ENVIRONMENTAL ASSESSMENT FOR PROPOSED CONSTRUCTION OF 917 PARKING LOT/ACCESS BRIDGE BARKSDALE AIR FORCE BASE LOUISIANA

PREPARED BY
2 CES/CEV
BARKSDALE AIR FORCE BASE
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FINDING OF NO SIGNIFICANT IMPACT (FONSI) AND FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA) FOR 917 PARKING LOT/ACCESS BRIDGE

INTRODUCTION

The purpose of the proposed action would be to provide adequate parking for the shops of the 917 Wing reserve unit located on the southern portion of the base as shown in figure 1. Parking for privately owned vehicles (POV) within the 917 Wing cantonment area is provided in two large, one medium, and several small scattered lots. Total capacity of all existing defined POV parking within the area is 540 vehicles. The demand for parking usually exceeds that available within the area. Active duty weekends normally occur twice per month with 700 to 800 personnel attending each.

The existing POV parking lots are insufficient to accommodate all vehicles. Personnel are forced to park vehicles on both sides of Davis Avenue at the curb. This causes the two-lane roadway to be congested and dangerous. The road becomes impassable for larger trucks and emergency vehicles. Fire hydrants and fire lanes are often blocked. Fire personnel also have problems gaining adequate access to facilities. Fire fighting activities are deterred if fire trucks cannot get within 350 feet of the facility. These problems are amplified when reserve units are activated and there is a substantial increase in personnel requiring parking. Finally, the parking deficit increases during times of heightened security when parking spaces nearer the building are blocked to meet force protection requirements. Providing additional off street parking will alleviate or prevent congestion of the public right-of-way and promote the safety and general welfare of the public.

Developable acreage is a premium in this area of the base. POV parking is not allowed inside the security fence on the flight line. Most available land for parking is too remote to provide appropriate access to working areas. As seen in Figure 2, there is ample parking to the east and west but there is a deficit in the mid section of the 917 Wing areas. Given that there are only two sites which are developable for parking and one of them would only provide 27 spaces, there is no practicable alternative to providing an access bridge in the flood plain to a larger parking lot.

Description of the Proposed Action

BAFB proposes to construct a new bridge across Mack's Bayou to provide access to a new parking lot in the southern portion of the base. The bridge will be a concrete arch-span type or "Con-Span" with wing walls. It will be placed on pile supported footings and will span the bayou for 24 feet and be 32 feet wide. The bridge will provide access to a 100-space parking lot.

Alternative to the Proposed Action

An alternative to the proposed action would be to widen Davis Avenue on the South side and provide parallel parking spots. Parallel parking is the only type of parking available along this strip of land since there is only 15 feet between the street and the steep bayou slope. The length of developable land is approximately 600 feet long and can only offer 27 parking spaces based on a 9 foot by 22 foot parking space dimension required for parallel parking.

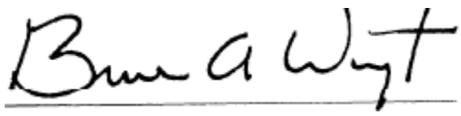
SUMMARY OF ENVIRONMENTAL IMPACTS

The existing land use is categorized as industrial and is fully compatible for the proposed action. All emissions associated with the proposed project would be temporary and as such are not regulated in areas currently in attainment with NAAQS (Northwest Region). Implementing routine construction practices would minimize particulate dust. Undertaking the proposed actions is not expected to significantly impact surface and groundwater resources of the region. Construction activities may introduce suspended solids in drainage run-off to Mack's Bayou. Erosion and sedimentation control measures would be required on this action. Barksdale AFB is not on the National Priority List. A construction waiver is required due to the location on/near Environmental Restoration Program (ERP) site OT-06 Mack's Bayou. No significant impact due to hazardous waste or materials is expected in conjunction with the proposed action. Wildlife, flora and fauna disturbance would be minimal due to the small acreage involved and the poor quality of

the habitat. There would be some clearing of grassy areas during construction of the parking lot and bridge. There are no threatened or endangered species habitats near the proposed site. Barksdale AFB will obtain the appropriate permit for construction in flood plains from the U.S. Army Corps of Engineers for the proposed work. The proposed action is not sited in an area that contains historic, archaeological or Native American resources and therefore impacts to these are not anticipated. Increased noise levels due to construction activities are expected but would be short-term and negligible. The traffic hazards and difficult access to emergency vehicles will be diminished because of the proposed action.

FINDINGS

FONSI/FONPA: On the basis of the findings of this Environmental Assessment conducted in accordance with the requirement of the National Environmental Policy Act, the Council on Environmental Quality Regulations, and Air Force Instruction 32-7061 as promulgated in 32 Code of Federal Regulations Part 989, and after careful review of the potential impacts of the proposed action and no-action alternative, I find that there would be no significant impact on the quality of the human or natural environment from the implementation of the proposed action or no-action alternative described in the EA. Therefore, I find there is no requirement to develop an Environmental Impact Statement. In addition, pursuant to Executive Order 11988, the authority delegated in SAFO 791.1, and taking the above information into account, I find that there is no practicable alternative to this action and that the proposed action includes all practicable measures to minimize harm to the floodplain environments.



3 July 2003
Date

BRUCE A. WRIGHT
Lieutenant General, USAF
Vice Commander

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1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

This Environmental Assessment (EA) evaluates the potential impacts on environmental and human resources from the construction of a new parking lot and access bridge across Mack's Bayou at Barksdale Air Force Base (BAFB). This EA conforms to the requirements of the National Environmental Policy Act (NEPA) and the Air Force's Environmental Impact Analysis Process (EIAP) implementing NEPA. Section 1.1 of the EA describes the purpose and need for the proposed action.

1.1 Purpose and Need For the Proposed Action

The purpose of the proposed action would be to provide adequate parking for the shops of the 917 Wing reserve unit located on the southern portion of the base as shown in figure 1. Parking for privately owned vehicles (POV) within the 917 Wing cantonment area is provided in two large, one medium, and several small scattered lots as shown in Figure 2 outlined with thin white lines. The parking lot adjacent to the headquarters building holds approximately 215 vehicles. The large parking lot shared with 2d Bomb Wing Fuels Management can accommodate slightly more than 200 vehicles. The smaller parking lot adjacent to Building 6850 can park about 55 vehicles. The scattered lots outside the security fence available for POV parking can serve approximately 50 additional vehicles. There are approximately 20 legal on-street spaces available. Therefore, total capacity of all existing defined POV parking within the area is 540 vehicles. The demand for parking usually exceeds that number. Active duty weekends normally occur twice per month with 700 to 800 personnel attending each.

The existing POV parking lots are insufficient to accommodate all vehicles. Personnel are forced to park vehicles on both sides of Davis Avenue at the curb. This causes the two lane roadway to be congested and dangerous. The road becomes impassable for larger trucks and emergency vehicles. Fire hydrants and fire lanes are often blocked. Fire personnel also have problems gaining adequate access to facilities. Fire fighting activities are deterred if fire trucks cannot get within 350 feet of the facility. These problems are amplified when reserve units are activated and there is a substantial increase in personnel requiring parking. Finally, the parking deficit increases during times of heightened security when parking spaces nearer the building are blocked to meet force protection requirements. Providing additional off street parking will alleviate or prevent congestion of the public right-of-way and promote the safety and general welfare of the public.

Developable acreage is a premium in this area of the base. As seen in figure 2, there is not available space for parking on the north side of Davis Avenue. POV parking is not allowed inside the security fence on the flight line. Most available land for parking is too remote to provide appropriate access to working areas. As seen in Figure 2, there is ample parking to the east and west but there is a deficit in the mid section of the 917 Wing areas.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVE

Chapter 2.0 describes the proposed action in detail as well as alternatives to the proposed action. The area of the proposed action is shown in Figure 2.

2.1 Proposed Action

BAFB proposes to construct a new bridge across Mack's Bayou to provide access to a new parking lot in the southern portion of the base. The bridge will be a concrete arch-span type or "Con-Span" with wing walls as shown in figures 3 and 4. It will be placed on pile-supported footings and will span the bayou for 24 feet and be 32 feet wide. The bridge will provide access to the proposed 100 space parking lot. The parking lot will include asphalt paved surface with base course and compacted sub-grade.

