



# 28th Bomb Wing



---

*Win the Fight - Strengthen the Team - Prepare for the Future*

## Restoration Advisory Board

20 May 2014

Melody A Jensen

Ellsworth RPM

*Prepare for the Future*

*Purpose: Update the Public on the Status of Ellsworth's  
Restoration Program*

---

World Class Airmen - Expeditionary Combat Power - Anywhere on the Globe



# Presentation Outline



- **Operable Unit 11 (OU-11) Basewide Groundwater**
- **East Off-base Plume**
- **Closed Sites**
- **Field Work**
- **Operable Unit 2 (OU-2) Low Level Radioactive Waste (LLRW) Burial Site RW028**
- **Military Munitions Response Program (MMRP) Overview**
- **Five Year Review**
- **Emerging Contaminants - Perfluorinated Compounds (PFCs)**
- **Future plans**



# OU-11 Basewide Groundwater



- **Record of Decision (ROD) Amendment signed in February 2012, allowed shut down of pump and treat systems**
- **Current remedy for OU-11 is In-Situ Reductive Treatment (IRT) and monitored natural attenuation (MNA)**
  - Underperforming IRT zones will be re-injected in 2014 and in the following years as needed
  - Maintain pump and treat systems as a backup option if needed





# East Off-Base Plume



- **Once exit strategy milestones have been attained and the site is deleted from the NPL, groundwater use restrictions can be removed**
  - After groundwater use restrictions are lifted, all landowners remaining on City of Box Elder water will be responsible for paying their own bill
- **In 2011 an Explanation of Significant Differences (ESD) was completed**
  - The ESD allows landowners to use existing wells or to drill new wells for non-potable use of groundwater (irrigation, watering livestock, swimming)
  - Landowners must work with Ellsworth AFB to modify their Memorandum of Agreement to allow for non-potable use of groundwater

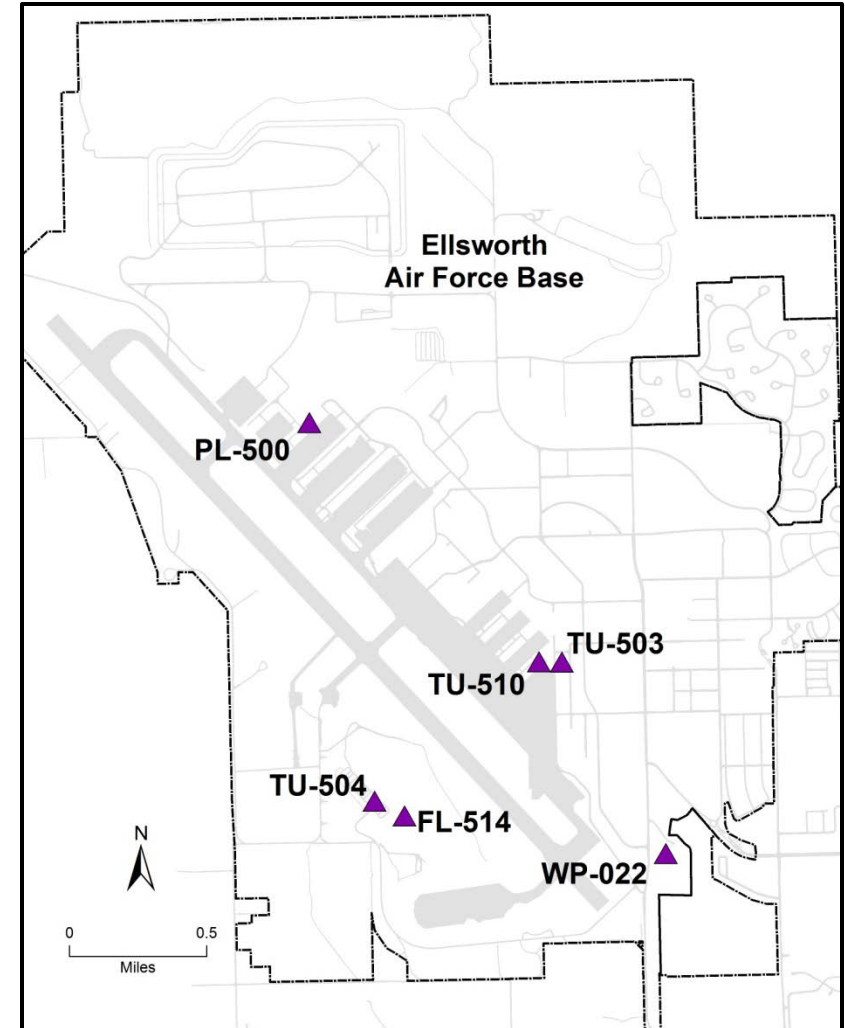


# Six Sites Closed in 2013/2014



➤ **6 Sites were closed to the Air Force's definition of Site Closure (unlimited use and unrestricted exposure). The South Dakota Department of Environment and Natural Resources concurred**

