

Buckley AFB Environmental Cleanup Program Quarterly Site Status Report

Only open sites are discussed in this summary and identified in Figures 1 to 3. Further information on any open or previously closed Installation Restoration Program (IRP), Compliance Restoration Program (CRP), and Military Munitions Response Program (MMRP) sites can be found in the Buckley AFB Information Repository located at the Central Branch of the Aurora Public Library.

Note: The Air Force, as the lead agency for environmental cleanup of Buckley AFB sites, works in conjunction with representatives from the Environmental Protection Agency, Colorado Department of Public Health and Environment (CDPHE), City of Aurora, and Tri-County Health Department. This collaboration is known as the Technical Working Group (TWG). Buckley AFB also coordinates with the Air Force Center for Engineering and the Environment (AFCEE). Public involvement in the site review process is done through a Community Advisory Group (CAG). Updates on site information are provided to the CAG through quarterly Site Status Reports and quarterly meetings. In addition, Draft Final documents are posted to the Buckley AFB website (www.buckley.af.mil; under the Library tab, select Environmental Information) and email notification of their availability for review is sent to the CAG email list.

Site 1: Fire Training Area # 2

This site covers approximately 8,000 square feet and was used from the early 1950s to 1972 for fire training exercises. During the exercises, an unknown quantity of various fuels and solvents were placed in an unlined circular bermed area, ig-

nited, and subsequently extinguished by the trainees. Investigations completed at Site 1 determined a small amount of the contaminant trichloroethylene reached groundwater. A Proposed Plan was completed in 2008 and a Record of Decision has

been prepared with long-term monitoring and land use controls as the preferred remedial alternative. In Sep 2010, CDPHE indicated they will not sign the Record of Decision until a title search and Environmental Use Restriction Notice was completed.

ACTIVITY LAST QUARTER:

- Air Force initiated title search effort and Environmental Use Restriction Notice revisions in Oct 2010.
- Groundwater sampling results from Sep 2010 event show that trichloroethylene concentrations increased slightly at a few wells. Two new wells were installed/sampled in Dec 2010.

UPCOMING ACTIVITIES:

- Submittal of Draft 2010 Groundwater Monitoring Report to Air Force in Feb 2011 and revised Record of Decision (with title search and Restriction Notice) to TWG in Spring 2011.

ACTIVITY LAST QUARTER:

- Addressed TWG comments on Draft Final Feasibility Study.
- Began preparing the Proposed Plan.

UPCOMING ACTIVITIES:

- Submittal of Final Feasibility Study to TWG and Draft Proposed Plan to Air Force in Jan 2011.

Site 3: Former Base Landfill

This site was reported to have received a variety of municipal and industrial waste from 1942 to 1982, and landfill waste was burned periodically between 1947 and 1959. Several site investigations occurred from 1982 to 1994 but no contami-

nants of concern were found. A supplemental Remedial Investigation in 2007 determined that the existing soil cover over the refuse was inadequate. A Feasibility Study is currently considering remedial alternatives for the site with the pre-

sumptive remedy being containment (through improvement of the existing soil cap), long-term monitoring, and land use controls. An area containing asbestos material was found adjacent to Site 3. This area is included in the Site 3 Feasibility Study.

Site 5: Fire Training Area # 1

This site was used from the late 1940s to the early 1950s for fire training exercises. The site has since been filled, graded, and paved. Various investigation activities including groundwater monitoring have taken place at Site 5 from 1982 to 2002. Historically, the primary contaminants

of concern have been volatile organic compounds such as trichloroethylene and tetrachloroethylene in soil gas. A Supplemental Remedial Investigation was conducted in 2009 with results showing that neither groundwater nor soil has been negatively impacted by site activities. The re-

sults of the risk evaluation for soil gas indicate detected volatile organic compounds are at concentrations that do not pose a risk to human health. The TWG concurred with no further action for the site based on this report. The Air Force has prepared a no further action Proposed Plan.

ACTIVITY LAST QUARTER:

- Draft Proposed Plan was prepared and submitted for AFCEE review in Dec 2010.
- Draft Final Proposed Plan was submitted for TWG and CAG review in Dec 2010.

UPCOMING ACTIVITIES:

- Proposed Plan public comment period: 14 April 2010–13 May 2010

Site 7: Sludge Drying Beds

ACTIVITY LAST QUARTER:

- Public comment period on Proposed Plan was held 14 Oct 2010–12 Nov 2010 , with a public meeting on 21 Oct 2010: no comments changed the plan for no further action.
- Draft Final Record of Decision was submitted for TWG and CAG review in Dec 2010.

