

M67386.AR.000080
MCRCO KANSAS CITY
5090.3a

MEMORANDUM REGARDING NOTICE OF SECOND RESTORATION ADVISORY BOARD
MEETING SCHEDULED FOR 13 APRIL 1994 KANSAS CITY MO
3/29/1994
RICHARDS GEBEUR AIR FORCE BASE



77 1
File 7 E
PME
867

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

29 March 1994

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: OL Q, AFBCA
Richards-Gebaur AFB, MO 64147-5000

SUBJECT: Second Restoration Advisory Board Meeting

1. The second meeting of the Restoration Advisory Board (RAB) will be held on the 13th of April, 1994, at 7:00 PM, at the conference room in Building 605 (same place as the last meeting), a map is attached.

2. On the agenda for meeting #2:

- Discuss the BRAC Cleanup Plan. The meeting will be opened up for discussion on the content of the plan. The meeting goal is to make recommendations to the BRAC Cleanup Team for consideration/incorporation into the plan. The draft plan is enclosed.
- Current cleanup work and plans for Richards-Gebaur AFB. The Air Force will give a presentation on the current environmental work going on at the base followed by the cleanup anticipated for each site
- Priority setting. The RAB will set the community priorities on project funding

3. The meeting will be open to the general public, and an ad will be placed in the local paper notifying the public of the same. Should more than 20 people from the general public show up, we may have to limit attendance based on space, and discuss a new location.

4. If you have any questions about the meeting, map or plan, contact P. Mark Esch at (816) 348-2511


P. MARK ESCH
BEC

- 2 Atch
1. BRAC Clean-Up Plan
2. Map to Meeting

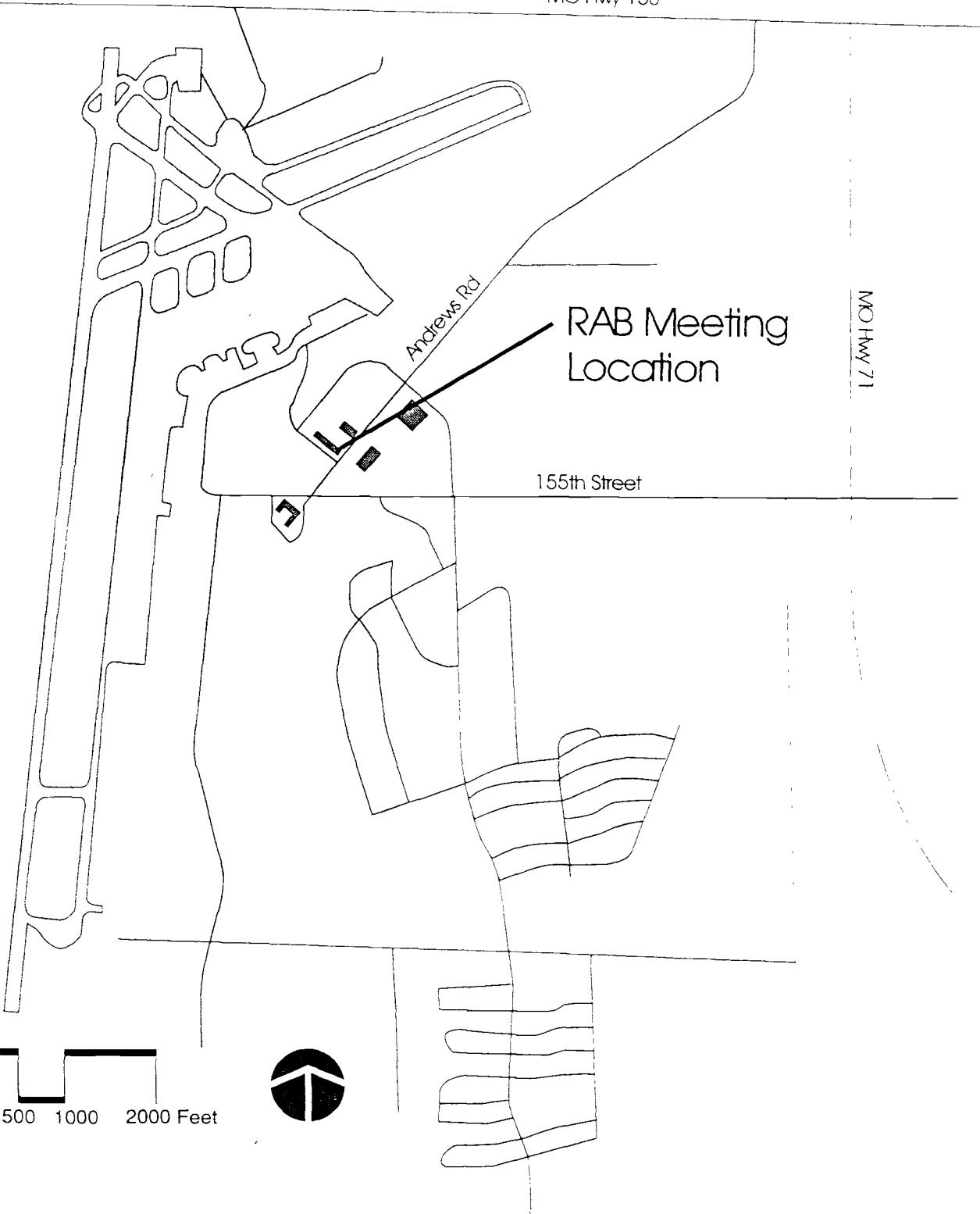
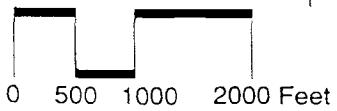
MO Hwy 150

Andrews Rd

RAB Meeting Location

MO Hwy 71

155th Street



BRAC Cleanup Plan (BCP)
Richards-Gebaur Air Force Base
Kansas City, Missouri

Implementing President Clinton's
Decision to Promote Early Reuse of Closing Bases
by Expediting Environmental Cleanup

15 March 1994

List of Acronyms

AAFES	Army and Air Force Exchange Service
ACM	asbestos containing material
ADC	Air Defense Command
AFB	Air Force Base
AFBCA	Air Force Base Conversion Agency
AFCS	Air Force Communications Service
AFRES	Air Force Reserve
AFB	Air Force Base
ANSC	area of no suspected contamination
AOC	area of concern
ARAR	applicable or relevant and appropriate requirement
BCRP	Base Comprehensive Reuse Plan
BCP	Base Realignment and Closure (BRAC) Cleanup Plan
BCT	Base Realignment and Closure (BRAC) Cleanup Team
BEC	BRAC Environmental Coordinator
BRAC	Three definitions: (1) Base Closure and Realignment Act of 1988 (2) Defense Base Closure and Realignment Act of 1990 (3) Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Amendment
CESQG	Conditionally exempt small quantity generator
CFR	Code of Federal Regulations
COE	Corps of Engineers
CRP	Community Relations Plan
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
DSMOA	Department of Defense and State Memorandum of Agreement (Missouri)
EA	Environmental Assessment
EBS	Environmental Baseline Survey
ECP	environmental condition of property
EIAP	environmental impact analysis process
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FFA	Federal Facility Agreement
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
FY	(United States Government) Fiscal Year
GIS	Geographic Information System
GSA	General Services Administration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
IRPIMS	Installation Restoration Program Information Management System
JP-4	Jet Propulsion (fuel), Grade 4
MAC	Military Airlift Command
MDNR	Missouri Department of Natural Resources

List of Acronyms, continued

MDOH	Missouri Department of Health
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NDI	non-destructive inspection
NEPA	National Environmental Policy Act
NFRAP	no further required action planned
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OL(Q)	Operating Location (Q) also OLQ
OSHA	Occupational Safety and Health Administration
OU	operable unit
OWS	oil/water separator
PA	Preliminary Assessment
PAH	polynuclear aromatic hydrocarbons
PCB	polychlorinated biphenyls
POL	petroleum, oil and lubricant
POTW	Publicly (or Privately) Owned Treatment Works
PPB	parts per billion
PPM	parts per million
QA/QC	quality assurance/quality control
RA	Remedial Action
RAB	Remedial Advisory Board
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RPM	Remedial Project Manager
SAOP	Spectral Analysis of Oils Program
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SQG	small quantity generator
TAG	Technical Advisory Group
TBD	to be determined
TPH	total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
USEPA	United States Environmental Protection Agency
USGS	United States Geological Service
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
XOD	Explosive Ordinance Disposal

Table of Contents

Chapter		Page
	Executive Summary	ES-1
1	Introduction and Summary	1-1
	1.1 Environmental Response Objectives	1-2
	1.2 BCP Purpose, Updates, and Distribution.....	1-3
	1.3 BRAC Cleanup Team.....	1-3
	1.4 Brief History of Richards-Gebaur AFB	1-6
	1.5 Base Property and Tenants.....	1-9
2	Property Disposal and Reuse Plan	2-1
	2.1 Status of the Conversion Planning Process	2-1
	2.2 Relationship to Environmental Programs	2-3
	2.3 Property Transfer Methods	2-4
	2.3.1 Federal Transfer of Property	2-4
	2.3.2 No-Cost Public Benefit Conveyance	2-4
	2.3.3 Negotiated Sale	2-4
	2.3.4 Widening of Public Highways	2-4
	2.3.5 Donated Property	2-4
	2.3.6 Interim Leases	2-4
	2.3.7 Competitive Public Sale	2-4
3	Environmental Program Status	3-1
	3.1 Restoration Program Status	3-1
	3.1.1 IRP Site History	3-2
	3.1.2 Source Discovery and Assessment Status.....	3-4
	3.2 Compliance Program Status	3-5
	3.2.1 Underground Storage Tank Program	3-5
	3.2.2 Aboveground Storage Tank Management	3-6
	3.2.3 Hazardous Materials and Waste Management.....	3-7
	3.2.4 Solid Waste Management	3-7
	3.2.5 Polychlorinated Biphenyl Management.....	3-8
	3.2.6 Asbestos-Containing Material	3-8
	3.2.7 Radon	3-8
	3.2.8 Clean Water Act (NPDES Permits)	3-8
	3.2.9 Oil-Water Separators	3-9
	3.3 Status of Natural and Cultural Resources	3-9
	3.3.1 Threatened and Endangered Species	3-9
	3.3.2 Sensitive Habitats	3-9
	3.3.3 Wetlands	3-9
	3.3.4 Surface Waters.....	3-10
	3.3.5 Floodplains	3-12
	3.3.6 Paleontological Resources	3-12
	3.3.7 Historic Resources	3-12
	3.3.8 Prehistoric Sites	3-13
	3.3.9 Traditional Resources	3-13
	3.4 Environmental Condition of Property	3-14

777 7

Table of Contents (Continued)

Chapter		Page
	3.4.1 Category 1 Through 7 Areas	3-15
3.5	Status of Community Involvement	3-15
4	Strategy for Environmental Restoration	4-1
4.1	Strategy for Zone/OU Designation	4-1
	4.1.1 Zone Designations	4-1
	4.1.2 OU Designations	4-1
	4.1.3 Sequence of OUs	4-1
4.2	Restoration Strategy	4-2
	4.2.1 IRP Early Action Strategy	4-2
	4.2.2 IRP Remedy Selection Approach	4-2
	4.2.3 Strategy for Other Environmental Concerns	4-3
4.3	Compliance Strategy	4-3
	4.3.1 Underground Storage Tanks	4-3
	4.3.2 Hazardous Materials and Waste Management	4-3
	4.3.3 Solid Waste Management	4-3
	4.3.4 Polychlorinated Biphenyl Management	4-3
	4.3.5 Asbestos-Containing Material	4-4
	4.3.6 Radon	4-4
	4.3.7 RCRA Facilities	4-4
	4.3.8 Clean Water Act (NPDES Permits)	4-4
4.4	Natural and Cultural Resources Strategy	4-4
	4.4.1 Threatened and Endangered Species	4-4
	4.4.2 Sensitive Habitats	4-4
	4.4.3 Wetlands	4-5
	4.4.4 Surface Waters	4-5
	4.4.5 Floodplains	4-5
	4.4.6 Paleontological Resources	4-5
	4.4.7 Historic Structures	4-5
	4.4.8 Prehistoric Sites	4-5
	4.4.9 Traditional Resources	4-5
4.5	Strategy for Community Involvement	4-5
5	Environmental Program Master Schedules	5-1
5.1	Restoration Program	5-1
	5.1.1 Response Schedules	5-1
	5.1.2 Requirements by Fiscal Year	5-1
5.2	Compliance Program	5-2
	5.2.1 Master Compliance Schedules	5-2
	5.2.2 Requirements by Fiscal Year	5-2
5.3	Natural and Cultural Resources	5-2
5.4	BCT Meeting Schedule	5-2
6	Technical and Other Issues to be Resolved	6-1
6.1	Data Usability	6-1

Table of Contents (Continued)

Chapter		Page
	6.1.1 BCT Action Items	6-1
	6.1.2 Rationale	6-1
	6.1.3 Status/Strategy	6-1
6.2	Information Management	6-2
	6.2.1 BCT Action Items	6-2
	6.2.2 Rationale	6-2
	6.2.3 Status/Strategy	6-2
6.3	Data Gaps	6-3
	6.3.1 BCT Action Items	6-3
	6.3.2 Rationale	6-3
	6.3.3 Status/Strategy	6-3
6.4	Background Levels	6-3
	6.4.1 BCT Action Items	6-3
	6.4.2 Rationale	6-3
	6.4.3 Status/Strategy	6-4
6.5	Risk Assessments	6-4
	6.5.1 BCT Action Items	6-4
	6.5.2 Rationale	6-4
	6.5.3 Status/Strategy	6-4
6.6	Remedial Action Strategy	6-4
6.7	Interim Monitoring of Groundwater and Surface Water	6-4
6.8	Excavation of Contaminated Materials	6-4
6.9	Protocols for Remedial Design Reviews	6-4
6.10	Conceptual Models	6-4
6.11	Cleanup Standards	6-5
6.12	Initiatives for Accelerating Cleanup	6-5
6.13	Remedial Actions	6-6
6.14	Review of Selected Technologies	6-6
6.15	Hot Spot Removals	6-6
6.16	Identification of Clean Properties	6-6
6.17	Overlapping Phases of the Cleanup Process	6-6
6.18	Improved Contracting Procedures	6-6
6.19	Interfacing with the Community Reuse Plan	6-7
6.20	Bias for Cleanup Instead of Studies	6-7
6.21	Expert Input on Contamination and Potential Remedial Actions	6-7
6.22	Presumptive Remedies	6-7
6.23	Partnering	6-7
6.24	Updating the EBS and Natural/Cultural Resources Documentation	6-7
6.25	Implementing the Policy for On-Site Decision Making	6-7

Table of Contents (Continued)

Appendices

Appendix A	Fiscal Year Funding Requirements & Costs
Appendix B	Installation Environmental Restoration Documents
Appendix C	Decision Document & ROD Summaries
Appendix D	No Further Response Action Planned Summaries
Appendix E	Conceptual Models
Appendix F	Other Additional Data

Figures

Page

1-1	Location of Areas Where Confirmed Contamination has been Identified.....	1-8
3-1	Environmental Locations of Interest.....	3-3
3-2	Biological Resources	3-11

Tables

ES-1	Action Items for the BRAC Cleanup Team.....	ES-5
1-1	BRAC Cleanup Team Members for Richards-Gebaur AFB	1-4
1-2	Technical Advisory Group (TAG) Member List	1-5
1-3	History of Installation Operations at Richards-Gebaur AFB	1-7
1-4	Property Acquisition Summary.....	1-9
1-5	Real Property	1-10
2-1	Reuse Parcel Data Summary.....	2-1
2-2	Existing Legal Agreements / Interim Leases	2-4
3-1	IRP Site Summary	3-2
3-2	Areas of Concern Summary.....	3-4
3-3	Early Action Status	3-4
3-4	Underground Storage Tank Inventory	3-6
3-5	Aboveground Storage Tank Inventory.....	3-6
5-1	Restoration Master Schedule	5-1
5-2	Compliance Master Schedule	5-2
6-1	Human Health Standards for Drinking Water	6-5

Richards-Gebaur Air Force Base BRAC Cleanup Plan

EXECUTIVE SUMMARY

Introduction

This Base Realignment and Closure (BRAC) Cleanup Plan (BCP) contains the status, management and response strategy, and action items related to Richards-Gebaur Air Force Base (AFB) ongoing environmental restoration and associated compliance programs. These programs support full restoration of the base property, which is necessary to meet the requirements for property conveyance and reuse associated with the closure of the installation. The scope of this BCP also includes strategies for complying with federal, state and local environmental regulations and laws.

The BCP is a living document used for planning purposes; information and assumptions presented may not necessarily have approval from the Air Force and/or federal and state regulatory agencies. The BCP is dynamic in nature, and will be updated as-needed to reflect the current status and strategies of environmental restoration efforts. The conditions and strategies for environmental restoration efforts or compliance in this plan are as of the date noted on each page. Current strategies and status may differ from those noted in the BCP.

Status of Disposal, Reuse, and Interim Lease Process

Richards-Gebaur AFB will officially close at midnight (Central Standard Time) the last day of September 1994. The transfer of operational responsibility from the Air Force Reserve (AFRES) to the Air Force Base Conversion Agency (AFBCA) is occurring using a phased approach, where the AFBCA is now responsible for environmental restoration and compliance related to base closure, with overall transfer of responsibility for base property on October 1st, 1994. The environmental impact analysis process is ongoing and is expected to be complete by mid-year.

A Draft Disposal and Reuse Environmental Impact Statement will be presented in a public meeting March 23rd, 1994 and be available for public comment at that time. The NEPA Record of Decision is expected in July 1994. As part of the process, AFBCA will prepare a Disposal Plan that will outline the priorities and methods of disposal for each reuse parcel.

About eighty percent (80%) of the base was declared excess to Air Force and/or Department of Defense (DoD) needs and transferred to the General Services Administration in 1980. This realignment was not part of the BRAC closure the base is currently undertaking. Areas not declared excess to Department of Defense needs in 1980 were subsequently transferred to other branches of the military. Areas that were declared excess to Department of Defense needs were transferred to the local communities as a public benefit. The Air Force Reserve retained 11 parcels, which are included in this BRAC closure effort.

