. Mr. Depies explained the Air Force selected 11 occupied buildings where groundwater contaminant concentration levels were high. The idea is that volatile organic chemicals (VOCs) in the groundwater can evaporate from the groundwater or soil beneath a building and enter the facility through foundation cracks or drain lines. Mr. Depies said the Air Force believes that if there is no significant risk in these worst-case buildings, then there is no need to assess VIP in other buildings. He noted the Air Force builds high-quality facilities, where foundations can be up to 3 feet thick and are unlikely to crack—foundation cracks are usually how vapors find a way into a building. Mr. Depies said the Air Force makes a good case, but the regulators will need to read the VIP report before making any conclusions. Mr. Depies then addressed Mr. Gaddis' question

about Site 18, saying the system was shut down in order to prevent any impact to the VIP sampling. The Air Force hesitates to turn on the system until they have buyoff from the regulators, in case they are asked to perform another round of sampling. Mr. Depies noted the Air Force is not technically obligated to operate the Site 18 system, which was operated voluntarily as an interim action. He said the Air Force may decide not to turn it on—against regulator protest—if it is not beneficial based on a cost-benefit analysis. Mr. Depies confided this was the first time he learned the Air Force was thinking of not turning the system back on. Mr. Duong stated when the Site 18 system began operating, concentrations were in the range of 100,000 parts per billion (ppb) of trichloroethene (TCE). Now the levels are in the 10,000-ppb range, indicating the Air Force removed the hot spot of contamination. He agreed the Air Force will have to look at the system from an economic standpoint because of limited funding. Mr. Duong explained his team must compare and prioritize cleanup sites in order to best utilize the limited amount of money they are provided every year.

c. Dr. Saleh outlined a removal action to take place at Sites 81 and 102, former skeet ranges at South Base, whereby crushed runway concrete will be used as a cover. South Base program manager Ms. Hobbs explained the cover will consist of areas of protected habitat and areas of varying sizes of concrete to create niches to provide animal habitat. She noted the removal action benefits the base two-fold because the runway concrete was a compliance liability that can now be used to cover Sites 81 and 102. Mr. Depies added the concrete cover will eliminate the pathway of lead and skeet-target debris that could potentially be ingested by wildlife.

d. Dr. Saleh mentioned AFRL plans to convert Building 8753 into a server room, which would further minimize worker exposure to possible VIP. Mr. Adams noted the conversion is to be determined, depending on funding and test requirements. Mr. Duong explained Building 8753 is the only building on base that was assessed as having a VIP risk level calculated to be slightly above regulatory limits. The Air Force notified AFRL employees, limited the occupancy rate inside the building to 4 hours a day, and continues to monitor VIP in the building to ensure protectiveness of AFRL employees. Mr. Depies said Buildings 8753 and 8595 are the only two buildings so far identified where regulators think mitigation is warranted, and the Air Force is taking action at both buildings. He commented the Air Force plans to sample VIP again at South AFRL in the winter of 2015. Mr. Duong reminded the RAB members the base follows a detailed VIP communications plan, which outlines the steps for notifying base employees if any VIP concerns are found.

e. Dr. Saleh informed the RAB that, because of internet connectivity issues, they were unable to play the video of practice bombing at Military Munitions Response Program (MMRP) site AL504. Ms. Richardson offered to send the RAB members a direct link to the video via e-mail. Mr. Depies explained the Air Force has been trying to obtain permission from landowners to walk off-base MMRP sites in order to look for unexploded military ordnance on the subsurface. He remarked that contacting some of the landowners has been difficult, as some properties only list a mailing address. Mr. Depies said the regulators feel there are two off-base parcels large enough to warrant inspection. For this reason, Mr. Depies is assisting the Air Force by filing Imminent and Endangerment Orders with the parcel owners. The orders will advise the landowners they need to inspect their properties for unexploded ordnance and offer Air Force assistance to do so. Mr. Depies expects the orders to take a month or two to process. Mr. Davies asked where the parcels were located, since he may know the landowners personally. Mr. Depies asked the Air Force to

send the RAB members a map of the specific parcels in case any of them can provide better contact information for the landowners. He mentioned one parcel was owned by a trust, and the other by a company.

