

Buckley Air Force Base Environmental Restoration Program Annual Report to Stakeholders

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Purpose of this Report

This Annual Report to Stakeholders has been prepared to notify the public of activities which occurred in 2010 at Buckley AFB Restoration sites and upcoming activities expected at these sites in 2011. This document is issued by the Air Force, as the lead agency, in conjunction with the Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment (CDPHE), City of Aurora, and Tri-County Health Depart-

ment. The cleanup effort at Buckley AFB presently includes six open Installation Restoration Program (IRP) sites, 14 open Military Munitions Response Program (MMRP) sites, and 27 open Compliance Restoration Program (CRP) sites. A summary of all these sites is included in the following pages of this report. Additional information on these open sites (and also all closed sites) can be found in the Buckley AFB Information Repository files located at the

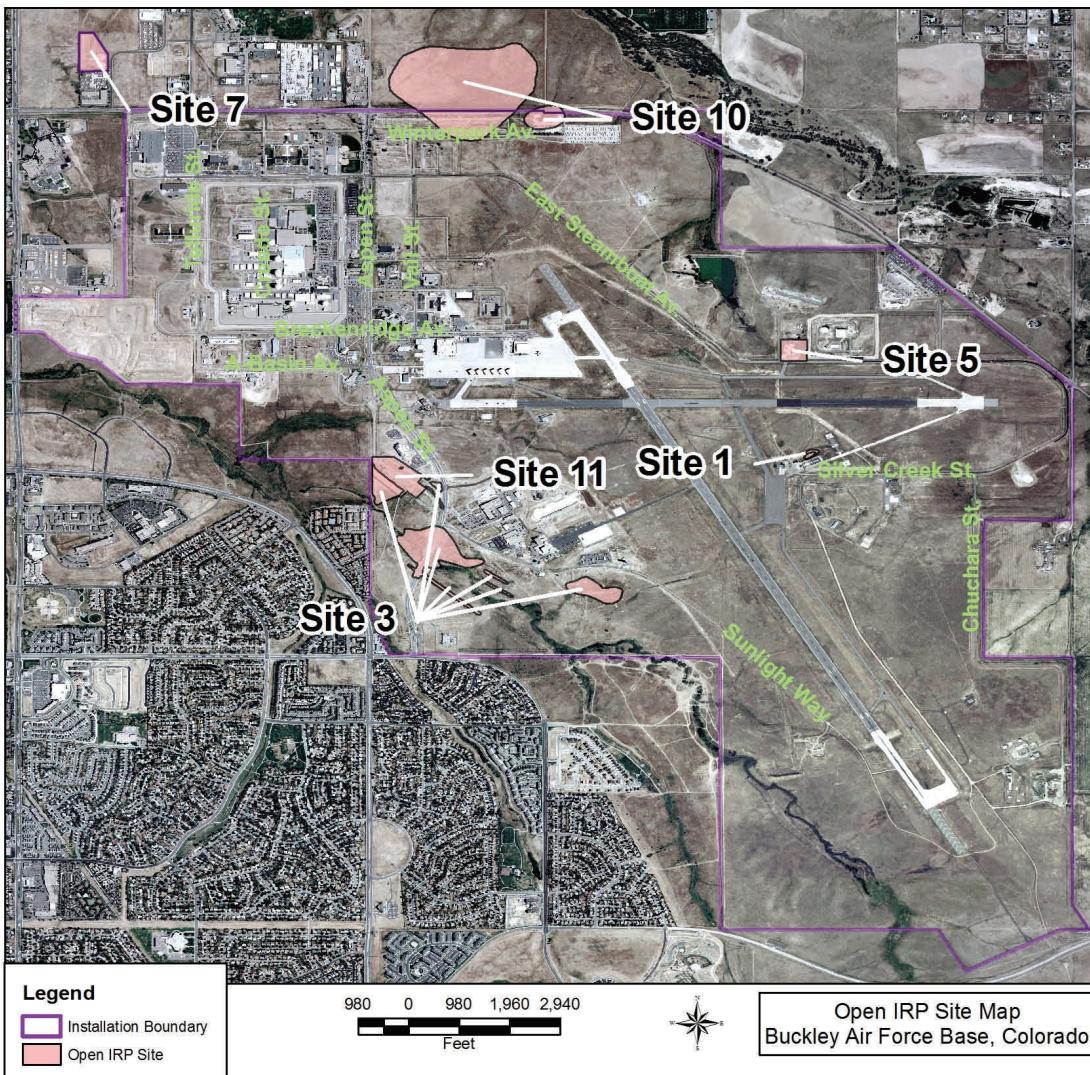


Central Branch of the Aurora Public Library. The community can also learn more about the Buckley AFB Restoration program by attending Community Advisory Group (CAG) meetings which are held quarterly (see page 8 for more information).