Status of Environmental Restoration Program

Richards-Gebaur AFB is not on the National Priorities List and the ongoing Installation Restoration Program (IRP) has no Federal Facility Agreement with the U.S. Environmental Protection Agency (USEPA) Region VII. However, DoD on behalf of the base has entered into a cooperative agreement (Department of Defense and State Memorandum of Agreement (DSMOA)) with Missouri Department of National Resources for oversight and guidance for DoD implementation of CERCLA / SARA cleanups. Since 1982, the IRP has identified eight sites located in currently owned parcels, and seven additional sites on property now owned or indentured to other parties. The Army Corps of Engineers is responsible for environmental restoration on property no longer owned by the Department of Defense. Of the eight IRP sites on Richards-Gebaur AFB, seven are located in the main cantonment area. The BCP covers only those IRP sites located on Richards-Gebaur AFB property. These 8 sites are in various phases of investigation, remediation, or close-out.

- **Site FT002, North Burn Pit**, is in the Remedial Investigation phase. Man-induced concentrations of lead are present in small quantities in the surface soils. The risk assessment indicates that the risk to human health (lead exposure by ingestion) is within an acceptable range. However, the Missouri Department of Health (MDOH) guidance indicates that the concentration of lead exceeds the level which MDOH has set for property that can be used (zoned) for any purpose. Data for the groundwater are inconclusive due to a disagreement between the experts. The BRAC Cleanup Team (BCT) is in the process of developing a forum for resolving this issue.
- **Site SS003, Oil Saturated Area**, has undergone an Interim Remedial Action (IRA) during 1992 which removed all petroleum and lead contaminated soil in excess of a predetermined level. The site is in the Remedial Investigation phase. The impact of the petroleum and lead contamination to the area groundwater still requires quantification.
- **Site SS004, Hazardous Waste Drum Storage**, has undergone an Interim Remedial Action (IRA) during 1992 which removed all petroleum contaminated soil in excess of a predetermined level. The site is in the Remedial Investigation phase. The impact of the petroleum contamination to the area groundwater still requires quantification.
- **Site ST005, POL (Petroleum, Oil, and Lubricant) Storage Yard**, is contaminated with kerosene-grade and diesel-grade fuels in the surface soil. Monitoring has indicated that the groundwater at this site is not contaminated. This site is in the Remedial Action phase with cleanup beginning mid-year 1994.
- **Site SS006, Hazardous Material Storage**, has undergone an Interim Remedial Action (IRA) during 1993 which removed all polynuclear aromatic hydrocarbons (PAH) in excess of the MDOH health-based cleanup levels. The site is in the Site Inspection phase. The impact of PAH contamination to the area groundwater still requires quantification.

- **Site ST007, Underground Storage Tanks**, was formerly contaminated with kerosene-grade jet fuels. An Interim Remedial Action (IRA) initiated in 1988 effectively removed hydrocarbon contamination from the groundwater and soil to a level well below what is required by MDNR UST policy. The site is in the site closure phase and the BCT is discussing site specific closure requirements.
- **Site SS008, Test Cell Area**, is in the Site Inspection phase. To-date, contamination of a significant nature has not been confirmed. Additional sampling is slated for this site later in 1994.
- **Site SS009, Fire Valve Area**, is in the Site Inspection phase. Petroleum contamination has been confirmed in the soil with samples. An Interim Remedial Action (IRA) removed a small portion of the hydrocarbon contaminated soil in 1992. Ongoing investigation efforts will determine the scope of the site.

Status of Environmental Compliance Program

Other non-IRP restoration-related compliance activities are planned for the base under laws & regulations other than CERCLA. Some of the activities in this area have the potential of creating new IRP sites should sampling indicate a CERCLA waste. These activities are listed below.

- Cleanup the fuel-contaminated hot spot in the soil along the abandoned fuel hydrant system pipeline. This effort is scheduled to begin May 1994.
- Cleanup contaminated sediments at the storm water retention pond (if they are determined to exist). This effort is scheduled to begin September 1994, contingent on the findings of the current study.
- Evaluate the extent of lead contamination in the central base wetland area. This recently identified area is currently classified as an Area Of Concern and is tentatively planned for late in 1994.
- Close two underground storage tanks and one oil/water separator during September 1994.
- Evaluate the extent of unexploded ordinance and solid waste found in the Belton Training Complex. This recently identified area is currently classified as an Area Of Concern, and investigation of the solid waste will occur after the area has been cleared of unexploded ordinance. Removal of the solid waste and sampling for its impact is tentatively planned for late in 1994.

Key Restoration and Transferability Strategies and Schedules

Richards-Gebaur AFB has actively pursued environmental restoration activities since the early 1980's with the emphasis on closing out sites using quick response actions. Richards-Gebaur AFB environmental program focus is restoring the environment, complying with environmental laws and converting base property to community reuse. The recently formed BCT has formed a Technical Advisory Group (TAG) and Remedial Advisory Board (RAB) to ensure that the environmental response objectives are successfully integrated with the property transfer goals in an expeditious manner. The BCT has laid out a strategy to schedule solution-oriented meetings with key participants drawn from the TAG pool. The TAG will focus on specific technical issues to support the BCT, and ensure all restoration/compliance actions comply with environmental laws. The RAB will ensure that the environmental response objectives meet the reuse objectives of the community. Both the RAB and TAG were formed to better ensure human health and the environment are protected while promoting economic revitalization to the local community. BCT action items can be found in Table ES-1.

Summary of Current BCT Action Items

Table ES-1 lists recommendations and issues associated with environmental restoration, compliance, technical, and management action items that require further evaluation and implementation by the BCT.

Table ES-1. BRAC Cleanup Team Action Items

Action Item	Item Type	Program Review Item	Action Item In Progress	Action To Be Taken
Resolve groundwater sampling methods allowed to close IRP sites	Ⓡ		√	
Resolve groundwater sample quality issues at FT002	Ⓡ			√
Address data gathering needs for each site	Ⓡ	√	√	
Continue to refine restoration strategies for all sites and AOCs	Ⓡ	√	√	
Provide input for all restoration activities	Ⓡ	√	√	
Provide input for EBS updates	Ⓡ	√	√	
Monitor pickling of aboveground tanks	Ⓢ			√
Monitor NPDES permit progress	Ⓢ		√	
Close 2 underground storage tanks and 1 oil/water separator	Ⓢ	√		√
Monitor final oil/water separator cleaning	Ⓢ			√
Monitor & review EIS development and NEPA actions	Ⓢ		√	
Evaluate the EIS compatibility with the Community Reuse Plan	⊗			√
Maintain the environmental condition of property (ECP) map	⊗		√	
Evaluate the need and scope of studies required to update ECP map	⊗		√	
Determine suitability to lease the Billeting Complex	⊗			√
Update all site data sheets	♥		√	
Compose AOC data sheets	♥			√
Hold a public meeting on the selected cleanup at ST005	♥			√
Update existing Community Relations Plan	♥			√
Resolve Dig Permit Issues	♦			√
Monitor resolution of errors detected in the property survey	♦		√	
Monitor XOD activities at the Belton Training Complex	♦		√	
Create restoration document loan program for RAB and BPT members	♦			√
Load historical documentation into IRPIMS	♦			√
BCT must locate needed experts/replacements for BRAC Project Team	♦		√	
Confirm BRAC Project Team members willingness to participate	♦			√
Update master restoration document list	♦		√	
Ensure DSMOA language is updated for BRAC funding & scope	♦		√	
Ⓡ Restoration ⊗ CERCLA 120 (h)(3) Ⓢ Compliance ♥ Community Relations ♦ Management/Administration				

Chapter 1 Introduction and Summary

In the past, wastes at Richards-Gebaur Air Force Base (AFB) were managed and disposed of according to the practices of the time. Although these practices were acceptable at the time, they did not provide the same level of protection to human health and the environment as current practices, and these practices impacted some areas of the base. In response to historical accounts of these practices, an environmental restoration program was initiated at the base in 1982. Additionally, many compliance programs have been implemented to ensure that present waste and resource management practices meet or exceed the intent of applicable laws and regulations.

The purpose of this Base Realignment and Closure (BRAC) Cleanup Plan (BCP) is to summarize the current status of the Richards-Gebaur AFB environmental restoration and associated environmental compliance programs, and present a comprehensive strategy for implementing response actions necessary to protect human health and the environment. This strategy integrates activities being performed under both the Installation Restoration Program (IRP) and the associated environmental compliance programs to support full restoration of base property prior to the eventual transfer and reuse of the property by the local community.

The BCP is a dynamic document that will be updated periodically to incorporate newly obtained information and/or reflect the completion or change in status of any cleanup actions. The date noted on the cover of the BCP indicates that this document only provides a snapshot in time of the strategies and data contained herein. Additional information may become available and strategies presented within this plan can and will change. Furthermore, data, schedules, and cleanup technologies presented in this BCP only represent plans developed by the BRAC Cleanup Team (BCT). This plan does not necessarily represent the Air Force, federal and state regulatory agency positions, nor have the planned actions been funded. Certain assumptions and interpretation occurred during the planning process. Additional data could dramatically alter implementation programs and cost estimates.

Chapter 1 describes the objectives of the environmental restoration program, explains the purpose of the BCP, introduces the BRAC Restoration Team and provides a brief base history.

Chapter 2 summarizes the current status of the Richards-Gebaur AFB property reuse planning process and describes the relationship of this process with environmental program objectives.

Chapter 3 summarizes the current status and past history of the Richards-Gebaur AFB restoration program and associated environmental compliance programs, community relations activities that have occurred to date, and the environmental condition of base property.

Chapter 4 describes the base-wide strategy for environmental restoration and includes plans for managing responses under other environmental compliance programs.

Chapter 5 provides master schedules of planned/anticipated activities to be performed throughout the duration of the environmental restoration and compliance program activities.

Chapter 6 describes specific unresolved technical and/or administrative issues and presents a strategy for resolving these issues.

The main text is contained in the first six chapters of the BCP. The appendices that follow contain additional resource information for the reader depending on their particular area of interest within the BCP.

Appendix A contains tables that present funding needs to execute the BCP, as well as a summary table of historical costs for the environmental restoration program (some data is not included in the public version due to federal acquisition regulations).

Appendix B contains technical documents, data management information, listings of previous environmental restoration program reports for various programs and restoration sites.

Appendix C summarizes various decision documents for which an IRA or RA was selected during the site restoration process.

Appendix D summarizes decision documents for each site where no further action is planned or required.

Appendix E presents working conceptual models for each known restoration site.

Appendix F presents historical data about the base and other relevant data

1.1 Environmental Response Objectives

Some of the primary objectives of the environmental restoration and environmental compliance programs at Richards-Gebaur AFB are as follows:

- Protect human health and the environment
- Strive to meet reuse goals established by the Air Force and the community
- Comply with existing statutes and regulations
- Conduct all restoration activities in a manner consistent with Section 120 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, as amended) and the National Contingency Plan
- Conduct and update an environmental baseline survey (EBS) for all parcels

- Continue efforts to identify all potential contaminated areas in a timely manner
- Establish priorities for environmental restoration and restoration-related compliance activities with full consideration given to the property reuse goals of the community
- Initiate early cleanup actions to control, eliminate, or reduce risks to manageable levels by commencing cleanup for contaminated areas as soon as possible
- Identify and map areas suitable/unsuitable for leasing or transfer by deed
- Complete the study phase as soon as practicable for each site given the priority of that site
- Keep real estate personnel apprised of property deemed suitable for lease or transfer and properties not suitable for transfer due to an unevaluated status or pose an unacceptable human health or environmental risk IAW DoD policy

1.2 BCP Purpose, Updates, and Distribution

This BCP presents, in summary fashion, the status of Richards-Gebaur AFB's environmental restoration and compliance programs and the comprehensive strategy for implementation of these programs. The purpose of the plan is to inform the reader on the status of the environmental program at the base, outline it's environmental history, define the objectives and goals of the restoration and compliance programs and present a unified strategy for implementing environmental restoration and continued compliance of environmental laws and regulations. The primary purpose of this BCP is to bring together all environmental factors that impact the early reuse of the base and focus on those factors which are critical to the ultimate conversion of the base to community needs.

Updates to this BCP will occur periodically. It is anticipated that every year the plan will be published and redistributed to interested parties. During the period between publication dates, the latest changes to the plan can be obtained by contacting the BRAC Environmental Coordinator (Table I-1).

1.3 BRAC Cleanup Team

The Richards-Gebaur AFB BRAC Cleanup Team (BCT) was established in December of 1993, and has recently formed an advisory team, the Technical Advisory Group (TAG). The BCT is composed of one representative from the Air Force (the BRAC Environmental Coordinator (BEC)), one representative from the U.S. Environmental Protection Agency (EPA) Region VII and one representative from the Missouri Department of Natural Resources (MDNR). The BCT is charged with the overall responsibility of expediting environmental restoration of base property and adjusting priorities based on the needs of the community where reasonable. The

BCT also will conduct periodic program reviews and provide a forum for reaching consensus with federal and state regulators on requirements and actions to be taken. Table 1-1 lists BCT members and identifies their roles and responsibilities. Table 1-2 lists TAG members and identifies their roles and responsibilities.

Table 1-1 BRAC Cleanup Team Members for Richards-Gebaur AFB

Name	Title & Address	Telephone & Fax Numbers	Roles & Responsibilities
P. Mark Esch	BRAC Environmental Coordinator Building 606 Andrews Road Richards-Gebaur AFB, MO 64147-5000	V:816-348-2511 F:816-348-2447	DoD BCT representative BRAC Environmental Coordinator RAB Cochairman Environmental Engineer
Bob Geller	Hazardous Waste Program Section Chief Missouri Department of Natural Resources (MDNR) Division of Environmental Quality Post Office Box 176 Jefferson City, MO 65102	V:314-751-3176 F:314-751-7869	State BCT representative RAB member
Karen Flournoy	Federal Facilities Section Program Manager U.S. Environmental Protection Agency, Region 7 726 Minnesota Avenue Kansas City, KS 66101	V:816-551-7782 F:816-551-????	USEPA BCT representative (in abstentia) RAB member (in abstentia)

Other key participants will be added to the TAG to provide necessary expertise on an as-needed basis. These will include members with expertise in environmental engineering, chemistry, hydrogeology, risk assessment, real estate, etc. The TAG team for each project will differ in composition primarily in the area of contractor personnel.

Issues addressed in TAG meetings are expected to include a discussion of the conclusions contained in recent and past studies, options for cleanup addressed in feasibility studies (FSs), resolution of key technical issues (or strategy development to resolve the issue), the various benefits or drawbacks various treatment and remediation technologies pose, data quality assurance/quality control (QA/QC), data analysis, background levels of contaminants in different media, what the data gaps are and how to accelerate the cleanup process with the proliferation of goals, policy, regulations and laws originating from the variety of entities involved in the base conversion process. In order to manage the issues in TAG meetings, the following protocols will be implemented:

- Meetings will be held as required to meet project schedules and resolve specific issues.
- Meetings will begin with an oral summary of the issue(s) and materials will be provided well in advance of the meeting to participating members.
- Each issue will be discussed in turn and resolved (when possible).
- The Air Force will document all resolved issues in meeting minutes. Key participants will be given the opportunity to concur/correct the meeting minutes at a later date

Table 1-2 Technical Advisory Group (TAG) Member List

Name	Title & Address	Telephone & Fax Numbers	Roles & Responsibilities
Gary Reeves	Site Manager & Transition Coordinator Building 606 Andrews Road Richards-Gebaur AFB, MO 64147-5000	V:816-348-2511 F:816-348-2447	Base Conversion Coordinator Community Liaison
Glenn Golson	Environmental Specialist Missouri Department of Natural Resources (MDNR) Division of Environmental Quality Post Office Box 176 Jefferson City, MO 65102	V:314-751-3061 F:314-751-7869	MDNR Hazardous Waste Program Specialist Project Manager Geologist
TBD	Sedimentary Geology Specialist Missouri Department of Natural Resources (MDNR) Division of Environmental Quality Post Office Box 176 Jefferson City, MO 65102	V:314-751-TBD F:314-751-TBD	MDNR Hazardous Waste Program Specialist Geologist
TBD	TBD	TBD	QA/QC Specialist
TBD	TBD	TBD	Risk Assessment Specialist
TBD	TBD	TBD	Chemist
Prof. Gentile	University of Missouri - Professor of Geology TBD	TBD	Structural Geologist
Ellen-Jo Valade	Contract Administrator Building 606 Andrews Road Richards-Gebaur AFB, MO 64147-5000	V:816-348-2511 F:816-348-2447	Contracting Specialist
Minnie Butcher	Air Force Center for Environmental Excellence 8001 Inner Circle Drive Suite 100 Brooks AFB, TX 78235	V:210-536-5274 F:210-536-9026	AFCEE Environmental Project Manager Restoration Project Specialist
Dominic Frenzi	Assistant Chief Counsel HQ AFBCA/LD 1700 N Moore Street Suite 2300 Arlington, VA 22209-2802	V:703-696-5524 F:703-696-8828	AFBCA legal counsel Lawyer
Teresa Pohlman	Central Region Program Manager HQ AFBCA/CE 1700 N. Moore Street Suite 2300 Arlington, VA 22209-2802	V:703-696-5561 F:703-696-8828	AFBCA program manager
Michael Larson	Environmental Liaison-Central Region HQ AFBCA/CE 1700 N Moore Street Suite 2300 Arlington, VA 22209-2802	V:703-696-5564 F:703-696-8828	AFBCA environmental coordinator
Marion Erwin	Air Force Center for Environmental Excellence 8001 Inner Circle Drive Suite 100 Brooks AFB, TX 78235	V:210-536-3690 F:210-536-4254	AFCEE Environmental Project Manager NEPA Project Specialist
Bill Singleton	Burns & McDonnell P O Box 419173 Kansas City, MO 64141-6173	V:816-822-3133 F:816-822-3414	Restoration Contractor

The Air Force Base Conversion Agency (AFBCA) established an Operating Location Q(OLQ) at Richards-Gebaur AFB. Each closure base is identified by a letter, with Richards-Gebaur AFB designated as Q. OLQ is a team of AFBCA representatives that coordinates closure activities, maintains a caretaker force, and serves as an Air Force proponent at the closed installation for property conversion. OLQ will remain on-site as the responsible party until all property is sold or transferred.