f. Mr. Davies asked if the base planned to do any studies to check if El Niño rainwater will have an effect on groundwater contaminant movement. He speculated it would be a good idea to get before and after shots in certain locations. Mr. Duong said the Air Force is trying to complete as much field work as possible before El Niño hits. Mr. Depies said the regulators fast-tracked a work plan so the Air Force could sample the 650 groundwater monitoring wells at OU1/8 Main Base in November 2015. He noted the Air Force and regulators had discussed El Niño effects during a technical meeting held earlier in the day. Mr. Duong said the Air Force will have data points pre-El Niño and will take samples next year for an after shot. Mr. Davies asked if the Air Force has the budget for additional wells in case plumes have moved. Mr. Duong said the budget includes an annual review of groundwater data and they would have to request funding to include any additional wells. Mr. Davies commented he assumes with that much rain, the Air Force would expect the plumes to move. Mr. Depies added DTSC believes El Niño will likely cause a measurable amount of infiltration, affecting water tables and plume migration rates.

12. Opportunity for Public Comment – Mr. Hatch reported no comment cards were received from members of the public to address the RAB members during the meeting.

13. Old Business – *Status of RAB Vacancies* – Mr. Hatch said the RAB still has two vacancies for the South Base and North Base communities, respectively. The base will pursue contact tips provided by a former North Base employee to generate interest. Both vacancies were advertised in the base newspaper and online in April and September 2015. No applications were received, so the base will continue to advertise the positions until they are filled. Mr. Hatch noted the Main Base Test Wing now has two representatives: Otto Zahn became an alternate to allow MSgt Sims to take over as primary.

a. Mr. Kelso asked the number of members on the Edwards AFB RAB. Mr. Hatch responded the base has 13 members. Mr. Kelso remarked that was a high number, as China Lake's RAB only has four members. Mr. Hatch introduced Mr. Kelso and Ms. Merk, members of the China Lake RAB, who attended the Edwards RAB to see how things are run. Mr. Depies noted there were only five RAB members in attendance, which is the norm.

b. Ms. Merk asked how many documents the RAB reviews. Mr. Depies said there is no formal process, but the RAB members are invited to review documents and some members have requested specific reports in the past. Mr. Kelso said the China Lake RAB actually reviews and comments on all of the reports, including draft versions. He said he has been a RAB member for 20 years because he has five generations of family living in Ridgecrest. He worked in the environmental office for approximately 30 years as a civil servant and wanted to give back to the community by volunteering as a RAB member.

c. Mr. Kelso remarked it was interesting that Edwards AFB was experiencing conflict with the regulators, as China Lake has never experienced regulatory conflict. He estimated China Lake has approximately 200 cleanup sites with a budget between \$1 and \$1.5 million per year. He offered to provide information to anyone who had questions about China Lake and its RAB. Mr. Depies

thanked Mr. Kelso for speaking up, and agreed the RABs should compare notes to see what can be done more efficiently. He clarified the disagreements the Air Force has been having with regulators is a recent development within the last 3 years. Mr. Depies stressed the Air Force and regulators continue to have a collaborative relationship, and many of the disagreements revolve around policy issues not specific to Edwards AFB.

14. Reports from Public Representatives.

a. Ms. Sweeney, Base Housing, did not have anything new to report.

b. Mr. Gaddis, Rosamond, did not have anything new to report.

c. MSgt Sims, Main Base Test Wing, provided the RAB with a brief history about himself. Originally from southern California, this is his second tour at Edwards AFB. He returned to the base in 2008 and expects to retire at Edwards, possibly transitioning into the civil service workforce.

d. Ms. Swain, Lancaster, did not have anything new to report.

e. Mr. Davies, North Edwards, announced he is part of a new community group at North Edwards. He said the new group has its own Facebook page, which provides him with another avenue for informing his community about the base's cleanup program.

15. Reports from RPMs.

a. Ms. Guerra, Cal/EPA LRWQCB, did not have anything new to report.

b. Mr. Depies, Cal/EPA DTSC, asked the RAB's public representatives if they feel meeting twice a year is sufficient in addressing public needs. He asked if they are meeting often enough or if there are other things the RAB can offer to help provide a better understanding of the cleanup program. He explained part of the reason he spoke up during Dr. Saleh's presentation was to provide the public representatives with more background information about some of the cleanup activities.