2.2 Alternate Action

An alternative to the proposed action would be to widen Davis Avenue on the South side and provide parallel parking spots. Parallel parking is the only type of parking available along this strip of land since there is only 15 feet between the street and the steep bayou slope. The length of developable land is approximately 600 feet long and can only offer 27 parking spaces based on a 9 foot by 22 foot parking space dimension required for parallel parking.

2.3 No-Action Alternative

The no-action alternative would be to not construct additional parking for 917 Wing personnel. The parking deficit would continue to cause traffic hazards, block fire lanes, and impede emergency vehicle access.

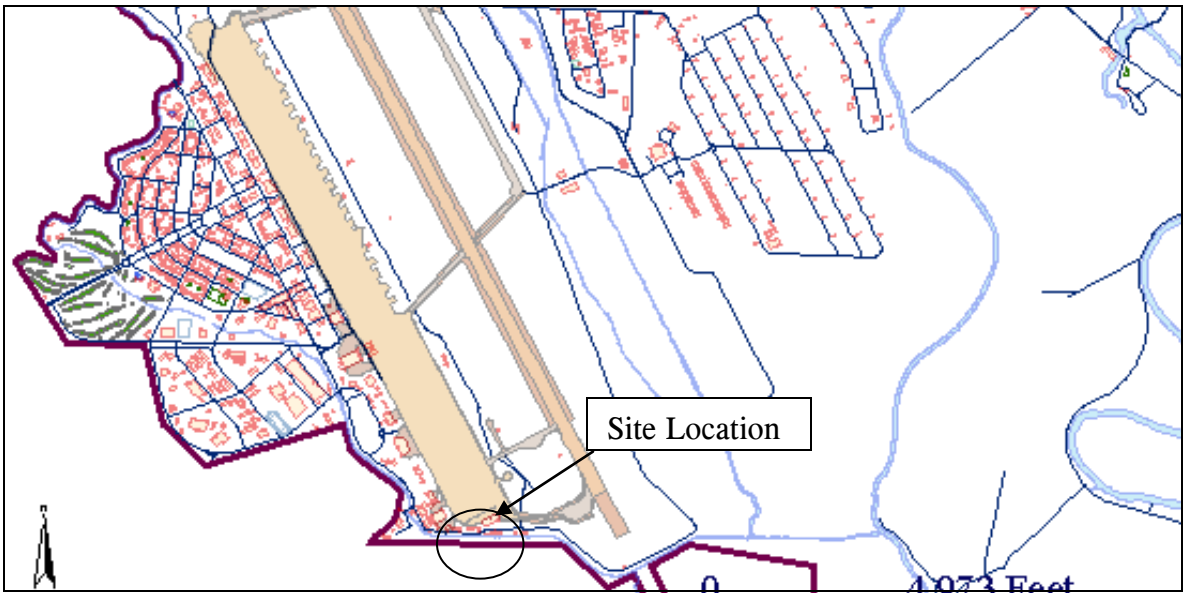

Figure 1 Location of the Existing/Alternative Action

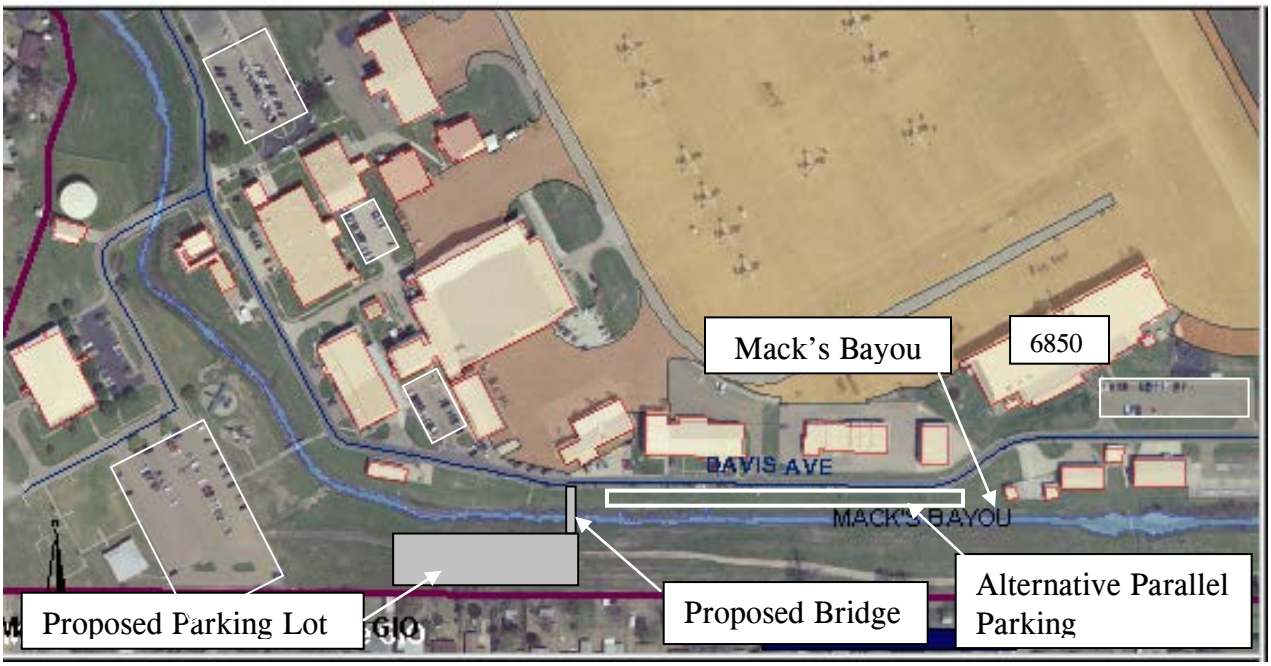

Figure 2 Site of Proposed Action and Alternatives

Figure 3 Similar Bridge Construction to Proposed Action

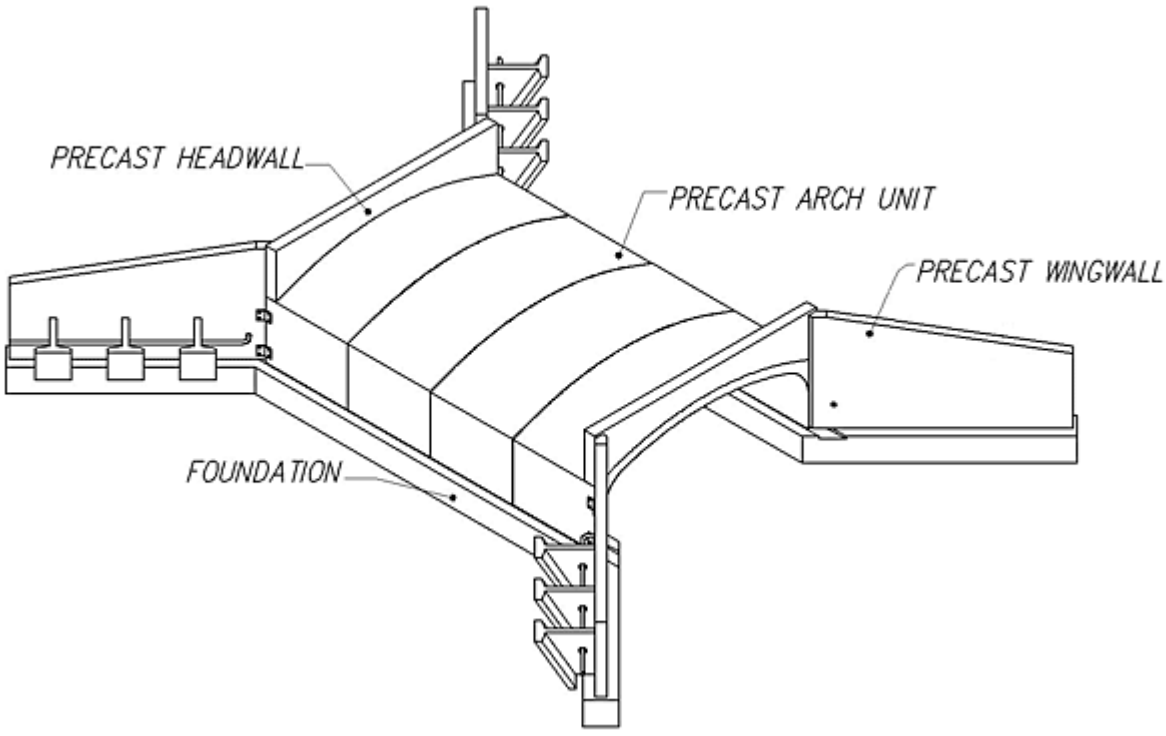

Figure 4 Proposed Action Bridge System

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

Chapter 3.0 succinctly describes the relevant resources of the areas that would be affected by the proposed/alternative actions if they were implemented. This chapter describes the baseline conditions against which the decision-maker and the affected public can compare the effects of all proposed/alternative actions.

