



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
INSTALLATIONS AND ENVIRONMENT
110 ARMY PENTAGON
WASHINGTON DC 20310-0110

10 May 2005

SAIE-IA

MEMORANDUM FOR RECORD

SUBJECT: BRAC 2005 Army Environmental Impacts Summary By Installation

1. Enclosed in this archive is the final environmental impacts summary by installation for BRAC 2005. The summary is found at enclosure 2 of this document.
2. This rollup summary report, giving narratives and costs of expected environmental impacts by installation, was initially developed as a product to be integrated into the OSD BRAC report. The Army submitted a draft summary at OSD request, on 20 April 2005. Subsequent to 20 April, it was decided to omit this summary from the OSD final BRAC report, but instead it will be archived with the Army's supporting documentation for BRAC 2005. This archive reflects the final summary, updated for all approved recommendations as of 10 May 2005. It is consistent with the Army BRAC report as of this date.
3. Since this impacts summary only includes installations that were affected by BRAC recommendations, by definition, it omits those installations having no BRAC actions. For completeness, the list of studied installations having no BRAC actions is included at enclosure 1.
3. POC for this action is COL Thomas R. Crabtree at (703) 696-99788, or Mr Karl Markeset, (703) 696-9765.

THOMAS R. CRABTREE
COL, EN
TABS Environmental Analyst

Enclosures:

1. Installations having no BRAC actions
2. Army Environmental Impacts Summary
3. SAIE-IA Memorandum, SUBJECT: Army Criteria 8 Summaries of Environmental Impacts, 30 Apr 2005

Army Installations Having No BRAC Actions:

NoActions
Installation Name
CARLISLE BARRACKS
DUGWAY PROVING GROUND
FORT A P HILL
FORT DRUM
FORT GORDON
FORT MCNAIR
FORT POLK
FORT SHAFTER
FORT STEWART
LAKE CITY AAP
MILITARY OCEAN TML SUNNY POINT
NTC AND FORT IRWIN CA
PEO STRICOM LEASE
PRESIDIO OF MONTEREY
PUEBLO CHEM DEPOT
RADFORD AAP
SCHOFIELD BARRACKS
SCRANTON AAP
TRIPLER ARMY MEDICAL CENTER
YUMA PROVING GROUND

FORT GREELY, AK

USA-0132v3	Fort Wainwright, AK	Gain
------------	---------------------	------

BRAC actions result in no personnel or additional construction at Fort Greely. Testing described already occurs at Fort Greely, so there is no change in mission. No adverse impact to any environmental resource area is expected.

FORT RICHARDSON, AK

HSA-0010Rv2	Establish Joint Bases	Loss
HSA-0031v2	Consolidate CPOs	Loss

BRAC actions result in a net decrease in the number of personnel at Fort Richardson and no new construction. No adverse impact to any environmental resource area is expected.

FORT WAINWRIGHT, AK

USA-0132v3	Fort Wainwright, AK	Loss
------------	---------------------	------

BRAC actions only move mission and/or personnel out of Fort Wainwright. No adverse impact to any environmental resource area is expected.

AFRC BIRMINGHAM ANG BASE, AL

USA-0233	Transform RC Facilities in AL	Gain
----------	-------------------------------	------

Installation owned by Air National Guard

Impacts of costs include \$242000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MOBILE, AL

USA-0233	Transform RC Facilities in AL	Gain
----------	-------------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC TUSCALOOSA, AL

USA-0233	Transform RC Facilities in AL	Gain
----------	-------------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

ANNISTON ARMY DEPOT, AL

DON-0165Rv4	MCLB Barstow	Gain
IND-0083Av2	Realign Rock Island Arsenal	Gain
IND-0083Bv2	Realign Seal Beach	Gain
S&S-0043Rv2	Privitize Tires, POL & Gases	Loss
S&S-0051R	4 regional Strategic Distribution Platforms	Loss
USA-0036R	Red River Army Depot, TX	Gain

BRAC actions result in a net increase in the number of personnel at Anniston Army Depot but no new

construction. Anniston Army Depot is in attainment for all air pollutants. However, a Prevention of Significant Deterioration Permit will likely be required to operate the proposed rubber plant, in addition to modifications to existing air permits. The installation is located over a sole-source aquifer, and due to increased activities, additional mitigation measures/pollution prevention efforts may be necessary to protect the aquifer. Additionally, due to increased depot maintenance activities, the industrial wastewater treatment plant may require upgrades. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1150000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT RUCKER, AL

E&T-0062v3	Aviation Log to Fort Rucker	Gain
TECH-0005Rv2	Jt Rotary Wing Platforms	Loss

BRAC actions result in a net increase in the number of personnel at Fort Rucker and substantial level of new construction. Fort Rucker has 10 archeological sites/resources. Since there is no Programmatic Agreement in place, potential impacts may occur since resources must be evaluated on a case-by-case basis, thereby causing increased delays and costs. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$420000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

JOINT FORCE HEADQUARTERS MONTGOMERY, AL

USA-0233	Transform RC Facilities in AL	Gain
----------	-------------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

PELHAM RANGE, AL

USA-0233	Transform RC Facilities in AL	Gain
----------	-------------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

REDSTONE ARSENAL, AL

E&T-0064v3	CSS Center Fort Lee	Loss
HSA-0047Rv2	MDA/USA MSL to Redstone Arsenal	Gain
HSA-0092Rv2	Relocate Army Headquarters and Field Operating Agencies	Gain
S&S-0035Rv2	ICP to DLA	Loss
TECH-0005Rv2	Jt Rotary Wing Platforms	Gain
TECH-0013	Jt. Ctr for Land Veh RDAT&E	Loss
USA-0121R	Fort Gillem, GA	Gain
USA-0223Rv5	Fort Monmouth, NJ	Gain

BRAC actions result in a net increase in the number of personnel at Redstone Arsenal and new construction. Redstone Arsenal has 346 archeological sites and 462 historic properties. Since there

is no Programmatic Agreement in place, potential impacts may occur since resources must be evaluated on a case-by-case basis, thereby causing increased delays and costs. In addition, tribal interest may result in increased time delays and due to negotiated restrictions. Redstone Arsenal has five threatened/endangered species which restrict operations on the installation. Additional operations may further impact threatened /endangered species leading to additional restrictions on training or operations. Due to encroachment and additional missions, noise analysis and monitoring may be necessary. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1020000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC ARKADELPHIA, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CAMDEN, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC EL DORADO, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FORT CHAFFEE, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC HOT SPRINGS, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or

sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC JONESBORO, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NW ARK, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

JOINT MAINTENANCE FACILITY FORT CHAFFEE, AR

USA-0228v2 Transform RC Facilities in AR

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

PINE BLUFF ARSENAL, AR

IND-0106v2 Close Kansas Army Ammunition Plant

Gain

USA-0228v2 Transform RC Facilities in AR

Gain

BRAC actions result in a net increase in the number of personnel at Pine Bluff Arsenal and new construction. Pine Bluff Arsenal has one threatened/endangered species which does not result in restrictions. Additional operations may further impact threatened /endangered species leading to additional restrictions on training or operations. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1000000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC BUCKEYE, AZ

USA-0247v2 Transform RC Facilities in AZ

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These

costs were included in the payback calculation.

AFRC MARANA, AZ

USA-0247v2	Transform RC Facilities in AZ	Gain
------------	-------------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT HUACHUCA, AZ

HSA-0031v2	Consolidate CPOs	Gain
HSA-0133v2	Joint Mob Sites	Loss
S&S-0035Rv2	ICP to DLA	Loss
USA-0247v2	Transform Reserve Component in Arizona	Loss

BRAC actions result in a net decrease in personnel at Fort Huachuca and no new construction. These recommendations have no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

AFRC BELL, CA

USA-0240	Transform RC Facilities in CA	Gain
----------	-------------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT HUNTER-LIGGETT, CA

USA-0168v3_2	USAR C2 Proposal - SOUTHWEST	Gain
--------------	------------------------------	------

This proposal moves additional personnel and requires new construction for administrative buildings at Fort Hunter Liggett. Fort Hunter Liggett is over or in the recharge zone of a sole source aquifer, which may result in future regulatory limitations on training activities. No adverse effects to any other environmental resource areas are expected.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

MOFFETT FIELD, CA

USA-0168v3_2	USAR C2 Proposal - SOUTHWEST	Gain
USA-0240	Transform RC Facilities in CA	Gain

BRAC actions have no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$105000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

RIVERBANK AAP, CA

IND-0112v2 Close Riverbank Army Ammunition Plant

Close

BRAC actions result in closure of Riverbank Army Ammunition Plant. Riverbank Army Ammunition Plant has contaminated areas that are currently being addressed through the Installation Restoration Program. These areas may require some combination of clearance for munitions and explosives of concern (MEC), munition constituent cleanup, restoration, and land used controls. Continued management and or deed restrictions may be necessary to ensure future protection. The installation has a RCRA Treatment, Storage and Disposal Facility which may require additional restoration, monitoring/sweeps, access controls, and/or deed restrictions to prevent disturbance, health and safety risks, and/or long-term release of toxins to environmental media. This installation has groundwater resources that are contaminated with heavy metals that will require restoration and/or monitoring to prevent further environmental impacts. In addition, industrial buildings and structures used for mission-related activities may require controlled burning/decontamination/demolition due to explosives and/or metals contamination. Restoration and monitoring of contaminated sites will likely be required after closure to prevent significant long-term impacts to the environment. No adverse impact to any other environmental resource area is expected. Riverbank reports \$10.5 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

SIERRA ARMY DEPOT, CA

IND-0113v2_2 Realign Sierra Army Depot

Loss

BRAC actions only move mission and/or personnel out of Sierra Army Depot. No adverse impact to any environmental resource area is expected.