(1) Mr. Davies said missing one RAB meeting means missing an entire year of updates, which makes it difficult to stay informed. Because he was on vacation during the May 2015 RAB meeting, he had to read the meeting minutes to learn what was discussed. Personally, he does not think the RAB meets often enough. Mr. Davies suggested meeting three or four times a year because meeting twice a year is tough when only half the public representatives show up at each meeting. He wondered if the budget was able to accommodate additional RAB meetings to keep the public informed.

(2) Mr. Duong said a reduction in budget was the reason the Air Force originally reduced the RAB meetings from four to two meetings a few years ago. He promised to take the suggestion to Air Force Civil Engineer Center leadership to see if additional funding can be provided.

(3) Mr. Gaddis mentioned he would also like to see the RAB meet more often. He confessed he gets very little feedback from his community because Rosamond is 17 miles from

any of the cleanup sites. However, Mr. Gaddis stressed that Rosamond community members and their families work at Edwards. He said he has not been very involved in reviewing reports, but that does interest him and he'd like to pursue it.

(4) Mr. Mayer said he is not sure if the RAB was informed about the dispute process and what the U.S. EPA Region 9 leadership decided to do to settle the dispute about toxicity values. The leadership advised asking the Air Force to go through a public process—to include a public comment period and a presentation to the community—before deciding on a cleanup approach. Mr. Mayer said we should consider how much responsibility that placed on the public, who may not have enough background and information to provide input into the decision-making process.

(5) Mr. Depies said the RAB held a special meeting in March 2015 where the Air Force and regulators presented the basis of the dispute to the public. However, because of the timing he said he did not think the decision from the U.S. EPA Region 9 leadership had been provided to the public. Mr. Depies explained the South AFRL Explanation of Significant Differences (ESD) does not require a formal input stage for the public. That is why the U.S. EPA Region 9 leadership advised using a ROD Amendment, which does require soliciting public input.

(6) Mr. Duong said the U.S. EPA Region 9 leadership decision to use a ROD Amendment was opposed to what the U.S. EPA advised the Air Force to do when they first discussed creating the South AFRL ESD. That is why the document is in formal dispute, and now the final decision rests with the U.S. EPA Administrator. Mr. Depies explained the Air Force has appealed Region 9's decision to the U.S. EPA Administrator. Mr. Mayer noted the U.S. EPA Administrator views things differently from the state of California. He commented that Region 9 is stuck in the middle, as they understand U.S. EPA's national policy but often work with California regulators to tailor the national policy to adhere to state standards. Mr. Depies noted California has traditionally erred on the side of protectiveness when there is uncertainty, which is why their standards are more stringent. He mentioned the toxicologists from the Air Force and regulatory agencies agree each other's values are credible and scientific, which is why neither stands out as being the better value to use.

(7) Dr. Smith reminded the RAB that the dispute cannot be resolved in this forum. He recommended increasing the RAB meetings to three a year.

(8) Mr. Depies asked if a decision is made to increase RAB meetings, if Ms. Richardson will poll the RAB members about which months the meetings should be held. Mr. Duong responded that he needs to consult with his leadership about the RAB budget first. Mr. Depies asked if Mr. Duong will have an answer before the next RAB meeting. Mr. Duong said funding is already set for fiscal year 2016 (FY16), but he should have more information on FY17 funding by the next RAB meeting in May 2016.

c. Mr. Mayer, U.S. EPA, mentioned one aspect of the Edwards AFB disputes reaching senior management levels is the challenge in communication, even within U.S. EPA. He has noticed senior management trying to apply national policy and standard cleanup procedures to a site that does not really fit the usual standards. One of the difficulties has been in trying to convey how little rainfall Edwards AFB receives annually. He anecdotally said El Niño may provide the local area with 20 percent of the rainfall New Jersey experiences on average. Also hard to convey to

senior management has been explaining how contaminants move through fractured granitic bedrock, and how difficult it is to get a drilling rig into the AFRL Arroyos without a design effort similar to constructing a new freeway. Mr. Mayer said no other state has regulatory agencies like California, which is causing a challenge in moving these disputes forward.

d. Mr. Duong, Edwards AFB, informed the RAB that his team is now responsible for environmental programs at Vandenberg AFB, Los Angeles AFB, and March Air Reserve Base, in addition to Edwards AFB. He noted they are overseeing all of the southern California bases, which has increased his team's workload tremendously.