3.2 Barksdale AFB Location, History and Current Mission of Installation

Location

BAFB is located in the northwest portion of Louisiana within the Shreveport-Bossier City metropolitan area. This metropolitan area is one of the largest in Louisiana, with a population exceeding 352,000. The Shreveport area extends into southwest Arkansas, northwest Louisiana and northeast Texas. BAFB, occupying 21,802 acres, is bounded by Louisiana Highway 71 on the west and U.S. Highway I-20 on the north (Figure 5). Areas surrounding the base are zoned for both residential and commercial use.

History

BAFB is named in honor of Lieutenant Eugene Hoy Barksdale, Air Corps, U.S. Army, who lost his life in 1926 while flight testing an observation-type airplane, near McCook, Ohio. BAFB, originally Barksdale Field, was dedicated in 1933 and marked the culmination of 5 years of effort by the local citizenry to attract the U.S. Army Air Corps to the site. During the 1930s, BAFB operated as a training facility for pursuit and fighter crews, however, this operation was phased out in the 1940s in favor of training for bomber crews. BAFB became part of Strategic Air Command in 1946. In the 1950s, BAFB was the home of the first USAF all-jet strategic bombing, refueling and reconnaissance aircraft, including the B-52 Stratofortress and the KC-135 Stratotankers. Throughout the 1980s and until 1994, BAFB operated the KC-10 aerial refueler. With the 1992 reorganization of the major USAF commands, BAFB joined Air Combat Command (ACC).

Current Mission

Barksdale AFB is the home of the Eighth Air Force Headquarters and the 2d Bomb Wing, the largest bomber unit in ACC. Additionally, the Eighth Air Force is one of three general purpose numbered Air Forces in ACC.

The Eighth Air Force Headquarters is responsible for the direct deployment of more than 250 bomber, fighter and transport aircraft. In addition to 11 active-duty locations, the Eighth Air Force oversees 27 Air National Guard and Air Force Reserve units in 16 states, as well as 10 mobile Air Combat Command units in six states.

The 2d Bomb Wing is the host unit at BAFB, and has operated here since 1 April 1963. As the largest bomb wing in ACC, the wing controls 48 B-52H Stratofortress Bombers assigned to three squadrons. The 20th Bomb Squadron and 96th Bomb Squadron train combat aircrews, maintain combat readiness to support ground commanders in worldwide theater contingency operations and support the Air Force's deterrent role by standing ready to strike specified targets. The 11th Bomb Squadron conducts academic, simulator and flight training for all initial, qualification, requalification and instructor upgrade of B-52 aircrews.

The wing maintains a state of constant readiness to conduct strategic bombardment operations on a global scale and continues to reflect the heritage of its motto “Liberty We Defend.”

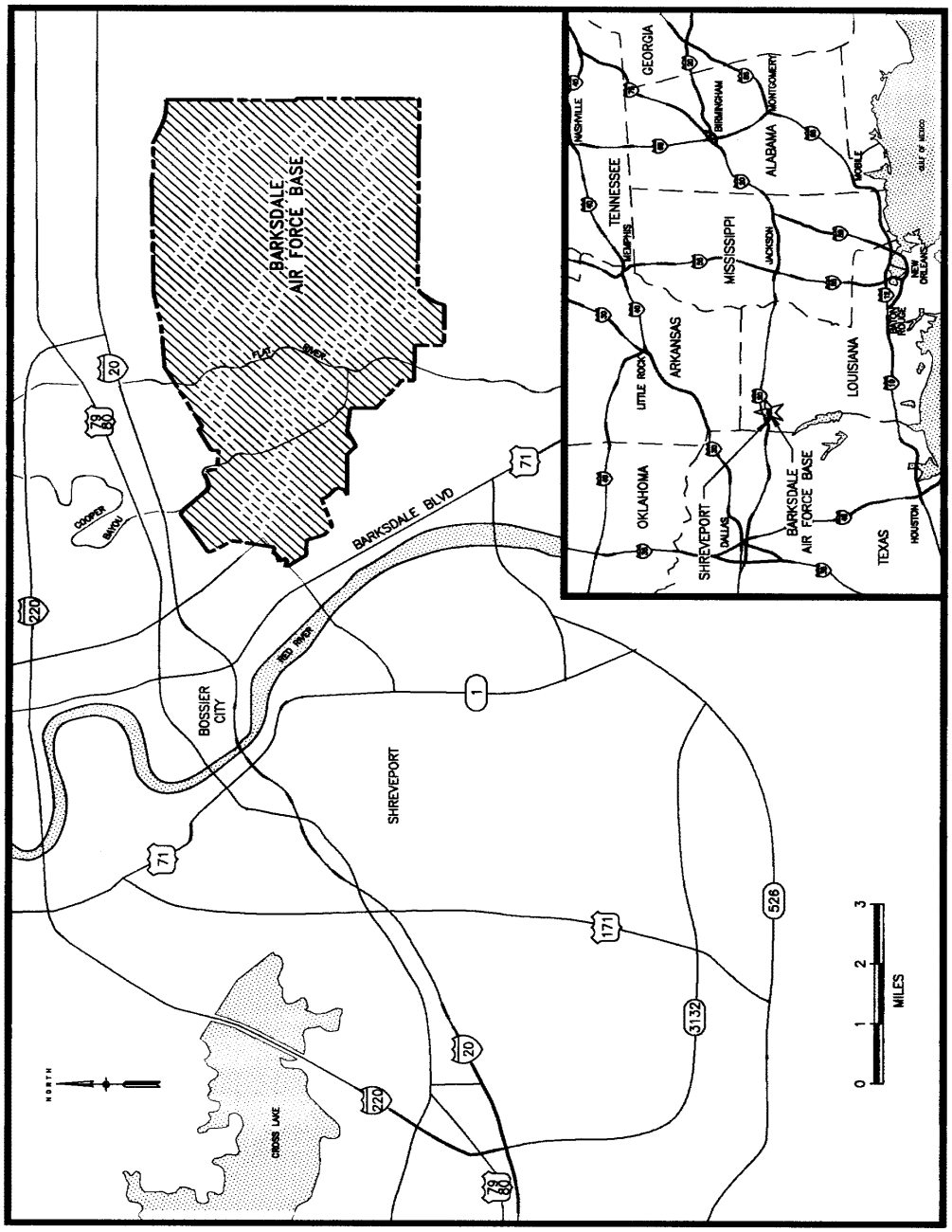

Figure 5 BAFB Location and Vicinity Map

3.3 Description of Project Area

3.3.1 Physical Resource Issues

Land Use

BAFB covers an area of 21,802 acres. Primary land use is divided into three distinct areas: (1) the Main Cantonment area (west of the runway), (2) Barksdale East (East Side industrial area) and (3) the East Reservation. Land use is divided into 12 categories. AFI 32-7062 establishes and defines these categories and the principal uses allowed in each particular category. The region of influence for the proposed and alternative actions is designated industrial and compatible for the proposed and alternative actions. A summary of base land use categories is shown in Table 1.