1.4 Brief History of Richards-Gebaur AFB

Richards-Gebaur AFB is an Air Force Reserve (AFRES) base located in west-central Missouri, approximately 18 miles south of downtown Kansas City and about 3 miles east of the Kansas state line. Richards-Gebaur AFB has no sites on the National Priorities List (NPL) and subsequently has not entered into a Federal Facility Agreement (FFA).

Richards-Gebaur AFB is located within the Osage Plains region of the Central Lowland physiographic province. The region is characterized by low relief, wide, maturely dissected uplands, and relatively steep valley slopes. The topography of Richards-Gebaur AFB is gently rolling with an elevation range between 1,060 feet and 960 feet above mean sea level. Most of the base stormwater drains into the Little Blue River with the exception of the Belton Training Complex which drains into the West Fork of East Creek. Both of these watersheds ultimately flow into the Missouri River.

The geology of the base is characterized by thin loess deposits over residual soils derived from the in-place weathering of the underlying limestones and shales. The soils belong to the Macksburg-Urban series, which is defined as being poorly drained silt and silt clay loams, covered in places by urban features. Rock outcrops are found along Scope Creek include the Argentine Limestone Member of the Wyandotte Formation, the Lane Formation, the Raytown Limestone Member of the Iola Formation limestone, and the Chanute Formation. The Argentine Member is a light gray limestone characterized by thin, wavy bedding, except in the lower few feet, where the unit is thick-bedded. The Lane Formation is a medium gray to bluish gray shale that is commonly silty in the upper part. The Raytown Member is a medium bluish gray, wavy bedded limestone, locally containing interbedded lenses of shale approximately 3 inches thick. The Chanute Formation is a gray, red, purplish red, and green shale with thin nodular limestone near the middle, and local occurrences of cross bedded sandstone and conglomerate. All of the exposed units are Pennsylvanian in age. The weathered zone overlying these rocks (in the undisturbed state) is typically 2 to 15 feet thick. The soil is generally fine silty clay with a hydraulic conductivity of approximately 10^{-7} centimeters per second. The depth to groundwater is generally shallow, but varies seasonally, with topography, and the variance is highly dependent on the number and composition of the perched aquitards in the local area.

In 1941, portions of the land now occupied by Richards-Gebaur AFB were acquired by Kansas City for use as an auxiliary airport (Grandview Airport). In 1952, the Aerospace Defense Command leased the airport from the city for air defense operations, and in 1953 the property (approximately 2,400 acres) was formally conveyed to the United States government for establishment of an Air Force base. The C-46 airlift aircraft were the original Air Force aircraft stationed at the base. Conversion to C-119 and C-124 aircraft occurred in 1957 and 1961, respectively. In 1957, the base was named Richards-Gebaur AFB.

Until 1970, the Air Defense Command (ADC) had the primary mission on base. In 1970, the Air Force Communications Service (AFCS) relocated its headquarters from Scott AFB, Illinois, to Richards-Gebaur AFB and assumed command. In 1971, the C-124 reciprocating engine aircraft

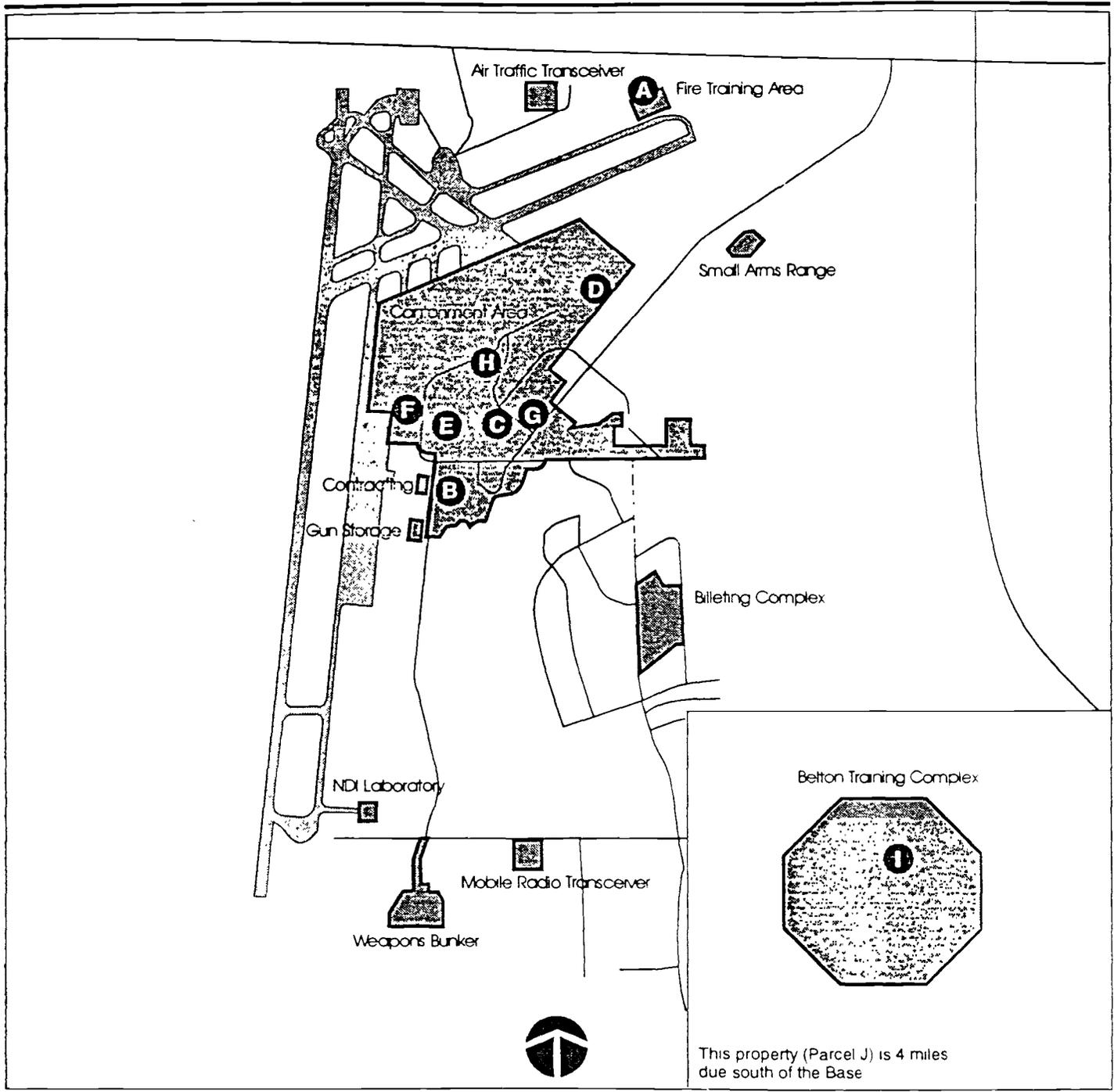
were phased out and replaced with C-130 aircraft. It is reported that this conversion cut the industrial waste produced by the base as well as cutting the generation of waste oil in half. AFCS moved back to Scott AFB in 1977 and Richards-Gebaur AFB came under the Military Airlift Command (MAC).

The number of active duty military and civilians at Richards-Gebaur AFB was reduced from a maximum of around 5,000 personnel to about 500 full-time personnel. By September 1979, the majority of the operating support functions were transferred to Talley Services, Inc., a civilian contractor. AFRES assumed operational control of the base in October 1980. In 1982, the base mission changed, and this resulted in a conversion to A-10 fighter aircraft. Again, with fewer personnel and smaller aircraft, this mission change resulted in a substantial decrease in the quantities of waste oils, fuels, and solvents generated by support operations. The 442nd Fighter Wing is the primary mission on base, and are equipped with A-10 Thunderbolt II aircraft, one of which is piloted by the Air Force's Top Gun. Table 1-3 summarizes the history of base operations at Richards-Gebaur AFB from 1941 to present day. Figure 1-1 presents locations where past hazardous waste activities impacted property now owned by the Air Force.

Table 1-3 History of Installation Operations at Richard-Gebaur AFB

Period	Type of Operations	Weapon Systems Supported	Hazardous Substance Activities on currently owned property
Pre-1941	Agriculture, Pasture, Undeveloped	N/A	N/A
1941-1952	Grandview Airport (auxiliary to greater Kansas City area)	N/A	General civilian aircraft maintenance
1952-1970	Aerospace Defense Command (ADC)	F-86, F-102 and F-106 fighters. C-46, C-119 and C-124 cargo aircraft	Aircraft maintenance activities, munitions storage, bulk fuel storage, fuel hydrant system, fire protection training
1970-1977	Air Force Communications Service (AFCS)	C-130 cargo aircraft (1971)	Same as above
1977-1980	Military Airlift Command (MAC)	C-130 cargo aircraft	Same as above except fuel hydrant system decommissioned
1980-1982	Air Force Reserve 442nd Airlift Wing	C-130 cargo aircraft	Same as above
1982-present	Air Force Reserve 442nd Fighter Wing	A-10 Thunderbolt II fighter aircraft	Same as above

In 1981, around 80% of the base property (including runways and taxiways) was excessed (transferred) to the General Services Administration (GSA). The GSA then transferred a majority of the airport-related property to Kansas City Aviation Department as a public benefit transfer with the condition of continued runway access (for a fee) by the Air Force. Other excessed parcels were also transferred by GSA for public and other military uses to Kansas City, Federal Aviation Administration, City of Belton, the Department of the Navy, and the Department of the Army. Base property presently is comprised of about 427 acres. Associated with this acreage is about 421 acres of easements.



EXPLANATION

-  Property Owned by Richards-Gebaur AFB
-  Area where Waste Impacted Environment

- A - North Burn Pit
- B - Oil Saturated Area
- C - Hazardous Waste Drum Storage
- D - POL Storage Yard
- E - Hazardous Material Storage
- F - Leaking Underground Storage Tanks
- G - Fire Valve Area
- H - Hydrant Leak
- I - AOC #2

Location of Areas Where Confirmed Contamination has been Identified

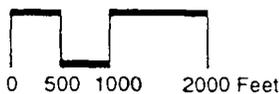


Figure 1-1

1.5 Base Property and Tenants

The history of property acquisition is provided in Table 1-4. A description of each base parcel is provided in Table 1-5 and can be located on Figure 1-1. A history of base property disposal and a summary of existing easements can be found in Appendix F. The land uses adjacent to base property are shown in Table 1-5.

Table 1-4 Property Acquisition Summary

Tract No.	Previous Land Owner	Fee Land (acres)	Easements (acres)	Acquisition
100	City of Kansas City	1,787.50		1953
101	Frank C. Denny	5.0		1953
102 E	Columbian Hog and Cattle Powder Company		39.18	1953
201	Edwin Hawthorne	226.00		1953
202	John E. Cheatham	50.01		1953
202 E	John E. Cheatham		2.09	1953
203	Eliza Jean Taylor estate	55.32		1953
205	Jack L. Gabriel	78.32		1953
206 E	Eliza Jean Taylor estate		77.44	1953
207 E	Jack L. Gabriel		134.90	1953
103	Columbian Hog and Cattle Powder Company	2.3		1956
103 E	Columbian Hog and Cattle Powder Company		0.04	1956
104	Carl Hoelzel Inc	59.42		1957
105	Christine Gehrs	4.25		1957
106	Charles M. Jennings	40		1957
109	Fieada Potter Welbourn	0.13		1957
109 E	Fieada Potter Welbourn		0.12	1957
114	Henry L. Jost Jr.	29.05		1957
208	Gertrude Belden	0.87		1957
208 E	Gertrude Belden		0.07	1957
119	City of Kansas City	6.42		1958
119 E	City of Kansas City		0.68	1958
112 E	Ollie Bright		7.80	1959
110 E	Columbian Hog and Cattle Powder Company		24.14	1960
113 E	Richard L. Dunlap	111.20		1960
115 E	Dorothy L. McPherson		42.86	1960
116 E-1	Joseph C. Beery		81.81	1960
116 E-2	Joseph C. Beery		24.92	1960
126 E	City of Belton		105.90	1977
127 E-1	City of Kansas City	20.33		1977
127 E-2	City of Kansas City	2.54		1977
127 E-3	City of Kansas City	2.03		1977

Below is a list of the significant non-Air Force organizations on the base. With the exception of the Army and Air Force Exchange Service (AAFES), the historic and current tenants at Richards-Gebaur AFB were and are primarily administrative in nature and did not or do not use hazardous materials or generate hazardous wastes other than typical household cleaning products, pesticides, etc.

- AAFES is located in buildings 619, 702 and 704. AAFES sells and stores retail household hazardous materials in building 619; sells and stores automotive gasoline at building 702; and performs light vehicle maintenance in building 704.

- The Civil Air Patrol is located in building 620. This tenant's operations are purely administrative in nature.
- The Civil Air Patrol Liaison is located in Building 901. This tenant's operations are purely administrative in nature.
- American Federation of Government Employees is located in Building 917. This tenant's operations are purely administrative in nature.

Table 1-5 Real Property (fee)

Parcel/Name ID	Acres	Location	Adjacent Property Usage ²	Environmental Status ¹	Year Acquired	Dates of Operation
A/Air Traffic Transceiver	2.65	0.5 mi N of CA	GV	RAE	1953	1953-present
B/Fire Training Area	2.37	0.5 mi N of CA	AGV	RAE	1953	1953-present
C/Small Arms Range	2.29	0.5 mi NE of CA	V	RAE	1953	1953-present
D/Cantonment Area (CA)	208.88	18 mi S of KC, MO	ASIEPVM	RAE	1953	1953-present
E/Billeting Complex	12.74	0.6 mi E of CA	EVM	RAE	1953	1953-present
F/Mobile Radio Transceiver	2.85	0.8 mi SE of CA	PG	RAE	1953	1953-present
G/Weapons Bunker	9.44	0.8 mi SE of CA	PGV	RAE	1953	1953-present
H/Gun Storage	1.20	0.1 mi W of CA	SVM	RAE	1953	1953-present
I/Contracting	0.66	0.1 mi W of CA	SPVM	RAE	1953	1953-present
J/Belton Training Complex	183.65	4.1 mi S of CA	G	RAE	1953	1953-present
K/NDI Laboratory	1.03	0.6 mi S of CA	AGV	RAE	1953	1953-present

(1) Requires additional evaluation (RAE) based on the EBS review

(2) Within 400 feet: A=airfield, S=aviation support, I=industrial, E=educational, P=public/recreational, G=agriculture, V=vacant, M=other military

Chapter 2 Property Disposal and Reuse Plan

2.1 Status of the Conversion Planning Process

Planning for base closure began after October 1991 when a Notice of Intent (NOI) to prepare a Disposal and Reuse Environmental Impact Statement (EIS) was published in the Federal Register. Development of the EIS began in mid-April 1993 and the Draft EIS public meeting will be held 23 March 1994 to solicit public comment. A public scoping meeting was held in November 1991 to identify environmental issues and concerns for the EIS effort. The Kansas City Aviation Department is preparing a Base Comprehensive Reuse Plan (BCRP) which is scheduled for completion in May 1994. The National Environmental Policy Act (NEPA) Record of Decision (ROD) for the EIS is scheduled to be completed August 1994.

The disposition method for each reuse parcel will be investigated and documented during the preparation of the Disposal Plan. At this point in time, the disposition methods are only in the preplanning phase. Figure 1-1 shows the eleven parcels that are to be reused by entities other than the Air Force. Table 2-1 summarizes these parcels and presents the projected date the parcel will be ready for transfer from the environmental perspective.

Table 2-1 Reuse Parcel Data Summary

Parcel	Acres	Reuse Priority	Current Use and Proposed Reuse	Known Sites	Projected Transfer Date	Transfer Mechanism	Recipient(s)
A	2.65	TBD	Aircraft communications Reuse TBD	None	1995	TBD	TBD
B	2.37	TBD	Former fire protection training area Reuse TBD	FT002	1997	TBD	TBD
C	2.29	TBD	Small arms training range Reuse TBD	Investigation complete All contaminants below State action levels	1997	TBD	TBD
D	208.88	TBD	Primary offices, buildings and hangars Reuse TBD	SS003, SS004, ST005, SS006, ST007, SS008, SS009, 3AOCs, 2USTs	1998	TBD	TBD
E	12.74	TBD	Billeting and officers club Reuse TBD	None	1995	TBD	TBD
F	2.85	TBD	Mobile base radio communications Reuse TBD	None	1996	TBD	TBD
G	9.44	TBD	Ammunition storage Reuse TBD	None	1996	TBD	TBD
H	1.20	TBD	Side-arm storage Reuse TBD	None	1995	TBD	TBD
I	0.66	TBD	Contract office Reuse TBD	None	1995	TBD	TBD
J	183.65	TBD	Army drop zone Reuse TBD	1AOC	1995	TBD	TBD
K	1.03	TBD	Non-destructive aircraft parts inspection lab Reuse TBD	None	1995	TBD	TBD

Decisions to dispose of utilities, storm water collection systems, sanitary sewers, steam distribution, phone line distribution and electricity are in progress and some refinements will be accomplished once the reuse plans for the parcels are known.

An environmental condition of property map has been developed by the BEC (see Figure 3-2) using data from the Environmental Baseline Survey (EBS) and recent discoveries. The environmental condition of each parcel is further described within the EBS. The brief

descriptions of each parcel can be found below. Refer to Chapter 3 for a summary on the environmental condition of each parcel.

Parcel A, Air Traffic Transceiver, occupies an area of 2.65 acres located north of the inactive cross-wind runway and just south of MO highway 150. It is surrounded by land that is owned by Kansas City. There are no IRP or compliance sites located on this parcel.

Parcel B, Fire Training Area, is located a quarter mile east of Parcel A and is surrounded by land owned by Kansas City. The parcel consists of 2.37 acres and is the location of the IRP site, North Burn Pit - FT002. This IRP site has some residual lead contamination in the surface soil which reportedly (environmental risk analysis) shows the lead at the site is not a threat to human health or the environment. At this time, Missouri Department of Natural Resources (MDNR) has some concerns about the Air Force contractor's conclusions for this site. There are no compliance sites located on this parcel.