16. Mr. Davies adjourned the meeting at 1920. The next RAB meeting is proposed for 19 May 2016 in Rosamond.

//original signed by//

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

//original signed by//

BRUCE H. DAVIES
Public Co-chair
Restoration Advisory Board

Attachment:

Environmental Restoration Program Update for Edwards Air Force Base, CA

DISTRIBUTION:

AFCEC
412 TW/DS/JA/PAE/SE
412 AMDS/SGPB/SGPM
AFRL
RAB Members
Cal/EPA DTSC
Cal/EPA RWQCB
Kern County Environmental Health Services Department
U.S. EPA



Environmental Restoration Program Update for Edwards AFB, Calif.

Nash Saleh
Edwards AFB Restoration Program Manager
November 2015

1



List of Acronyms

AFB = Air Force Base
AFCEC = Air Force Civil Engineer Center
AFRL = Air Force Research Laboratory, Det 7
DRC = Dispute Resolution Committee
FS = Feasibility Study
FSWP = Feasibility Study Work Plan
FYR = Five-Year Review
MMRP = Military Munitions Response Program
OU = Operable Unit
PBR = performance-based remediation
RAWP = Remedial Action Work Plan
VI = vapor intrusion
VIP = vapor intrusion pathway

2



OU1/8 Main Base

Draft Feasibility Study (FS) Addendum Work Plan submitted in October 2015

- **Outlines the approach to complete the Feasibility Study Addendum, including**
 - Update of human health and ecological risk assessments
 - Update to detailed and comparative analysis of remedial alternatives presented in previous (OU1 and OU8) Feasibility Studies

Draft FS Addendum to be submitted in November 2016

- **Will present current detailed and comparative analysis of remedial alternatives for the combined OU1/8**
- **The follow-on OU1/8 Proposed Plan will propose the preferred alternatives for selection in the OU1/8 Record of Decision**

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OU1/8 Main Base

2015 OU1/8 Groundwater Monitoring

- **Comprehensive sampling (650+ wells) began in November 2015**
- **Draft OU1/8 Groundwater Monitoring Report to be submitted in June 2016**
- **Data will support the Draft OU1/8 FS Addendum expected to be submitted in November 2016**

Well Installations within OU1/8

- **Installation of 3 new wells began in November 2015**
- **An additional 7 wells to be installed next year**
- **Goal is to improve plume delineations, primarily at the plume leading edges, to support the OU1/8 FS Addendum**

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OU1/8 Main Base

Vapor Intrusion (VI) Pathway Assessments

- **First (summer) round of VI sampling conducted in August 2013**
 - Eight OU1 buildings, one OU8 building, two OU5/10 buildings
- **Second (winter) round of VI sampling conducted in February 2015**
 - Draft report to be issued to regulators in December 2015
- **Conducted two rounds of sampling in worst-case buildings**
- **Based on scientific data and results, no additional VI assessments are planned in these OUs**