CATEGORY	ACRES	PERCENT	USES
Airfield	1,365	6.4	Runway, taxiway, apron
Aircraft O&M	82	0.4	Aircraft maintenance, AGE, operations, crew readiness
Industrial	1,018	4.7	Base supply, vehicle maintenance, CE, fuel storage, POL operations
Administrative	49	0.2	Education, wing/group HQ, 8AF HQ, civilian personnel, squadron admin operations
Community (Commercial)	56	0.2	Commissary, AAFES, open mess, gymnasium, theater, bowling center, hobby shops, youth center
Community (Services)	23	0.1	Post office, library, chapel, education center,
Medical	15	0.1	Hospital, dental clinic, area clinics
Housing, Accompanied	239	1.1	MFH units
Housing, Unaccompanied	54	0.2	VOQ, VAQ, BAQ, dormitories, transient facilities
Outdoor Recreation	157	0.7	Softball fields, tennis courts, football field, parks/picnic areas, FamCamp, pools, golf course
Open Space	9,612	44.1	Conservation areas, forest, safety clearance/security areas, utility easements
Water	9,133	41.8	Ponds, lakes, streams, forest wetlands
Total	21,802	100	BAFB Total Area

TABLE 1 Land Use Categories

Air Quality

The affected air quality for the proposed action alternative and other alternatives will be similar due to BAFB's location in Northwest Louisiana Region. The region is in full attainment for all criteria pollutants except ozone under the National Ambient Air Quality Standards (NAAQS). Air quality in a given location is described by the concentration of various pollutants in the atmosphere. NAAQS are established by the Environmental Protection Agency (EPA) for criteria pollutants including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 micrometers in diameter (PM_{10}) and particulate matter equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$). NAAQS represent the maximum levels of background pollution considered acceptable, with an adequate margin of safety to protect the public health and welfare. The NAAQS are depicted in Table 2. The Louisiana Department of Environmental Quality (LDEQ), Air Quality Division (AQD), adopted these same NAAQS for implementation of its air quality program.

POLLUTANT	UNIT	AVERAGING TIME	NAAQS
O_3	mg/m^3	8 hr	157
CO	mg/m^3	1 hr 8 hr	40 10
NO_2	mg/m^3	AAM[a]	100
SO_2	mg/m^3	3 hr 24 hr AAM[a]	1300 365 80
PM_{10}	mg/m^3	24 hr AAM	150 50
$PM_{2.5}$	mg/m^3	24 AAM	65 15

[a] - Annual Arithmetic Mean
[b] - Arithmetic Mean

TABLE 2 National and Louisiana Ambient Air Quality Standards

Climate and Hydrology

BAFB is near the western margin of a broad region of the southeastern United States having a humid, subtropical climate. The parish (parish is an area designation similar to county) in which BAFB is located is dominated by warm, moist, maritime tropical air from the Gulf of Mexico. This air is displaced frequently during winter and spring by incursions of continental polar air from Canada, which usually last no longer than 3 to 4 days. These incursions of cold air occur less frequently in

autumn and rarely in summer. Rainfall is evenly scattered throughout the seasons, averaging 46.6 inches annually. The mean daily maximum temperature is 65.8°F.

The majority of water resources at BAFB are located in the eastern half of the base. Major water resources in this area are: Flat River, Red Chute Bayou, Flag Lake, Harmon Lake and Moon Lake. Water resources are depicted in Figure 6. The water resources in the western half of the base are approximately 80 acres and are primarily limited to Mack's Bayou, Cooper's Bayou and storm drainage channels. BAFB is approximately one mile east of the main channel of the Red River, which dominates the surface hydrology of the area. Mack's Bayou is adjacent to the proposed site and drainage from the site is in the direction of the bayou.

Potential groundwater supplies are available from the sands of Tertiary and Quaternary ages. The Wilcox Group is the major source of fresh ground water in Caddo Parish. It ranges in thickness from less than 1 foot to almost 400 feet. Generally, water from the Wilcox Group is clear, odorless and soft to moderately hard and has a high percentage of sodium. The top of the Red River alluvial aquifer ranges from 10 to 60 feet below the ground surface. Water levels within the alluvial aquifer are responsive to the adjacent surface water bodies. Some recharge occurs from the underlying Wilcox-Carrizo Aquifer, but most of the recharge is derived from the infiltration of precipitation and, to a lesser extent, from local streams. The silt and clay upper member of the alluvium holds groundwater and occasionally acts as the lower confining layer for a limited perched water table. Discharge from the aquifer occurs by natural process into nearby surface water bodies. Regional groundwater flow within the alluvium at BAFB is to the south and west, toward the Red River. Neither the proposed or alternative actions occur in a wellhead protection area.

Solid and Hazardous Waste/Materials

Construction debris, solid wastes and medical wastes are disposed of by contract off base. The base has been assured the local landfill will be able to meet projected growth for the next 10 years. Hazardous Waste (HW) generated by BAFB is stored on base at various satellite accumulation points. It is then transferred to the 90-day Central Accumulation Point (CAP) until it can be disposed. Hazardous Materials (HM) used by base personnel are issued and reissued through a central supply facility called the Hazardous Material Pharmacy (HAZMART). This facility tracks all HM from purchase to disposal. BAFB must comply with all federal, state and local regulations concerning the use, storage and reporting of Hazardous Materials (HM). In accordance with AFI 32-7086, Hazardous Materials Management, users of HM will provide the HAZMART office, 2 LRS/LGRDMH, a list of all HM, a copy of each material's Material Safety Data Sheet (MSDS), an estimate of how much material will be used, amount stored, and location on the facility prior to the start of work.

Prior to beginning any process, that will generate HW, the user will contact the Environmental Flight (2 CES/CEV) of the proposed action, the duration of the action and the amount of waste, that will be generated. All HW will be handled and stored in strict compliance with federal, state and local regulations. Users will be held fully liable for any negligence that results in a Notice of Violation or other penalty. Proper management of any waste generated, Hazardous or Nonhazardous, will be the responsibility of the user. The base will dispose of HW generated by

the user on BAFB. Any shipment of HW will be documented on a HW Manifest and signed by a CEV representative. The generator's copy of the manifest will be kept at CEV.