Parcel C, Small Arms Range, occupies 2.29 acres and is located a half mile southeast of Parcel B and is northeast of the main base parcel (D). The parcel also includes a firearms safety easement of 113.74 acres. The parcel is surrounded by land owned by Kansas City. An impact study on firing range activities was recently completed, and concluded that no significant impact to the environment has occurred. There are no IRP or compliance sites located on this parcel.

Parcel D, Cantonment Area, is the largest parcel, occupying 208.88 acres. Within this parcel is a 1.39 acre island (precise acreage at issue) owned by Kansas City. Seven of the eight IRP sites (all except FT002) are located in this parcel in addition to several compliance sites and areas of concern. Most of the land around this parcel is owned by Kansas City. A small bordering parcel near the base entrance on 155th street is owned by the Navy. This parcel includes most of the buildings which support day-to-day activities at the base.

Parcel E, Billeting Complex, occupies 12.74 acres and is to the southeast of Parcel D about one half mile. The parcel is surrounded by property owned by Kansas City. The parcel is currently contains a restaurant, club, meeting rooms, sports-recreation facilities and visiting quarters for transient personnel. There are no IRP or compliance sites located on this parcel.

Parcel F, Mobile Radio Transceiver, occupies 2.85 acres, which is located in the southern part of the base. It is currently used for storage and for mobile base communication. The parcel is surrounded by land owned by the City of Belton. There are no IRP or compliance sites located on this parcel.

Parcel G, Weapons Bunker, is surrounded by land owned by the City of Belton. This parcel occupies 9.44 acres and is currently used to store munitions. A safety easement of 113.74 acres restricting construction and occupancy also surrounds the parcel. There are no IRP or compliance sites located on this parcel.

Parcel H, Gun Storage, is a 1.20 acre parcel where side-arms are stored in a small building. There are no IRP or compliance sites located on this parcel.

Parcel I, Contracting, is the smallest of the 11 parcels consisting of only 0.66 acre. The parcel includes the base contracting office and parking lot. There are no IRP or compliance sites located on this parcel.

Parcel J, Belton Training Complex, is an active 183.65 acre practice drop zone leased to the Army by the Air Force. A safety easement of 286.50 acres surrounds this parcel and is located 4 miles south of the Richards-Gebaur Airport. The north portion of this property contains an AOC were a few items of presumed military origin were discovered. There are no compliance sites located on this parcel.

Parcel K, NDI Laboratory, is a 1.03-acre site that contains the a non-destructive inspection laboratory (NDI) and a Spectral Analysis of Oils Program (SAOP) Laboratory. There are no IRP or compliance sites located on this parcel.

2.2 Relationship to Environmental Programs

The requirements for the transfer of federal property necessitating compliance with CERCLA §120(h)(3)(B)(i) as amended by the Community Environmental Response Facilitation Act (CERFA) and the possibility of residual contamination must be factored into the property conversion and reuse process. The disposal and reuse activities at Richards-Gebaur AFB are underway with the understanding that residual contamination may remain on certain properties after the remedial solution is complete, and this situation may restrict future land use for an undetermined amount of time. The requirements set forth in CERCLA §120(h)(3)(B)(i) and CERFA will be followed.

CERCLA §120(h)(3)(B)(i) also requires deeds for federal transfer of previously contaminated property to contain a covenant stating that all remedial actions necessary to protect human health and the environment have been taken. This deed requirement applies only to property on which a hazardous substance was stored for 1 year or more, or known to have been disposed of or released. This means that any required remedial action must be selected and implemented for such contaminated properties before transfer to private parties can occur. In accomplishing this, an operating policy developed by the Air Force will be used to determine the suitability to transfer specific property parcels. This Air Force policy applies to all property at closing installations.

The BEC has developed an environmental condition of property map (see Figure 3-2) to delineate areas on base that are suitable for transfer and those that are not. This map is based on recent EBS data and provides a visual means of identified contaminated areas and those areas that meet the "area of no suspected contamination"(ANSC) guidelines.

2.3 Property Transfer Methods

- 2.3.1 Federal Transfer of Property**
- 2.3.2 No-Cost Public Benefit Conveyance**
- 2.3.3 Negotiated Sale**
- 2.3.4 Widening of Public Highways**
- 2.3.5 Donated Property**

The text in the above sections will be included at a later date once the Base Comprehensive Reuse Plan is published. The ultimate reuse of the property will impact site cleanup strategies.

2.3.6 Interim Leases

No interim leases have been issued at Richards-Gebaur AFB. Requests that are received will be coordinated with base personnel to determine the status of the facility under consideration. Leasing compatibility with current mission requirements will be given priority in all cases. Upon issuance, interim leases or other legal agreements will be added to Table 2-2.

Table 2-2 Existing Legal Agreements/Interim Leases

Title of Interim Lease/ Legal Agreement	Building No./Areas	Date of Agreement	Reuse Parcel

2.3.7 Competitive Public Sale

The text in this section will be included at a later date once it is known what property will be made available to the public based on the Base Comprehensive Reuse Plan (unpublished).

Chapter 3 Environmental Program Status

This section provides a summary of the current status of environmental restoration and compliance activities at Richards-Gebaur AFB. It also summarizes the status of community involvement to date and describes the environmental condition and suitability for transfer of the base property. Table 3-1 lists all IRP sites and current investigative status. Figure 3-1 shows the location of all environmental sites noting the site classification. Table 3-2 lists areas of concern (AOC) for which evidence suggests that environmental contamination may exist. All the AOCs presented in Table 3-2 are expected to be investigated in accordance with the timeline presented within Section 5.1. The following sections include a brief history of the restoration efforts, restoration projects and source discovery.

3.1 Restoration Program Status

Richards-Gebaur AFB is not on USEPA's National Priorities List (NPL), but may be reevaluated in the future for inclusion on the NPL. Whether or not USEPA Region VII will reevaluate this base as an NPL site is not yet determined. However, consistent with Air Force policy implementing Executive Order 12580, the BCT will address all eligible sites in a manner consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Other regulatory guidelines which could impact the site restoration process include; the Resource Conservation and Recovery Act (RCRA); the National Environmental Policy Act (NEPA); applicable Missouri laws and Johnson or Cass county ordinances.

The Department of Defense on behalf of Richards-Gebaur AFB has entered into a cooperative agreement with the MDNR for oversight and guidance during the IRP. The agreement, Department of Defense and State Memorandum of Agreement (DSMOA), defines state and Air Force responsibilities during the IRP. The state reviews, comments, and make recommendations on work plans and reports, and will identify state applicable or relevant and appropriate requirements (ARARs) with regard to IRP sites. This agreement does not include provisions for participation in the BRAC Cleanup Team, Restoration Advisory Board (RAB) meetings or TAG meetings.

Richards-Gebaur AFB has taken positive actions to comply with the Air Force IRP program and the DSMOA. The first action was a preliminary evaluation of all base property (including formerly owned parcels) during which nine sites were identified in 1982. Additional site identification efforts have been made since 1982, adding six sites to the IRP list generated from the 1982 evaluation for a total of 15 sites. In the early 1980s, Richards-Gebaur AFB transferred more than 80 percent of the base property to civilian, or other military branch use, following the regulations and laws of the era. Seven of the IRP sites that have been identified were on transferred property, and the responsibility for the restoration of those sites is the U.S. Army Corps of Engineers. The remaining eight sites are addressed in this plan.

3.1.1 IRP Site History

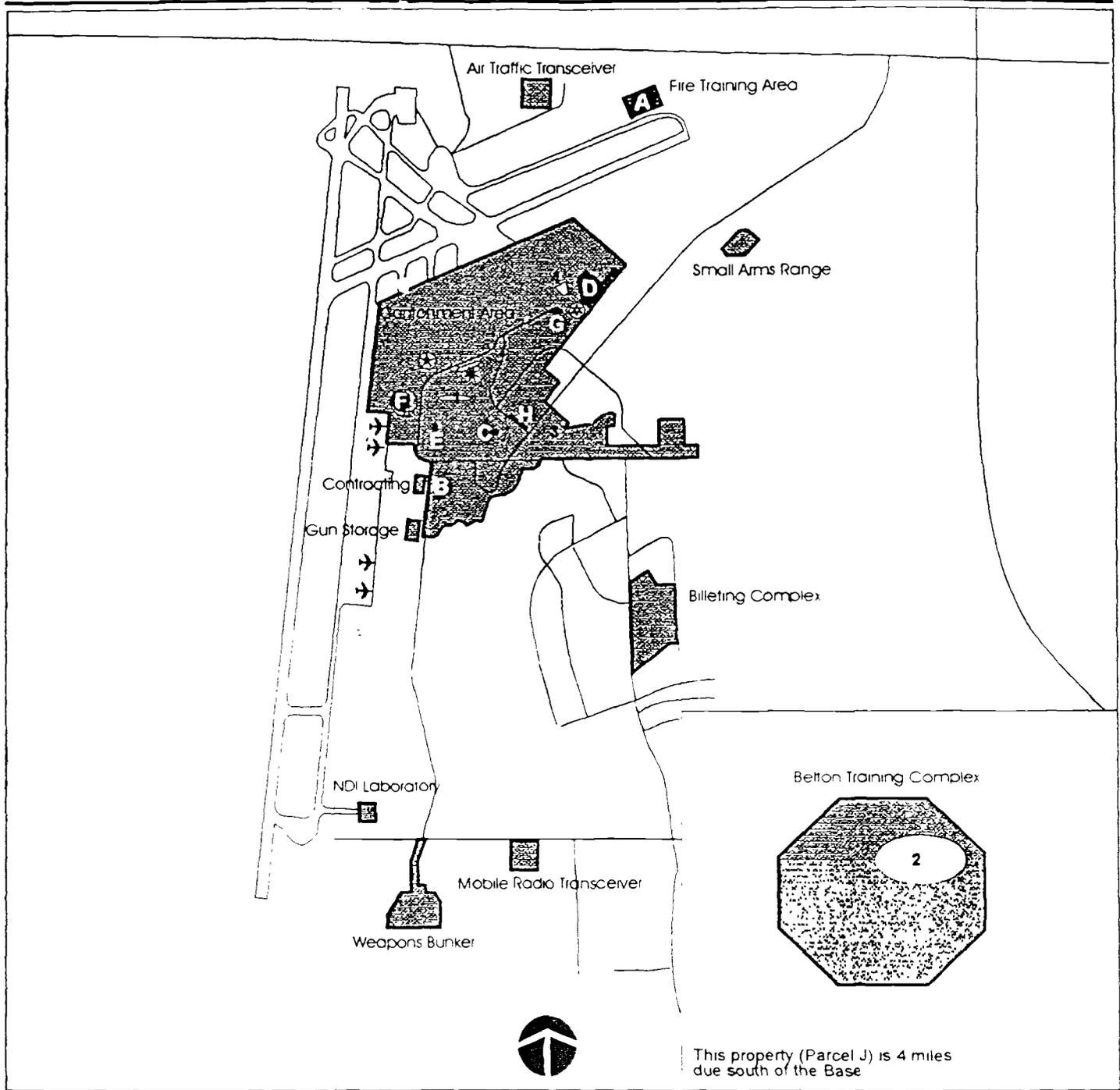
In September 1982, the first study was initiated to identify and perform a preliminary evaluation of past waste disposal practices. The study used a number of interviews with base employees and a base tour as resource material for the study. The study identified nine sites with potential environmental contamination which could pose a human health risk. Additional investigations were conducted in 1986 as a follow-up to the sites found in 1982, and by 1988 most of the IRP sites were identified and additional studies conducted. These studies provided site-specific soil and groundwater quality data needed to evaluate the sites, and laid the groundwork for future remediation and early cleanup actions.

The status of IRP sites at Richards-Gebaur AFB can be found on Table 3-1 which provides a detailed overview of the sites and related information. Table 3-2 lists all the areas of concern (AOC) on base property. An AOC is defined as an area or location where an unconfirmed event took place which has the potential to be an IRP or compliance site. Preliminary Assessment (PA) work has been completed for seven of the eight sites with the exception of SS009. Five of the eight sites have Site Investigation (SI) work completed, and two sites have SI in progress. Site ST005 has all Remedial Investigation (RI) and Feasibility Study (FS) work completed, and is now in the Remedial Design (RD)/Remedial Action (RA) phase. Three sites (FT002, SS003 and SS004) are in the RI phase.

Table 3-1 IRP Site Summary

Parcel	WIMS-ES ID(Alias ID)	Site Name & past activity description	Contaminants Found	Date of Operation	Status	ARARs & Regulatory Mechanism
B	FT002 (6)	North Burn Pit, fire protection training	Organic lead, others suspected	1965-1987	PA, SI complete, RI underway, IRA proposed	Missouri Hazardous Waste Management Law, Missouri Hazardous Substance Rules
D	SS003 (9)	Oil Saturated Area, vehicle maintenance waste	Petroleum residues from motor oils, hydraulic fluids and organic lead	1960s-1989	PA, SI, IRA complete, RI underway	MDNR UST Regulations
D	SS004 (10)	Hazardous Waste Drum Storage	Petroleum residue from motor oil	1960s-1987	PA, SI, IRA complete, RI underway	MDNR UST Regulations
D	ST005 (12)	POL Storage Yard, storage of JP-4 and heating fuel	Petroleum residues of JP-4 and heating fuel	1954-1994	PA, SI, RI, FS complete, RD/RA underway	MDNR UST Regulations & Missouri Solid Waste Act
D	SS006 (SS06)	Hazardous Material Drum Storage	Polynuclear aromatic hydrocarbons	1960s-1994	PA, IRA complete, SI underway	CERCLA, MDNR & MDOH Requirements
D	ST007	Leaking Underground Storage Tanks, storage of JP-4	Petroleum residues of JP-4	1954-1985	PA, SI, IRA complete, site closure planned	MDNR UST Regulations
D	SS008	Test Cell Area, unknown	Petroleum residues of unknown origin	Unknown	PA complete, SI underway, IRA proposed	Undetermined
D	SS009	Fire Valve Area, unknown	Petroleum residues of unknown origin	Unknown	PA, SI underway, 2 IRAs proposed	Undetermined

Interim remedial actions taken to date at Richards-Gebaur AFB include the removal of 63 cubic yards of contaminated soil from Site SS003, removal of 19 cubic yards of contaminated soil from Site SS004, removal of four 25,000-gallon USTs from Site ST007, the installation of passive biovents at ST007, the removal of 46 cubic yards of contaminated soil from Site SS006, and the removal of 10 cubic yards of contaminated soil from Site SS009 (See Table 3-3).



Areas of Concern

- 1 - AOC #1
- 2 - AOC #2
- 3 - AOC #3
- 4 - AOC #4

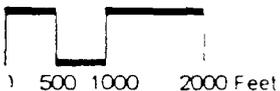
Compliance Sites

- ★ - UST closure
- ☆ - OWS closure
- ✱ - Hydrant closure
- ⊕ - Well closure

Installation Restoration Sites

- A - North Burn Pit
- B - Oil Saturated Area
- C - Hazardous Waste Drum Storage
- D - POL Storage Yard
- E - Hazardous Material Storage
- F - Leaking Underground Storage Tanks
- G - Test Cell Area
- H - Fire Valve Area

Property Owned by Richards-Gebaur AFB



Environmental Locations of Interest

Figure 3-1

Table 3-2 Areas of Concern Summary

AOC ID	Situation of concern	Strategy for resolution	Determinations required
AOC01	A single soil sample detected lead at the surface 10 times the RCRA action level in a potential jurisdictional wetland centered in parcel D.	Collect surface water, soil and biological samples. Do a records search	Determine response mechanism, source of contamination and cleanup response required
AOC02	Rifle casings, auto batteries, and other solid waste were discovered during an environmental baseline survey of the Belton Training Complex	AFRES completes XOD survey. Have waste characterized and removed. Collect soil samples	Determine response mechanism, and if cleanup response required
AOC03	Witness stated crankcase oils were drained near building 603. Stressed vegetation is evident	Look at sample results already collected. Utilize RA at ST005?	Determine response mechanism and cleanup response required
AOC04	The inactive runway retention pond received stormwater runoff in the past from reported areas where flightline paint removal occurred	Collect pond sediment samples. Install one down gradient monitoring well	Determine response mechanism, and if cleanup response required
None	The EBS report noted a few areas with staining throughout the base	BEC and MDNR representative will inspect areas noted in EBS	BEC and MDNR will collectively determine if the areas are AOCs

Early actions are programmed in the future to remove several source areas or to control known contamination. Removal of source areas at sites FT002, SS008 and SS009 are planned in the future, with removed soils from sites SS008 and SS009 being transported to, and treated at the ongoing ST005 landfarming cleanup. Early actions are shown below on Table 3-3.

Table 3-3 Early Action Status

Site ID	Action	Purpose	Status
FT002	Remove an estimated 20 cubic yards of surface soil contaminated with low levels of lead	To fully address the MDOH standards	Planned for 1995
SS003	63 cubic yards of contaminated soil removed with disposal at a state-approved "special waste" landfill	To remove all oil saturated soil and lead	Completed on 2 Apr 92
SS004	19 cubic yards of contaminated soil removed with disposal at a state-approved "special waste" landfill	To remove "hot spot" contaminated with petroleum residue	Completed on 2 Apr 92
SS006	46 cubic yards of contaminated soil removed with disposal at a state-approved "special waste" landfill	To remove soil contaminated with high cancer-risk compounds	Completed on 14 Nov 93
ST007	Four 25,000-gallon USTs removed and passive bioventing system installed on site	To cleanup old UST site below action levels	System operational from 12 Nov 88 to present
SS008	Remove an estimated 50 cubic yards of petroleum contaminated soil and treat at the ST005 RA site	To cleanup the soil media below action levels	Planned for 1995
SS009	10 cubic yards of contaminated soil removed with disposal at a state-approved "special waste" landfill	Comply with MDNR rules on unearthed contaminants	Completed on 2 Apr 92
SS009	Remove an estimated 300 cubic yards of petroleum contaminated soil and treat at the ST005 RA site	To remove "hot spots" within the soil media	Planned for 1995

3.1.2 Source Discovery and Assessment Status

The Air Force prepared decision documents 2 years ago which stated that three sites (FT002, SS003 and SS004) were closed and no further action would be taken. These documents were submitted to USEPA Region VII and the MDNR for their information. The authority for DoD to make this decision on federal land is contained in Executive Order 12580. Since this event, recent changes in the law (as it applies to closing bases) requires the concurrence of USEPA and MDNR on what property is clean, or what restrictions need to be placed on the future use of the property that cannot be cleaned up to applicable standards. The decision documents written by the Air Force in the past are not applicable to restoration activities at closing bases.