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OU1/8 Main Base

Treatment Systems

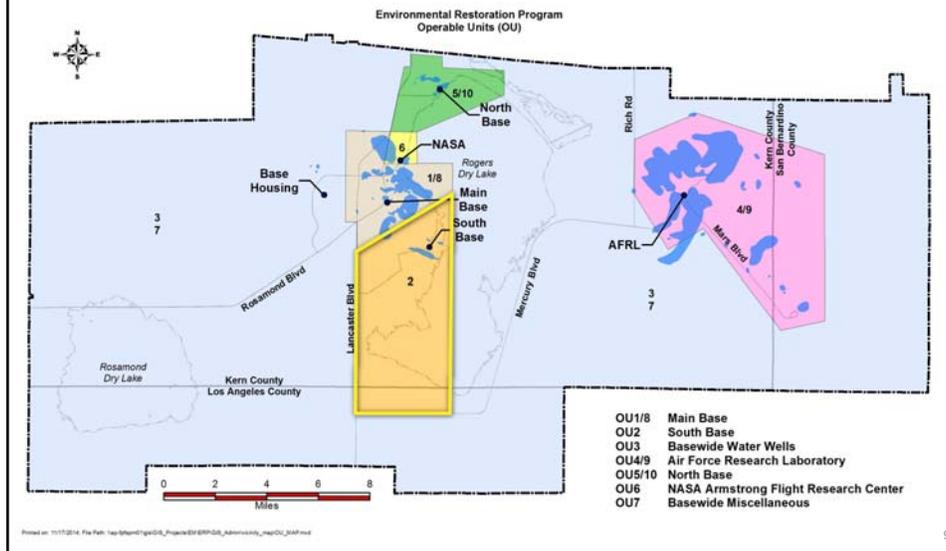
- **Site 18 Interim Dual Extraction System**
 - Interim system (which operated 2000-2012) has been offline since 2012, in order to complete vapor intrusion pathway assessments and reports, still in progress
 - The system may resume operation based on final VI reports and negotiation with the regulators
- **Site 58 Interim Soil Vapor Extraction System**
 - Recent Rebound Assessment concluded shutdown of interim system (which operated 2005-2013) is appropriate
 - Final remedial action at site will be determined in forthcoming OU1/8 Record of Decision

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OU2 South Base



OU2 South Base

Sites 5/14, 76, and 86

- Treatment systems continue operating at the three sites

Sites 81 and 102

- Later this year work will begin to crush the runway concrete to prepare it to cover Sites 81 and 102
- Early in 2016 the Air Force will perform lead shot counts to determine the extent of the contamination at the two sites
- A removal action will be implemented in 2016
 - Removal of lead shot and skeet target debris from the lakebed
 - Hand removal of some lead shot and skeet target debris to maintain select areas of vegetation
 - Covering of the remaining lead shot and skeet target debris with crushed runway concrete

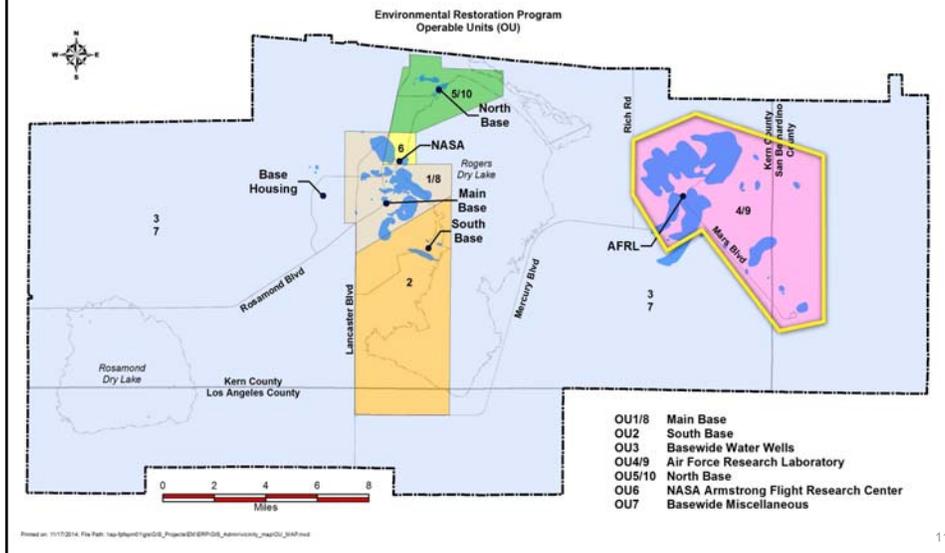
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OU4/9

Air Force Research Laboratory



11



OU4/9

Air Force Research Laboratory

Vapor Intrusion Pathway (VIP) Assessments at Bldg. 8753 Arroyos

- California Dept. of Toxic Substances Control inspected Bldg. 8753 and provided recommendations to mitigate VIP concerns
- Air Force Civil Engineer Center (AFCEC) coordinated with AFRL to limit the occupancy rate inside Bldg. 8753 to 4 hours per day
- AFRL plans to convert the working area inside Bldg. 8753 into a server room
- AFCEC agreed to continue VIP monitoring at Bldg. 8753 to ensure protectiveness of AFRL workers