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Buckley AFB IRP Site Update



Site 1 Update

2010—Final Record of Decision prepared; groundwater sampling and well installation completed

2011—Sign Record of Decision; initiate remedy

Site 1, also known as Fire Training Area # 2, covers approximately 8,000 square feet and was used from the early 1950s to 1972 for fire training exercises. The primary contaminant of concern identified at Site 1 during investigations is trichloroethylene (TCE) in groundwater. In 2010, a Record

of Decision was prepared which identified the selected remedy as long-term monitoring with land use controls. Prior to signing, CDPHE has requested the completion of a title search and Environmental Use Restriction Notice which will be done in 2011. Meanwhile, two new moni-

toring wells were installed and a round of groundwater sampling was completed. Results indicate TCE concentrations have increased slightly. In 2011, it is expected that the Record of Decision will be signed and annual long-term monitoring will be initiated along with land use controls.

Sites 2 and 4 Update

Site 2, also known as the Oil Pit, occupies approximately 100 square feet and consisted of a deep concrete walled sump used for the disposal of waste oil from approximately 1950 to 1982. The Oil Pit was taken out of service, back-filled, and buried in 1987. Site 4, also known as Fire Training

Area # 3, is a circular area approximately 100 feet in diameter which was formerly used for fire training exercises from 1972 to 1989. Contaminated soil was removed from Site 4 in 2006. Investigations have shown that no significant risks or threats to public health or environment now exist at either site.

Therefore, in 2010 a Proposed Plan recommending no further action at both sites was presented to the public. No comments were received which changed the plan during the 30-day public comment period. A Record of Decision was then prepared and signed, resulting in the closure of both sites.

2010—Proposed Plan finalized; public comment period with public meeting held; Record of Decision signed by Base and CDPHE

2011—No further action (sites are closed)

Site 3 Update

**2010—
Feasibility
Study Report
prepared**

**2011—Finalize
Proposed Plan
and prepare
Record of
Decision**

Site 3, also known as the Base Landfill, was reported to have received a variety of municipal and industrial waste from 1942 to 1982. An area impacted by asbestos containing materials was discovered in 2008 near the site and has now

been added to Site 3. In 2007, the adequacy of the existing soil cover over the refuse was determined to be insufficient. In 2010, a Feasibility Study Report was prepared which evaluated alternatives for the site. It is expected that in 2011 the Feasibility

Study and a Proposed Plan will be finalized, a public comment period will be held, and a Record of Decision will be prepared. The proposed remedy will include adding soil cover along with annual long-term monitoring and land use controls.

Site 5 Update

Site 5, also known as Fire Training Area # 1, was used from the 1940s to the 1950s for fire training exercises, but the size of the fire training area is unknown. The primary contaminants of concern have been vola-

tile organic compounds in soil gas. In 2009, fieldwork for a Supplemental Remedial Investigation included soil, groundwater, and soil gas sampling. The Supplemental Remedial Investigation Report was

finalized in 2010, with EPA and CDPHE concurring with the no further action recommendation in the report. A Proposed Plan and Record of Decision for no further action is expected to be finalized in 2011.

**2010—Supplemental
Remedial
Investigation Report
finalized; Proposed
Plan started**

**2011—Complete
Proposed Plan and
Record of Decision
for no further action**

Site 7 Update

2010—Removal action, Proposed Plan, and public comment period completed

2011—Sign Record of Decision for no further action

Site 7, also known as the Sludge Drying Beds, is located on a 4.3 acre parcel of land that served as the base wastewater treatment plant from 1942 to 1978. A 2008 Engineering Evaluation/Cost Analysis called for the removal of soil contaminated with chromium, lead, and

five polynuclear aromatic hydrocarbons (PAHs). In 2009 and 2010, approximately 1,600 cubic yards of soil were removed and disposed off-site. The After-Action Report indicated all confirmation samples were below cleanup standards. Therefore, a no further action Proposed Plan

was prepared and presented at a public meeting during the 30-day public comment period. No public comments were submitted that changed the plan. In 2011, it is expected that a Record of Decision for no further action will be signed and Site 7 will be closed.