FORT CARSON, CO

MED-0054R Convert Inpatient Services to Clinics

Gain

USA-0224Rv3 Fort Hood, TX

Gain

BRAC actions cause an increase in personnel at Fort Carson and substantial new construction, while also increasing training frequency, noise levels, and amount of land impacted by training. Fort Carson is currently exceeding Major Source thresholds for Volatile Organic Compounds (VOCs), Nitrogen Oxides (NOx), Carbon Monoxide (CO), and Particulate Matter (PM10). This installation is located in a Maintenance area for CO and air quality issues currently restrict operations on this installation. Therefore, a New Source Review and permitting effort will be required. Fort Carson has 669 archeological/cultural resources, 40 historic buildings, and 13 Native American tribes have asserted interest in sites. However, only 57% of the installation has been surveyed for cultural resources. To preserve these resources, training restrictions may be imposed and increased operational delays and costs are possible. Tribal consultations may be required to expand use near listed sites. Fort Carson, which is experiencing moderate encroachment, has 15,686 acres of Noise Zone 2 and 2,322 acres of Noise Zone 3 that extend outside the installation boundaries. Further analysis will be required to determine the extent of new noise impacts. Fort Carson has three threatened/endangered species that cause some restrictions on off-road vehicle use and training activities. Added operations may impact these species and result in further training restrictions. Due to the McCarran Amendment, this installation has restrictions in place that significantly limit production or distribution of potable water. Increased missions at the installation may result in additional restrictions or mitigation requirements. This installation is discharging to an impaired waterway, so significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse effects to any other environmental resource areas are expected.

Impacts of costs include \$1120000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MIDDLETOWN, CT

USA-0236 RC Transformation in CT Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NEWTOWN, CT

USA-0236 RC Transformation in CT Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

WALTER REED ARMY MEDICAL CENTER, DC

DON-0033R	SUBASE New London	Gain
HSA-0053Rv2	OSD 4th Est to Fort Belvoir and NNMC	Loss
MED-0002Rv2	National Capital Region	Loss
MED-0028Rv2	Create Joint Centers of Excellence for Chem, Bio and Med RDA	Gain

BRAC actions result in realignment of Walter Reed Army Medical Center; the main installation is closing, and Forrest Glen Annex is receiving two new medical organizations. Severe Non-Attainment for Ozone will require New Source Review permitting and Air Conformity Analysis at Forrest Glen Annex. Surveys and consultation with the State Historic Preservation Office will be required to ensure protection of cultural and historic resources through the use of access controls and caretaker management at the main installation. At Forrest Glen Annex, demolition of old structure (old laundry facility and UST) may have to occur to allow for construction of hyperbaric chamber and due to historic operations at this location (possible use of dry cleaning solvents) and existence of UST, environmental cleanup costs are possible. Walter Reed main installation has groundwater resources that are contaminated with Trichloroethylene (TCE), Tetrachloroethylene (PCE), Petroleum Hydrocarbons, and Polychlorinated Biphenyls (PCBs) that will require restoration and/or monitoring to prevent significant long-term impacts to the environment. No adverse impact to any other environmental resource area is expected. WRAMC reports \$755K in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1450000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NEWARK, DE

USA-0164 RC Transformation in Delaware (AFRC Newark, DE) Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

EGLIN AFB, FL

USA-0040v4	Fort Bragg, NC	Gain
------------	----------------	------

This is an Air Force Installation

FORT BENNING, GA

USA-0046Rv2	Single Drill SGT School	Loss
USA-0121R	Fort Gillem, GA	Gain
USA-0143v3	RC Transformation in Georgia (AFRC FT Benning, GA)	Gain
USA-0243R	Maneuver Training	Loss

BRAC actions result in a net increase the number of personnel to Fort Benning and causes a substantial amount of new construction. All NAAQS are currently in attainment, but Fort Benning is projected to be in nonattainment for PM2.5. Due to the increase in personnel and new construction, an Air Conformity Analysis and New Source Review will be required. Although cultural and historic resources are present and cause restrictions on Fort Benning, it is nearly completely surveyed for resources and sufficient buildable acres exist to accommodate new construction. However, due to interest from Native American tribes, a potential impact may occur as a result of increased time delays and negotiated restrictions. Since there is no Programmatic Agreement in place, potential impacts may occur since resources must be evaluated on a case-by-case basis, thereby causing increased delays and costs. 9003 acres of Noise Zone 2, and 1785 acres of Zone 3 extend outside installation boundary. IENMP imposes ban on firing .50 Cal or larger from 1100-0600 hours. Due to incoming population, current noise restrictions and moderate encroachment, noise analysis and monitoring is required. Fort Benning has finve threatened/endangered species that already restrict operations. Additional operations may further impact threatened/endangered species, leading to additional restrictions on operations. The installation discharges to seven impaired waterways and water quality issues are currently impacting the Installation's mission. Significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1170000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT GILLEM, GA

DON-0068AR	Close NAS Atlanta	Gain
USA-0121R	Fort Gillem, GA	Close

BRAC actions result in the closure of Fort Gillem. Due to the presence of 50 historic properties at Fort Gillem, closure of this installation will necessitate consultations with the State Historic Preservation Office to ensure that historic properties are continued to be protected through use of access controls and caretaker management. This recommendation would result in the closure of 11 operational ranges and would likely necessitate clearance of munitions and remediation of any munition constituents. The remediation costs for these ranges may be significant and the time required for completing remediation is uncertain. Fort Gillem also has other contaminated areas that are being addressed through the Installation Restoration Program. After closure, these areas may require continued remediation and use of land use controls. Fort Gillem has groundwater resources that are contaminated with chlorinated solvents, polycyclic aromatic hydrocarbons, metals, and pesticides and surface water resources that are contaminated with volatile organic compounds (VOCs). Groundwater and surface water resources will require restoration and/or monitoring to prevent after closure to prevent significant long-term impacts to the environment. No adverse impact to any other environmental resource area is expected. Fort Gillem reports \$18 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is

closed, realigned, or remains open, these costs were not included in the payback calculation. Impacts of costs include \$550000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT MCPHERSON, GA

USA-0222R

Fort McPherson, GA

Close

BRAC actions result in the closure of Fort McPherson. Due to the presence of 48 historic properties, closure of this installation will necessitate consultations with the State Historic Preservation Office to ensure that historic properties are continued to be protected through use of access controls and caretaker management. This recommendation would result in the closure of six operational ranges and would likely necessitate clearance of munitions and remediation of any munition constituents. The remediation costs for these ranges may be significant and the time required for completing remediation is uncertain. Fort McPherson also has other contaminated areas that are being addressed through both Installation Restoration Program and the Military Munitions Response Program, which may require some combination of clearance, munition constituent cleanup, remediation, and land use controls. Fort McPherson has groundwater resources that are contaminated with volatile organic compounds and petroleum-oil-lubricants that will require restoration and/or monitoring after closure to prevent significant long-term impacts to the environment. No adverse impact to any other environmental resource area is expected. Fort McPherson reports \$12.97 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

PEACHTREE LEASE, GA

USA-0222R

Fort McPherson, GA

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

AFRC KEAUKAHA, HI

USA-0114

RC Transformation in Hawaii (AFRC Keaukaha, HI)

Gain

This recommendation moves additional personnel and causes moderate new construction at Keuakaha Military Reservation. This installation has potential contamination from underground storage tanks, and hazardous waste and pesticide storage areas. The installation reported potential for lead-based paint contaminated soil, due to significant deterioration of exterior paint on structures. There is the potential for encountering storm water permitting issues. These conditions may impose restrictions or delays that impact proposed construction. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CAMP DODGE, IA

USA-0244

RC Transformation in IA

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CEDAR RAPIDS, IA

USA-0244	RC Transformation in IA	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MIDDLETOWN, IA

USA-0244	RC Transformation in IA	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MUSCATINE, IA

USA-0244	RC Transformation in IA	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

IOWA AAP, IA

IND-0106v2	Close Kansas Army Ammunition Plant	Gain
------------	------------------------------------	------

IND-0122v2_2	Close Lone Star Army Ammunition Plant	Gain
--------------	---------------------------------------	------

BRAC actions cause an increase in operational workload at Iowa AAP, but no increase in personnel or new construction. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1000000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CARBONDALE, IL

USA-0245	RC Transformation in IL	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC LAKE COUNTY, IL

USA-0245	RC Transformation in IL	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water

resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MT. VERNON, IL

USA-0245	RC Transformation in IL	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

ROCK ISLAND ARSENAL, IL

HSA-0018v5	Consolidate DFAS 24 Central and Field Operating Sites into 3 Sites	Loss
HSA-0031v2	Consolidate CPOs	Loss
HSA-0092Rv2	Relocate Army Headquarters and Field Operating Agencies	Loss
IND-0083Av2	Realign Rock Island Arsenal	Loss
IND-0110v2	Close Mississippi Army Ammunition Plant	Gain
IND-0112v2	Close Riverbank Army Ammunition Plant	Gain
S&S-0035Rv2	ICP to DLA	Loss
USA-0121R	Fort Gillem, GA	Gain

BRAC actions add personnel to Rock Island and cause minimal new construction. The installation discharges to an impaired waterway so significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA Water Quality Standards. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC GREENWOOD-FRANKLIN, IN

USA-0246	RC Transformation in IN	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC LAFAYETTE, IN

USA-0246	RC Transformation in IN	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

CRANE ARMY AMMUNITION ACTIVITY, IN

IND-0106v2	Close Kansas Army Ammunition Plant	Gain
IND-0113v2_2	Realign Sierra Army Depot	Gain