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OU4/9

Air Force Research Laboratory

Northeast (NE) AFRL FS in review – Air Force responding to regulatory comments

- Final FS will not be submitted until disputes are resolved

NE AFRL 2014 Draft Groundwater Monitoring Report is being prepared

Sites 6 and 113 2014 Groundwater Monitoring Report in regulatory review

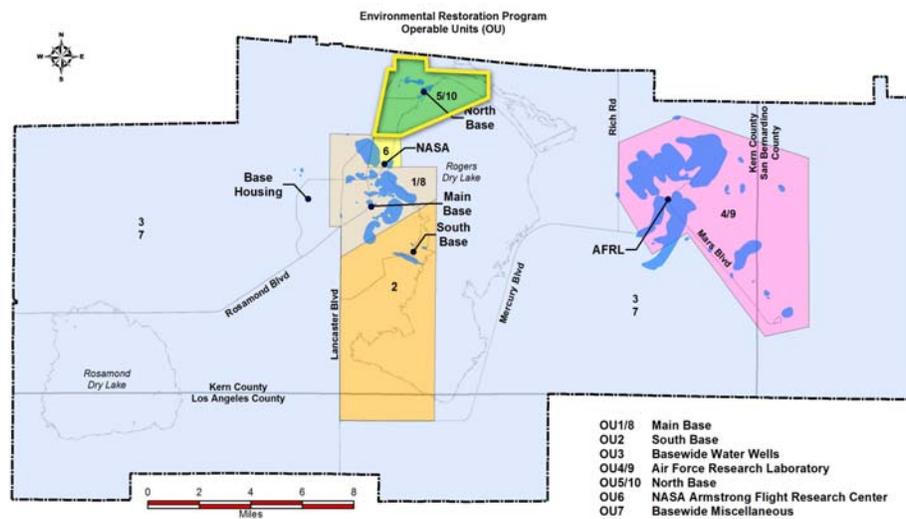
Sites 39 (OU4/9) and 270 (OU7) Work Plan is being prepared to meet interim open burn/open detonation permit requirements for closure

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OU5/10 North Base



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14



OU5/10 North Base

2014 Groundwater Monitoring

- Draft report in review
- Data will be included in the OU5/10 FS Addendum

OU5/10 Feasibility Study Work Plan (FSWP)

- FSWP field work completed 23 October 2015
 - Follow-on field work scheduled January 2016

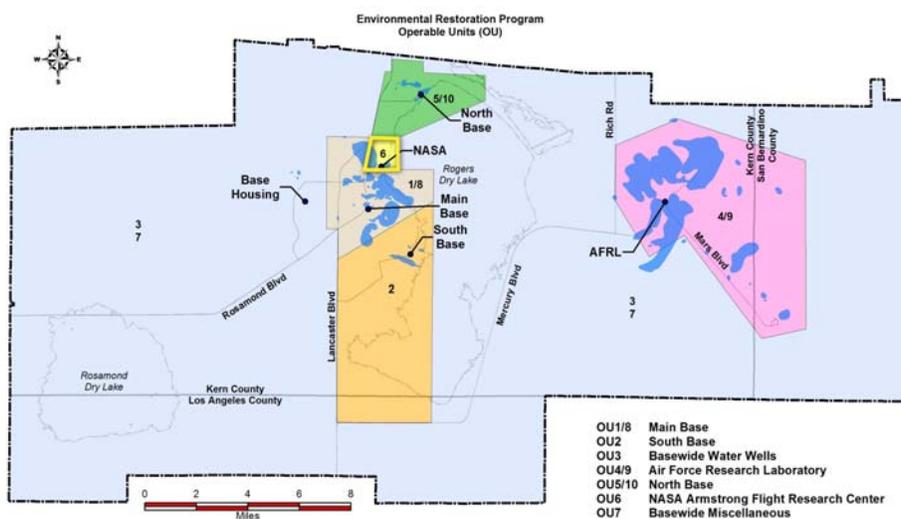
Next milestone – Draft FS Addendum to be submitted to regulators July 2016