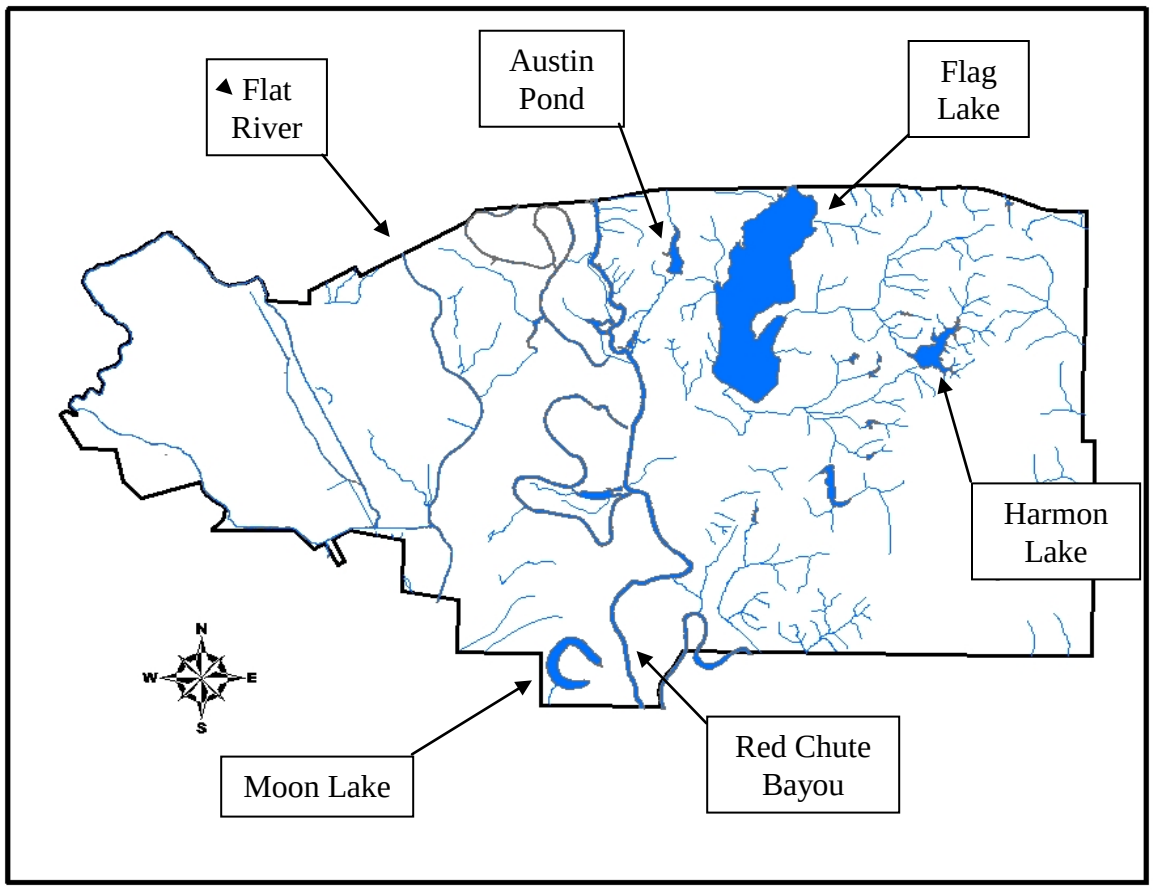

Figure 6 Location of Major Water Resources of Barksdale Air Force Base

Environmental Restoration Sites

The Environmental Restoration Program (ERP) at Barksdale AFB began in 1985 with a base-wide Records Search that identified 20 ERP sites for further investigation. Supplemental investigations beginning in the later 1980s brought the total number of sites to 36 with the identification of 12 additional Areas of Concern (AOC), and are being investigated and cleaned up under the ERP. The following identifies the status of each site or AOC:

- Twenty-two (22) sites have been closed under ERP
- Ten (10) sites have been recommended for no further action
- Eight (8) ERP sites, including four of those closed under the ERP, require additional investigations, removal actions, and/or Long Term Monitoring (LTM)
- Twelve (12) AOCs require additional investigation, removal actions, and/or LTM

The sites include bomb ranges, disposal pits, spill areas, storage tanks, fire training areas, landfills, wastewater treatment plants, and radiological waste. Primary contaminants in soil and water include fuels, waste solvents, paints, shop waste, debris, drilling fluids, oils, motor gasoline, pesticides, sludges, mustard gas/lewisite, radiological waste and inorganics. The proposed and alternative action is in the proximity of ERP site OT-6 (Mack's Bayou) as shown in Figure 7. Since the constituents appear to not be migrating in the bayou, and are attributable to the long-term use of pesticides in the area rather than a point-source release, the base is compiling a report summarizing results of sampling events in November 2001 and June 2002, and requesting closure for this site. The combined LTM and Closure report was submitted to LDEQ and USEPA in November 2002. Following acceptance of the report findings, a Record of Decision (ROD) recommending site closure will be submitted in FY04. Site deletion from the HSWA SWMU list is anticipated in FY05. A construction waiver is required due to the location on/near Environmental Restoration Program (ERP) site OT-06 Mack's Bayou.

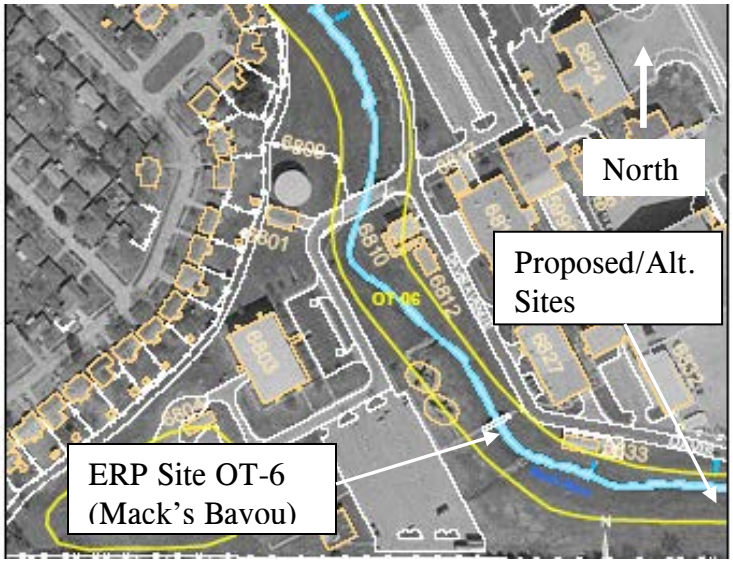

Figure 7 Adjacent ERP Site to the Proposed/Alternative Action Sites

Topography, Geology and Soils

BAFB is located in the western Gulf Coast Plain in northwestern Louisiana. The area consist of flat to rolling plains in the eastern portion giving way to flat alluvial plains in the west. The base ranges from 115-ft mean sea level (msl) along the Red River floodplain to 336-ft msl in the northeast uplands. Natural drainage is generally southward and well developed. The land adjacent to the proposed action area is 165-ft msl.

BAFB lies within three physiographic regions: Tertiary uplands, Pleistocene terraces and Red River alluvial plains. Each region is characterized by soils formed in a different age or type of parent material. The Tertiary uplands on the eastern side of the base are sedimentary deposits consisting of material ranging in texture from sand to clay. These are old deposits laid down in former extensions of the Gulf of Mexico. The Pleistocene terrace uplands are alluvial surfaces that were deposited as a Red River fluvial plain during the Pleistocene Epoch. The Red River alluvium, which lies along the western side of the base, consists primarily of water-laid sediments transported by the Red River. These sediments are dominantly materials derived from erosion of the older Permian red beds, resulting in their characteristic red colors. The proposed and alternative actions occur in the alluvial plains with a slight to moderate erosion hazard. The region of influence is not subject to earthquakes or earthslides.

3.3.2 Biological Resource Issues

Biological resources include native plants and animals in the region on and around BAFB. Presently, BAFB comprises 21,802 acres of natural vegetation, 17,301 acres of which is dominated by forested communities. Bottomland hardwoods make up approximately 7,600 acres of these forested areas. Additionally, approximately 2,400 acres of wetlands have been restored as seasonal wetlands in an effort to recreate the natural water level and flow. The extent and variety of BAFB wetlands contribute significantly to wetland functions and values of Louisiana's freshwater wetlands. The Vicksburg District of the United States Army Corps of Engineers (USACE) has jurisdictional authority over BAFB wetlands. The two primary non-wetland waters of the U.S. are Mack's Bayou and Cooper's Bayou. Mack's Bayou is the primary drainage feature of the cantonment area and is fed by Cooper's Bayou east of the flightline. Generally, the 100-year flood plain follows drainage ways with elevations less than 160 feet above Mean Sea Level (MSL).

BAFB falls within the Lower Mississippi Riverine Forest province. The primary plant communities for this region include the oak-gum-cypress bottomlands, in which most wetlands occur, and the pine-oak-hickory-maple forest, which dominates the uplands. Seven plants listed on the state rare list and ten uncommon "watch list" plants have been located on the base.

Mammalian fauna found in this ecological subregion include white-tailed deer, bobcat, gray fox, raccoon, cottontail rabbit, swamp rabbit, gray squirrel, fox squirrel, striped skunk and many small rodents and shrews. Game bird populations here include turkey, bobwhite quail, waterfowl and mourning dove. Ibis, cormorants, herons, egrets and kingfishers are common in flooded areas. Common songbirds of this area include red-eyed vireo, northern cardinal, tufted titmouse, wood

thrush, summer tanager, blue-gray gnatcatcher, hooded warbler and Carolina wren. Herpetofauna include the alligator, box turtle, cottonmouth, common garter snake and copperhead.

There are no federally listed threatened, endangered or candidate species considered year-round residents on BAFB by the U.S. Fish and Wildlife Service. Additionally, no state listed threatened or endangered species have been identified on base. However, there are several species listed as rare or "of concern" by the Louisiana Natural Heritage Program. One federally listed species, the threatened American Bald Eagle, has been observed as a winter resident in the trees surrounding Flag Lake. No nesting bald eagles have been documented at BAFB. Trees around the lakeshore are protected from cutting to provide future nesting sites. There is potential for the federally endangered red-cockaded woodpecker to exist on base, as potential habitat exists on base and known colonies of this species have been identified in the areas surrounding the base. Species of concern identified as occurring on BAFB by The Nature Conservancy of Louisiana include the Bachman's sparrow and the Cooper's hawk.

A small area extending above the low water level of Mack's Bayou at the proposed site is classified as flood plains. Mack's Bayou is also a primary non-wetland waters of the US and will require a USACE permit. Vegetation at the site is mostly grass and frequently mowed as shown in figure 8. Neither threatened nor endangered species are located in the proposed or alternative action areas. There are also no rare or uncommon plants on the sites.