Site 9 Update

Site 9, also known as the Underground Storage Tank (UST) site, is an approximately 3,000-square foot area where four former USTs were located. The USTs, which previously stored oil, were removed from the site in 1987. Historically,

contaminants of concern at the site were petroleum hydrocarbons and PAHs in soil. In 2009, fieldwork for a Supplemental Site Inspection included soil and groundwater sampling. The Supplemental Site Inspection Report was finalized in

2010, with EPA and CDPHE concurrence for no further action and site closure. Because this site did not enter the remedial investigation phase, a Proposed Plan and Record of Decision were not needed to close the site.

**2010—
Supplemental Site Inspection Report finalized with no further action concurrence from EPA and CDPHE**

2011—No further action (site is closed)

Site 10 Update

2010—Treatability Study Report finalized; groundwater monitoring conducted; Feasibility Study initiated

2011—Finalize Feasibility Study Report and prepare Proposed Plan

Site 10, also known as the Former Warehouse Area, consists of areas used for vehicle maintenance and storage of pesticides and herbicides. The primary contaminant of concern is tetrachloroethylene (PCE) in groundwater. The PCE

plume extends off base to City of Aurora property; however, no direct impact to area residents has been identified. A 2005 interim action provided for the removal of approximately 2,200 cubic yards of contaminated soil

and the installation of a treatment system to prevent contaminated groundwater from leaving the base. Operation and maintenance of this system continues today. In 2009, the Supplemental Remedial Investigation Report was finalized

Site 10 Update (continued)

and a treatability study was completed. In 2010, a summary Treatability Study Report was finalized and results from this report along with additional groundwater monitoring were used to evaluate clean-up alternatives

in a Feasibility Study. However, the Air Force determined there are additional data gaps which require further sampling. This data will be used in groundwater modeling and other analyses to predict the future flow of the

PCE plume and determine if the plume is stable, expanding, or decreasing. Once this data is available, the Feasibility Study Report will be finalized in 2011 and a Proposed Plan for the selected remedy will be prepared.

Site 11 Update

Site 11, also known as the Building 1011 Area, had many previous operations at the site including a synchronization area, a base motor pool, civil engineering shops, and refueling truck maintenance. The primary contaminants of concern identified during investigations included lead, PCE, TCE, and PAHs in soil and PCE and TCE in groundwater. In 2009, an Action Memorandum called for the removal of contaminated soil and floating fuel on the groundwater. Absorbent socks were placed in wells to address the floating fuel. The sump and sand filter and associated contaminated soil were removed, as well as contaminated soil in the firing tunnel area. Remedial investigation fieldwork for groundwater was initiated in 2009

and completed in 2010. It included groundwater sampling on base and, after PCE contamination was found in groundwater at the base boundary, groundwater, surface water, and sediment sampling were conducted off base on City of Aurora property. Results show two chlorinated solvent plumes with no immediate risk to human health or the environment. One plume is about 220 feet long, located solely on base, and the other is about 1,100 feet long with about 400 feet of the plume extending off base (terminates to the north of East Toll Gate Creek). In early 2011, the Remedial Investigation Report will be finalized, and then a Feasibility Study will be completed to evaluate cleanup alternatives for the site.

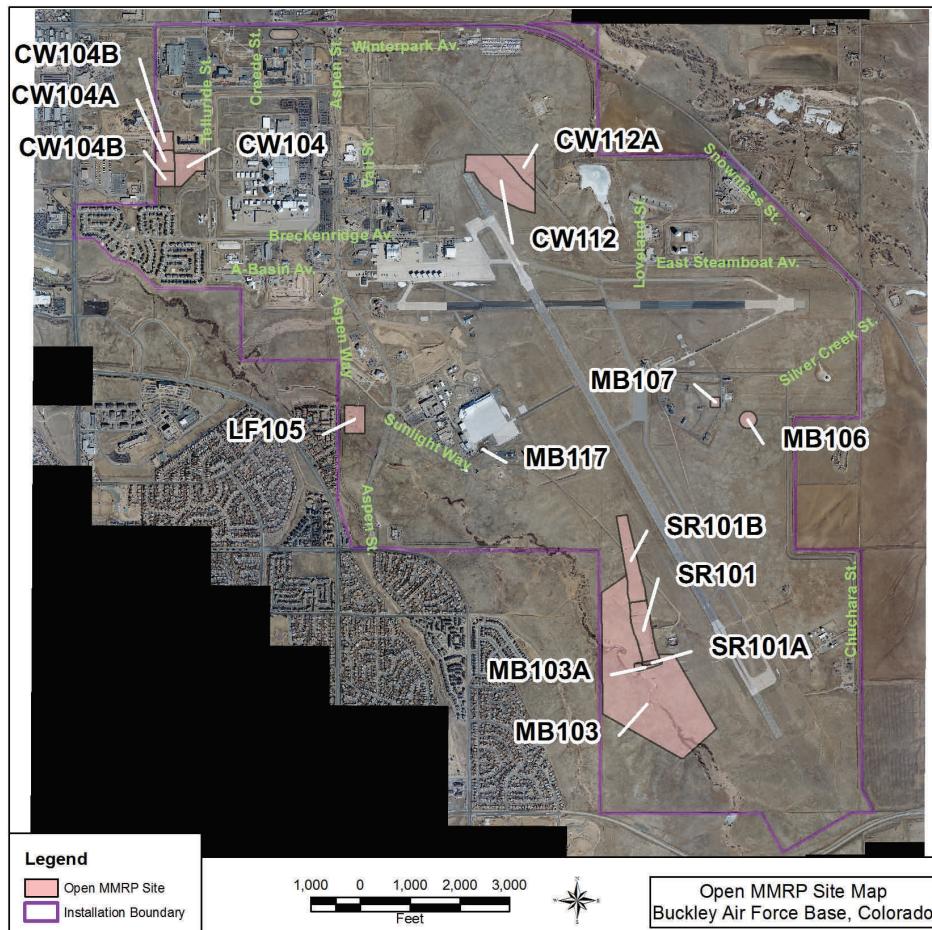
**2010—Soil Removal
Action Report finalized
and groundwater
remedial investigation
fieldwork completed**