IND-0122v2_2 Close Lone Star Army Ammunition Plant

Gain

BRAC actions result in an increase in operational workload and personnel at Crane Army Ammunition Activity (AAA) and minimal construction. Crane (AAA) is in attainment for all criteria air pollutants, but may require New Source Review permitting and Title V Air Permit to accommodate new activities. Two threatened and endangered species exist on the installation and affect 80 acres of land. Additional operations may impact threatened / endangered species leading to additional restrictions on training or operations. This installation is discharging to an impaired waterway, so significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1150000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

EREC INDIANAPOLIS, IN

HSA-0145v2 Roll-up Mil Pers & Rec Ctrs for AR & AF

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

NEWPORT CHEM DEPOT, IN

IND-0119V3 Close Newport Chemical Depot

Close

BRAC actions result in closure of Newport Chemical Depot. Due to the presence of archeological sites and historic properties, surveys and consultation with the State Historic Preservation Office will be required to determine disposition of archaeological and historical resources. There are two threatened and endangered species found on the installation. Continued management and or deed restrictions will be necessary to ensure future protection of the federally listed species. Newport has contaminated areas that are currently being addressed through the Installation Restoration Program. These areas may require some combination of clearance for munitions and explosives of concern (MEC), munition constituents, restoration, and land use controls. The installation has a treatment, storage and disposal facility which may require additional restoration, monitoring/sweeps, access controls, and/or deed restrictions to prevent disturbance, health and safety risks, and/or long-term release of toxins to environmental media. Other environmental media contamination issues include chlorinated solvents, volatile organic compounds, and heavy metals in groundwater and polyaromatic hydrocarbons, heavy metals, and explosives in surfacewater. Restoration and monitoring of contaminated sites will likely be required after closure to prevent significant long-term impacts to the environment. No adverse impact to any other environmental resource area is expected. Newport Chemical Depot reports \$1.2 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT LEAVENWORTH, KS

HSA-0135v2 Regional Correctional Facilities

Gain

BRAC actions result in a net increase in personnel and new construction at Fort Leavenworth. This installation is located in a nonattainment area for carbon monoxide and therefore, an Air Conformity determination and New Source Review and permitting effort will be required. This installation has not performed a wetland survey, so a wetland survey and evaluation of survey results may be necessary prior to construction. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT RILEY, KS

HSA-0031v2	Consolidate CPOs	Gain
USA-0221v4	Operational Army (IGPBS)	Gain

BRAC actions result in a net increase in personnel at Fort Riley and substantial levels of new construction. Fort Riley has 232 archeological sites, 295 historic properties, and 5 Native American tribes have asserted interest in archeological sites, but only 28% of the installation has been surveyed for cultural resources. Some sites currently restrict excavating and vehicle traffic, so additional training or construction restrictions along with increased delays and costs may result from this recommendation. Tribal negotiations may be required to expand use near listed areas. Fort Riley, which is experiencing minimal encroachment, has 81 acres of Noise Zone 2 and 14 acres of Noise Zone 3 that extend outside the installation. The installation's Environmental Noise Management Plan imposes a ban on firing from 0001-1200 hours on Sundays. Further analysis will be required to determine the extent of new noise impacts. Fort Riley has four endangered species that cause some restrictions on, digging, vehicle use near affected streams, tank trail maintenance, and construction near nests during roosting season. Added operations may impact these species and result in further restrictions. No adverse effects to any other environmental resource areas are expected.

Impacts of costs include \$1070000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

KANSAS ARMY AMMUNITION PLANT, KS

IND-0106v2	Close Kansas Army Ammunition Plant	Close
------------	------------------------------------	-------

BRAC actions result in the closure of Kansas Army Ammunition Plant. Surveys and consultation with the State Historic Preservation Office will be required to ensure protection of cultural and historic resources at that installation. Kansas Army Ammunition Plant has contaminated areas that are currently being addressed through the Installation Restoration Program. These areas may require munition constituent cleanup, restoration, and land use controls. Closure of six operational ranges will likely necessitate clearance of munitions and remediation of any munition constituents. The remediation costs for these ranges may be significant and the time required for completing remediation is uncertain. The installation has an open burn/open detonation area, a treatment storage and disposal facility, and a permitted solid waste disposal facility which may require additional restoration, monitoring/sweeps, access controls, and/or deed restrictions to prevent disturbance, health and safety risks, and/or long-term release of toxins to environmental media. This installation has groundwater resources that are contaminated with metals, VOCs, and explosives that will require restoration and/or monitoring to prevent further environmental impacts. Some areas contain surface water that is contaminated with Dioxins and Furans. The installation has domestic and industrial wastewater treatment plants that may require closure. In addition, industrial buildings and structures used for mission-related activities may also require controlled burning/decontamination/demolition due to explosives and/or metals contamination. No adverse impact to any other environmental resource area is expected. Kansas Army Ammunition Plant reports \$3.2 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC PADUCAH, KY

USA-0237v2	RC Transformation in KY	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water

resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

BLUE GRASS ARMY DEPOT, KY

IND-0113v2_2	Realign Sierra Army Depot	Gain
USA-0036R	Red River Army Depot, TX	Gain
USA-0237v2	RC Transformation in KY	Gain

BRAC actions result in an increase in operational workload at Blue Grass Army Depot along with limited increase in personnel and new construction. Due to the presence of cultural resources and the fact that a very limited portion of this installation has been surveyed, surveys may be required before construction can occur. Blue Grass has one threatened and endangered species that restricts less than 1% of the installation. Five candidate species also exist on the installation. Additional operations may further impact threatened and endangered or candidate species which may lead to additional restrictions on operations. No adverse impact to any other environmental resource area is expected. Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT CAMPBELL, KY

USA-0121R	Fort Gillem, GA	Gain
USA-0221v4	Operational Army (IGPBS)	Loss
USA-0238v2	RC Transformation in TN	Gain

BRAC actions result in a net increase in personnel at Fort Campbell and new construction. Due to new missions, training frequency will increase as well as noise levels. No NAAQS permit thresholds are expected to be exceeded, but Fort Campbell is located in a nonattainment area for ozone (8-hour). Therefore, an Air Conformity determination and New Source Review and permitting effort will be required. This installation has one archeological site and 2,537 historic properties which cause operational restrictions and one native american tribe has asserted interest in a site. Additional training or construction restrictions along with increased delays and costs may result, and tribal consultations may be required. Fort Campbell, which is experiencing moderate encroachment, has 11,765 acres of Noise Zone 2 and 2,168 acres of Noise Zone 3 that extend outside the installation. The installation's Environmental Noise Management Plan imposes noise restrictions from 0001-2400 daily. Further analysis will be required to determine the extent of new noise impacts resulting from additional training. Fort Campbell has two threatened and endangered species that do not cause operational restrictions. Added operations may impact these species and result in restrictions. The installation is located over a recharge area for a sole source aquifer and discharges to three impaired waterways, directly contributing to impairment of these potable water sources. Water quality issues are currently impacting the Installation's mission. Significant mitigation measures and training restrictions to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standard. No adverse impact to any other environmental resource area is expected. Impacts of costs include \$470000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT KNOX, KY

HSA-0092Rv2	Relocate Army Headquarters and Field Operating Agencies	Gain
HSA-0135v2	Regional Correctional Facilities	Loss
HSA-0145v2	Roll-up Mil Pers & Rec Ctrs for AR & AF	Gain
MED-0054R	Convert Inpatient Services to Clinics	Loss
USA-0113R	Fort Monroe, VA	Gain
USA-0131v3	USAR C2 Proposal -Southeast	Gain

USA-0223Rv5 Fort Monmouth, NJ

Gain

USA-0243R Maneuver Training

Gain

BRAC actions result in a net decrease of personnel and minimal levels of new construction. Fort Knox has 194 historic properties and one Native American tribe has asserted interest in cultural resources, but only 32% of the installation has been surveyed. If construction does occur, increased operational delays and costs are possible in order to preserve these resources and tribal consultations may be necessary. Fort Knox is moderately encroached and has 11,647 acres of Noise Zone 2, and 691 acres of Noise Zone 3 that extend outside the installation. If incoming missions result in additional noise production, further analysis will be required to determine the extent of new noise impacts. Fort Knox has three threatened and endangered species but no current restrictions are in place. Added operations may impact these species and result in future restrictions. The installation or range is located over the recharge zone of a sole-source aquifer, which may result in future regulatory limitations on training activities. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1020000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC BATON ROUGE, LA

USA-0230 RC Transformation in LA

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC SHREVEPORT, LA

USA-0230 RC Transformation in LA

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CHICOPEE, MA

USA-0212 USAR C2 New England (AFRC Chicopee, MA)

Gain

This is located on ARB Westover, an Air Force installation.

Impacts of costs include \$538000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

CSMS AYER, MA

USA-0202 RC Transformation in MA (CSMS Ayer, MA)

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

SOLDIER SYSTEMS CENTER, MA

HSA-0099v2	Collocate Def-MILDEP Adj Act Fort Meade	Loss
S&S-0035Rv2	ICP to DLA	Loss

BRAC actions only move mission and/or personnel out of Soldier Systems Center. No impact to any environmental resource area is expected.