UPCOMING ACTIVITIES:

- Once finalized, the Record of Decision will be forwarded for Base and CDPHE signatures.

This site is located on 4.3 acres of land associated with the base wastewater treatment plant, which operated from 1942 to 1978 . The sludge drying beds and the trickling filters were lined with permeable tiles that may have collapsed and potentially transmitted contaminants to the soil and groundwater at the site. After completion of several investiga-

tions dating back to 1982, a 2008 Engineering Evaluation/Cost Analysis and 2009 Action Memorandum called for the removal of soil contaminated with chromium, lead, and polynuclear aromatic hydrocarbons. Removal actions were completed in Nov 2009 and Mar 2010, with a total volume of about 1,600 cubic yards of contaminated soil re-

moved. The Final Removal Action Report, which was approved by the TWG in Jun 2010, stated that all confirmation sample concentrations were below removal action cleanup levels and no further action was needed at Site 7. The Air Force has prepared a no further action Proposed Plan and Record of Decision for Site 7 closure.

2011 Community Advisory Group Meetings (6-8 pm):

January 20

April 21

July 21 (will include Base tour of sites)

October 20

**Location for all CAG Meetings:
Aurora Chamber of Commerce
14305 E. Alameda Ave, Ste 300**

Site 10: Former Warehouse Area

Site 10 was used from 1940 to 1996 for multiple purposes to include vehicle maintenance and service, storage of pesticides and herbicides, storage of equipment and supplies delivered by railroad, and storage and transfer of coal for use as fuel in heating systems. The main contaminants of concern found during investigations are chlorinated solvents such as tetrachloroethylene and trichloroethylene. During the Remedial Investigation, which involved quarterly

sampling of dozens of wells both on and off base, a plume contaminated primarily with tetrachloroethylene was shown to flow from the base and under property owned by the City of Aurora. However, no direct impact to area residents has been identified. A 2005 interim remedial action substantially reduced groundwater contaminant concentrations in the on-base source area and is limiting continued flow of contaminated groundwater off base. Maintenance of the treatment system is ongoing. Treatability studies have been conducted to evaluate remedial technologies for the off-base portion of the plume. After the Final Supplemental Remedial Investigation Report was completed in Sep 2009, monitoring of the chlorinated solvent plume has continued through additional sampling events in 2009 and 2010. Remedial alternatives for Site 10 are being evaluated in a Feasibility Study.

ACTIVITY LAST QUARTER:

- Draft Feasibility Study was submitted for AFCEE review in Oct 2010. AFCEE determined that data gaps need to be addressed in groundwater sampling and the alternatives need to be reassessed.

UPCOMING ACTIVITIES:

- A delay is expected for completion of the Feasibility Study due to contracting negotiations. In the future, groundwater sampling will be conducted to address data gaps identified by AFCEE and the Feasibility Study will be reworked.

Site 11: Building 1011 Area

ACTIVITY LAST QUARTER:

- Draft Final Remedial Investigation Report was submitted for TWG and CAG review in Nov 2010.

UPCOMING ACTIVITIES:

- Respond to comments on Draft Final Remedial Investigation Report and submit Final Report in Jan 2011.
- Draft Feasibility Study Report will be submitted for Air Force review in Feb 2011.

Site 11 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, tetrachloroethylene, trichloroethylene, and polynuclear aromatic hydrocarbons in soil, and tetrachloroethylene and trichloroethylene in groundwater. A Jul 2009 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 in 2007 and 2008. About 130 cubic yards of contaminated soil was excavated and disposed of at a permitted landfill in Oct 2009. The Remedial Investigation for groundwater included groundwater sampling on base and, after PCE contamination was found in groundwater at

the base boundary, groundwater, surface water, and sediment sampling occurred 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 (terminating to the north of East Toll Gate Creek).