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OU6 NASA Armstrong



16



OU7

Basewide Miscellaneous

Performance-based remediation (PBR) contract awarded September 2013 covers remediation for all OU7 sites

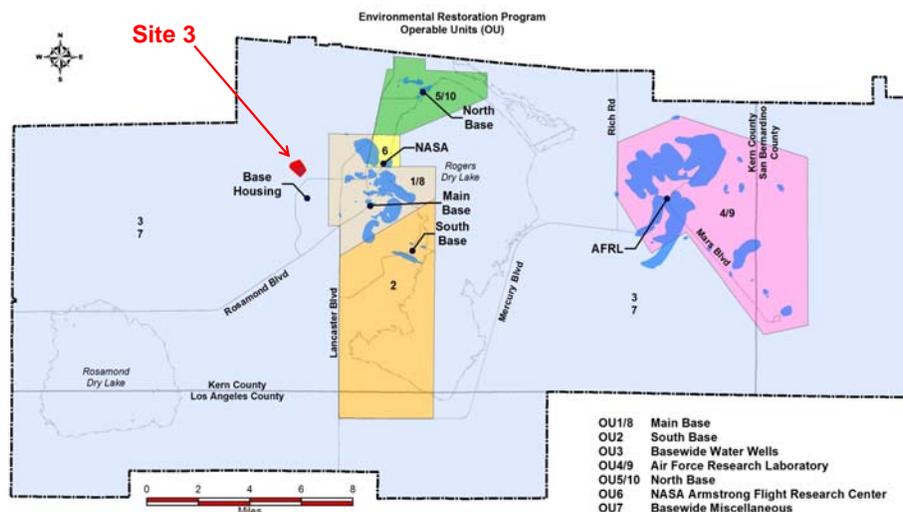
Final Remedial Investigation/Feasibility Study Work Plan for OU7 Sites 267, 269, and 294 published 21 August 2015

Field work for Supplemental RI/FS began October 2015

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OU7 Site 3





OU7 Site 3 Landfill

Volumes I and II of the Remedial Action Work Plan (RAWP), which document waste consolidation and cover requirements, are being finalized by the Air Force

Volume III of the RAWP, which will document long-term monitoring and maintenance, is being reviewed by the regulators

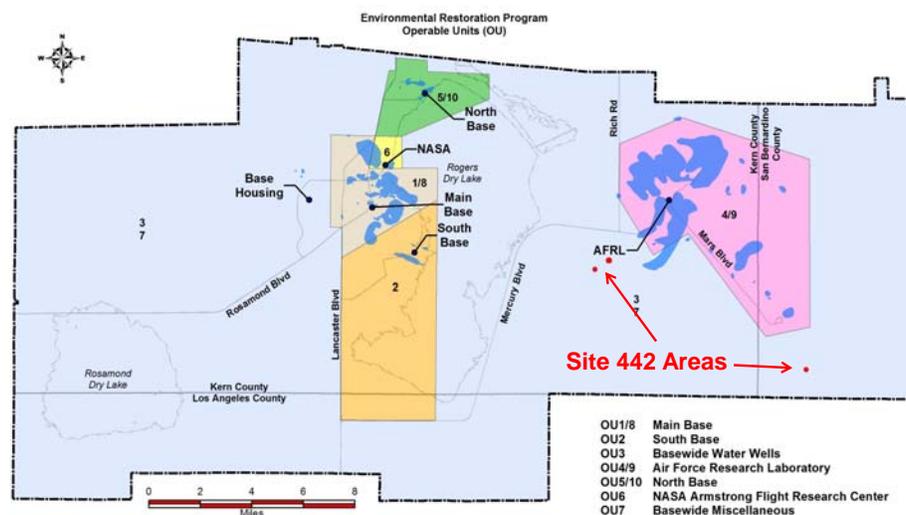
Field work is expected to begin March 2016 to cover the waste cells

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OU7 Chemical Warfare Materiel



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22



OU7

Chemical Warfare Materiel

First Five-Year Review completed in September 2014

Completed an inspection of the cover after a July 2015 rainstorm – minor repairs required due to erosion