ABERDEEN PROVING GROUND, MD

E&T-0064v3	CSS Center Fort Lee	Loss
HSA-0031v2	Consolidate CPOs	Gain
HSA-0065v2	ATEC Consol	Gain
HSA-0092Rv2	Relocate Army Headquarters and Field Operating Agencies	Loss
HSA-0133v2	Joint Mob Sites	Gain
MED-0002Rv2	National Capital Region	Gain
MED-0028Rv2	Create Joint Centers of Excellence for Chem, Bio and Med RDA	Gain
MED-0057Rv2	Brooks City Base, TX	Gain
S&S-0035Rv2	ICP to DLA	Gain
Tech-009Rv2	Def Research Svc Labs Consol Army	Gain
USA-0223Rv5	Fort Monmouth, NJ	Gain

BRAC actions move additional personnel and cause substantial levels of new construction at Aberdeen Proving Ground, which is located in a region that is currently in nonattainment for ozone (8-hour). These events will require an Air Conformity Analysis to evaluate the impact to air quality and a New Source Review and Title V permit modification prior to construction. Aberdeen Proving Ground has 78 Historic properties, and 5 archeological resources identified and reports areas with high archeological potential, but no restrictions to mission are reported. A very limited portion of the installation has been surveyed for cultural resources; therefore, the extent of the cultural resources on the installation and impacts to those resources are uncertain. Potential impacts may occur as result of increased times delays and negotiated restrictions, due to tribal interest in archeological and cultural sites. Aberdeen Proving Ground has two threatened and endangered species that affect 17.2 acres of the installation by restricting night time flying operations (protection buffers around nests). Additional operations may further impact threatened and endangered species leading to additional restrictions on training or operations. Water quality is impaired by pollutant loadings. Significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1150000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

ADELPHI LABORATORY CENTER, MD

TECH-0018b	Realign Guns & Ammo RD&A	Loss
------------	--------------------------	------

BRAC actions only move mission and/or personnel out of Adelphi Labs. No impact to any environmental resource area is expected.

FORT DETRICK, MD

MED-0002Rv2	National Capital Region	Gain
MED-0028Rv2	Create Joint Centers of Excellence for Chem, Bio and Med RDA	Gain
USA-0178v3	RC Transformation in Maryland (AFRC Frederick, MD)	Gain

BRAC actions result in a net increase in the number of personnel at Fort Detrick and new construction. Fort Detrick is in serious nonattainment for ozone. Added operations may exacerbate major source threshold exceedance problems for nitrogen oxides, so a New Source Review and Air Conformity analysis, as well as modifications to its existing Title V Permit will be required. Fort Detrick has 2 archeological sites and 5 historic properties. Since there is no Programmatic Agreement in

place, potential impacts may occur since resources must be evaluated on a case-by-case basis, thereby causing increased delays and costs. In addition, tribal interest may result in increased times delays due to negotiated restrictions. No adverse impact to any other environmental resource area is expected

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT MEADE, MD

HSA-0045v2	DISA to Fort Meade	Gain
HSA-0071v3	Media & Pubs to Ft. Fort Meade	Gain
HSA-0099v2	Collocate Def-MILDEP Adj Act Fort Meade	Gain
USA-0223Rv5	Fort Monmouth, NJ	Gain

BRAC actions result in a net increase in the number of personnel at Fort Meade and substantial levels of new construction. Fort Meade is in moderate nonattainment for Ozone and Particulate Matter (PM 2.5). Added operations will require New Source Review permitting and Air Conformity Analysis. Fort Meade has 1 archeological site and 15 historic properties that currently restrict operations. Additional operations may impact these resources and result in further restrictions on training or operations. The installation has not been surveyed for cultural resources; therefore, the extent of cultural resources on the installation and impacts to these resources are uncertain. No threatened and endangered species are listed at Fort Meade, however, two Biological Opinions have been issued that impose restrictions on installation and range operations. Additional operations may further impact sensitive habitats and may lead to additional restrictions on training or operations. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$550000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FT CUSTER, MI

USA-0235	RC Transformation in MI (AFRC Ft Custer, MI)	Gain
----------	--	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

DETROIT ARSENAL, MI

S&S-0035Rv2	ICP to DLA	Gain
S&S-0043Rv2	Privitize Tires, POL & Gases	Loss
TECH-0013	Jt. Ctr for Land Veh RDAT&E	Gain
TECH-0031	Realign Detroit Arsenal	Loss
USA-0063v3	U.S. Army Garrison Michigan (Selfridge)	Gain

BRAC actions result in a net increase in the number of personnel at Detroit Arsenal and new construction. No adverse impact to any environmental resource area is expected.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

US ARMY GARRISON SELFRIDGE, MI

USA-0063v3	U.S. Army Garrison Michigan (Selfridge)	Close
------------	---	-------

BRAC actions result in the closure of U.S. Army Garrison Michigan (Selfridge). This installation has 12 historic properties identified. Closure will require consultations with the State Historic Preservation

Office to ensure that sites are continued to be protected. USAG Selfridge also has other contaminated areas being addressed through the Military Munitions Response Program, which may require some combination of clearance, munition constituent cleanup, remediation, and land use controls. The installation has groundwater that is contaminated with petroleum. Restoration and/or monitoring of contaminated groundwater will likely be required after closure in order to prevent significant long-term impacts to the environment. No adverse impact to any other environmental resource area is expected. USAG Selfridge reports \$13.3 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$550000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CAMBRIDGE, MN

USA-0249 RC Transformation in MN Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FARIBAULT, MN

USA-0249 RC Transformation in MN Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC JEFFERSON BARRACKS, MO

USA-0216 RC Transformation in MO Gain

This is an Air Force installation

Impacts of costs include \$486000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC KIRKSVILLE, MO

USA-0216 RC Transformation in MO Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT LEONARD WOOD, MO

E&T-0029v4 Prime Power Gain

USA-0046Rv2 Single Drill SGT School Loss

BRAC actions cause new construction at Fort Leonard Wood, but result in an overall net decrease in

personnel. Although Fort Leonard Wood is in attainment for all criteria air pollutants, NAAQS threshold violations have been reported. Due to construction, a more detailed emission analysis may be required to determine regulatory impact of new activities. Fort Leonard Wood has 34 Historic properties and 550 archaeological resources identified that currently restrict operations. Additional operations may impact these resources and result in further restrictions on training or operations. Since there is no Programmatic Agreement in place, potential impacts may occur, since resources must be evaluated on a case-by-case basis. Fort Leonard Wood has three threatened and endangered species that currently restrict less than 2% of training land. Additional operations may further impact threatened/endangered species leading to additional restrictions on training or operations. No adverse effects to any other environmental resource areas are expected. Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

HRC-ST.LOUIS, MO

HSA-0145v2 Roll-up Mil Pers & Rec Ctrs for AR & AF

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

MISSISSIPPI AAP, MS

IND-0110v2 Close Mississippi Army Ammunition Plant

Close

BRAC actions result in closure of Mississippi AAP. This installation has contaminated areas that are currently being addressed through the Installation Restoration Program. These areas may require some combination of munition constituent cleanup, restoration, and land use controls. The installation has domestic and industrial wastewater treatment plants that may require closure. In addition, industrial buildings and structures used for mission-related activities may require controlled burning/decontamination/demolition due to explosives and/or metals contamination. No adverse impact to any other environmental resource area is expected. Mississippi AAP reports \$2.3 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC GREAT FALLS MALMSTROM, MT

USA-0251 RC Transformation in MT

Gain

This is an Air Force installation

Impacts of costs include \$48000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MISSOULA, MT

USA-0251 RC Transformation in MT

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC WILMINGTON, NC

USA-0171 RC Transformation in NC (AFRC Wilmington, NC)

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

ARL LEASE, NC

TECH-0040Rv2	Co-locate Extramural Research Program Managers to Bethesda	Loss
--------------	--	------

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

FORT BRAGG, NC

HSA-0133v2	Joint Mob Sites	Gain
USA-0040v4	Fort Bragg, NC	Loss
USAF-0122v3	Realign Pope	Gain

BRAC actions result in a net increase in personnel at Fort Bragg and substantial levels of new construction. Due to new missions, training frequency and the amount of land impacted by training will also increase. This installation has 3,016 archeological/cultural sites, 362 historic properties, and 8 Native American tribes have asserted interest in sites, but only 63% of the installation has been surveyed for cultural resources. Fifty six sites currently restrict training by preventing site disturbance, so additional training or construction restrictions along with increased delays and costs may result from this recommendation. Tribal consultations may also be required. Fort Bragg, which is experiencing moderate encroachment, has 482 acres of Noise Zone 2 that extends outside the installation. Further analysis will be required to determine the extent of new noise impacts. Fort Bragg has 24 threatened and endangered species and 17 of these species restrict training on some of the ranges. Together, these species impact less than 4% of land at Fort Bragg. Added operations may impact these species and result in further operational and training restrictions. Fort Bragg experienced water controls and restrictions in 2002. Increased water demand may lead to further controls and restrictions and water supply infrastructure may likely need upgrades due to incoming population. Wetlands currently restrict operations on 7.6% of the installation. Additional operations may impact wetlands, resulting in operational restrictions. An evaluation of operational restrictions for jurisdictional wetlands will likely have to be conducted. No adverse impact to any other environmental resource area is expected. Impacts of costs include \$420000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

POPE AFB, NC

USA-0121R	Fort Gillem, GA	Gain
USA-0222R	Fort McPherson, GA	Gain

This is an Air Force installation

AFRC FARGO, ND

USA-0210	RC Transformation in North Dakota (AFRC Fargo, ND)	Gain
----------	--	------

This is an Air Force installation

Impacts of costs include \$96000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC BEATRICE, NE

USA-0241	RC Transformation in NE	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources;

dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC COLUMBUS, NE

USA-0241 RC Transformation in NE Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC GREENLIEF TS, NE

USA-0241 RC Transformation in NE Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC KEARNEY, NE

USA-0241 RC Transformation in NE Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MCCOOK, NE

USA-0241 RC Transformation in NE Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC PEASE-NEWINGTON, NH

USA-0219 RC Transformation in New Hampshire (AFRC Pease-Newington, NH) Gain

This is an Air Force installation

Impacts of costs include \$146000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CAMDEN, NJ

USA-0076 RC Transformation in New Jersey (AFRC Camden, NJ) Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC/ECS LAKEHURST, NJ

USA-0167v3	USAR C2 NORTHEAST	Gain
------------	-------------------	------

Installation is leased by the Army National Guard. This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

FORT DIX, NJ

DON-0057	Close Inspector - Instructor West Trenton, NJ	Gain
DON-0084AR	Close NAS JRB Willow Grove, PA	Gain
HSA-0010Rv2	Establish Joint Bases	Loss
HSA-0133v2	Joint Mob Sites	Gain
USA-0167v3	USAR C2 NORTHEAST	Gain

BRAC actions result in a net increase in personnel and new construction at Fort Dix. The receiving installation is in nonattainment for ozone (8-hour) and will require an Air Conformity determination and New Source Review analysis and permitting. Fort Dix has 81 archeological resources, one historic property, and one Native American tribe asserts interest in some of these resources. Fort Dix has no Programmatic Agreement in place, so resources must be evaluated on a case-by-case basis, possibly causing construction delays and increased costs. The installation is located over the recharge zone of a sole source aquifer, which may result in future regulatory limitations on training activities. No adverse effects to any other environmental resource area is expected.