The only IRP site with PA/SI evaluation underway is the Fire Valve Area - SS009. Additional SI is planned for two sites (SS006 and SS008). Based on the results of sampling in AOCs, the need for additional PA/SI evaluations could occur.

3.2 Compliance Program Status

Compliance activities at Richards-Gebaur AFB are being coordinated with environmental restoration activities under the IRP when necessary. The base does not require or have any RCRA-permitted facilities for waste storage, and does not treat hazardous waste on site. The base generates enough hazardous waste to be classified as a small quantity generator only one or two months out of a year. For the remainder of the year, the base is classified as a conditionally exempt small quantity generator. Compliance activities address the management of petroleum products, hazardous materials, hazardous waste, asbestos, solid waste, pollution prevention, water quality, air quality, pesticides, polychlorinated biphenyls (PCBs), etc. The status of closure related compliance activities are presented under each program subheading.

In cases where significant residual contamination from compliance activities has commingled with contamination from IRP sites, the remedial response mechanism will be determined by the BCT with the understanding DoD prefers the IRP. Corrective actions and closure activities will remain compliance issues regardless of size or scope.

3.2.1 Underground Storage Tank Program

Table 3-4 summarizes the physical characteristics and status of all USTs managed by the UST program at Richards-Gebaur AFB. By definition, oil-water separators (OWS) are managed as USTs in the state of Missouri. Unregulated tanks such as heating oil tanks or formerly regulated tanks removed more than three years ago are not included on Table 3-4 or the base UST program.

In the past, Richards-Gebaur AFB operated more than 100 underground tanks and oil-water separators on the base. The base realignment of the early 1980's transferred two-thirds of those underground vessels to new owners. During 1987 and 1988, the underground tank infrastructure changed drastically with UST need assessments and wide-spread removals prior to the implementation of new UST regulations. What remains are two 4,000-gallon USTs, located along the flightline, which are currently in use and one OWS system.

The only ongoing operational-related compliance project in the UST program is UEBL 92-0034, Upgrade Oil-Water Separator Systems. The project is 93% complete, and provides for compliance with the Clean Water Act and the Missouri Underground Storage Tank Regulations.

Several response actions are planned to comply with the Missouri Underground Storage Tank Regulations. Project UEBL 94-6009 will close USTs 962A, 962B, 9470B and 9470D by late 1994. Project UEBL 93-0021 will begin the first phase of cleanup of the leaking hydrant fueling system by mid-year 1994.

Table 3-4 Underground Storage Tank Inventory

Tank ID	Date Installed	Nominal Capacity (gallons)	Substance Stored	Status	Future Actions
702D	Feb 89	190	LNAPLs	Removed 12 Oct 93	Archive records 12 Oct 96
704C	1975	500	Waste water	Removed 5 Nov 93	Archive records 5 Nov 96
704D	1989	282	LNAPLs	Removed 5 Nov 93	Archive records 5 Nov 96
711C	Oct 65	500	Waste water	Removed 25 Nov 93	Archive records 25 Nov 96
711D	Jul 89	282	LNAPLs	Removed 25 Nov 93	Archive records 25 Nov 96
903A	1961	250	Diesel	Unknown	Search files for tank records
920A	29 Nov 73	200	Waste water	Removed 10 Dec 93	Archive records 10 Dec 96
920B	29 Nov 73	500	LNAPLs	Removed 10 Dec 93	Archive records 10 Dec 96
927B	1989	500	Waste solvent	Removed 3 Nov 93	Archive records 3 Nov 96
962A	4 Jan 84	4,000	JP-4 (also Diesel)	In Use	Close late 1994
962B	4 Jan 84	4,000	Gasoline	In Use	Close late 1994
9470B	5 Nov 73	1000	Waste water	In Use	Close late 1994
9470D	Mar 89	282	LNAPLs	In Use	Close late 1994

Table Notes:

- The location of the tank is embedded in the Tank ID. The first three or four numerical digits represent the building number where the tank was located
- All USTs on base were removed in accordance with MDNR guidelines or current practices
- Regulations require records be kept for 3 years after tanks are removed, therefore, data for tanks removed more than three years ago are not listed.
- LNAPL stands for "light non-aqueous phase liquids" from oil-water separators

3.2.2 Aboveground Storage Tank Management

The base manages only aboveground storage tanks greater than 660 gallons under the environmental program. Tanks smaller than this capacity are not specifically regulated for most of the products stored therein. The base has 13 aboveground storage tanks larger than 660 gallons. Spill response plans and materials are available for these tanks in the event of a spill. An aboveground storage tank inventory is provided in Table 3-5.

Table 3-5 Aboveground Storage Tank Inventory

Location	Size/Contents	Location	Size/Contents	Location	Size/Contents
105	275 Diesel	945	500 JP-4	1100	275 Gasoline
602 int	90 Diesel	945	500 JP-4	1400	275 Gasoline
602	275 Diesel	945	1,000 mixed waste	9610	10,000 Diesel
614	90 Diesel	945	1,000 mixed waste	9610	10,000 Gasoline
614	50 Gasoline	953	44 Diesel	702	550 Waste water
614	50 Gasoline	954	260,000 Heating oil	702	550 LNAPLs
614	44 Diesel	955	187,000 JP-4	704	550 Waste water
700	10,000 Gasoline	957	210,000 JP-4	704	550 LNAPLs
701	10,000 Diesel	958	500 mixed waste	711	550 Waste water
710	275 Diesel	963	500 Solvent	711	550 LNAPLs
711	1,000 Reclaimed JP-4	1009	275 Gasoline	920	550 Waste water
841	275 Diesel	1011	275 Gasoline	920	550 LNAPLs
901	275 Diesel	1025 int	90 Diesel	9470	550 Waste water
918	20 Gasoline	1025	275 Diesel	9470	550 LNAPLs
921	1,000 Diesel	1025	560 Diesel		
944	2,500 JP-4	1033	5,000 Waste JP-4		

The POL storage yard consists of 5 bulk fuel aboveground storage tanks (ASTs) and two fuel pump houses and truck fueling/defueling platforms. Tank size at this facility range from 260,000-gallons to 10,000-gallons. Only three of the five tanks are currently active. This facility is the location of IRP site ST005. During the remediation of site ST005, the largest 3 tanks will be demolished (and two pumphouses) in order to access the petroleum contaminated soil.

3.2.3 Hazardous Materials and Waste Management

Hazardous waste management program at Richards-Gebaur AFB are conducted under the federal and state requirements found in 40 CFR 260 through 269, 40 CFR 117, 49 CFR 171 et seq., Department of Transportation regulations and Missouri 10 Code of State Regulations (CSR) 25-11.010 and Air Force Regulation 19-11 (unless superseded by law). Hazardous wastes generated at Richards-Gebaur AFB include photochemical wastes, batteries, asbestos waste, and wastes generated from site remediation. Hazardous wastes and/or petroleum wastes are stored or generated at 29 facilities on base.

Hazardous materials commonly utilized at Richards-Gebaur AFB include aviation and motor fuels, various grades of POL, hydraulic fluids, cleaning solvents and corrosives, paints, thinners, pesticides, and batteries.

Richards-Gebaur AFB currently oscillates between a small-quantity generator (less than 1,000 kilograms per month) and a conditionally exempt small-quantity generator (less than 100 kilograms per month). Hazardous waste is stored at 29 designated accumulation points. Currently, there are 28 Initial Accumulation Points (IAPs) and one central hazardous waste accumulation facility on base (Facility 973). Hazardous wastes can be stored in the IAPs in amounts up to a maximum of 55 gallons for up to 1 year from the start of accumulation. After one of these criteria is met, the hazardous waste is transferred to Facility 973, where it is held pending off-base disposal. Richards-Gebaur AFB disposes of hazardous waste in cooperation with the Defense Reutilization and Marketing Office (DRMO), located at Whiteman AFB, Missouri. DRMO arranges for a licensed contractor to remove hazardous waste off base to a treatment, storage, and disposal (TSD)-permitted treatment facility or to a TSD-permitted landfill. Hazardous waste is shipped off base in compliance with MDNR and RCRA regulations; shipments and pertinent paperwork are regularly inspected by DRMO and MDNR for conformity with applicable regulations.

3.2.4 Solid Waste Management

Solid waste generated at Richards-Gebaur AFB is hauled off base by a commercial hauler and deposited in the Johnson County landfill in Shawnee, Kansas. There are no active landfills at Richards-Gebaur AFB. Missouri Solid Waste Act's implementing regulations govern the management of the solid waste program.

3.2.5 Polychlorinated Biphenyl Management

All transformers with 50 parts per million (ppm) or more PCBs have either been replaced with PCB-free equipment or retrofilled to bring the PCB concentration to below 50 ppm, and U.S. EPA Region VII, issued a Notice of Compliance (with Toxic Substances Control Act (TSCA)) to that effect on 21 October 1993. All retrofilled PCB equipment was tested one year after the retrofill to insure that transformer core leakage would not adversely impact the PCB concentrations. The base is PCB-free and all PCB transformers have been retrofilled or replaced. Fluorescent lighting ballasts are also checked for PCBs when repairs are required.

3.2.6 Asbestos-Containing Material

Asbestos-containing material (ACM) is regulated by USEPA, the Occupational Safety and Health Administration (OSHA), and the state of Missouri. Richards-Gebaur AFB has developed an asbestos management plan in accordance with the Air Force Policy on Management of Asbestos at Closing Bases. A comprehensive base-wide asbestos survey was conducted in September 1987. The survey included 71 facilities. ACM was identified in 39 of these facilities; the other 32 either had no suspected ACM or samples were negative. Numerous renovation projects have occurred since 1987 to remove ACM. Facility 942 is currently closed due to the condition of ACM in the building, and no abatement is planned. The ACM condition of facilities will be disclosed to future occupants as required in real estate transactions.

3.2.7 Radon

The Air Force sold or transferred all properties utilized as family housing or schools prior to implementation of the Radon Assessment and Mitigation Program; therefore the Air Force has not and does not plan to conduct any base-wide radon studies to determine the concentrations of radon in structures at Richards-Gebaur AFB. Pickled facilities are being randomly tested from the occupational health concerns associated with the initial exposure to radon-rich stagnant air that could be present in structures boarded up for extended periods. Results of a Missouri Department of Health 1988 study showed that more than 80 percent of samples in Cass County and more than 60 percent in Jackson County had radon levels below the U.S. EPA's recommended mitigation level of 4 picocuries per liter (pCi/l). The remainder of the samples had radon levels between 4 and 20 pCi/l, except 1 percent of the Jackson County samples, which were above 20 pCi/l. A recent sample indicates that pickled facilities exceed recommended levels.

3.2.8 Clean Water Act (NPDES Permits)

In September 1992, Richards-Gebaur AFB applied to MDNR for a National Pollutant Discharge Elimination System (NPDES) permit as a non-point source that discharges into Scope Creek (an unclassified intermittent stream), in compliance with NPDES requirements of the Clean Water Act and Missouri Water Regulations. Discharges consist primarily of storm water runoff from areas used for industrial and related activities. The application did not include runoff that flows

into two ponds near the base, or any runoff from the Belton Training Complex. The application is currently being submitted to MDNR.

3.2.9 Oil-Water Separators

Oil-water separators (OWSs) are flow-through systems designed to separate light non-aqueous phase liquids (LNAPLs) such as oil, fuel, and grease from water. Water treated by the OWSs discharge into the sanitary sewer. All underground OWSs were replaced with aboveground vaulted OWSs that are classified as ASTs. Additional information about OWSs that are underground systems and regulated as USTs, can be found in section 3.2.1. Information about the vaulted, aboveground OWSs can be found in section 3.2.2. All vaulted OWSs were installed between October 1993 and February 1994.

3.3 Status of Natural and Cultural Resources

3.3.1 Threatened and Endangered Species

U.S. Fish and Wildlife Service has indicated that no federally listed threatened or endangered species (flora and fauna) are known to occur at Richards-Gebaur AFB. The Missouri Department of Conservation has conducted a natural features inventory in Jackson and Cass counties, which focused on listed plants and animals, and has indicated that no state-listed species are likely to occur on the base.

Limited populations of greater prairie chicken, a state-listed rare species, persist on native grasslands south and west of the base. Richards-Gebaur AFB is located outside of the known prairie chicken ranges, and males were not observed during an April 1993 field survey, conducted in the courtship season. Therefore, the likelihood of this species occurring on base is low.

The auriculate false foxglove, a candidate (Category 2) species for federal listing as threatened or endangered and listed as rare in Missouri, occurs on private land west of the base. The species can persist in areas with soil disturbance, and could be present on Richards-Gebaur AFB. To-date, the species has not been observed on base property.

3.3.2 Sensitive Habitats

Wetlands were identified as the only sensitive habitat on Richards-Gebaur AFB and are discussed in Section 3.3.3.

3.3.3 Wetlands

Wetlands are defined by the U.S. Army Corps of Engineers (COE) Wetlands Delineation Manual as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of

vegetation typically adapted for life in saturated soil conditions." There are 0.6 acres of non-jurisdictional wetlands (areas which have the potential of being defined as wetlands by COE) in the Cantonment Area and 0.2 acre in the Belton Training Complex (see Figure 3-2). These wetland areas occur along the natural drainages that traverse the region.

The wetland in the central portion of the Cantonment Area is wooded with open patches of sedges and cattails. The wetland areas in the northeastern portion of the Cantonment Area are dominated by cattails with intermittent patches of black willow where surface flow is reduced. The wetland areas filter the water that passes through them, settling out sediments and slowing the velocity of storm water runoff that could otherwise erode the drainage channels during periods of high flow. The vegetation within the drainages in the Cantonment Area has been left fairly natural for these reasons, even though the surrounding areas have been landscaped. Redwing blackbirds were observed nesting along the wetlands.

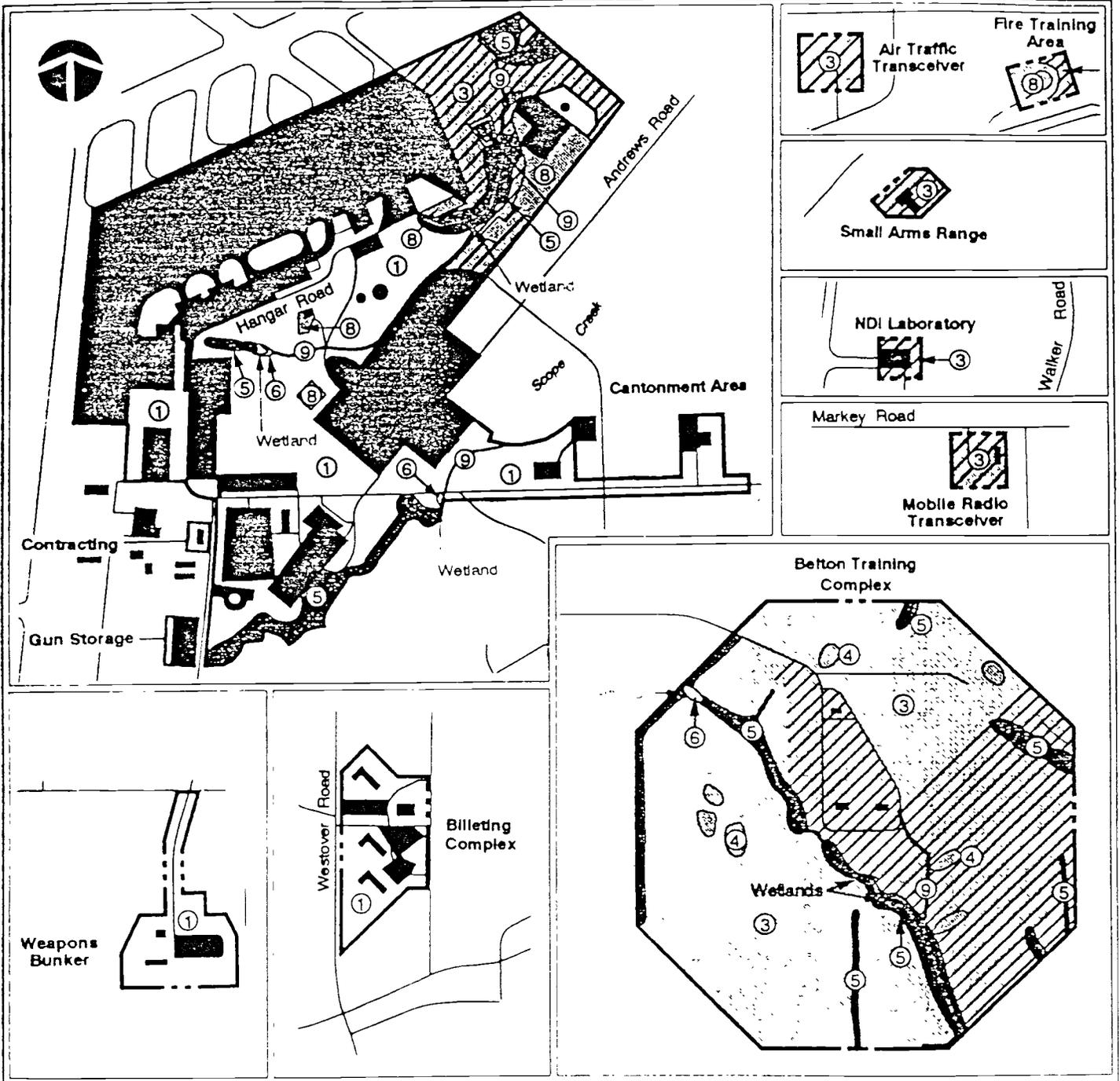
The vegetation in the wetland areas in the Belton Training Complex is similar to that in the Cantonment Area wetland areas, which is predominantly cattails, honey locust, and cottonwoods. The wetlands in the Belton Training Complex are wooded and support more wildlife species than the wetlands in the Cantonment Area. The only project identified in this program is UEBL 95-7012, which will collect additional samples of the wetland area within the Cantonment Area.