**2011—Finalize
Remedial Investigation
and Feasibility Study
Reports**



Top: Operation of a drill rig on base during June 2010 well installation at Site 11.
Bottom: Off-base Site 11 investigation area showing East Toll Gate Creek.

Buckley AFB MMRP Site Update



Military Munitions Response Program Site Update

The MMRP addresses issues related to munitions and explosives of concern (MEC), chemical warfare material, and munitions constituents associated with munitions response areas (MRAs), as well as related hazardous substances, pollutants, and potential contaminants of concern on other-than-operational ranges. Phase I and Phase II Comprehensive Site Evaluation (CSE) activities were performed at

Buckley AFB from 2005 – 2008. To date, a total of 17 MRAs have been investigated during the CSE process. Eight of these received a no further action decision at the conclusion of the CSE Phase I. The nine remaining MRAs were then evaluated during the CSE Phase II and divided into 15 munitions response sites (MRSs), all but one of which (TS102) was recommended for further evaluation. In 2009, an Engineering Evaluation/

Cost Analysis for the 14 MRSs was finalized and fieldwork was initiated upon signing of the Action Memorandum. In 2010, the completed fieldwork included MEC surface clearance, subsurface MEC evaluation, and excavation and off-site disposal of lead-contaminated soil. In 2011, a remedial investigation will be started at 5 MRSs, while funding is pursued for remedial investigations at the remaining 9 MRSs.

2010—Conducted fieldwork designated in Engineering Evaluation/Cost Analysis

2011—Complete removal action fieldwork and After-Action Report and start remedial investigation