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT MONMOUTH, NJ

S&S-0035Rv2	ICP to DLA	Loss
USA-0223Rv5	Fort Monmouth, NJ	Close

BRAC actions result in the closure of Fort Monmouth. This installation has 108 historical sites and 9 archeological sites along with other sites of high archeological potential. Closure may require consultations with the State Historic Preservation Office to ensure these sites are continued to be protected through use of access controls and caretaker management. This recommendation would result in the closure of eleven operational ranges and would likely necessitate clearance of munitions and remediation of any munition constituents. The remediation costs for these ranges may be significant and the time required for completing remediation is uncertain. Fort Monmouth also has other contaminated areas that are being addressed through the Installation Restoration Program which may require some combination of clearance, munition constituent cleanup, remediation, and land use controls. Fort Monmouth has both surface water and groundwater resources that are contaminated with fuels, heavy metals, solvents, volatile organic compounds, and fuel additives. After closure these areas and resources will require restoration and/or monitoring to prevent further environmental impacts. No adverse impact to any other environmental resource area is expected. Fort Monmouth reports \$2.9 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

PICATINNY ARSENAL, NJ

TECH-0018b Realign Guns & Ammo RD&A

Gain

BRAC actions result in a net increase in the number of personnel at Picatinny Arsenal and minimal construction. Picatinny Arsenal is in severe nonattainment for ozone (8-hour) so added operations will require New Source Review permitting, an Air Conformity Analysis, and modifications to the existing Title V Permit. Picatinny Arsenal has 54 historic properties, but no restrictions to mission reported. A very limited portion of the installation has been surveyed for cultural resources; therefore, the extent of the cultural resources on the installation and impacts to those resources are uncertain. Picatinny Arsenal has two Federally listed species that restrict operations on 70% of installation, including limitations on tree felling. Additional operations may further impact threatened / endangered species leading to additional restrictions on training or operations. Installation / range is located over the recharge zone of a sole-source aquifer, which may result in future regulatory limitations on training/operations. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC KIRTLAND AFB, NM

USA-0215 RC Transformation in New Mexico (AFRC Kirtland AFB, NM)

Gain

This is an Air Force installation

Impacts of costs include \$460000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

WHITE SANDS MISSILE RANGE, NM

Tech-009Rv2 Def Research Svc Labs Consol Army

Loss

BRAC actions only move mission and/or personnel out of White Sands Missile Range. No impact to any environmental resource area is expected.

HAWTHORNE ARMY DEPOT, NV

IND-0108_2 Close Hawthorne Army Depot

Close

BRAC actions result in closure of Hawthorne Army Depot. Surveys and consultation with the State Historic Preservation Office will be required to ensure protection of cultural and historic resources at that installation. Closure of thirteen operational ranges will likely necessitate clearance of munitions and remediation of any munition constituents. The remediation costs for these ranges may be significant and the time required for completing remediation is uncertain. Hawthorne Army Depot has contaminated areas that are currently being addressed through the Installation Restoration Program and Military Munitions Response Program. These areas may require some combination of clearance for munitions and explosives of concern (MEC), munition constituent cleanup, restoration, and land use controls. Continued management and or deed restrictions may be necessary to ensure future protection. The installation has an Open Burn/Open Detonation area, a treatment, storage and disposal, facility, and a permitted solid waste disposal facility which may require additional restoration, monitoring/sweeps, access controls, and/or deed restrictions to prevent disturbance, health and safety risks, and/or long-term release of toxins to environmental media. This installation has groundwater resources that are contaminated with heavy metals, solvents, explosives, and petroleum products that will require restoration and/or monitoring to prevent further environmental impacts. Surface water may also be contaminated with explosives. In addition, industrial buildings and structures used for mission-related activities may require controlled burning/decontamination/demolition due to explosives and/or metals contamination. No adverse impact to any other environmental resource area is expected. Hawthorne reports \$383.2 million in environmental restoration costs. Because the Department has a

legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FARMINGDALE, NY

USA-0242 RC Transformation in NY Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FORT TOTTEN, NY

USA-0167v3 USAR C2 NORTHEAST Gain

BRAC actions result in an increase in personnel at Fort Totten and new construction. The receiving installation is in nonattainment for ozone and will require an Air Conformity determination and New Source Review analysis and permitting. Fort Totten has 5 historic buildings and very limited buildable acreage. Actions to preserve historic resources may result in increased time delays and cost during construction and negotiated restrictions. Water quality is impaired by pollutant loadings and current operations may contribute to water quality impairment. Significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse effects to any other environmental resource areas are expected.

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NIAGARA FALLS, NY

USA-0242 RC Transformation in NY Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC STEWART ARMY SUB-POST, NY

USA-0242 RC Transformation in NY Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT HAMILTON, NY

USA-0167v3 USAR C2 NORTHEAST Gain

BRAC actions result in an increase in personnel at Fort Hamilton and cause new construction on Fort Hamilton. The receiving installation is in a nonattainment area for ozone, particulate matter (PM10) and for carbon monoxide, and will require an Air Conformity determination and New Source Review

and permitting. Fort Hamilton has 6 historic buildings and no vacant buildable acreage. If facility demolition is required to enable new construction, this may impact historic resources, causing construction delays and increased costs. Water quality is impaired by pollutant loadings and current operations may contribute to continue water quality impairment. Significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse effects to any other environmental resource areas are expected.

Impacts of costs include \$155000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

WATERVLIET ARSENAL, NY

IND-0114v3 Realign Watervliet Arsenal Loss

BRAC actions only move mission and/or personnel out of Watervliet. No impact to any environmental resource area is expected.

WEST POINT MIL RESERVATION, NY

USA-0223Rv5 Fort Monmouth, NJ Gain

BRAC actions result in an increase in personnel at West Point Military Reservation and cause new construction. West Point Military Reservation is located in a region in nonattainment for ozone and therefore, an Air Conformity Analysis and a New Source Review and permitting effort will be required. While adequate acreage for expansion at West Point Military Reservation is available, a very limited portion of the installation has been surveyed for cultural resources, so an archeological/tribal resources inventory will be required, and evaluation and mitigation of resources may be necessary before construction is allowed. This installation has two threatened and endangered species which restrict operations on the installation. Additional operations may further impact threatened and endangered species leading to additional restrictions on training or operations. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC COLUMBUS DSCC, OH

USA-0248 RC Transformation in OH Gain

This is a Defense Logistics Agency installation

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MANSFIELD, OH

USA-0248 RC Transformation in OH Gain

This is an Air Force installation

Impacts of costs include \$294000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC SPRINGFIELD, OH

USA-0248 RC Transformation in OH Gain

This is an Air Force installation

Impacts of costs include \$442000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

DSC-COLUMBIA, OH

USA-0223Rv5 Fort Monmouth, NJ Gain

This is a Defense Logistics Agency installation

LIMA ARMY TANK PLT, OH

IND-0115v2_2 Realign Lima Army Tank Plant

Loss

BRAC actions only move mission and/or personnel out of Lima Army Tank Plant. No impact to any environmental resource area is expected.

AFRC BROKEN ARROW, OK

USA-0229v3 RC Transformation in OK

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MUSKOGEE, OK

USA-0229v3 RC Transformation in OK

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NORMAN, OK

USA-0229v3 RC Transformation in OK

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC OKLAHOMA CITY, OK

USA-0229v3 RC Transformation in OK

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC VANCE AFB, OK

USA-0229v3 RC Transformation in OK

Gain

This is an Air Force installation

Impacts of costs include \$246000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT SILL, OK

E&T-0061v3 Net Fires Center (Fort Sill)

Gain

HSA-0018v5	Consolidate DFAS 24 Central and Field Operating Sites into 3 Sites	Loss
HSA-0135v2	Regional Correctional Facilities	Loss
USA-0168v3_2	USAR C2 Proposal - SOUTHWEST	Gain
USA-0221v4	Operational Army (IGPBS)	Gain
USA-0229v3	RC Transformation in OK	Gain

BRAC actions move additional personnel to Fort Sill and cause substantial construction, while also increasing training frequency, noise levels, and the amount of land impacted by training. There are 365 historical sites and 337 archeological sites identified at Fort Sill which currently restrict construction and training/operations. Development of a Programmatic Agreement will be necessary to formalize mitigation measures and restrictions due to planned construction. In addition, eight Native American tribes assert an interest in cultural sites on Fort Sill. Tribal government consultations may be required prior to construction. Since noise contours at Fort Sill currently extend outside the installation boundary and into a moderately populated area, a noise analysis and continuous monitoring efforts will likely be required. There is one threatened and endangered species on Fort Sill and one candidate species which cause minimal impact to operations. Additional operations may impact the species possibly leading to further restrictions. Water quality at Fort Sill is impaired by pollutant loadings and current operations may contribute to impaired water quality. Significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve USEPA Water Quality Standards. No adverse effects to any other environmental resource area is expected.