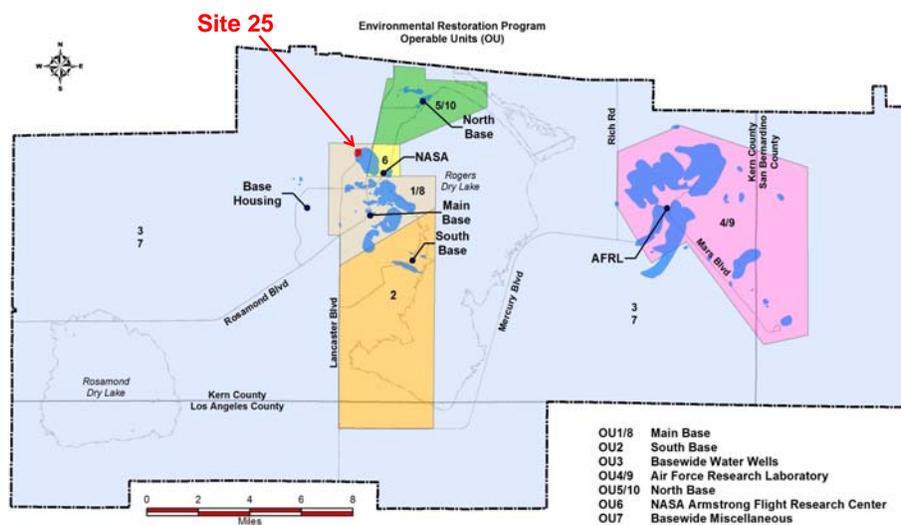
Ongoing land use controls



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OU8 Site 25





OU8 Site 25

Remedial Investigation/Feasibility Study

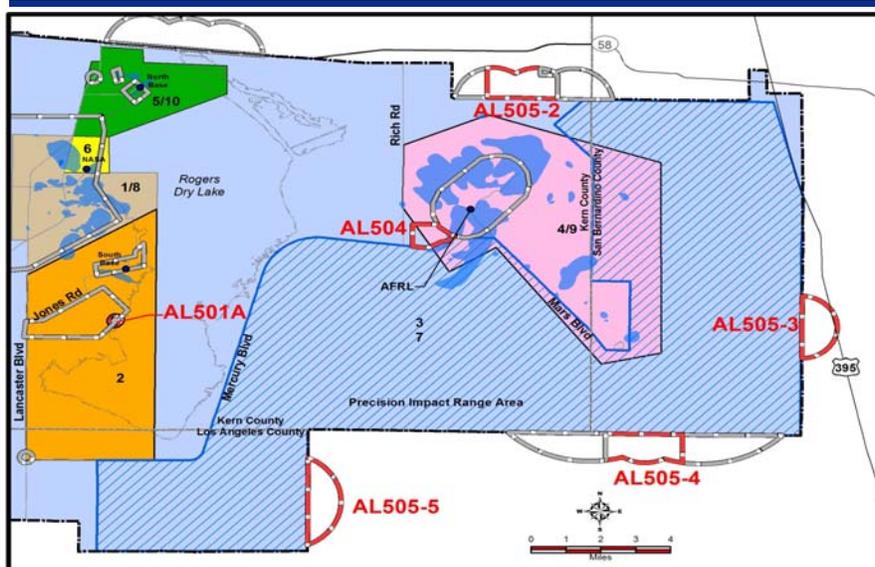
- Draft Remedial Investigation Report Addendum submitted to regulators on 24 April 2015
 - Ongoing Draft RI comment resolution
- Draft Feasibility Study scheduled for March 2016

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Military Munitions Response Program



26



Military Munitions Response Program

Final Remedial Investigation Work Plan for AL504, AL505-2, and AL505-4 submitted in August 2015

- Video of practice bombing of AL504 (battleship target) in 1936:
<http://www.britishpathe.com/video/u-s-bombers-target-practice-aka-bullseye-bombing>



Final Supplemental Comprehensive Site Evaluation Phase II (Superfund Site Inspection equivalent) Work Plan for AL505-3 and AL505-5 submitted in August 2015



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Military Munitions Response Program

Obtained most Right-of-Entry from landowners to access private property parcels within off-base MMRP areas

California Department of Toxic Substances Control assisting with access to two parcels

- Imminent and Endangerment Orders

Field work to begin in late November 2015

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Questions?



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