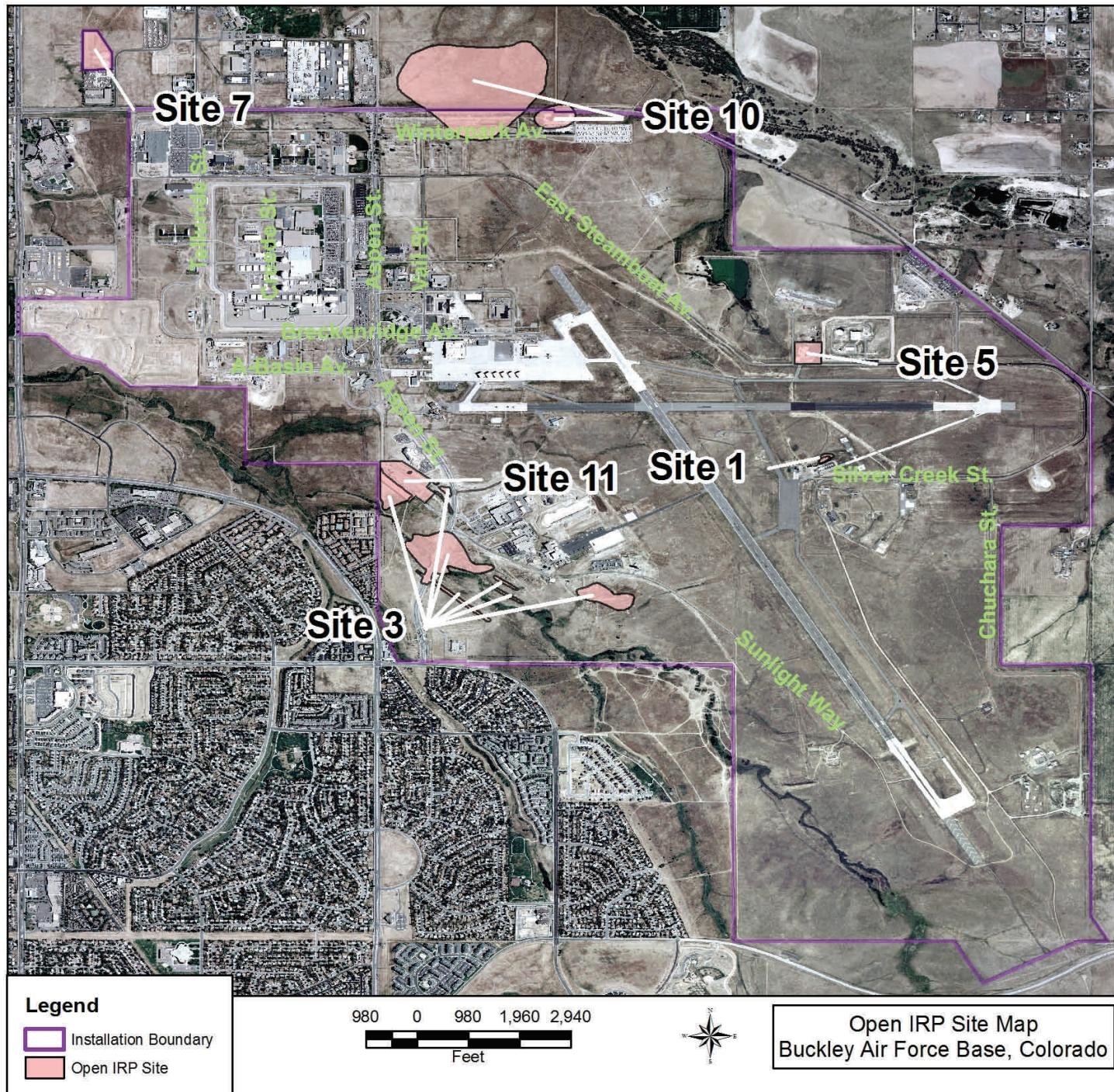


Figure 1: Location of Open IRP Sites

Compliance Restoration Program

ACTIVITY LAST QUARTER:

- Air Force and contractor personnel met with the TWG in Oct 2010 to discuss planning for the Remedial Investigation for 20 CRP sites.

UPCOMING ACTIVITIES:

- Draft Remedial Investigation Work Plan will be submitted for Air Force review in Jan 2011.

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

called the CRP. The 27 CRP sites were divided into 1) those with possible contamination to be confirmed through a Site Inspection, and 2) those with confirmed contamination requiring a Remedial Investigation. Buckley received funding in Sep 10 for the Remedial Investiga-

tions at 8 sites in the East Industrial Area and 12 sites in the Central Industrial Area. Remedial Investigation fieldwork will be conducted in Spring/Summer 2011. The Site Inspections for the remaining 7 CRP sites are not expected to begin until 2012.

Military Munitions Response Program

The MMRP addresses issues related to munitions and explosives of concern, chemical warfare material, and munitions constituents associated with munitions response areas, 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 activities, which are comparable to the Preliminary Assessment and Site Inspection phases in the Comprehensive Environmental Response, Compensation and Li-

ability Act of 1980, were performed at Buckley from 2005 – 2008. To date, a total of 17 munitions response areas have been investigated during the Comprehensive Site Evaluation process. Eight of these received a no further action decision at the conclusion of the Comprehensive Site Evaluation Phase I. The nine remaining munitions response areas were evaluated during the Comprehensive Site Evaluation Phase II. At the conclusion of Phase II, these munitions response areas were di-

vided into 15 munitions response sites, all but one of which (TS102) was recommended for further evaluation. An Engineering Evaluation Cost/Analysis for the 14 munitions response sites was finalized in Feb 2009 with up to four alternatives evaluated for each munitions response site. A removal action was initiated in Nov 2009 which included subsurface anomaly investigations, surface clearance, and removal of soil containing lead contamination above residential screening levels.