Impacts of costs include \$420000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

MCALESTER AAP, OK

IND-0106v2	Close Kansas Army Ammunition Plant	Gain
IND-0113v2_2	Realign Sierra Army Depot	Gain
IND-0122v2_2	Close Lone Star Army Ammunition Plant	Gain
USA-0036R	Red River Army Depot, TX	Gain
USA-0229v3	RC Transformation in OK	Gain

BRAC actions result in an increase in operational workload at McAlester AAP, but no increase in personnel or new construction. One federally listed species exists on the installation which causes restrictions on any soil disturbance activity greater than 5 acres. Consultations with U.S. Fish and Wildlife Service will be required. Additional operations may further impact threatened / endangered species leading to additional restrictions on training or operations. This installation is discharging to an impaired waterway, so significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1000000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CAMP WITHYCOMBE, OR

USA-0184	RC Transformation in OR (AFRC Camp Withycombe, OR)	Gain
----------	--	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

UMATILLA CHEM DEPOT, OR

IND-0120v3_2	Close Umatilla Chemical Depot	Close
--------------	-------------------------------	-------

BRAC actions result in the closure of Umatilla Chemical Depot. Due to the presence of archeological sites and historic properties, surveys and consultation with the SHPO will be required to determine disposition of archeological and historical resources. Umatilla Chemical Depot has contaminated areas that are currently being addressed through the Installation Restoration Program and Military Munitions Response Program. These areas may require some combination of clearance for munitions and explosives of concern (MEC), munition constituent cleanup, restoration, and land use controls. Continued management and or deed restrictions may be necessary to ensure future protection. The installation has an Open Burn/Open Detonation area, and a transfer, storage and disposal facility which may require additional restoration, monitoring/sweeps, access controls, and/or deed restrictions to prevent disturbance, health and safety risks, and/or long-term release of toxins to environmental media. This installation has groundwater that is contaminated with explosives. Restoration and monitoring of contaminated sites will likely be required after closure to prevent significant long-term impacts to the environment. No adverse impact to any other environmental resource area is expected. Umatilla reports \$10.3 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation. Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC ALLENTOWN-BETHLEHEM, PA

USA-0253v2 RC Transformation in PA

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC BRISTOL-WOODHAVEN, PA

USA-0253v2 RC Transformation in PA

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CHESTER-GERMANTOWN (NAS WILLOW GROVE), PA

USA-0253v2 RC Transformation in PA

Gain

This facility will be located on NAS Willow Grove, which is a Navy installation.

Impacts of costs include \$130000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC LEWISBURG, PA

USA-0253v2 RC Transformation in PA

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These

costs were included in the payback calculation.

AFRC SCRANTON, PA

USA-0253v2 RC Transformation in PA Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC WILLIAMSPORT, PA

USA-0253v2 RC Transformation in PA Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

CHARLES E KELLY SPT FAC, PA

USA-0167v3 USAR C2 NORTHEAST Close

BRAC actions result in the closure of Charles E Kelly Support Facility. Due to the presence of 3 historic properties, closure will require consultations with the State Historic Preservation Office to ensure that historic properties are continued to be protected through use of access controls and caretaker management. Charles E Kelly Support Facility has groundwater resources contaminated with volatile organic compounds that will require restoration and/or monitoring to prevent further environmental impacts. This installation has no operational ranges that require closure. Though no costs are currently associated with remaining restoration activities, future costs are likely. The Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open. No adverse impacts to any other environmental resource area is expected.

Impacts of costs include \$602000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

LETTERKENNY ARMY DEPOT, PA

DON-0165Rv4 MCLB Barstow Gain

IND-0083Av2 Realign Rock Island Arsenal Gain

IND-0083Bv2 Realign Seal Beach Gain

USA-0036R Red River Army Depot, TX Gain

BRAC actions result in an increase in workload operations and personnel at Letterkenny Army Depot along with minimal construction. Letterkenny Army Depot is in marginal nonattainment for ozone, and currently exceeds Major Source thresholds for lead, sulfur dioxide (SO₂), (particulate matter) PM₁₀, and PM_{2.5}, so an Air Conformity Analysis and modifications to existing permit will likely be required. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1050000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

PITT USARC, PA

USA-0167v3 USAR C2 NORTHEAST Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

TOBYHANNA ARMY DEPOT, PA

DON-0165Rv4	MCLB Barstow	Gain
IND-0083Bv2	Realign Seal Beach	Gain
IND-0086v2	Realign Lackland - Tobyhanna	Gain
S&S-0043Rv2	Privitize Tires, POL & Gases	Loss
S&S-0051R	4 regional Strategic Distribution Platforms	Loss
USA-0036R	Red River Army Depot, TX	Gain

BRAC actions result in a net increase in work load operations and personnel at Tobyhanna Army Depot, and causes minimal construction. Tobyhanna Army Depot is in moderate nonattainment for ozone, and the increased maintenance operations at Tobyhanna may push nonattainment status for ozone from moderate to severe. An air conformity analysis may be required along modifications to the existing Title V permit. No adverse impacts to any other environmental resource areas are expected. Impacts of costs include \$1050000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CEIBA, PR

USA-0234v2	RC Transformation in PR	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FT. ALLEN, PR

USA-0234v2	RC Transformation in PR	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MAYAGUEZ, PR

USA-0234v2	RC Transformation in PR	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT BUCHANAN, PR

HSA-0092Rv2	Relocate Army Headquarters and Field Operating Agencies	Loss
USA-0234v2	RC Transformation in PR	Gain

BRAC actions result in an increase in personnel at Fort Buchanan and cause new construction. The installation has sensitive resource areas on or near the installation, threatened and endangered species, and critical habitats all of which constrain expansion and construction. Additional operations may further impact these resources leading to additional restrictions on construction, training, or operations. The installation is also located over or in the recharge zone of sole-source aquifer, which may result in future regulatory limitations on training activities. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NEWPORT NAVAL BASE, RI

USA-0158	RC Transformation in Rhode Island (AFRC Newport Naval Base, RI)	Gain
----------	---	------

This is a Navy installation

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT JACKSON, SC

E&T-0014v5	Consol Reg Sch to Fort Jackson	Gain
HSA-0133v2	Joint Mob Sites	Loss
USA-0046Rv2	Single Drill SGT School	Gain
USA-0131v3	USAR C2 Proposal -Southeast	Gain

BRAC actions result in a net increase in personnel and minimal level of new construction. Drill Sergeant training is predominantly classroom-based, so training frequency and the amount of land impacted by field training is not expected to increase. Fort Jackson is located in a Non-attainment area for Ozone; therefore, an Air Conformity determination, New Source Review and permitting effort will be required if new construction does occur. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

SHAW AFB, SC

USA-0121R	Fort Gillem, GA	Gain
USA-0222R	Fort McPherson, GA	Gain

This is an Air Force installation

AFRC CHATTANOOGA, TN

USA-0238v2	RC Transformation in TN	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

HOLSTON AAP, TN

USA-0238v2	RC Transformation in TN	Gain
------------	-------------------------	------

BRAC actions result in no net increase in personnel at Holston Army Ammunition Plant but causes minimal levels of construction. This installation is in nonattainment for ozone so an Air Conformity

Analysis and New Source Review and permitting effort will be required, if construction proceeds. Water quality issues are currently impacting the Installation's mission. Significant mitigation measures and training restrictions to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standard. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$155000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

MILAN AAP, TN

IND-0106v2	Close Kansas Army Ammunition Plant	Gain
IND-0122v2_2	Close Lone Star Army Ammunition Plant	Gain

BRAC actions cause an increase in operational workload at Milan AAP and minimal construction. No adverse impact to any environmental resource area is expected.

Impacts of costs include \$1000000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC AMARILLO, TX

USA-0225v3	RC Transformation in TX	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC BROWNSVILLE, TX

USA-0225v3	RC Transformation in TX	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC CAMP BULLIS, TX

USA-0225v3	RC Transformation in TX	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC DYESS AFB, TX

USA-0225v3	RC Transformation in TX	Gain
------------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$294000 in costs for waste management and environmental compliance.

These costs were included in the payback calculation.

AFRC EAST HOUSTON, TX

USA-0225v3 RC Transformation in TX Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC GRAND PRAIRIE, TX

USA-0225v3 RC Transformation in TX Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC HUNTSVILLE, TX

USA-0225v3 RC Transformation in TX Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC LEWISVILLE, TX

USA-0225v3 RC Transformation in TX Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC LUFKIN, TX

USA-0225v3 RC Transformation in TX Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NAS KINGSVILLE, TX

USA-0225v3 RC Transformation in TX Gain

This is a Navy installation

Impacts of costs include \$16000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC NW HOUSTON, TX

USA-0225v3 RC Transformation in TX

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC ROUND ROCK, TX

USA-0225v3 RC Transformation in TX

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC SAN MARCOS, TX

USA-0225v3 RC Transformation in TX

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC SEAGOVILLE, TX

USA-0225v3 RC Transformation in TX

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC TYLER, TX

USA-0225v3 RC Transformation in TX

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

CORPUS CHRISTI ARMY DEPOT, TX

S&S-0043Rv2	Privitize Tires, POL & Gases	Loss
S&S-0051R	4 regional Strategic Distribution Platforms	Loss

BRAC actions only move mission and/or personnel out of Corpus Christi. No impact to any environmental resource area is expected.