Figure 8 Typical Vegetation at Propose/Alternative Site.

3.3.3 Cultural Resource Issues

The Cultural Resources Management Plan for BAFB provides guidelines and procedures that will enable the base, an ACC installation, to meet its legal responsibilities for the identification, evaluation and treatment of historic properties under its jurisdiction.

By definition, cultural resources that have been evaluated and identified as eligible for inclusion in or formally listed in the National Register of Historic Places (NRHP) are considered to be "historic

properties." These historic properties may be archeological sites (both prehistoric and historic), buildings, structures, objects and districts. Resources of potential NRHP eligibility are those resources for which the NRHP evaluation process has not yet been undertaken or has not yet been completed. Such resources must be treated as eligible for the NRHP until a final determination has been made.

Historic District

BAFB's history and significance was recognized when the state of Louisiana created a National Historic District in 1992 (Figure 9). The district is unique for its properties as well as its planning. BAFB's plan is based on a Beaux-arts radial pattern developed by landscape engineer Captain Norfleet G. Bone and his assistant, Mr. Hugh K. Harris, landscape architect. Plant materials native to the area, such as live oaks, were used in the landscape design. The structures of the historic district were built between 1930 and 1941 in the French Colonial Revival Style and are characterized by terra-cotta and stucco walls, tripped and gabled red tile roofs, French windows and wrought iron rails. In addition to being architecturally significant, many of the houses in the district have been home to distinguished military families. Some of the more distinctive commercial properties are also historically significant.

The historic district encompasses many different building types with varying maintenance issues associated with age and use. These problems are compounded by the unique maintenance and repair procedures that must be followed to retain the historic qualities of these properties. Neither the proposed nor the alternate actions are located within the Historic District.

Archaeological Sites

From July 1995 through April 1998, four Phase I and one Phase II archaeological surveys were conducted over an area of approximately 16,705 acres. Phase I surveys are initial reconnaissance studies to determine if anything significant may be present. Phase II surveys go into further detailed studies and make a final determination on the eligibility of sites for the National Register of Historic Places (NRHP). These surveys found a total of 120 sites, of which, 18 could be potentially eligible for nomination to the NHRP. Of these 18 sites, three are prehistoric (before the arrival of the Europeans), 13 are historic and two are both prehistoric and historic. The 18 sites are programmed for Phase II investigation in FY99-02. Two prehistoric sites are quite large and could be remnants of Indian villages (Caddo Tribe). Consultation with the Caddo Indian Tribe has been initiated on the prehistoric sites. The locations of all 120 sites are shown in Figure 10. The proposed and alternate action sites are not located near any archaeological sites.

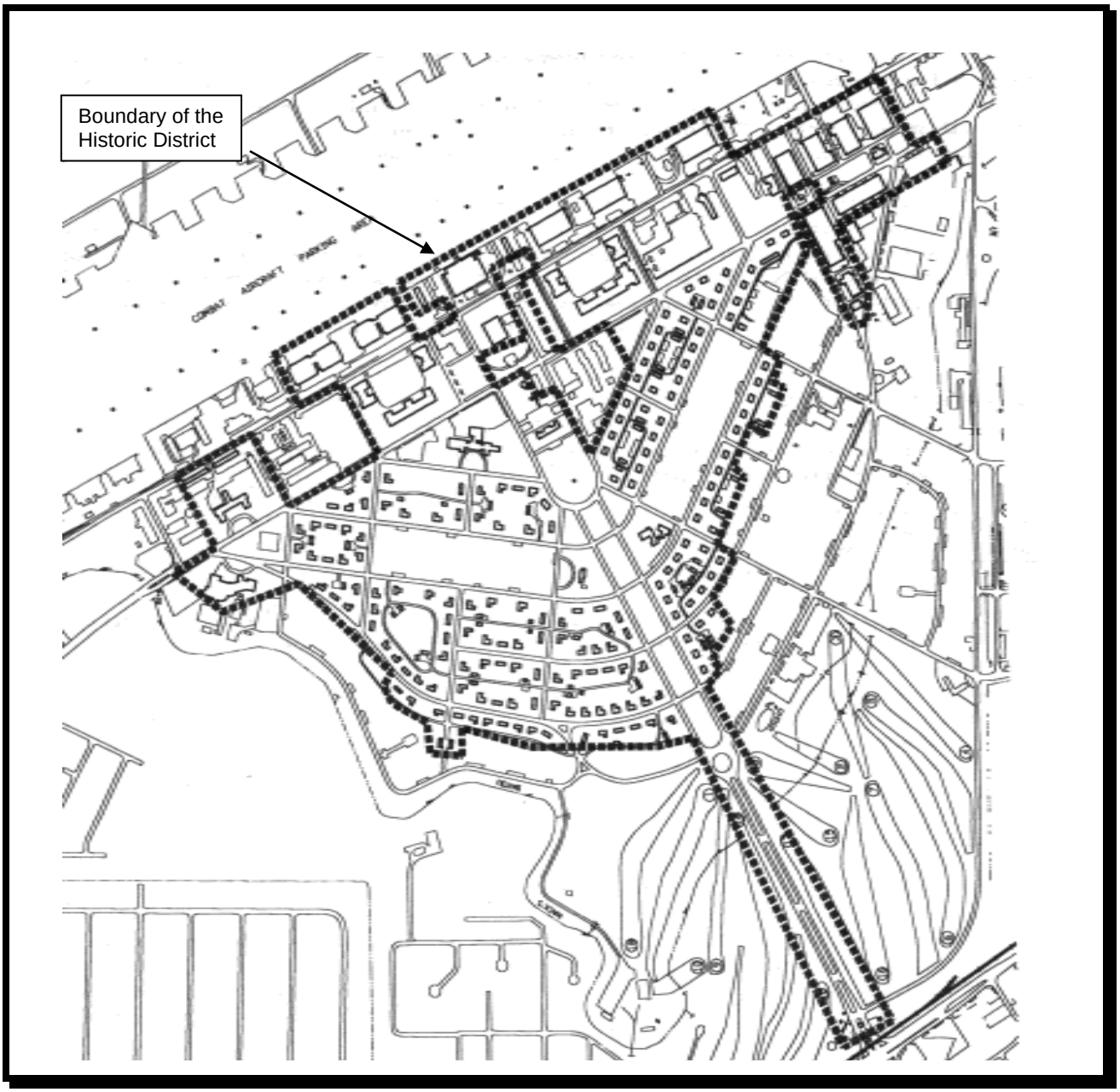

Figure 9 Barksdale National Historic District

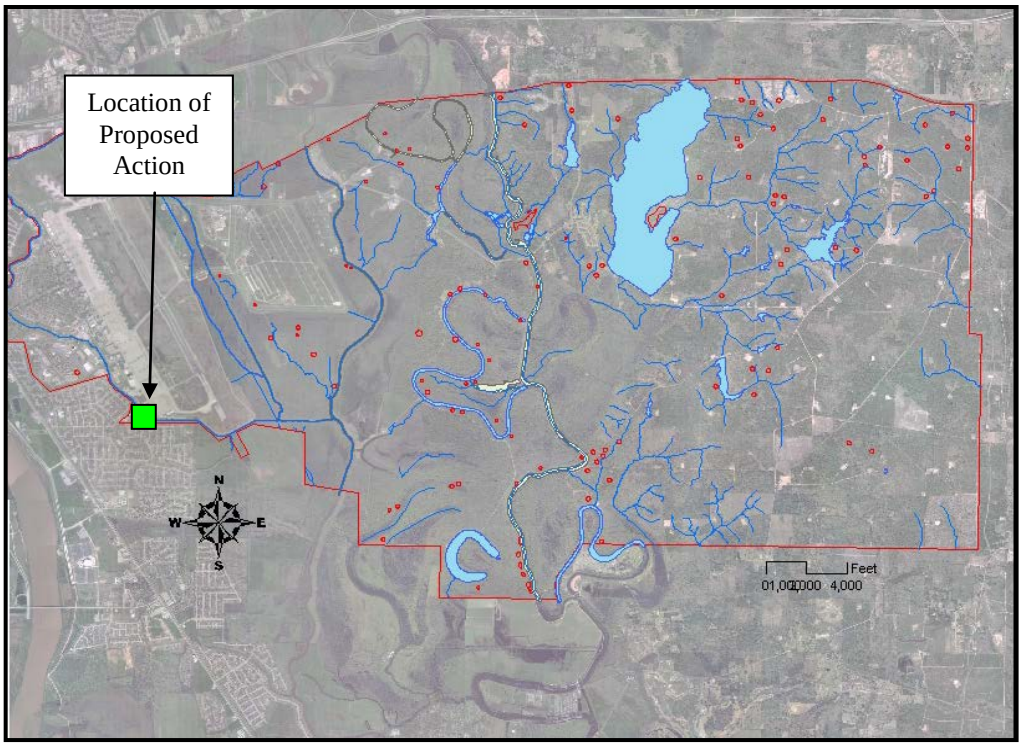

Figure 10 Location of Archaeological Sites Discovered During Phase I and II Studies