- FL514 – Septic Tank Site 6925
- PL500 – Underground Storage Tank (UST) Site 7234
- TU503 – UST Site 906
- TU504 – UST Site 6927
- TU510 – UST Site 7624
- WP022- Abandoned Industrial Wastewater Treatment Plant



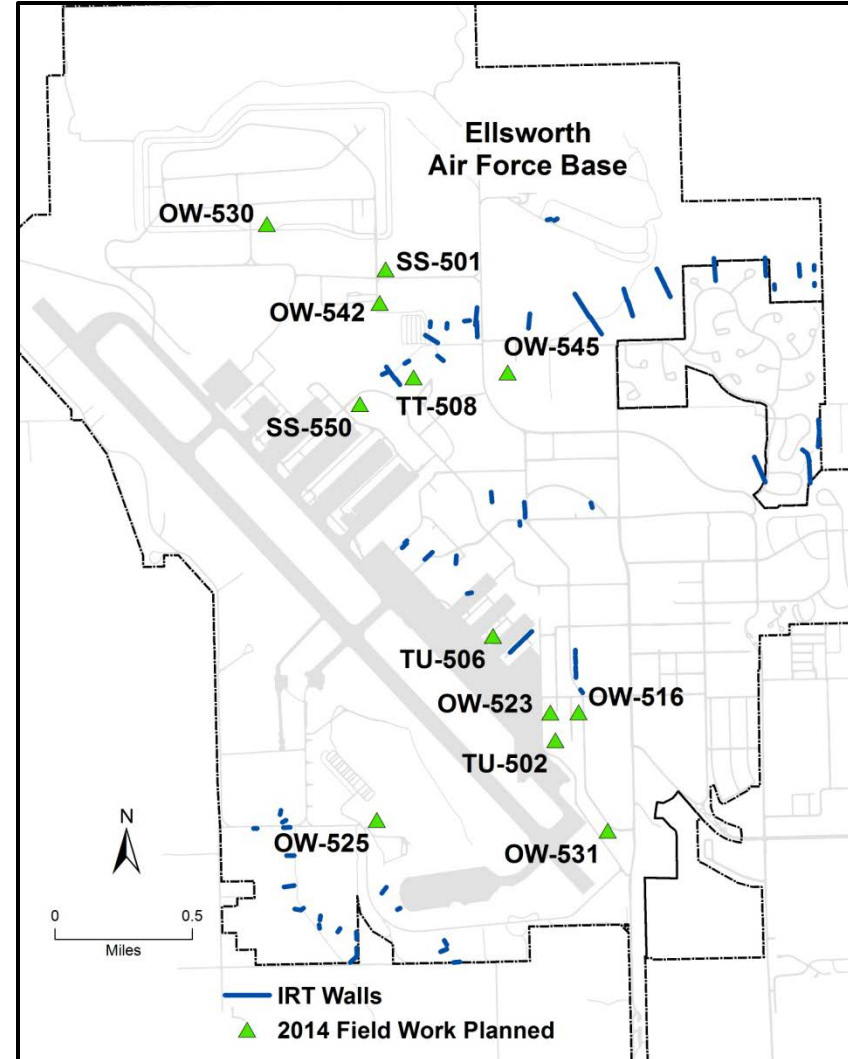


# Upcoming Field Work



## ➤ Work Plans for field work at the following sites are being developed:

- OU-11 (OT020) - IRT reinjection & annual LTM monitoring (currently on-going)
- SS501 (Spill Site 88408 – Remedial Investigation (RI))
- TU502 (UST Site 605) - RI
- TU506 (UST Site 7618) - RI
- TT508 (Fuels Area D) - RI
- OW542/OW545 (Oil Water Separators (OWS) at 88409 and 8115) - Site Assessment
- SS550 (Building 7253 JP-8 Spill) - Site Assessment
- OW516/OW523/OW525/OW530/OW531 - (OWS 1500, 601, 6909, 88240, 1709) - Site Assessment