3.3.4 Surface Waters

The main base area is within the Missouri River drainage basin; the Belton Training Complex is within the South Grand portion of the Osage River drainage basin. The local surface hydrology is dominated by the drainage systems of the Blue and Little Blue rivers. Scope Creek, a natural drainage/surface water feature next to the base, flows from the south to the northeast, terminating in the Little Blue River. Scope Creek is an intermittent stream that contains water much of the time. A number of impoundments also have been built in the area, creating a few ponds. No recreational ponds are on Richards-Gebaur AFB, although two are near base property. As far as natural springs, no major springs exist in the vicinity.

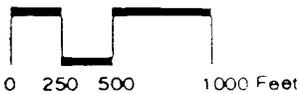
The primary drinking water source for the entire region is the Missouri River. The water is piped from the river by the Kansas City Water and Pollution Control Department.

The Air Force samples and tests the water quality at five sites along Scope Creek, one along a runoff-channel up-gradient of Scope Creek, and the two ponds that receive runoff from the Billeting Complex and NDI Laboratory. For a number of chemicals, analysis results were below detectable levels (e.g., beryllium, cyanide, ammonia, nitrate, and many others). Water samples that did exceed detectable levels (e.g., chloride, fluoride phenol, oil and grease) had low concentrations of measurable contaminants.



EXPLANATION

- | | | |
|-----------------|---------------|-----------|
| ① Landscaped | ⑤ Forest | ⑨ Water |
| ② Agriculture * | ⑥ Swamp/Marsh | Developed |
| ③ Grassland | ⑦ Tundra * | Disturbed |
| ④ Shrubland * | ⑧ Barren | Wetland |



* Standard vegetation designation not applicable to this figure

Biological Resources

Figure 3-2

3.3.5 Floodplains

There are no 100-year floodplains on Richards-Gebaur AFB.

3.3.6 Paleontological Resources

The geologic units at the Richards-Gebaur AFB include thin surface layers of residuum (weathered bedrock) and loess (wind-blown silt) overlying a stratigraphic sequence of Paleozoic Era sedimentary rocks, which rest on Precambrian granitic bedrock.

No animal (vertebrate or invertebrate) or plant fossils are known from the surface residuum and loess on or near Richards-Gebaur AFB. Fossil identification from rock units studied in areas near Richards-Gebaur AFB can be extrapolated to identify the probable content of fossils beneath the base. Individual rock units within the approximately 2,500 feet of Paleozoic rocks underlying Richards-Gebaur AFB contain numerous types of marine invertebrate fossils, fossil algae, wood fragments, root impressions, trace fossils, and associated fossils.

The base contains no known important fossil localities; no lands are set aside for fossil preservation (e.g., state or national fossil parks), and there are no National Natural Landmarks within the area.

3.3.7 Historic Resources

The 1982 cultural resources investigation identified one historic archaeological site (23CS102, a 1926 single-family residence) that was not recommended as eligible for the National Register. Site 23CS102 is located near the south end of the runway in an area that was transferred during the earlier base closure action and is no longer under Air Force ownership. The Missouri State Historic Preservation Officer (SHPO) has agreed that disposal and reuse of the base will have no effect on archaeological resources. In 1982, over 100 buildings and structures were listed on the Richards-Gebaur AFB real property inventory detail list, and all were evaluated in the 1982 cultural resources management inventory. Of these, 17 were recommended as potentially eligible to the National Register, and are described as follows:

- Eleven quonset huts potentially eligible as a thematic group (Facility numbers 128, 129, 805, 923, 1022, 1107, and 1234-1238)
- The Semi-Automatic Ground Environment (SAGE) complex Facilities 611, 612, 6110, and 6111) and two headquarters buildings (Facility numbers 100 and 602) potentially eligible as an air defense headquarters Historic District.

As a result of the earlier disposal action, only 2 of the 17 buildings (i.e., Building 602, built in 1956; and Building 923, built in 1961) currently remain under Air Force ownership, the remainder have been excessed or demolished.

A review of real property records in April 1993 indicates that the remaining built environment within Richards-Gebaur AFB consists of approximately 83 buildings and structures. All of these, including Buildings 602 and 923, are less than 50 years old. In addition, most of the facilities have undergone extensive modifications that have significantly altered their exterior character-defining qualities. Visual inspection of all of the facilities at the installation reveals that none demonstrate remarkable architectural style or distinctive characteristics of a type, period, or method of construction. Historical research, including interviews with the base historian and other individuals familiar with the history of the installation, indicates that only one building, Building 602, is associated with events or persons significant in the past and the Missouri State Historic Preservation Officer (SHPO) has determined that this building is potentially eligible for the National Register. Building 923 does not demonstrate sufficient significance or integrity to be determined eligible on individual merit and the SHPO has concurred. The boundary of the 1982 proposed Historic District is no longer intact, because all of the buildings (except Building 602) considered to be potentially eligible at that time were excised or demolished as a part of the earlier disposal action.

3.3.8 Prehistoric Sites

The physiography and climate of west-central Missouri have supported a cultural resources chronology that extends into the past for over 14,000 years. One of the earliest known recorded archaeological sites in North America (dated to approximately 12,000 years ago) is the Shriver site located north of Kansas City in Daviess County.

Archaeological surveys of the installation include a 1977 survey performed by the Air Force and the U.S. Army Corps of Engineers (COE); a 1979 survey of a military housing project, the golf course area, and land adjacent to the runway by the COE; and a comprehensive 1982 cultural resources investigation (which also included a historic building/structures survey) of the entire installation (including the Belton Training Complex) by a private consulting firm. The 1982 study was performed in support of the decision to close the base and retain only a small portion for the AFRES, and resulted in the preparation of a cultural resources management inventory.

The 1977 and 1979 surveys concluded that there were no prehistoric archaeological sites of significance identified at Richards-Gebaur AFB. Both surveys were coordinated with the Missouri SHPO and the Eastern Division of the Advisory Council on Historic Preservation. The Missouri SHPO has been consulted regarding the status of archaeological resources at Richards-Gebaur AFB and has concurred that disposal and reuse would have no effect.

3.3.9 Traditional Resources

Traditional resources can include archaeological sites, burial sites, ceremonial areas, caves, mountains, water sources, plant habitat or gathering areas, or any other natural area important to a culture for religious or heritage reasons. Significant traditional sites are subject to the same regulations and afforded the same protection as other types of historic properties. Any modern

traditional resources at Richards-Gebaur AFB would be associated with the Osage, Kansa, or Missouri Indian tribes; however, no such resources have been identified.

To ensure that any Native American concerns relating to the disposal and reuse of Richards-Gebaur AFB are adequately considered, consultation with the Heart of America Indian Center in Kansas City has been initiated.

3.4 Environmental Condition of Property

The Environmental Baseline Survey (EBS) evaluates the environmental condition of real property at Richards-Gebaur AFB, Missouri, resulting from the storage, use, and disposal of hazardous substances and petroleum products and their derivatives over the installation's history, and to establish a baseline for use by the Air Force in making decisions concerning real property transactions. The preparation of an EBS is a DoD requirement before any property can be sold, leased, transferred, or acquired.

The EBS was based on information obtained through a search of the records, interviews, and visual inspections. The records search included a review of available Air Force and other agency records, including environmental restoration and compliance reports, audits, surveys, facility drawings, and inspection reports; an analysis of aerial photographs; and a review of recorded chain of title documents for the property. Interviews with employees and visual inspections of the base property and facilities were also conducted. The EBS also includes an assessment of the environmental condition of off-base properties contiguous to or relatively near the base that could pose environmental concern and/or affect the subject property. The environmental condition of property at Richards-Gebaur AFB was then classified into one of seven categories:

- **Category 1** - Areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas)
- **Category 2** - Areas where only storage of hazardous substances or petroleum products has occurred (but no release, disposal, or migration from adjacent areas has occurred)
- **Category 3** - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, but at concentrations that do not require cleanup
- **Category 4** - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, and all remedial actions necessary to protect human health and the environment have been taken

- **Category 5** - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, removal and/or remedial actions are under way, but all required RAs have not yet been taken
- **Category 6** - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, but required response actions have not yet been implemented
- **Category 7** - Areas that are unevaluated or require additional evaluation.

MDNR did not concur with any of the property noted as uncontaminated (Category 1 through 4) in the EBS, citing unsupported conclusions, lack of supporting data, poor maps, and glaring errors as primary reasons for the non-concurrence.

3.4.1 Category 1 Through 7 Areas

Due to the non-concurrence with Category 1-7 properties by MDNR, the BRAC Cleanup Team (BCT) has not agreed on what property can be classified in any of the seven categories. The BCT has placed this issue high on its agenda to resolve. Property in Categories 1 through 4 are eligible for deed transfer and property in Categories 5 through 7 are not to be considered for transfer until all necessary actions have been taken. Property must be reclassified into categories 1 through 4 to be transferred. Leases will be considered on a case-by-case basis for properties within categories 5 through 7.

3.5 Status of Community Involvement

Following the announcement of the base closure in 1991, Richards-Gebaur AFB met with the MDNR and community leaders to plan for the conversion and reuse of Richards-Gebaur AFB property. A public meeting for the draft Reuse Plan in January 1994 drew a crowd of 50 people from across the community. The only environmental issue raised at this meeting concerned aircraft noise should additional air freight carriers move to the area. A few members of the community are participating in the Remedial Advisory Board which is co-chaired by the former mayor of Belton. The time it takes to cleanup sites is the primary concern for RAB members. Generally speaking, community interest has been very low with regard to site restoration. The base plans to prepare fact sheets and hold additional public meetings when RAs are selected. Proposed plans for RAs will be distributed to the regulatory agencies for comment. AFBCA will respond to all comments, documenting those responses on what the remediation will entail prior to any RA being taken. Community meetings are planned to present base closure and IRP activities.

Around the time of base closure a Community Relations Plan (CRP) will be developed detailing how the base intends to involve the community in base restoration and disposal activities. The plan will include an updated mailing list. The Administrative Record (AR) is located on the base

at the Public Affairs Office in the Public Information File. The primary AR is maintained by the BEC in building 606. The public may keep abreast of the IRP activities at Richards-Gebaur AFB through various sources of information including the public/open viewing of IRP documents located in the Public Affairs Office.

Chapter 4 Strategy for Environmental Restoration

The purpose of this chapter is to summarize the environmental restoration and compliance strategy for environmental concerns at Richards-Gebaur AFB. Prior to the announcement of base closure, base strategies were primarily focused on restoration and compliance activities. In addition to the commitment to investigate and remediate existing IRP sites, Richards-Gebaur AFB has identified additional areas of potential contamination, known as areas of concern (AOCs), which require further assessment. As additional areas of contamination are identified, they will be incorporated into the most expedient cleanup program. Strategies are now focused on restoration and compliance activities as they relate to conversion and reuse of base property.

4.1 Strategy for Zone/OU Designation

4.1.1 Zone Designations

As part of the ongoing IRP, Richards-Gebaur AFB conducted environmental restoration investigations without subdividing the base into zones. This strategy has not changed due to the small number of IRP sites and other cleanup activities taking place (or planned) for the base, zone designation is not a useful management tool at this time.

4.1.2 OU Designations

The strategy used to establish OUs on Richards-Gebaur AFB is based on the small number of IRP sites and other cleanup activities taking place at the base. At this time no OUs are designated for the base. OU designations are advantageous when multiple sites exhibit common contaminants, a common media requiring restoration, the phase of study is common, and/or are located in close proximity to one another. At this time, all sites are being studied and remediated on an individual basis. The BCT may change this strategy in the future should conditions require this site management tool or the pairing of sites.

4.1.3 Sequence of OUs

This section is not applicable to Richards-Gebaur AFB. Further, the reuse priorities have not been set by the community, however, the current OU strategy is compatible with the draft Reuse Plan. Should reuse priorities change in the final Reuse Plan, the OU strategy may be modified when determining the sequencing and scheduling of remedial activities at individual sites. The BCT will develop long-term sequencing of remediation activities and the associated document schedules to ensure that the restoration activities are in line with compliance schedules, property disposal and reuse priorities.

4.2 Restoration Strategy

4.2.1 IRP Early Action Strategy

The current BCT strategy is to remove source areas which present a significant threat at the earliest opportunity. This strategy has been applied to many areas where contamination was localized. Analytical results of the cleanup action will be used to determine the positive impact on the contamination source, to what extent the required action levels (if any) were achieved.

The BCT strategy for responding to smaller petroleum residue sources differs somewhat from the general early action response strategy; since cleanup at site ST005 is aboveground, ongoing, and will be in progress for 3 to 5 years, soil containing only petroleum residues (lab verified) will be removed and incorporated into the soils undergoing remediation at ST005.

4.2.2 IRP Remedy Selection Approach

Richards-Gebaur AFB has entered into a cooperative agreement with the MDNR for oversight and guidance during IRP activities. The agreement, referred to as the DSMOA, defines state and Air Force responsibilities during the IRP. The state has agreed to review, comment, and make recommendations on project plans, identify state ARARs, and designate a state project manager to participate in planning and review. The DSMOA does not encompass other aspects of President Clinton's Fast Track Cleanup Program for closing installations.

Remedies will be selected in accordance with the DSMOA. The BCT will involve all relevant parties in the remedy selection process. The base is not on the NPL; however, the tools provided within the NCP provide the BCT with procedures to consider when selecting remedies. In the review of the document and evaluation of potential remedial alternatives, the BCT will specifically address the following:

- **ARARs** Applicable regulatory and technical requirements for anticipated remedial actions will be fully identified in TAG meetings.
- **ARAR waivers** The effectiveness of alternatives in reducing concentrations of contaminants to chemical-specific ARARs will be evaluated. Waivers will be considered where treatment standards are technically impractical.
- **Land use/risk assessment** Where future uses are known, risk assessment protocols will incorporate future land use considerations in developing exposure scenarios.
- **Treatability studies** Treatability studies could be utilized to support performance-based remedial responses.

4.2.3 Strategy for Other Environmental Concerns

The strategy for petroleum-contaminated soils will be based on the size of the contaminated area. Where the volume of contaminated soil is believed to be small, a strategy of removing the source by excavation and transporting it to an ongoing petroleum-contaminated soil remediation site will be used. The immediate area of interest will be excavated after soil sampling has confirmed that the contamination is compatible with the ongoing treatment at site ST005. Should sample results indicate the presence of contamination which is non-compatible to the ongoing cleanup at ST005, the general early action strategy will be reviewed by the BCT for compatibility. The strategy to address sites involving large volumes of petroleum-contaminated soil is in development. No evidence of groundwater contamination currently exists from any petroleum products.

The strategy for sites with unexploded ordinance (XOD) and areas of environmental concern is to first have the land cleared by XOD experts prior to sampling for contaminants. In areas of significant concern, a round-robin approach around the perimeter of the site may be required. The BCT will consider reuse and disposal priorities at all times.

4.3 Compliance Strategy

4.3.1 Underground Storage Tanks

The remaining 2 USTs and 1 OWS system will be removed during the latter part of 1994 and the tanks closed in accordance with MDNR UST regulations. Records for these and other previously removed USTs will be kept on-site for at least 3 years or as required. After 3 years, tank records will be archived with other base environmental records.

4.3.2 Hazardous Materials and Waste Management

The management of hazardous materials and hazardous waste is currently being conducted by the base environmental engineer in accordance with the Hazardous Materials Management Plan, Spill Response Plan, Air Force policy, Air Force Reserve policy, MDNR guidance and regulations which are applicable to the hazardous materials/waste managed by the base. After the base closes, no hazardous waste is expected to be generated by AFBCA.

4.3.3 Solid Waste Management

The management of solid waste is currently being conducted by the base environmental engineer in accordance with the Solid Waste Management Plan, Air Force policy, Air Force Reserve policy, MDNR guidance and regulations applicable to solid waste generated by the base.

4.3.4 Polychlorinated Biphenyl Management

All base property is PCB-free. There is no indication at present which indicates otherwise.

4.3.5 Asbestos-Containing Material

A survey of asbestos-containing materials was conducted for a majority of the facilities located on the base. The strategy on buildings for which the survey was incomplete or is still required will be determined at a later date.

4.3.6 Radon

This section is not applicable to any portion of the base property. No permanent housing units or other facilities of concern are present on the base which require disclosure of radon levels. However; the base bioenvironmental engineers are conducting random sampling of various types of buildings to determine if facilities that are pickled (boarded up) for an extended period of time are more susceptible to increased concentrations of radon gas. Results will be released to new owners/tenants.

4.3.7 RCRA Facilities

This section is not applicable to any portion of the base property. No permitted RCRA facilities are present or required by law at the base.

4.3.8 Clean Water Act (NPDES Permits)

The base environmental engineer is applying for a NPDES permit for several stormwater outfalls. After the base closes, industrial activities will cease with the possible exception of tenants. Tenants will be responsible for any NPDES permits.

4.4 Preservation Strategy for Natural and Cultural Resources

In general, natural resource preservation strategies will use common sense and be along the same lines as the communities reuse plans for the base. Efforts will not be made to preserve natural resources that the community has plans to significantly alter in the near future.

4.4.1 Threatened and Endangered Species

No threatened or endangered species have been observed on the base. A preservation strategy will be developed if threatened or endangered species are observed or seen on the base.

4.4.2 Sensitive Habitats

Wetlands are the only sensitive habitats and are discussed in section 4.4.3.

4.4.3 Wetlands

Less than one acre of non-jurisdiction wetland areas have been identified scattered across base property. A wetland protection strategy is still in development.

4.4.4 Surface Waters

A strategy to protection the surface water resource is being developed.

4.4.5 Floodplains

No 100-year floodplains are located on the base. Therefore, no protection strategy will be developed for this natural resource.

4.4.6 Paleontological Resources

No resource of this type exists on the base. A preservation strategy will be developed if this resource is found on the base in the future.

4.4.7 Historic Structures

It is the opinion of the AFCEE contractor that no resource of this type exists on the base. The determination for building 602 is still pending. A preservation strategy will be developed if this building is found to have significant historic value.

4.4.8 Prehistoric Sites

No resource of this type exists on the base. A preservation strategy will be developed if this resource is found on the base in the future.

4.4.9 Traditional Resources

The Heart of America Indian Center is investigating if traditional resource exist on base property, and will notify the BEC. A preservation strategy will be developed if this resource is found on base property.