3.3.4 Noise Issues

The purpose of the Air Installation Compatible Use Zone (AICUZ) program is to promote compatible land development in areas subject to aircraft noise and accident potential. Air Force AICUZ land use guidelines reflect land use recommendations for clear zones, accident potential zones I and II and four noise zones as depicted in Figure 11. These guidelines have been established on the basis of studies prepared and sponsored by several federal agencies, including the Department of Housing and Urban Development, Environmental Protection Agency, Air Force and state and local agencies. The guidelines recommend land uses that are compatible with airfield operations while allowing maximum beneficial use of adjacent properties. The Air Force has no desire to recommend land use regulations that render property economically useless. It does, however, have an obligation to the inhabitants in the BAFB environs and to the citizens of the United States to point out ways to protect the people in adjacent areas as well as the public investment in the installation itself. The Air Force system for describing the noise environment is the Day-Night Average A-Weighted Sound Level (DNL). The average DNL occurring in the proposed and alternative site is between 70-75 decibels (dB).

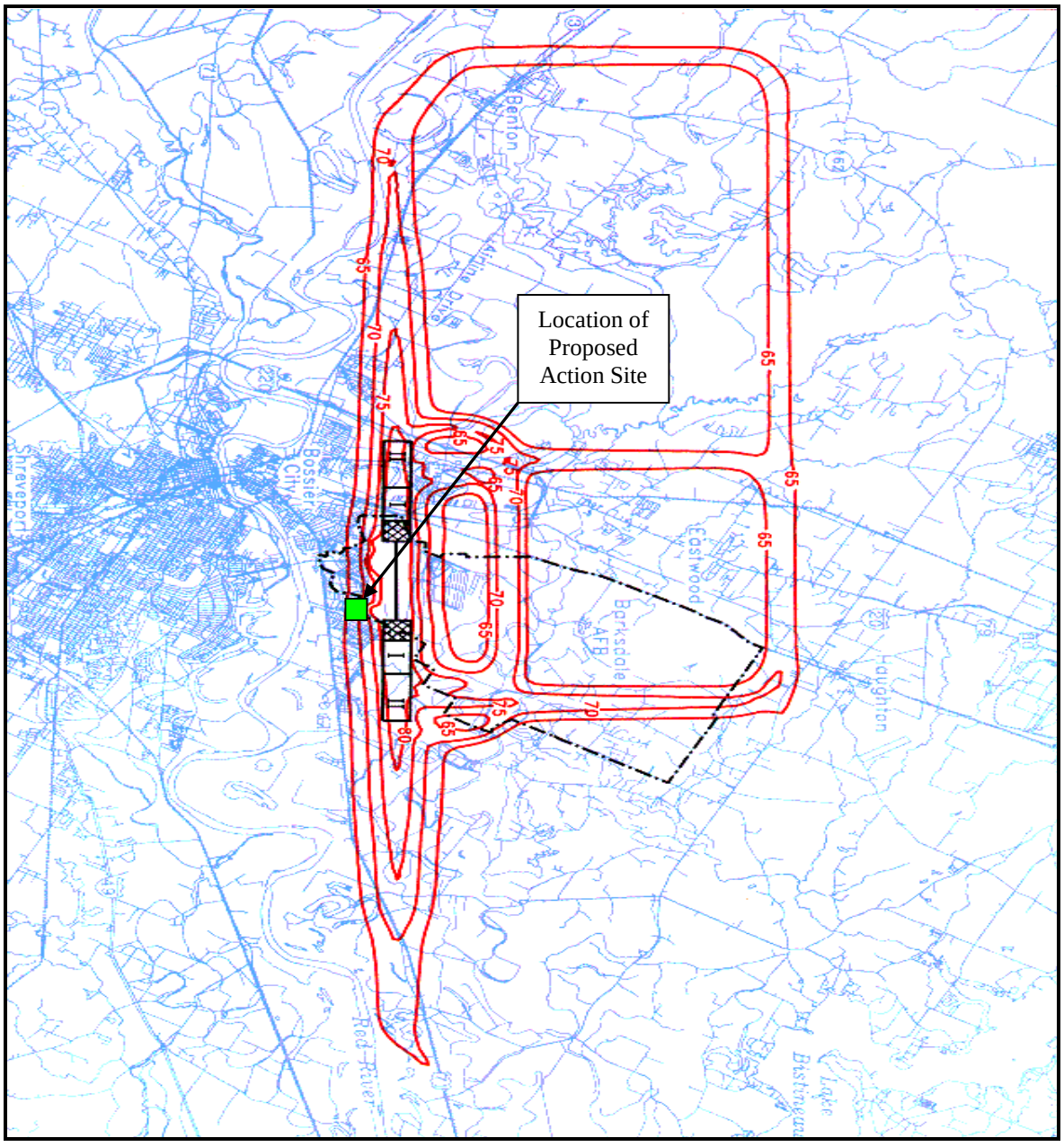

Figure 11 Barksdale Air Force Base Noise Contours
Values are in decibels (dB)

3.3.5 Socioeconomic Issues

The base-related population living in the Shreveport-Bossier City area consists of nearly 8,000 military personnel (active and reserve) and family members (with over 5,000 living off base) and 1,800 civilian employees. There are also over 15,320 base-related family members living on and off base. In addition, up to 60,000 retirees and their family members live within a 100-mile radius and use base services, including the hospital and commissary, each year.

BAFB interaction with the community has been significant since its inception in 1933. Government spending in the local area for construction and build-up of the base was the primary contributor to the Shreveport-Bossier City economy through the Great Depression.

BAFB continues to be a major factor in the growth of Shreveport and Bossier City with a total economic impact of approximately $584 million, with approximately $336 million going to annual payroll and over $154 million going to total annual expenditures. In addition, estimated annual dollar value of jobs created is over 94 million.

3.3.6 Transportation

The efficiency of Barksdale AFB's internal transportation system, including road and railroad access on and off base is good. The majority of the roads are in the western side of the base. All streets are grouped into three classifications: arterial streets, collector streets and local streets. Four arterial streets provide access to all points in the western side of Barksdale AFB. All streets in the east side of the base are classified as local streets with the exception of Range Road, which is classified as a collector street. The 917 Wing area traffic is fed by Davis Avenue, which in turn terminates at the southern portion of the base. Traffic is limited to mostly 917 Wing personnel and transient vehicles. An example of the parking shortage can be seen in Figure 12.

Figure 12 Example of Overcrowded Parking

4.0 ENVIRONMENTAL IMPACT

Section 4.0 evaluates the environmental impact of implementing the proposed, alternative, and no-action alternatives.

4.1 Proposed Action

4.1.1
The proposed action includes the construction of a parking lot and associated access bridge across Mack's Bayou.

4.1.2 Land Use
The existing land use is industrial and compatible with automobile parking. The proposed action will not adversely affect land use.

4.1.3 Air Quality
Implementation of the proposed actions on BAFB would generate short-term air emissions associated with construction activities. All emissions associated with the proposed project would be temporary and as such are not regulated in areas currently in attainment with NAAQS (Northwest Region). Particulate air emissions as a result of the proposed actions would be temporary and negligible; therefore, impacts to air quality would not be significant. In compliance with 40 CFR Part 93, the proposed action must be evaluated to address the potential need for preparation of an air quality conformity analysis. A conformity analysis is required if a federally proposed action is to take place in an existing nonattainment area and the increase in air emissions exceeds the rate outlined in 40 CFR 93.153, applicability, paragraph (b)(1). BAFB is located in an attainment area and the proposed action would result in no estimated increases in long-term emission factors on base. As a result, determination of conformity to the State or Federal Implementation Plans is not required.