FORT BLISS, TX

E&T-0061v3	Net Fires Center (Fort Sill)	Loss
HSA-0133v2	Joint Mob Sites	Gain
USA-0221v4	Operational Army (IGPBS)	Gain
USA-0225v3	RC Transformation in TX	Gain

BRAC actions result in a net increase in the number of personnel at Fort Bliss and significant levels of new construction. There will be increases in training frequency, noise levels, and amount of land impacted by training. Fort Bliss is located in a nonattainment area for ozone, particulate matter, and carbon monoxide, and this BRAC action will likely result in Fort Bliss exceeding the major source threshold limit for VOCs. Therefore, an Air Conformity determination and a New Source Review and permitting effort will be required. Fort Bliss currently has 11,200 acres affected by cultural resources, 408 historic properties, and native tribes have asserted interest in some archeological sites. However, only 40% of the installation has been surveyed for cultural resources. To preserve these resources, training restrictions may be imposed and increased operational delays and costs are possible. Tribal consultations may be required to expand use near listed sites. Increased noise levels are expected to have a minimal impact on the population outside the installation since there is only minimal encroachment. However, further analysis will be required to determine the extent of new noise impacts. Fort Bliss has two threatened and endangered species and one candidate species that impact less than 1% of training land, but no restrictions are in place. This BRAC action results in significant additional water demands for the region and therefore the installation will likely have to purchase or develop new potable water sources, to include perhaps desalination technology, if groundwater sources are not sufficient. Desalination plants are very expensive and could take several years before a plant is fully operational. Until a plant is fully operational, the installation may experience water restrictions. However, Fort Bliss and the City of El Paso have a cooperative agreement in place to address possible water shortages. Further analysis will be required to assess long-term regional water impacts. No adverse effects to any other environmental resource area is expected.

Impacts of costs include \$1170000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT HOOD, TX

USA-0221v4	Operational Army (IGPBS)	Loss
USA-0224Rv3	Fort Hood, TX	Loss

BRAC actions only move mission and/or personnel out of Fort Hood. No impact to any environmental resource area is expected.

FORT SAM HOUSTON, TX

DON-0033R	SUBASE New London	Gain
HSA-0010Rv2	Establish Joint Bases	Loss
HSA-0092Rv2	Relocate Army Headquarters and Field Operating Agencies	Gain
MED-0002Rv2	National Capital Region	Gain
MED-0016Rv2	San Antonio Region	Gain
MED-0028Rv2	Create Joint Centers of Excellence for Chem, Bio and Med RDA	Gain
MED-0057Rv2	Brooks City Base, TX	Gain
USA-0222R	Fort McPherson, GA	Gain

BRAC actions move personnel and cause substantial levels of new construction at Fort Sam Houston. Although Fort Sam Houston is in attainment for all criteria air pollutants, its operating permit for volatile organic compounds is projected to be exceeded which will result in air permit modifications. A New Source Review and Air Conformity Analysis will be required. Fort Sam Houston has 344 Archeological sites, 895 historic properties, and four non-local tribes assert an interest in archeological/sacred sites. Potential impacts may occur since resources must be evaluated on a case-by-case basis, thereby causing increased delays and costs, and tribal consultations may be required to expand use near listed sites. This installation is located over or in the recharge zone of sole-source aquifer, which may result in future regulatory limitations on training activities. This installation is also discharging to an impaired waterway, so significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1050000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

LONE STAR AAP, TX

IND-0122v2_2 Close Lone Star Army Ammunition Plant

Close

BRAC actions result in closure of Lone Star Army Ammunition Plant. Due to the presence of cultural resources, surveys and consultation with the State Historic Preservation Office will be required to determine disposition of archaeological and historical resources. Closure of three operational ranges will likely necessitate clearance of munitions and remediation of any munition constituents. The remediation costs for these ranges may be significant and the time required for completing remediation is uncertain. Lone Star Army Ammunition Plant has contaminated areas that are currently being addressed through the Installation Restoration Program and Military Munitions Response Program. These areas may require some combination of clearance for munitions and explosives of concern (MEC), munition constituent cleanup, restoration, and land used controls. There is one federally listed species at this installation. Continued management and/or deed restrictions may be necessary to ensure future protection. Special waste management areas at Lone Star Army Ammunition Plant include a treatment, storage, and disposal facility, a solid waste disposal facility, and open burn/open detonation area. Restoration, monitoring/sweeps, access controls, and/or deed restrictions may be required to prevent disturbance and health/safety risks from these areas. Lone Star Army Ammunition Plant has groundwater resources that are contaminated with chlorinated solvents and surface water resources that are contaminated with heavy metals. Restoration and/or monitoring of contaminated media may be required after closure. No adverse impact to any other environmental resource area is expected. Lone Star Army Ammunition Plant reports \$2.7 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

RED RIVER ARMY DEPOT, TX

S&S-0051R 4 regional Strategic Distribution Platforms

Loss

USA-0036R Red River Army Depot, TX

Close

USA-0225v3 RC Transformation in TX

Gain

BRAC actions result in the closure of Red River Army Depot, and a contiguous state-owned property will receive construction of a new AFRC. Red River Army Depot has identified Native People sites, and closure may require consultations with the State Historic Preservation Office to ensure these sites are continued to be protected. BRAC actions would result in the closure of ten operational ranges and likely necessitate clearance of munitions and remediation of any munition constituents. The remediation costs for these ranges may be significant and the time required for completing remediation

is uncertain. Red River Army Depot also has other contaminated areas that are being addressed through both the Installation Restoration Program and the Military Munitions Response Program, which may require some combination of clearance, munition constituent cleanup, remediation, and land use controls. The installation has an open Burn / open detonation area, which may require additional restoration, monitoring/sweeps, access controls, and/or deed restrictions to prevent disturbance, health and safety risks, and/or long-term release of toxins to environmental media. Red River Army Depot has groundwater resources that are contaminated with heavy metals and solvents that will require restoration and/or monitoring to prevent further environmental impacts. In addition, industrial buildings and structures used for mission-related activities may also require controlled burning/ decontamination/ demolition due to explosives and/or metals contamination. No adverse impact to any other environmental resource area is expected. Red River reports \$49.1 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1305000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

DESERET CHEMICAL DEPOT, UT

IND-0117v3

Close Deseret Chemical Depot

Close

BRAC actions result in closure of Deseret Chemical Depot. Surveys and consultation with the State Historic Preservation Office will be required to determine disposition of archaeological and historical resources. There is one threatened and endangered species found on the installation. Continued management and or deed restrictions will be necessary to ensure future protection of the federally listed species. Deseret has contaminated areas that are currently being addressed through the Installation Restoration Program and Military Munitions Response Program. These areas may require some combination of clearance for munitions and explosives of concern (MEC), munition constituent cleanup, restoration, and land used controls. Continued management and or deed restrictions may be necessary to ensure future protection. The installation has an Open Burning/Open Detonation area, and a Transfer, Storage and Disposal Facility which may require additional restoration, monitoring/sweeps, access controls, and/or deed restrictions to prevent disturbance, health and safety risks, and/or long-term release of toxins to environmental media. Other environmental media contamination issues include metals, explosives, and VOCs reported in groundwater. Restoration and monitoring of contaminated sites will likely be required after closure to prevent significant long-term impacts to the environment. No impacts to any other environmental resource area is excepted. Deseret reports \$67 million in environmental restoration costs. Because the Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open, these costs were not included in the payback calculation.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

TOOELE ARMY DEPOT, UT

IND-0108_2

Close Hawthorne Army Depot

Gain

IND-0113v2_2

Realign Sierra Army Depot

Gain

BRAC actions move storage and demilitarization workload to Tooele Army Depot, but cause no increase in personnel or new construction. Tooele is in attainment for all Criteria Air Pollutants, but may require an Air Permit to accommodate increased demilitarization mission. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1050000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

ARLINGTON HALL, VA

HSA-0132Rv3 NGB To Arlington Hall and Andrews Air Force Base

Gain

BRAC actions cause a net increase in personnel and new construction at Arlington Hall, which is currently in Non-Attainment for Ozone and PM 2.5. Added operations will require New Source Review permitting and Air Conformity Analysis. No adverse impact to any other environmental resource area is expected

Impacts of costs include \$250000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

ATEC LEASE, VA

HSA-0065v2 ATEC Consol

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

BAILEY'S CROSSROADS, VA

HSA-0069v2 Close Misc Army Leases NCR

Loss

HSA-0092Rv2 Relocate Army Headquarters and Field Operating Agencies

Loss

MED-0028Rv2 Create Joint Centers of Excellence for Chem, Bio and Med RDA

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

BALSTON LEASE, VA

HSA-0069v2 Close Misc Army Leases NCR

Loss

TECH-0040Rv2 Co-locate Extramural Research Program Managers to Bethesda

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

CRYSTAL CITY LEASE, VA

HSA-0047Rv2 MDA/USA MSL to Redstone Arsenal

Loss

HSA-0069v2 Close Misc Army Leases NCR

Loss

HSA-0071v3 Media & Pubs to Ft. Fort Meade

Loss

HSA-0092Rv2 Relocate Army Headquarters and Field Operating Agencies

Loss

HSA-0132Rv3 NGB To Arlington Hall and Andrews Air Force Base

Loss

USA-0223Rv5 Fort Monmouth, NJ

Gain

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

FORT BELVOIR, VA

E&T-0029v4 Prime Power

Loss

HSA-0047Rv2 MDA/USA MSL to Redstone Arsenal

Gain

HSA-0053Rv2 OSD 4th Est to Fort Belvoir and NNMC

Gain

HSA-0069v2 Close Misc Army Leases NCR

Gain

HSA-0071v3 Media & Pubs to Ft. Fort Meade

Loss

HSA-0092Rv2 Relocate Army Headquarters and Field Operating Agencies

Loss

HSA-0108Rv2 MILDEP CIS to Quantico

Loss

INT-0004R Consolidate NGA Activities

Gain

MED-0002Rv2 National Capital Region

Gain

MED-0028Rv2 Create Joint Centers of Excellence for Chem, Bio and Med RDA

Loss

S&S-0035Rv2 ICP to DLA

Gain

TECH-0018a Realign Wpns/Armaments Research

Loss

TECH-0040Rv2	Co-locate Extramural Research Program Managers to Bethesda	Loss
USA-0223Rv5	Fort Monmouth, NJ	Gain