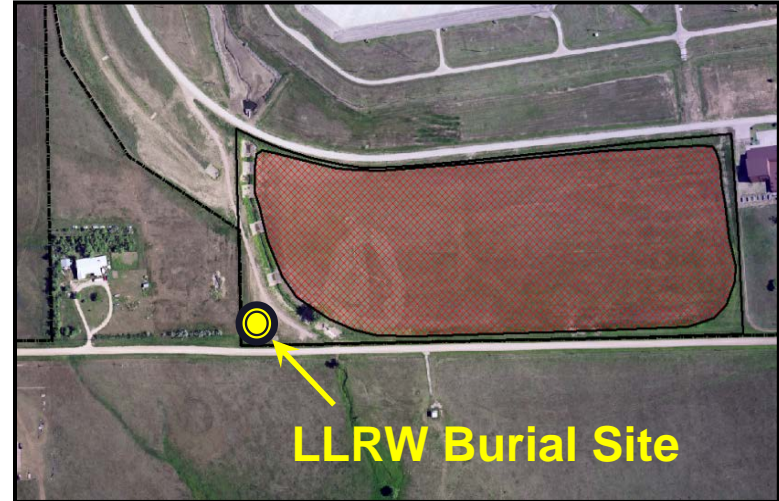


# OU02 LLRW Burial Site (RW028)



## ➤ 1997 Removal Action

- Two concrete burial monoliths presumed to contain LLRW
- Chemical Agent Identification Sets (training aids)
- No soil contamination



## ➤ 2011 Geophysical Investigation

- Identified two potential concrete burial monoliths

## ➤ Interim Removal Action planned for late 2014

- Excavate potential LLRW concrete burial monoliths
- Chemical Agents not anticipated but will have safety plans
- Investigate other anomalies over 0.75 acre area
- Work plans currently under development/review



# Military Munitions Response Program (MMRP)

---



## ➤ **Historical Records Review (HRR)**

- April 2011 records search identified locations on EAFB where historical use of munitions occurred
- 10 sites recommended for evaluation as potential Munitions Response Areas (MRAs)

## ➤ **Comprehensive Site Evaluation Phase I/II**

- Visual inspection of 10 sites completed 5-16 November 2012
- Soil sampled at 3 sites - former pistol range, former skeet range, and “kick out” arc around former EOD disposal area
- No UXO found
- Review of draft report identified additional “data gap” work for early summer 2014
- If validated, MRAs would be addressed similar to ERP sites





# Five Year Review

---



- **Ellsworth is planning to complete its fourth 5 Year Review**
- **5 Year Reviews must be implemented in accordance with CERCLA**
- **The Purpose is to determine whether the remedies remain protective of human health, and the environment**
  - If issues that affect protectiveness are found, recommendations will be made to address them
- **The public can contribute during the review process by providing questions and comments to the base POC**
- **URS awarded contract to complete the Five Year Review**
  - 5 Year Review completion date is Sept 2015



# Emerging Contaminants

## Perfluorinated Compounds (PFCs)

### ➤ Man-made compounds present in commonly used products

- Fire fighting foam
- Teflon & Stain Repellant

### ➤ Two have EPA provisional Health Advisory Levels

- Perfluorooctane Sulfonate (PFOS)  
0.4 ug/L water  
16,000 ug/Kg soil
- Perfluorooctanoate (PFOA)  
0.2 ug/L water  
6,000 ug/Kg soil