4.5 Strategy for Community Involvement

The community relations strategy at Richards-Gebaur AFB is being refined. A community relations plan (CRP) will be rewritten in the near future. Richards-Gebaur AFB maintains an Administrative Record at the base public affairs office and in the BEC's office. Public meetings will be held during and after the completion of the disposal and reuse EIS and development of a parcel disposal and reuse plan. The RAB has been formed, with members from the local community. Fact sheets will be published and public meetings will be held to discuss remedial

actions. Public meetings will be held during and after completion of the disposal and reuse EIS and while the parcel disposal and reuse plan is developed.

The Richards-Gebaur AFB BRAC Cleanup Team has adopted the following strategy to support a proactive community relations program in accordance with the CERCLA requirements:

- Implement a revised CRP upon publication.
- Develop proposed plans and prepare proposed plan fact sheets. Issue public notice 1-2 weeks in advance of public comment periods on proposed plans in at least two local newspapers.
- Cultivate public comments on proposed plans in the public meetings, and respond to all comments verbally and in a responsiveness summary.
- Maintain the information repository on the base. Establish an information repository at a local library.
- Publish facts sheets on the progress of the environmental restoration/compliance.

Chapter 5 Environmental Program Master Schedules

This chapter presents the Richards-Gebaur AFB master schedule for activities anticipated in the environmental restoration and compliance programs. These schedules are simplified versions of detailed schedules developed to support site-specific environmental restoration activities.

5.1 Restoration Program

5.1.1 Response Schedules

Planned restoration activities are summarized in the master restoration schedule shown in Table 5-1. The Richards-Gebaur AFB restoration program includes eight IRP sites; and 4 AOCs. The ability to meet the milestones shown in the master restoration schedule hinges on (1) the successful completion/completeness of all planned studies, (2) the timely review of documents supporting the environmental restoration activities, (3) the availability of funds, and (4) other unforeseen events that delay the schedule.

5.1.2 Requirements by Fiscal Year

Funding and scheduling for environmental restoration of restoration sites has been developed through 1998 for most of the restoration sites. Sites requiring environmental restoration will be given higher priorities to facilitate the transfer of the property under CERCLA §120(h). Full funding for each FY requirement is contingent upon approval of budgets. Should the ongoing and proposed investigations identify additional unexpected remediation and cleanup activities, it may be necessary to obtain additional funding. However, the funds already allocated are expected to be sufficient.

Table 5-1 Restoration Master Schedule

IRP site or AOC	1993	1994	1995	1996	1997	1998	1999
FT002	RI		IRA	SC			
SS003	RI		SC				
SS004	RI		SC				
ST005	RI/FS	RD/RA	LTRO			SC	
SS006	SI		SC				
ST007	IRA		SC				
SS008		PA/SI	IRA	SC			
SS009		PA/SI	IRA	SC			
AOC #1			PA	Unknown beyond this point			
AOC #2			PA	RFI	CAP		
AOC #3			PA	Unknown beyond this point			
AOC #4			PA	Unknown beyond this point			

5.2 Compliance Programs

The compliance schedule for Richards-Gebaur AFB is shown in Table 5-2. Funding for compliance projects has been projected through 1998.

5.2.1 Master Compliance Schedules

The compliance schedules for Richards-Gebaur AFB are provided in Table 5-2.

Table 5-2 Compliance Master Schedule

Project	1994	1995	1996	1997	1998
Close IRP site ST007 ¹					
Hazardous Waste Disposal					
UST & OWS closures					
Hydrant Corrective Action-Phase 1					
Hydrant Corrective Action-Phase 2					
BEC training					
Compliance Support					

(1) ST007 is being closed under UST regulations.

5.2.2 Requirements by Fiscal Year

The detailed requirements information by fiscal year for compliance issues are contained in the Richards-Gebaur AFB Project Program Book and is incorporated into this document by reference. Appendix A is the Project Program Book.

5.3 Natural and Cultural Resources

Section not applicable to Richards-Gebaur AFB. No projects are planned in this area.

5.4 BCT Meeting Schedule

The BRAC Closure Team (BCT) has elected to remain in close contact through frequent teleconferences. The BCT anticipates these meetings to occur twice each month. Meetings with all BCT members participating will be held when USEPA, Region VII is funded for this activity. The Air Force and State representatives will meet as-needed with the schedule TBD.

Chapter 6 Technical and Other Issues to be Resolved

This chapter summarizes technical and other issues that are yet to be resolved. These issues include historical data usability, information management, and data gaps. This section outlines the status, strategy, and BRAC Cleanup Team action items required to resolve technical issues.

6.1 Data Usability

This section summarizes unresolved issues pertaining to the validity of using historical data sets in the Richards-Gebaur AFB environmental restoration program. The BCT strategy for ensuring historical data sets retain value throughout the restoration process is to have contractors reevaluate QA/QC documentation for historical data sets during the Remedial Investigation phase, to determine whether the former data is adequate, and what data gaps must be filled in order to have a supportable FS/RD/RA.

6.1.1 BCT Action Items

- In order to ensure the usability of historical, current, and future data sets in the Richards-Gebaur AFB environmental restoration program, the BCT will continue to implement the standardized data quality management procedures previously established.

6.1.2 Rationale

Current and future data from each data collection system (e.g., field laboratory data collection and screening techniques) are critical to the completion of site characterization efforts, risk assessments, and, ultimately, the selection of RAs to protect human health and the environment. Since the date of the ROD locks in the environmental standards on that date (except for regulations without grandfather provisions), it also applies to the QA/QC standards in effect at the same time.

6.1.3 Status/Strategy

The service center (AFCEE) will ensure that data produced from ongoing and future reports are reviewed during the RI phase to determine whether the field and laboratory QA/QC documentation of past sampling events is sufficient to support RI findings and conclusions. The BCT will ensure that this occurs by reviewing/approving project work plans, requesting a laboratory audit compliance assessment be performed if needed, and providing real-time project quality management oversight.

6.2 Information Management

This section summarizes issues that need to be resolved with regard to managing information gathered and used in the Richards-Gebaur AFB environmental restoration and compliance programs.

6.2.1 BCT Action Items

- Improve access to, and management of, environmental restoration and real estate data generated at Richards-Gebaur AFB.
- Establish a data clearinghouse which is a natural extension of the IRP Information Management System (IRPIMS) sampling and analysis data base at AFCEE. Ensure the clearinghouse is able to distribute the data in a standard format.
- Require all contractors working at Richards-Gebaur AFB to submit attribute and spatial data to the clearinghouse in electronic format. Be sure that all data generated are integrated into a single, coherent data base, perhaps a graphics information system (GIS).
- Marry EIS and EBS study data to a GIS sample data system capable of assisting in the identification of those areas that are suitable and unsuitable for transfer of deed.

6.2.2 Rationale

As the number of agencies and contractors associated with the Richards-Gebaur AFB environmental restoration program grows, it is important that involved parties have the ability to share data. The establishment and maintenance of an electronic data base containing sampling, analytical, and spatial data is crucial to the timely analysis of all related data.

6.2.3 Status/Strategy

Some of the earlier studies performed at Richards-Gebaur have been loaded into IRPIMS, but remain inaccessible to key players. Prioritize the studies which still need to be loaded into IRPIMS. Advocate for on-line access (read only) to the IRPIMS database for the BEC, MDNR, USEPA Region 7, RAB members, and contractors performing the restoration or compliance work. Require AFCEE contractors to submit sample results electronically in accordance with the *IRPIMS Data Loading Handbook*. The BCT will review the IRPIMS data quality reports submitted by the contractor. Using IRPIMS with spatial analysis tools, such as a GIS system, permits the rapid creation of current conceptual models that illustrate target areas, sources, pathways, and receptors.

6.3 Data Gaps

6.3.1 BCT Action Items

- Resolve which groundwater sampling methods are best suited to close sites where the source was very small and was removed with a early action.
- Resolve the sample quality issue posed by groundwater sampling methods used at FT002 to quantify groundwater contaminants.
- Review all sites and AOCs for data gaps.
- Require BCT involvement at the draft stage for future EBSs and parcel-specific EBSs.

6.3.2 Rationale

Effective identification and filling of data gaps ensures timely restoration and facilitates the development of conceptual site models. Effective analysis of data gaps also facilitate the timely completion of RI efforts so that appropriate RA can be identified and evaluated.

6.3.3 Status/Strategy

The BCT will hold meetings with experts to resolve disputes . Dispute resolution will follow the guidelines set forth in the DSMOA. The BCT will determine at a later date the precise method for resolving existing data gaps and will use BCT meetings to resolve other data gap issues as they are identified.

6.4 Background Levels

Background data from existing documents, including the U.S. Geological Survey (USGS), and from areas near several IRP sites are known for contaminants present at Richards-Gebaur AFB. Background data was used to develop cleanup levels and baseline risk assessments. Additional background data will be generated, as needed, to develop RA plans and perform risk assessments for sites currently being evaluated.

6.4.1 BCT Action Items

- No action items have been identified.

6.4.2 Rationale

Background concentration values of elements in soil, groundwater, surface water and sediments are used in risk assessments. The values must be representative of what is naturally occurring.

6.4.3 Status/Strategy

Monitor the need for background samples. Treat the lack of a background sample as a data gap.

6.5 Risk Assessments

6.5.1 BCT Action Items

- Continue to evaluate the role of anticipated land use as a criterion in selecting assumptions in the exposure assessment. Review site risk assessments in light of the anticipated land use to determine the need for remedial action and to help establish (alternate) cleanup levels.

6.5.2 Rationale

In a time of limited government resources, use all reasonable means available to reduce cleanup costs while also providing a comfortable level of protection to human health and the environment.

6.5.3 Status/Strategy

To be determined.

6.6 Remedial Action Strategy

No issues.

6.7 Interim Monitoring of Groundwater and Surface Water

No issues.

6.8 Excavation of Contaminated Materials

No issues.

6.9 Protocols for Remedial Design Reviews

To be determined.

6.10 Conceptual Models

To be determined, no issues at this time.

6.11 Cleanup Standards

When federal- or state-mandated cleanup standards do not exist for hazardous wastes or constituents in soils, the approach for providing remediation criteria for contaminated soils is either through a site-specific risk assessment or use of more generic guidance levels from the Missouri Department of Health (MDOH). The Interim Final RCRA Facility Investigation (RFI) Guidance, Volume I of IV, Development of an RFI Work Plan and General Considerations for RCRA Facility Investigations (EPA 30/SW-89-071, Waste Management Division, Office of Solid Waste, May 1989) provides health-based guidance criteria concentrations for a number of hazardous compounds and elements based on oral and inhalation exposure routes. These health-based criteria are provided for known carcinogens (Table 8-6 of the RFI guidance) and systemic toxicants (Table 8-7 of the RFI guidance). The criteria contained in this document are subject to change and will be confirmed by USEPA prior to use. For many compounds (listed in Table 6-2 of the RFI guidance), no guidance levels have been developed (Table 6-2).

Table 6-1 Human Health Standards for Drinking Water

Contaminant	Concentration Level (µg/L)	Contaminant	Concentration Level (µg/L)
Alachlor	0.002	Dibromochloropropane (DBCP)	0.0002
Aldibarb	0.003	o-Dichlorobenzene	0.6
Aldicarb Sulfone	0.003	cis 1,2-Dichloroethylene	0.07
Aldicarb Sulfoxide	0.004	trans 1,2-Dichloroethylene	0.1
Arsenic	0.05	1,2-Dichloropropane	0.005
Atrazine	0.003	Ethylbenzene	0.7
Barium	2.0	Ethylene dibromide (EDB)	0.00005
Cadmium	0.005	Fluoride	2.4
Carbofuran	0.04	Heptachlor	0.0004
Chlorodane	0.002	Heptachlor epoxide	0.0002
Chromium	0.1	Lead	0.015
Copper	1.3	Mercury	0.002
Cyanide (CN)	0.75		

6.12 Initiatives for Accelerating Cleanup

The following initiatives have been selected by the BCT for expediting response actions:

Utilize Ongoing Remedial Actions - Use ongoing landfarming operations at one site to remediate small spill areas by using early actions to excavate and transport soils to the site

Target Source Areas - Target source areas for early actions.

Identify ARARs Early - Early in the project, develop a list of ARARs by obtaining lists of ARARs from all agencies and examine recent RODs for similar sites within the state to identify which ARARs are likely to apply.

Risk-based Cleanup - Negotiate risk-based cleanup standards based on future land usage with the regulators.

Concurrent Reviews - Develop a complete list of reviewers early and pursue parallel review tracks to eliminate delays.

Team Approach - Continue to build a strong team consisting of the BEC, MDNR and USEPA. Use AFBCA, AFCEE, and BEC representatives, contractors, and expert personnel to provide input on environmental projects such that sites are closed in a timely cost-effective manner and compliance actions are implemented with identical dispatch.

Joint Preparation - Expedite the document preparation and review/approval through the BCT.

Community Involvement - Involve the community through the RAB during the remedial process to encourage support at the time of site closure. Informing the community during the process should reduce the likelihood of opposing comments during the public comment period.

Innovative Technologies - Remain open-minded about using innovative technologies.

6.13 Remedial Actions

No issues.

6.14 Review of Selected Technologies

No issues.

6.15 Hot Spot Removals

No issues.

6.16 Identification of Clean Properties

The EBS was deemed incomplete by MDNR. The issue will be discussed in the upcoming BCT meetings for specifics. No additional information is available at this time.

6.17 Overlapping Phases of the Cleanup Process

No issues.

6.18 Improved Contracting Procedures

No issues.

6.19 Interfacing with the Community Reuse Plan

No issues with the draft plan. The final will be published at a latter date.

6.20 Bias for Cleanup Instead of Studies

No issues.

6.21 Expert Input on Contamination and Potential Remedial Actions

See Data Gaps section.

6.22 Presumptive Remedies

No issues.

6.23 Partnering

No issues. Partnering will not be utilized for Richards-Gebaur AFB.

6.24 Updating the EBS and Natural/Cultural Resources Documentation

See section 6.16.

6.25 Implementing the Policy for On-Site Decision Making

To be determined.

This is the public version of Appendix A

Appendix A Fiscal Year Funding Requirements & Costs

Table A-1 Restoration Summary

Site/Need	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000
AOC#1							
AOC#2							
AOC#3							
AOC#4							
FT002							
SS003							
SS004							
ST005							
SS006							
ST007							
SS008							
SS009							
OLQ support							

Costs in thousands of dollars

* Now or expected to be in the compliance program

Table A-2. Environmental Compliance Summary

Action	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000
OLQ support							
Hydrant cleanup							
Hazardous waste disposal							
UST removals							
Close ST007							
Remove IRP monitoring wells							

Costs in thousands of dollars

Table A-3 Environmental Program Summary

Source	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000
Table A-1							
Table A-2							
Totals							

Costs in thousands of dollars

NOTICE: Appendix A contains government estimates, and is for official government business only. This is the public version. Due to government procurement laws and regulations, it illegal to distribute information on the costs associated with the projects contained herein until the contracts have been awarded.

**FY 95 Base Closure Account
Programming Document
Richards-Gebaur AFB**

DESCRIPTION: This project provides the uninterrupted continuation of an ongoing remediation in progress at an old petroleum storage yard. The project also makes early actions possible for other small petroleum contaminated sites since all petroleum contaminated soils will eventually be remediated *enmass* at this site.

FY 95 PROGRAMMING INFORMATION:

PROJECT NUMBER	DESCRIPTION	COST (\$000)
UEBL 95-7005	Long-Term Remedial Operations @ ST005	

IMPACT IF NOT FUNDED: The NPDES permit will be violated. Uncontrolled releases to the environment will damage sensitive habitat and kill several aquatic species. Fines will total more than funding this project. Property reuse will be delayed. Property values may drop. Neighboring property owners may sue for damages.

MULTI-YEAR FUNDING (\$000):

ACTIVITY	FY 96	FY 97	FY 98	FY 99	FY 00
LTRO @ ST005					
ST005 Site Closure					
TOTALS					

PRIORITY: 1

**FY 95 Base Closure Account
Programming Document
Richards-Gebaur AFB**

DESCRIPTION: This project addresses an area of concern (AOC) within the central wetland area where a single sediment sample showed that lead contamination is at least ten (10) times higher than the RCRA action level. The project will collect samples to (1) confirm contamination exists, (2) begin the quantification process, (3) determine what type of site this is, and (4) recommend early action measures that will reduce immediate risk.

FY 95 PROGRAMMING INFORMATION:

PROJECT NUMBER	DESCRIPTION	COST (\$000)
UEBL 95-7012	Area Of Concern #1	

IMPACT IF NOT FUNDED: Uncontrolled releases of lead to the environment could damage sensitive habitat, cause nervous system and/or kidney damage in humans, and kill susceptible species. Such releases violate several major pieces of environmental law.

MULTI-YEAR FUNDING (\$000):

ACTIVITY	FY 96	FY 97	FY 98	FY 99	FY 00
AOC#1 sampling					

PRIORITY: 2

**FY 95 Base Closure Account
Programming Document
Richards-Gebaur AFB**

DESCRIPTION: This project provides for the disposal of hazardous waste found on base after the fighter unit relocates to Whiteman AFB.

FY 95 PROGRAMMING INFORMATION:

PROJECT NUMBER	DESCRIPTION	COST (\$000)
UEBL 95-6007	Hazardous Waste Disposal	

IMPACT IF NOT FUNDED: RCRA hazardous waste storage regulations will be violated. Missouri hazardous waste storage regulations will be violated. Potential NOV's and fines could result. Property cannot be leased or conveyed. An uncontrolled release to the environment may occur. Human health and the environment would be jeopardized.

MULTI-YEAR FUNDING (\$000):

ACTIVITY	FY 96	FY 97	FY 98	FY 99	FY 00
HazWaste Disposal					

PRIORITY: 3

**FY 95 Base Closure Account
Programming Document
Richards-Gebaur AFB**

DESCRIPTION: This project provides funds at the OL for overhead incurred by restoration activities at the base. The funds will be used for TDYs, USEPA training, new monitoring well locks, remedial action water and electric bills, Tyvex suits & booties, remedial action sanitary sewer charges, water-level probe rental, HNu meter rental, environmental hazard signs, restoration unique supplies, pH paper, metal detector rental, hand auger rental, sample collection jars, environmental law library services, supplemental groundwater samples, Xyoprene gloves, BCT equipment/supplies, supplies for the future GIS, etc.