Compliance Restoration Program Site Update

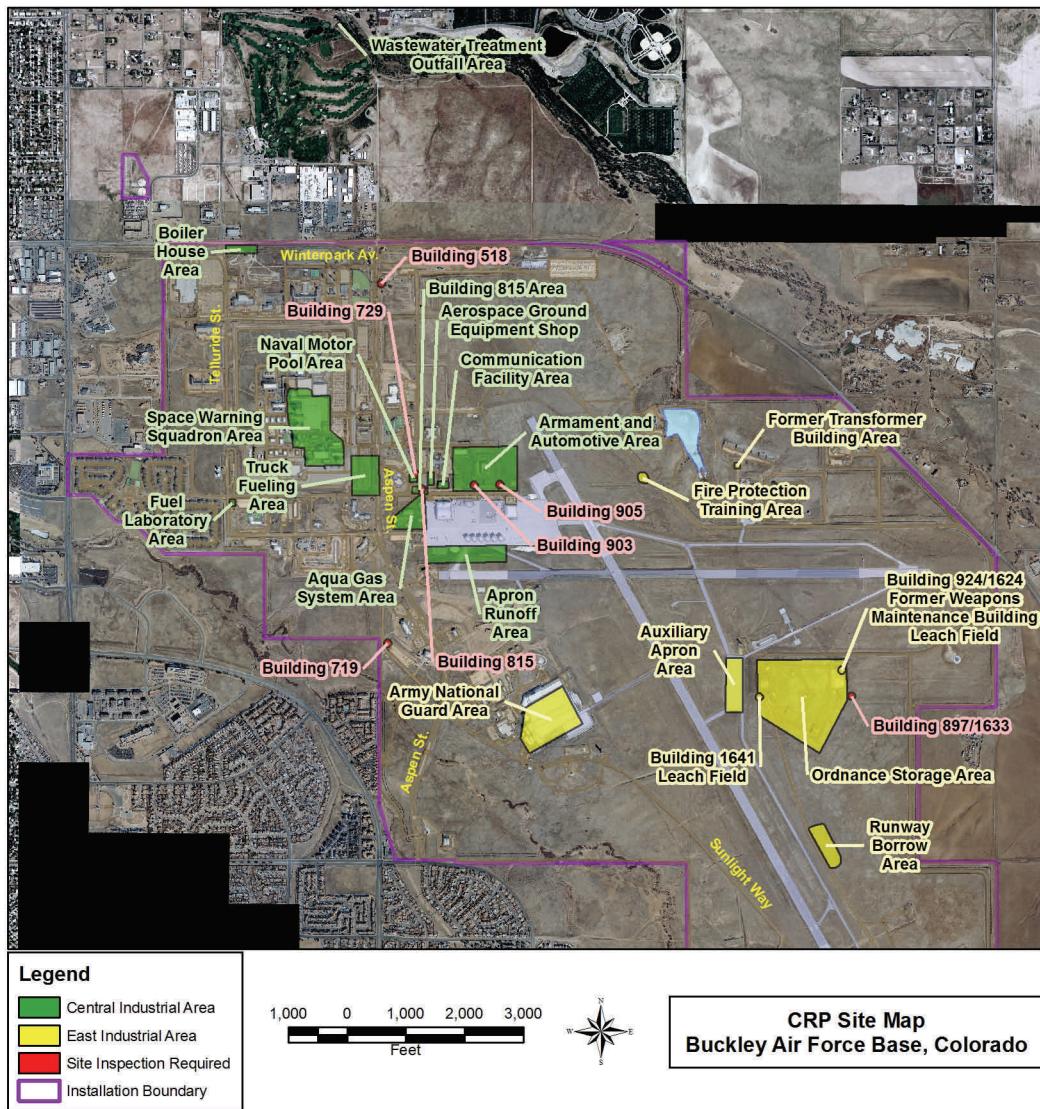
2010—Basewide Site Inspection Report finalized; Remedial Investigation Work plan started

2011—Complete remedial investigation fieldwork at 20 CRP sites

A Basewide Site Inspection was completed in 2010 which recommended further investigation at 18 areas of concern. In addition, the Air Force identified 9 other areas of concern at Buckley requiring investigation. These 27 areas fall under a separate Air

Force program called the CRP. The 27 CRP sites were divided into 1) those with possible contamination to be confirmed through a site inspection (7 sites), and 2) those with confirmed contamination requiring a remedial investigation (8 sites in the East Industrial Area and 12 sites in the Central Industrial Area).

Planning for the remedial investigations at the 20 sites began in 2010 with fieldwork to be completed in Spring/Summer 2011. The site inspections at the 7 sites are not expected to begin until 2012.



Summary of Restoration Program Successes in 2010

- ◆ **Closed three IRP sites with no further action required (Sites 2, 4, and 9).**
- ◆ **Completed a remedial investigation and removal action and received no further action concurrence from EPA and CDPHE for two additional IRP sites (Sites 5 and 7).**
- ◆ **Conducted a MMRP removal action that included surface clearance and subsurface evaluation of approximately 114 acres, and removal of 5,400 cubic yards of lead-contaminated soil.**
- ◆ **Held two public meetings seeking public comment and four CAG meetings, to include a base tour of restoration sites.**
- ◆ **Distributed four quarterly site status reports to the public as well as an Annual Report to Stakeholders (January 2010) in response to community input cited in the 2009 Community Involvement Plan.**



Left: Demolition of eight incendiary bombs took place in October 2010 as part of the MMRP removal action.

2011 CAG Meeting Information

The mission of the Buckley AFB CAG is to promote community awareness, serve as an information source, and obtain timely constructive community review and comments on proposed restoration activities. CAG membership consists of any members of the local com-

munity who are interested in learning more about the Buckley AFB Restoration program, as well as representatives from Buckley AFB, state and federal agencies, and local government. Meetings are held from 6–8 pm at the Aurora Chamber of Commerce, 14305 E.

Alameda Avenue, Suite 300. At least part of the July 21st meeting will be held on base to tour the sites. **To be added to the CAG email list, contact Mr. John Spann, Chief of Public Affairs, at john.spann@buckley.af.mil or 720-847-9431.**

**2011 CAG Meeting Dates:
January 20, April 21, July 21, and October 20**