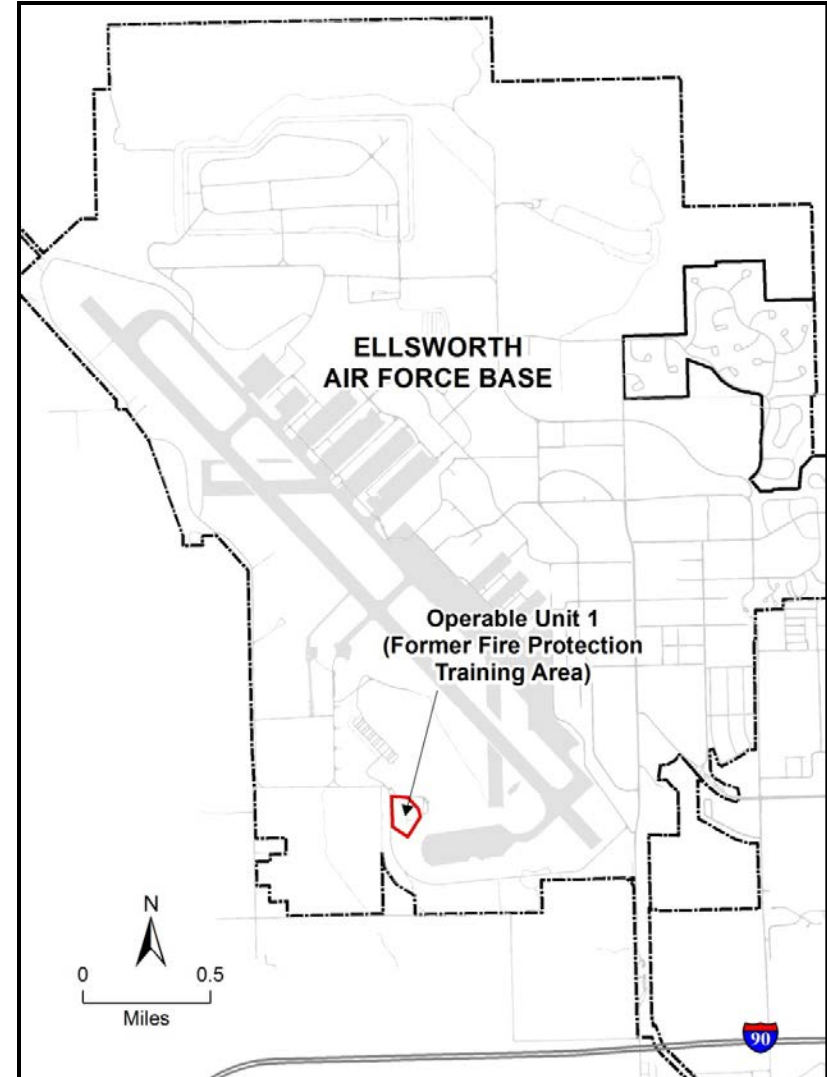




# Emerging Contaminants

## Perfluorinated Compounds (PFCs)

- PFOS and PFOA were detected in soil and groundwater at Operable Unit 1 (OU-1) above provisional health advisory levels
- A project to investigate PFOS and PFOA in soil and groundwater was awarded. Work will include:
  - Delineate the extent of the plumes
  - Determine if there are off-base impacts
  - Locate off-base private wells to the south





# Web Based Administrative Record



- Ellsworth's administrative records are now available electronically \*
- The online database is easily accessible to the public from a computer with internet access
- <http://afcec.publicadmin-record.us.af.mil>

\*A hard copy of the administrative record is still maintained at Ellsworth and available to the public by contacting Ellsworth AFB



# Future Plans

---

- **Continue with basewide monitoring program and continue with IRT reinjection as needed**
- **Complete the planned 2014 field work at the former compliance restoration sites**
- **Complete OU-2 LLRW interim removal action and investigation in 2014**
- **Implement MMRP actions**
- **Conduct OU-1 PFC investigation field work beginning this summer**



# Future Plans - continued

---

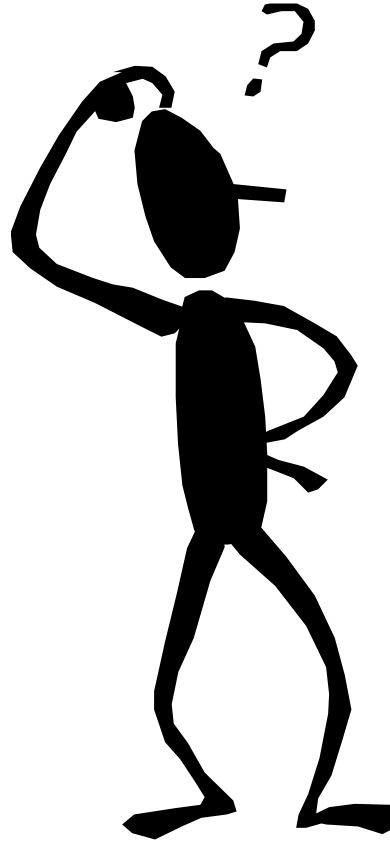


- **Continue to update MOAs when requested by landowners in the east off base plume**
- **Follow the Exit Strategy and continue to monitor the east off-base plume**
- **Report sample results and Exit Strategy status at future public meetings**
- **Continue to send out semi-annual newsletters**



# Questions?

---



---

World Class Airmen - Expeditionary Combat Power - Anywhere on the Globe