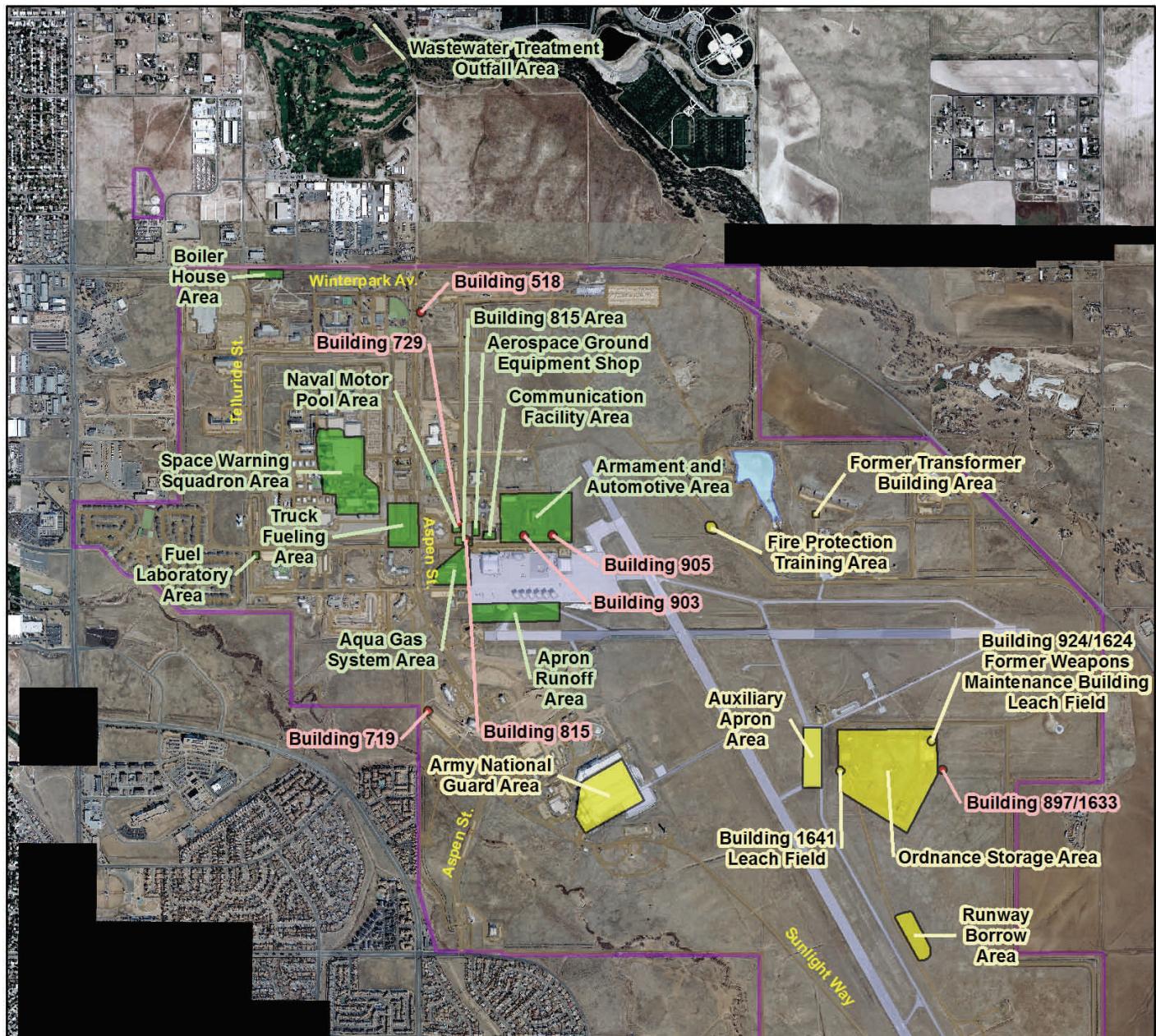
ACTIVITY LAST QUARTER:

- Completed excavation, stabilization and off-site disposal of an additional 2,400 cubic yards of lead-contaminated soil from berm areas at SR101A and MB103A in Dec 2010.
- Conducted removal of munitions and explosives of concern at CW104A and CW104B in Dec 2010.