BRAC actions result in a net increase in personnel and substantial levels of new construction. Fort Belvoir is located in a region that is currently in nonattainment for ozone (8-hour). New missions and construction will require an Air Conformity Determination and a New Source Review and Title V permit modification. Fort Belvoir has 62 historic properties, and 12 archeological resources identified. Since there is no Programmatic Agreement in place, potential impacts may occur since resources must be evaluated on a case-by-case basis, thereby causing increased delays and costs. Fort Belvoir has one threatened and endangered species that restricts aircraft maneuvers over nesting areas during nesting season and restricts land-disturbing training or timber clear cutting along undeveloped/undisturbed shorelines. Additional operations may further impact threatened/endangered species leading to additional restrictions on training or operations. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1150000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT EUSTIS, VA

E&T-0062v3	Aviation Log to Fort Rucker	Loss
E&T-0064v3	CSS Center Fort Lee	Loss
HSA-0010Rv2	Establish Joint Bases	Loss
HSA-0114Rv4	TRANSCOM Components to Scott	Loss
HSA-0133v2	Joint Mob Sites	Loss
MED-0054R	Convert Inpatient Services to Clinics	Loss
USA-0113R	Fort Monroe, VA	Gain
USA-0222R	Fort McPherson, GA	Gain

BRAC actions result in a net loss of personnel and minimal new construction. This installation is located in a nonattainment area for ozone (8-hour) and therefore, an Air Conformity Determination and New Source Review and permitting effort will be required. The installation has Federally listed species that restricts operations on <4% of installation land. Restrictions include 3.24 mile buffers around nest habitat and associated (aircraft) flight restrictions. Additional operations may further impact threatened / endangered species leading to additional restrictions on training or operations. This installation is discharging to two impaired waterways, so significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$500000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT LEE, VA

E&T-0016v2	Culinary to Fort Lee	Gain
E&T-0053v2	Trans Mgmt School to Fort Lee	Gain
E&T-0064v3	CSS Center Fort Lee	Gain
HSA-0053Rv2	OSD 4th Est to Fort Belvoir and NNMC	Gain
HSA-0109v2	Consol DECA Regional Offices Fort Lee	Gain
HSA-0133v2	Joint Mob Sites	Loss

BRAC actions result in a significant increase of personnel at Fort Lee and cause substantial levels of new construction, while also increasing training frequency, noise levels, and the amount of land impacted by training. Fort Lee has 24 cultural or archeological sites, and three historical properties listed, with some impact to mission/operations reported. Operations at Fort Lee are not currently restricted due to noise, however, noise caused by the Ordnance Center and associated training activities may result in significant noise impacts. A noise analysis and mitigation may be required. Although

critical habitat for a threatened and endangered species is found on Fort Lee, it restricts less than 3% of the installation's total land. This installation has jurisdictional wetlands that restrict operations. Additional operations may impact wetlands, which may lead to further operations restrictions. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$1020000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT MONROE, VA

USA-0113R Fort Monroe, VA

Close

BRAC actions result in the closure of Fort Monroe. Due to the presence of a significant number of historical properties and one archeological site at Fort Monroe, closure of this installation will necessitate consultations with the State Historic Preservation Office to ensure that historic properties are continued to be protected. Fort Monroe has a probable Military Munitions Restoration Program site (Fort Monroe moat containing munitions and explosives of concern (MEC)), that may require some combination of MEC sweeps, clearance, munition constituent cleanup, remediation, and land use controls. No adverse impact to any other environmental resource area is expected. Though no costs are currently associated with remaining restoration activities, costs are likely. The Department has a legal obligation to perform environmental restoration regardless of whether an installation is closed, realigned, or remains open. This recommendation does not otherwise impact the costs of environmental restoration, waste management, and environmental compliance activities.

Impacts of costs include \$1300000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT MYER, VA

HSA-0010Rv2 Establish Joint Bases

Gain

BRAC actions result in no change in personnel and no new construction. Fort Myer is only gaining an installation management responsibility. No impact to any environmental resource area is expected.

HOFFMAN LEASE, VA

HSA-0069v2 Close Misc Army Leases NCR

Loss

HSA-0092Rv2 Relocate Army Headquarters and Field Operating Agencies

Loss

HSA-0114Rv4 TRANSCOM Components to Scott

Loss

HSA-0145v2 Roll-up Mil Pers & Rec Ctrs for AR & AF

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

ROSSLYN LEASE, VA

HSA-0031v2 Consolidate CPOs

Loss

HSA-0069v2 Close Misc Army Leases NCR

Loss

HSA-0092Rv2 Relocate Army Headquarters and Field Operating Agencies

Loss

BRAC actions move personnel away from this leased site. There is no environmental impact expected since bldg/facility owner is responsible for environmental compliance and impacts.

AFRC RUTLAND, VT

USA-0239 RC Transformation in VT

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These

costs were included in the payback calculation.

AFRC WHITE RIVER JUNCTION, VT

USA-0239 RC Transformation in VT Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC EVERETT, WA

USA-0232 RC Transformation in WA Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FAIRCHILD AFB, WA

USA-0232 RC Transformation in WA Gain

This is an Air Force Installation

Impacts of costs include \$386000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC VANCOUVER, WA

USA-0166v3 USAR C2 Proposal - NORTHWEST Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC YAKIMA TRAINING CENTER, WA

USA-0232 RC Transformation in WA Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT LEWIS, WA

HSA-0010Rv2 Establish Joint Bases Gain

HSA-0133v2 Joint Mob Sites Gain

HSA-0135v2 Regional Correctional Facilities Loss

MED-0022 McCord Med to Lewis Gain

USA-0166v3 USAR C2 Proposal - NORTHWEST Gain

BRAC actions result in a net increase in personnel and construction at Fort Lewis. Although sufficient buildable acres exist for this proposal, it should be noted that numerous archaeological and historic resources, coupled with regional tribal interest, existing restrictions and a lack of a Programmatic Agreement, may result in increased time delays and negotiated restrictions. Five threatened and endangered species restrict 60% of the installation, so consultation with U.S. Fish and Wildlife Service will be likely. Fort Lewis is over or in the recharge zone of a sole source aquifer, which may result in future regulatory limitations on training activities. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$100000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC MADISON, WI

USA-0200	RC Transformation in WI (AFRC Madison, WI)	Gain
----------	--	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

FORT MCCOY, WI

USA-0166v3	USAR C2 Proposal - NORTHWEST	Gain
USA-0243R	Maneuver Training	Loss

BRAC actions result in a net increase in personnel at Fort McCoy along with minimal new construction. The installation has one archeological resource, two historic properties, and one Native American tribe asserts interest in resources. Fort McCoy has no Programmatic Agreement in place, so cultural resources (archeological sites and historic properties) must be evaluated on a case-by-case basis, possibly causing construction delays and increased costs. Three threatened and endangered species are found on the installation, and a Biological Opinion imposes training and construction restrictions on less than 1% of installation land. No adverse impact to any other environmental resource area is expected.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC ELKINS, WV

USA-0231	RC Transformation in WV	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AFRC FAIRMONT, WV

USA-0231	RC Transformation in WV	Gain
----------	-------------------------	------

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These

costs were included in the payback calculation.

AFRC SPENCER-RIPLEY, WV

USA-0231

RC Transformation in WV

Gain

This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; water resources; or wetlands.

Impacts of costs include \$5000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.

AASF/JFHQ CHEYENNE (F.E. WARREN AFB) , WY

USA-0193R

RC Transformation in WY (AASF/JFHQ Cheyenne (F.E. Warren AFB) WY)

Gain

This is an Air Force installation

Impacts of costs include \$575000 in costs for waste management and environmental compliance. These costs were included in the payback calculation.



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
INSTALLATIONS AND ENVIRONMENT
110 ARMY PENTAGON
WASHINGTON DC 20310-0110

30 April 2005

SAIE-IA

MEMORANDUM FOR DUSD(I&E)

SUBJECT: Army Criteria 8 Summaries of Cumulative Environmental Impacts

1. The Army submits the enclosed installation summaries of environmental impacts as requested. This report is in draft form as of this date, with a number of stationing actions still under deliberation.
2. In addition to this submission, the Army assessed Summaries of Cumulative Environmental Impacts (SCEIs), in accordance with JPAT 8 and DUSD BRAC 2005 Policy Memorandum Four, dated 7 Dec 2004. These SCEIs are maintained as backup documentation to the enclosed narratives, and were used during the Army's integration of multiple recommendations affecting a given installation.
3. POC for this action is COL Thomas R. Crabtree at (703) 696-99788 or Thomas.Crabtree@us.army.mil.

A handwritten signature in black ink that reads "Craig E. College".

Craig E. College
Deputy Assistant Secretary of the Army
Infrastructure Analysis

Encl
Summaries of Affected Installations

CF:
SAF/IEB
DASN(BRAC)