FY 95 PROGRAMMING INFORMATION:

PROJECT NUMBER	DESCRIPTION	COST (\$000)
UEBL 95-7004	OLQ Restoration Support	

IMPACT IF NOT FUNDED: The BEC, BCT and RAB will be unable to function. NOV possible for not meeting training requirements, hazard posting regulations, or 24 hour sampling requirement. Property reuse will be delayed.

MULTI-YEAR FUNDING (\$000):

ACTIVITY	FY 96	FY 97	FY 98	FY 99	FY 00
LTRO @ ST005					

PRIORITY: 4

**FY 95 Base Closure Account
Programming Document
Richards-Gebaur AFB**

DESCRIPTION: This project provides funds at the OL for overhead incurred by compliance activities at the base. The funds will be used for TDYs, USEPA training, storm water samples, protective outerwear for sampling, stream velocity meter rental, HNu meter rental, posting environmental hazard signs, compliance unique supplies, pH paper, spill response supplies, UST registration fees, RAB reproduction costs of historical documents, sample collection jars, environmental law library services, 24 hour hazardous waste sample collection, supplies for BCT, RCRA waste labels, small fines, etc.

FY 95 PROGRAMMING INFORMATION:

PROJECT NUMBER	DESCRIPTION	COST (\$000)
UEBL 95-6001	OLQ Compliance Support	

IMPACT IF NOT FUNDED: The BEC, BCT and RAB will be unable to function. NOV's are possible for not meeting training requirements, RCRA hazard posting regulations, MDNR 24 hour sampling requirements, UST fee non-payment, etc. Property reuse will be delayed.

MULTI-YEAR FUNDING (\$000):

ACTIVITY	FY 96	FY 97	FY 98	FY 99	FY 00
LTRO @ ST005					

PRIORITY: 5

1. COMPONENT AFBCA		FY 1995 ENVIRONMENTAL PROJECT DATA SHEET			2. DATE 15 MAR 94	
3. INSTALLATION & LOCATION OLQ (Richards-Gebaur AFB)			4. PROJECT TITLE Hydrant Remediation - Phase 2			
5. PROGRAM ELEMENT BCA 2-Part I-600		6. CATEGORY CODE		7. PROJECT NUMBER UEBL 95-6005		8. PROJECT COST
9. COST ESTIMATES						
ITEM		U/M	QUANTITY	UNIT COST (\$)	COST (\$000)	
Remediate petroleum contaminated soils using a combination of passive bioventing, removal, landfarming and mulching. Prepare site closure report. Estimated 17 FEB 94 at peer review		CY EA				
10. DESCRIPTION OF PROPOSED ACTION Respond to hydrant leak in accordance with the MDNR corrective action plan. PROJECT: Remediate petroleum contaminated soils using a combination of passive bioventing, removal, landfarming and mulching in accordance with MDNR UST corrective action plan. REQUIREMENT: Missouri UST regulations: 10 CSR 20-10. Federal UST regulations: 40 CFR 280.60. CURRENT SITUATION: An 8-inch hydrant fuel line leaked injecting large quantities of fuel into the pea gravel backfill materials of the area utilities. Preliminary indications show that fuel may have traveled as far as a half mile. IMPACT IF NOT PROVIDED: NOVs and non-compliance with the corrective action plan. This prime revenue generating property cannot be transferred until cleanup occurs. ADDITIONAL: This project is the #6 priority for OLQ.						

1. COMPONENT AFBCA		FY 1995 ENVIRONMENTAL PROJECT DATA SHEET		2. DATE 15 MAR 94	
3. INSTALLATION & LOCATION OLQ (Richards-Gebaur AFB)			4. PROJECT TITLE Close ST007		
5. PROGRAM ELEMENT BCA 2-Part I-600		6. CATEGORY CODE	7. PROJECT NUMBER UEBL 95-6004		8. PROJECT COST

9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST (\$)	COST (\$000)
Remove Passive Bioventing System Fill hole with clean backfill Perform two rounds of monitoring Site Closure Report IRPIMS data loading Estimated 17 FEB 94 at peer review	EA CY SP EA EA			

10. DESCRIPTION OF PROPOSED ACTION
 Site ST007 requires closure. Actions noted above were recommended by the contractor, and approved by the BCT.

PROJECT: Remove biovents, restore site contours, do two rounds of groundwater monitoring, prepare a site closure report.

REQUIREMENT: Site closure is required by CERCLA to convey property and by MDNR.

CURRENT SITUATION: IRA system installed in 1988 remediated all contaminated groundwater and soil. A final closure report is required to confirm this.

IMPACT IF NOT PROVIDED: Flightline property cannot be conveyed. This is prime revenue generating property for the community

ADDITIONAL: This project is the #7 priority for OLQ.

**FY 95 Base Closure Account
Programming Document
Richards-Gebaur AFB**

DESCRIPTION: This project provides the closure monitoring of groundwater for three sites, SS003, SS004 and SS006.					
FY 95 PROGRAMMING INFORMATION.					
PROJECT NUMBER	DESCRIPTION				COST (\$000)
UEBL 95-7011	Site Closure Monitoring				
IMPACT IF NOT FUNDED: Three IRP sites cannot be closed. Property reuse of the largest prime acreage parcel will be delayed until funded.					
MULTI-YEAR FUNDING (\$000):					
ACTIVITY	FY 96	FY 97	FY 98	FY 99	FY 00
Monitoring					

PRIORITY: 8

1. COMPONENT AFBCA		FY 1995 ENVIRONMENTAL PROJECT DATA SHEET			2. DATE 15 MAR 94	
3. INSTALLATION & LOCATION OLQ (Richards-Gebaur AFB)			4. PROJECT TITLE IRA @ SS008			
5. PROGRAM ELEMENT BCA 2-Part I-700		6. CATEGORY CODE	7. PROJECT NUMBER UEBL 95-7001		8. PROJECT COST	
9. COST ESTIMATES						
ITEM	U/M	QUANTITY	UNIT COST (\$)	COST (\$000)		
Remediate petroleum contaminated soils using a combination of passive bioventing, removal, landfarming and mulching. Prepare site closure report. Estimated 17 FEB 94 at peer review	CY EA					
10. DESCRIPTION OF PROPOSED ACTION Remediate petroleum contaminated soils using a combination of passive bioventing, removal, landfarming and mulching contingent upon the findings of the phase 2 site inspection report. PROJECT: Remediate petroleum contaminated soils using a combination of passive bioventing, removal, landfarming and mulching to reduce exposure impact. REQUIREMENT: ARARs: Missouri UST regulations: 10 CSR 20-10. Federal UST regulations: 40 CFR 280.60. CURRENT SITUATION: A petroleum product of unknown origin was observed leaking into an open utility trench. Preliminary indications show that the fuel may be the result of a surface spill. IMPACT IF NOT PROVIDED: This revenue generating property, slated for industrial reuse, cannot be transferred until cleanup occurs. ADDITIONAL: This project is the #9 priority for OLQ.						

1. COMPONENT AFBCA	FY 1995 ENVIRONMENTAL PROJECT DATA SHEET			2. DATE 15 MAR 94
3. INSTALLATION & LOCATION OLQ (Richards-Gebaur AFB)		4. PROJECT TITLE IRA @ FT002		
5. PROGRAM ELEMENT BCA 2-Part I-700	6. CATEGORY CODE	7. PROJECT NUMBER UEBL 95-7006	8. PROJECT COST	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST (\$)	COST (\$000)
<p>Remove lead contaminated surface soils Prepare sampling report. Load data into IRPIMS</p> <p>Estimated 17 FEB 94 at peer review</p>	<p>CY EA EA</p>			
<p>10. DESCRIPTION OF PROPOSED ACTION Perform early response to lead contamination at the surface and reduce site risk 100-fold.</p> <p>PROJECT: Remove lead contaminated surface soils and haul to an approved "special waste" landfill or select a equivalent solution.</p> <p>REQUIREMENT: Missouri Department of Health MDOH guidance on the health risks of various contaminants in the top 12 inches of soil classifies this parcel as not fit for any use.</p> <p>CURRENT SITUATION: MDOH guidance indicates human health risks are present at unacceptable levels for residential use.</p> <p>IMPACT IF NOT PROVIDED: Risk will not be reduced below an action level and a more expensive remedy will ultimately be selected.</p> <p>ADDITIONAL: This project is the #10 priority for OLQ.</p>				

**FY 95 Base Closure Account
Programming Document Summary
Richards-Gebaur AFB**

DESCRIPTION: These projects provide for the environmental work necessary to cleanup the base property and convey the property to new owners. The property consists of 428 acres located in the suburbs of Kansas City. The primary contaminants are petroleum residues and metals.

FY 95 REQUIREMENTS INFORMATION:

PROJECT NUMBER	DESCRIPTION	COST (\$000)
UEBL 95-7005	Long-Term Remedial Operations @ ST005	
UEBL 95-7012	Area of Concern #1	
UEBL 95-6007	Hazardous Waste Disposal	
UEBL 95-7004	OLQ Restoration Support	
UEBL 95-6001	OLQ Compliance Support	
UEBL 95-6005	Hydrant Remediation - Phase 2	
UEBL 95-6004	Close ST007	
UEBL 95-7011	Site Closure Monitoring	
UEBL 95-7001	IRA @ SS008	
UEBL 95-7006	IRA @ FT002	

IMPACT IF NOT FUNDED: Three IRP sites cannot be closed. Property reuse of the largest prime acreage parcel will be delayed until funded.

MULTI-YEAR FUNDING (\$000):

PROJECT	FY 96	FY 97	FY 98	FY 99	FY 00
UEBL 95-7005					
UEBL 95-7012					
UEBL 95-6007					
UEBL 95-7004					
UEBL 95-6001					
UEBL 95-6005					
UEBL 95-6004					
UEBL 95-7011					
UEBL 95-7001					
UEBL 95-7006					
Belton AOC					
IRP site closures					
FY totals					

P Mark Esch, BRAC Environmental Coordinator

Date

Teresa Pohlman, AFBCA Central Region Program Manager

Date

Alan P Babbitt, Acting Deputy Assistant Secretary of the Air Force (Environmental, Safety and Occupational Health)

Date

Richards-Gebaur Air Force Base, Missouri - 15 March 1994

Figure A-1 Past Restoration Schedule (to be included at a later date)

Appendix B Installation Environmental Restoration Documents

IRP Document Name	Contractor	Completed	Code	-----NCP phase completed-----							
				FT002	SS003	SS004	ST005	SS006	ST007	SS008	SS009
Installation Restoration Program Records Search for Richards-Gebaur Air Force Base, Missouri	CH2M Hill	Mar-83	I	PA	PA						
Technical Operations Plan Phase II Stage 2 Confirmation & Quantification Study Installation Restoration Program, Richards-Gebaur AFB, Missouri	Ecology and Environment, Inc.	Sep-86	I	SI WP	SI WP						
Installation Restoration Program Phase II Confirmation & Quantification Stage 2, Richards-Gebaur Air Force Base, Missouri	Ecology and Environment, Inc.	Jul-88	I	SI	SI						
Installation Restoration Program Phase II Confirmation & Quantification Stage 2 Supplement	Ecology and Environment, Inc.	Jul-88		SI			PA				
Informal Technical Report for Richards-Gebaur AFB Phase II Confirmation & Quantification Stage 2	Ecology and Environment, Inc.	Sep-88		SI			SI				
Site Specific Sampling, Analysis, Health, Safety, and Quality Control/ Quality Assurance Plans, Remedial Investigation (RI) Feasibility Study (FS) and Preliminary Assessment (PA) Work Plan for Various Sites, Richards-Gebaur Air Force Base, Belton, MO	O'Brien & Gere	Jul-89		RI-1 WP	RI-1 WP	PA/SI RI-1 WP	RIFS-1 WP	PA WP			
US Army Corps of Engineers Soil Samples at the POL Storage Yard	US Army Corps of Engineers, Missouri River Division	Oct-89					SI				
Geoenvironmental Exploration, Building 902 Richards-Gebaur AFB, MO	General Testing Laboratories, Inc.	Oct-89						PA			
Final Work Plan Site Investigation ST007 Leaking Underground Storage Tank (LUST) Building 902	Geraghty & Miller, Inc. Environmental Services	Feb-91						SI WP			
Final Work Plan for Site Inspection, SS006 Hazardous Maternal Storage Area, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Sep-91					SI WP				
Preliminary Assessment for the Hazardous Maternal Storage Bldg 927 (Site SS006)	O'Brien & Gere	Oct-91						PA			
Remedial Investigation for North Burn Pit, site FT002, Oil Saturated Area, site SS003, Hazardous Waste Drum Storage, site SS004, POL Storage Yard, ST005	O'Brien & Gere	Oct-91		RI-1	RI	PA/SI/R I	RI-1				
Feasibility Study for the POL Storage Yard (ST005)	O'Brien & Gere	Oct-91					FS-1				
Work Plan for Remedial Action, Sites SS003 & SS004, Oil Saturated Area and Hazardous Waste Drum Storage Area, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Oct-91			IRA WP	IRA WP					
Supplemental Work Plan for an IRP Remedial Investigation, FT002 North Burn Pit, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Oct-91		RI-2 WP							
Work Plan for an IRP Remedial Investigation, ST005 POL Storage Yard, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Oct-91					RI-2 WP				
Site Inspection, ST007 Leaking Underground Storage Tank (LUST) Building 902	Geraghty & Miller, Inc. Environmental Services	Nov-91						SI			
Supplemental Remedial Investigation, FT002 North Burn Pit, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Apr-92		RI-2							
Final Closure Report on the Remedial	Burns &	Sep-92				IRA	IRA				

Richards-Gebaur Air Force Base, Missouri - 15 March 1994

Action (at) Sites SS003 & SS004, Oil Saturated Area and Hazardous Waste Drum Storage Area, Richards-Gebaur Air Force Base, Missouri	McDonnell											
IRP Remedial Investigation, ST005 POL Storage Yard, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Nov-92					RI-2					
IRP Feasibility Study, Site ST005 POL Storage Yard, Richards-Gebaur Air Force Base, Missouri, Final Report	Burns & McDonnell	Nov-92					FS-2					
IRP Site Inspection, Site SS008 Test Cell Area, Richards-Gebaur Air Force Base, Missouri, Work Plan	Burns & McDonnell	Jan-93								PA/SI WP		
IRP Remedial Action, SS006, Hazardous Material Storage Area, Richards-Gebaur Air Force Base, Missouri, Final Work Plan	Burns & McDonnell	May-93					SI WP					
IRP Site Inspection, Site SS008 Test Cell Area, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Dec-93								PA/SI-1		
IRP Remedial Action, SS006 Hazardous Material Storage Area, Richards-Gebaur Air Force Base, Missouri	Burns & McDonnell	Dec-93					IRA					

Remainder of table to be completed at a later date.
 CODES: I=IRPIMS loaded IP=IRPIMS pending

Appendix C Decision Documents & ROD Summaries

Richards-Gebaur AFB has one decision document for which remedial action was selected, and two decision documents for early remedial action. The RA was selected for ST005 was selected in a joint effort by the Air Force and MDNR. The two early actions for sites SS003 & SS004 were selected by the Air Force. The early actions at ST007 and SS009 were efforts outside the realm of IRP and no DD was prepared. The early action DD for SS006 is currently being prepared. Decision document summaries could not be prepared in time for the publishing deadline of this plan.

Appendix D No Further Response Action Planned Summaries

The BCT has determined all previously written No Further Response Action Planned Decision Documents are void and reopened all 4 IRP sites previously closed by the Air Force. In order to obtain clean parcel concurrence, MDNR & USEPA must agree 100% with the Air Force position.

Appendix E Conceptual Models

No Conceptual Site Models have been prepared. Conceptual Site Models will be prepared and inserted in this appendix at a later date.

Appendix F Other Additional Information

Table F.1 History of Base Property Disposal

Former Owner	Transaction Code	Acres	Location/ Tract	Date Acquired	Date Transferred/ Relinquished	Remarks
Richards-Gebaur AFB	Ⓢ	92	part of 201	1953	1974	Transferred to DOE by GSA
Richards-Gebaur AFB	Ⓢ	74.47	part of Tract 100	1953	1974	Transferred to Department of Navy Family Housing
Richards-Gebaur AFB	Ⓢ	103	part of 201	1953	1975	Excessed to GSA (1974) and conveyed to city of Belton
Richards-Gebaur AFB	Ⓢ	11.40	part of Tract 100	1953	1980	Transferred to Department of the Army
Richards-Gebaur AFB	Ⓢ	138	part of 100 & 101	1953	1981	Excessed to General Services Administration (GSA)
Richards-Gebaur AFB	Ⓢ	21.5	part of 100 & 120	1953	1983	Department of Navy (Seabee site)
Richards-Gebaur AFB	Ⓢ	31	part of 201	1953	1984	Transferred to DOE
Richards-Gebaur AFB	Ⓢ	12	part of 100	1953	1984	Transferred to Department of Navy
Richards-Gebaur AFB	Ⓢ	2.27	part of 100	1953	1984	Conveyed to Belton School District
Richards-Gebaur AFB	Ⓢ	187.09	part of 100	1953	1984	Conveyed to city of Belton
Richards-Gebaur AFB	Ⓢ	133.54	part of 100	1953	1985	Conveyed to Kansas City
Richards-Gebaur AFB	Ⓢ	2.5	part of 100	1953	1985	Conveyed to the Believers Bible Church
Richards-Gebaur AFB	Ⓢ	1227.24	103,105,106	1956, 1957	1985	Conveyed to Kansas City
Richards-Gebaur AFB	Ⓢ	333.82	109,208 and parts of 100, 114, 120	1955, 1957	1985	Conveyed to Kansas City
Richards-Gebaur AFB	Ⓢ	4.43	part of 100 & 101	1953	1986	Conveyed to city of Belton

Transaction Codes Ⓢ=Property Relinquished Ⓜ=Easement Relinquished

Easement Acreage Summary

Weapons Bunker	Parcel G	113.74 acres/munitions storage safety clearance
Small Arms Range	Parcel C	20.33 acres/small arms range fallout fan
Belton Training Complex	Parcel J	284.41 acres/drop zone training safety clearance
Cantonment Area	Parcel D	2.09 acres/road easement