UPCOMING ACTIVITIES:

- Draft After-Action Report for the complete removal action will be submitted for Air Force review in Feb 2011.
- Draft Remedial Investigation Work Plan for 5 munitions response sites will be submitted for Air Force review in early 2011.

To be added to the Community Advisory Group email list, contact Mr. John Spann, Chief of Public Affairs, at john.spann@buckley.af.mil or 720-847-9431 .



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**CRP Site Map
Buckley Air Force Base, Colorado**

Figure 2: Location of Open CRP Sites

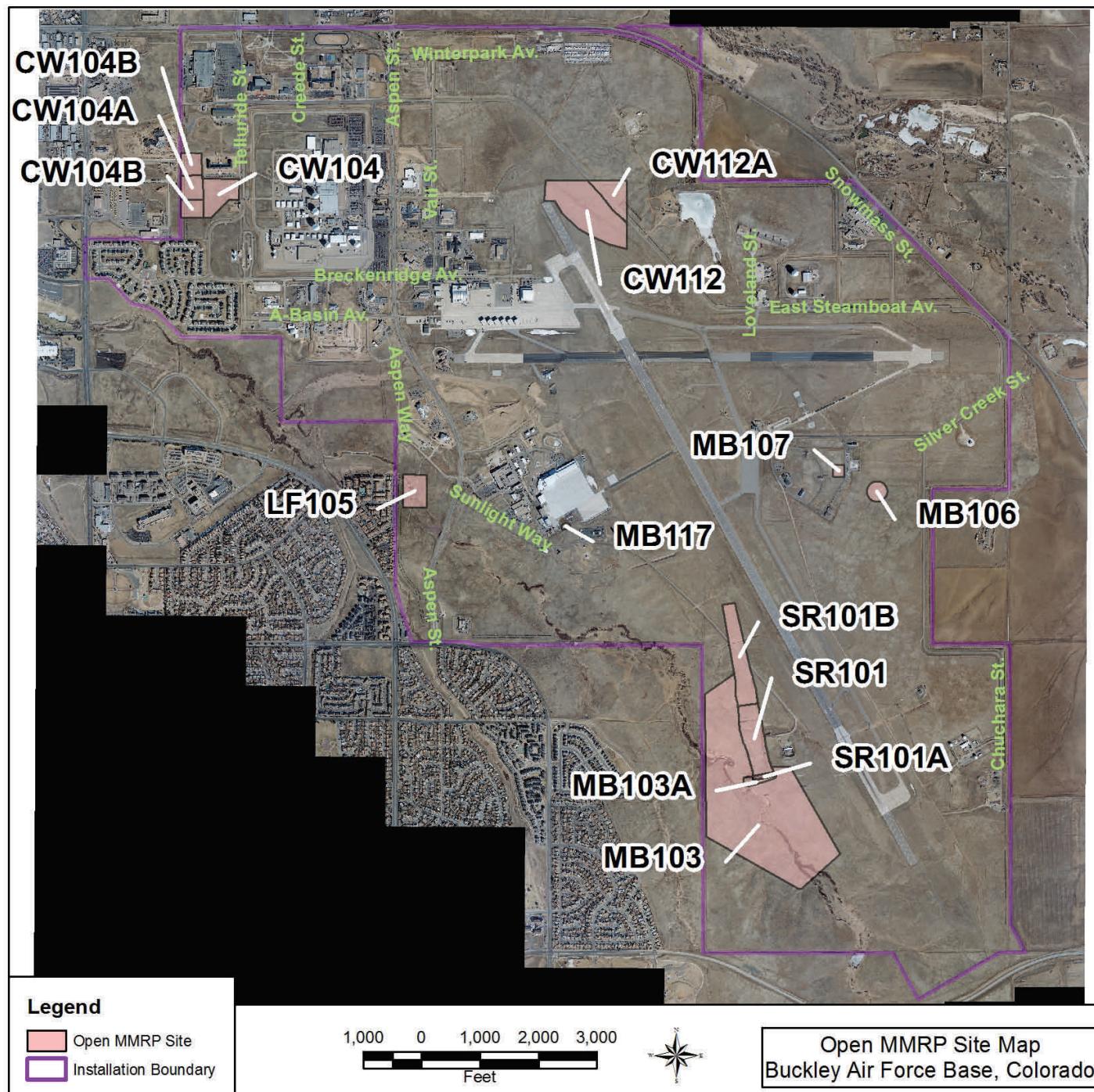


Figure 3: Location of Open MMRP Sites