4.1.4 Climate and Hydrology
Undertaking the proposed actions is not expected to significantly impact surface and groundwater resources of the region. Construction activities may introduce suspended solids in drainage run-off to Mack's Bayou. Storm water management will be provided to minimize suspended solids by constructing temporary diversion terraces, installing silt fencing and only removing vegetation necessary for construction activities. The proposed action is not near groundwater drinking water wells. The contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for construction activities in accordance with Appendix B – National Pollution Discharge Elimination System (NPDES) General Permits for Storm Water Discharges from Construction Activities as published in the Federal Register, Vol. 57, No. 175, September 9, 1992. Additional run-off due to the installation of an impermeable surface will be reduced by not installing curbs and cleaning. The elimination of curbs has been show to reduce pollution enter the aquatic environment. Curbs function as channels for storm water creating runoff flows at high velocities thereby carrying more sediment. Additional vegetation and landscaping will also reduce adjacent water contamination. No water detention will be required.

4.1.5 Solid and Hazardous Waste/Materials

No significant impact due to hazardous waste or materials is expected in conjunction with the proposed action. A small amount of hazardous waste in the form of excess solvents, paints and adhesives might be generated during the construction phase; however, these materials will be properly disposed of by the contractor according to federal, state, and local regulations. Small amounts of construction debris might be generated, but will be disposed in a sanitary landfill. Barksdale AFB is not on the National Priority List. The proposed action will be affected by Environmental Restoration Program (ERP) site OT-6 (Mack's Bayou). A construction waiver will be submitted to HQ ACC/CEV because of the proximity of OT-6 to the proposed action. The construction waiver will reflect all pertinent information to facilitate construction on the ERP site.

4.1.6 Topography, Geology, and Soils

The proposed action would have insignificant effect on topography and soils. There would be some removal of existing grasses during construction of the bridge and associated parking lot. Erosion control precaution will be implemented and surface drainage patterns will not be altered. The effects of this action will be minimal, and after reseeding is completed, soil stabilization will occur.

4.1.7 Biological Resources

The proposed action will affect a small section of Mack's Bayou, which is considered within the 100 year floodplain. The area of floodplain affected by the proposed action will be approximately one-tenth acre. Any construction in this area, in accordance with Executive Order 11988 (Flood Plain Management), require the submission of a Finding of No Practicable Alternative (FONPA). The Department of the Army permit requirements for the proposed work has been requested. There are no listed threatened or endangered species or plants in the area of the proposed action.

4.1.8 Cultural Resources

The proposed action is not sited within the boundaries of the Barksdale Historic District which is listed on the National Register of Historic Places. There are no known archaeological sites within the construction activity zone.

4.1.9 Noise

Increased noise levels due to construction activities are expected. This activity will be short-lived, and effects should be minimal and transitory. The proposed site has a compatible noise level of 70-75 dB (decibels) for automobile parking.

4.1.10 Transportation

The proposed action will reduce the automobile parking deficit thereby improving traffic safety and emergency vehicle access.

4.2 Alternative Action

4.2.1 General

Implementation of this alternative would have similar environmental consequences as the proposed action. Impacts to the environment, as a result of this alternative are discussed below.

4.2.2 Land Use
Land use as a consequence of the alternative action would remain as industrial and would have no adverse affect on land use.

4.2.3 Air Quality. Implementation of the alternative action would generate slightly less particulate matter emissions than the proposed action since there would be no bridge construction. Although some emissions would be generated by soil excavation associated with parallel parking construction.

4.2.4 Climate and Hydrology
The alternative action is not expected to significantly impact surface and groundwater resources of the region. Storm water management techniques would minimize storm water suspended solids.

4.2.5 Solid and Hazardous Waste/Materials
No significant impacts are expected in conjunction with the alternative action with respect to hazardous waste or materials. Affects would be similar to the proposed action.

4.2.6 Topography, Geology, and Soils
The only impact would be a slight adjustment of topography due to construction activity. However, erosion problems as a result of this activity would be minor. Similar precautions as mentioned in the proposed action would be implemented.

4.2.7 Biological Resources
Environmental impacts to biological resources from the alternative action would have no adverse affects. No adverse effects to flood plains, threatened or endangered species, or plants is expected.

4.2.8 Cultural Resources
The alternative action would not impact archaeological or historical resources.

4.2.9 Noise
The only alternative activities, which could impact noise levels, would be construction activity. This activity will be short-lived, and effects are minimal and transitory. Automobile parking is compatible in the 70-70 dB (decibel) level.

4.2.10 Transportation
The alternative action would add some additional parking but would not significantly contribute to the existing parking deficit.

4.3 No-Action Alternative

4.3.1 General
Under the no-action alternative, not parking lot construction would take place to reduce the parking deficit.

4.3.2 Land Use
Land use at the existing site would remain the same. The no-action alternative would have no adverse affect on land use.

4.3.3 Air Quality
The no-action alternative would generate no particulate matter emissions due to any construction. Air quality would remain the same.

4.3.4 Climate and Hydrology
The no-action alternative would not be expected to significantly impact surface or groundwater resources of the region.

4.3.5 Solid and Hazardous Waste/Materials
No significant impact due to hazardous waste or materials is expected in conjunction with the no-action alternative.

4.3.6 Topography, Geology, and Soils
Geological and soil resources are not expected to be adversely affected by the no-action alternative. There will be no affects to prominent landforms or surface drainage patterns. There would be no increased erosion of the soils.

4.3.7 Biological Resources
Environmental impacts to biological resources are not expected from the no-action alternative. There should be no adverse affects to animal species or wetlands. Some vegetation may be stressed due to off-road parking of automobiles due to lack of parking.

4.3.8 Cultural Resources
The no-action alternative would have no impact on historic or archaeological resources.

4.3.9 Noise
The no-action alternative would not affect the noise level in the area.

4.3.10 Transportation
The no-action alternative would allow the safety hazards associated with a parking deficit to continue.

5.0 Cumulative Effects and Irreversible and Irretrievable Commitment of Resources

5.1 Cumulative Effects

Cumulative impacts on environmental resources result from incremental effects of proposed actions, when combined wit other past, present, and reasonably foreseeable future actions in the area. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies or individuals. Informed decision-making is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

Past and Present Actions

Barksdale AFB is an active military installation that undergoes continuous change in mission and in training requirements. Very view projects have taken place in the area of concern other than maintenance and repair. The proposed action is in an austere area that is largely undeveloped.

Future Proposed Actions

The BAFB General Plan identifies the subject parking expansion on the transportation and parking plan. It also states there is a severe parking shortage in the 917 area. The only future construction identified in the General Plan is a Fuel Cell Maintenance Facility that is located along the flight line and should not add to cumulative effects to the proposed action.

Because implementation of the proposed action would result in temporary or minor impacts to the resources analyzed, it is not anticipated that the proposed action, when combined with other future proposed actions, would have a negative cumulative effect on other resources.

5.2 Irreversible and Irretrievable Commitment of Resources

Irreversible effects primarily result from the use or destruction of a specific resource that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action.

For the proposed action, most resource commitments are neither irreversible nor irretrievable. Most environmental consequences are short-term and temporary, such as air emissions and noise from construction and siltation of Mack’s Bayou bridge and parking lot construction.

Bridge and parking lot construction would require consumption of limited amounts of materials typically associated with type of construction operations. However, the amount of these materials used is not expected to significantly decrease the availability of these resources.

6.0 LIST OF PERSONS AND REFERENCES CONSULTED

AGENCIES:

1. Vicksburg District of the United States Army Corps of Engineers
2. 2d Medical Group Bioenvironmental Engineer
3. 2d Bomb Wing Staff Judge Advocate
4. 2d Bomb Wing Safety Division
5. 2d Bomb Wing Public Affairs

PERSONS:

1. Mr. Tony Cyr, 2d Civil Engineer Squadron Project Engineer

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