Final
Technical Report

Environmental Assessment Report for the Proposed Santa Rosa County Reclaimed Water Rapid-rate Infiltration Basin (RIB) System at Eglin Air Force Base, Florida

Prepared for

Santa Rosa County Board of County Commissioners

February 2005
RCS 02-911

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DEPARTMENT OF THE AIR FORCE

HEADQUARTERS AIR FORCE MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

20 JAN 2006

MEMORANDUM FOR 96 CEG/CEVSP

FROM: HQ AFMC/A7CVO
4225 Logistics Ave
Wright-Patterson AFB OH 45433-5747

SUBJECT: No Significant Impact (FONSI) and Finding of No Practicable Alternative (FONPA) for Santa Rosa County Reclaimed Water Rapid-Rate Infiltration Basin (RIB) System at Eglin AFB FL

Attached is the signed FONSI/FONPA for the subject project at Eglin AFB. It has been determined that the proposed action will not have a significant impact on the quality of the human environment. If you have any questions concerning the Air Force's Environmental Impact Analysis process (32 CFR 989), please contact Ms. Shari Kilbourne, HQ AFMC/A7CVO, DSN 986-2926, Comm (937) 656-2926, shari.kilbourne@wpafb.af.mil.

MICHAEL TRIMELONI, P.E
Acting Chief, Environmental Operations Branch
Command Civil Engineer
Directorate of Installations and Mission Support

Attachment:
FONSI/FONPA

FINDING OF NO SIGNIFICANT IMPACT
FOR
SANTA ROSA COUNTY RECLAIMED WATER RAPID-RATE INFILTRATION BASIN (RIB) SYSTEM
RCS 02-911
EGLIN AIR FORCE BASE, FLORIDA

Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) (40 Code of Federal Regulations [CFR] 1500-1508), U.S. Department of Defense Directive 6050.1 and 32 CFR Part 989, the Santa Rosa County Board of County Commissioners (SRCBOCC) with support from the Air Force has conducted an Environmental Assessment (EA) of the probable environmental consequences for operating a reclaimed water rapid-rate infiltration basin (RIB) system on Eglin Air Force Base (AFB), Florida.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action: The SRCBOCC proposes to lease approximately 328 acres of Air Force property for the purpose of constructing and operating a reclaimed water RIB system. The proposed RIB system would receive and distribute highly treated, reclaimed wastewater from three wastewater utilities operating on the Fairpoint Peninsula and Santa Rosa Island, Florida. These utilities are the Navarre Beach Utilities (NBU), the Holley Navarre Water System (HNWS) and the South Santa Rosa Utilities (SSRU). The reclaimed wastewater would be pumped via pipeline from these three locations to the RIB System, where it would filter through the soil to recharge the surficial aquifer. A portion of this pipeline, known as the South Holley Segment, would transverse a section of Eglin AFB (EA Section 1.0, page 1-1 and Figure 1-1). By implementing the proposed action, SRCBOCC would address their current and future regional needs for disposing of reclaimed water generated within the southern region of Santa Rosa County.

The proposed site is located on Eglin AFB west of State Road (SR) 87 and south of Eglin AFB Range Road 726. A buffer distance of no less than 500 feet would be maintained from SR 87 and a buffer distance of no less than 10,000 feet would be maintained from the north-south runway of Choctaw Air Field. A series of RIB systems would be constructed in three phases over a 20-year period. Of the 328 acres, 200 acres would be a phased development as demands for wastewater disposal increase. Initially, Phase I (40 acres) would be constructed: then Phase II (90 acres); and then finally Phase III (70 acres). The remaining 128 acres would be set aside as a contingency area that may be required in the event a regulatory review by the Florida Department of Environmental Protection determined the need for an additional area. A 2-acre operations compound consisting of a combined office and equipment storage and maintenance shed would be constructed. Access to the facilities and infiltration basins would be provided by 15-foot wide gravel based roads. Several monitoring wells would be installed up gradient and down gradient from the RIBS system to monitor groundwater drinking water parameters. The number of installed wells would be determined by the Florida Department of Environmental Protection. (EA Section 2.4, pages 2-3 thru 2-10)

Apart from the actual RIBs site, a small corner-section of Eglin land would be used to install a buried pipeline. This pipeline, referred to in the EA as the South Holley Segment, is part of a much larger pipeline system that would transport effluent to the RIBs. This corner-section of Eglin land, as well as the surrounding developed rural residential parcels, is located in the floodplain (Section 1.0, pg 1-1, Fig 1-1 and Fig 1-4, pg 1-3, -15). The South Holley Segment is approximately 500 feet long and 50 feet wide and is located immediately adjacent to the State Road 87 right-of-way. The only activity occurring here would be installation of the buried pipeline.

No-Action Alternative: Under the no-action alternative, the RIB system would not be installed at Eglin AFB. Discharge of the highly treated, reclaimed water from SSRU and HNWS would continue in a segmented approach and the NBU would continue to discharge its effluent to Santa Rosa Sound. With population growth expected to continue increasing within the county, these utilities will maximize their ability to distribute reclaimed water on the Fairpoint Peninsula and Santa Rosa Island (EA Section 2.5, page 2-12).

Alternatives Considered but Eliminated from Further Analyses: The SRCBOCC completed a comprehensive study which evaluated 10 alternatives to treat wastewater effluent (EA Section 1.2, pages 1-5 to 1-13). These 10 alternatives were rejected from further analyses based on the rejection criteria listed in EA Table 1-1, page 1-11.

The purchase of federal property was considered, but also eliminated. Eglin AFB made a cognitive policy decision not to offer for sale boundary lands adjacent to private developments because of their great value as a buffer. Refer to EA, Section 2.6, page 2-12, 13 for details.

SUMMARY OF ANTICIPATED ENVIRONMENTAL EFFECTS

The following environmental resources were analyzed in the EA: physical environment, noise, air quality, groundwater, surface water, wetlands, hazardous and toxic substances, traffic, cultural resources, flood hazard, visual resources, biological resources, and socioeconomic resources.

Proposed Action: Physical environment, noise, air quality, surface water, traffic and visual resources would have negligible, short-term impacts associated with construction. These impacts are temporary in nature and would affect only the immediate site. Small amounts of petroleum products used to refuel maintenance equipment such as mowers and trimmers would be the only hazardous materials at the site. Any major equipment maintenance would be accomplished at an offsite facility owned and operated by Santa Rosa County (EA Table 4-1, pages 4-11 thru 4-12).

Wetlands and cultural resources would not be impacted by the proposed action because these resources do not exist within the project site. The EA established that the proposed RIBs Site would not impact any floodplain or create flood hazard (Section 4.2.10, pg 4-7). The South Holley Segment pipeline, although to be located in the floodplain, would be installed within the existing State Road 87 corridor with minimal disturbance as it passes through a small corner-

section of Eglin lands. Installing the South Holley Segment at any other alternative location in the vicinity would involve cutting a new corridor that is either private rural residential land, or federal timbered lands which are also in the floodplain (Figs 1-1 and 1-4, pg 1-3, -15). There is a net improvement to the regional groundwater resource with implementing the RIB system since it would increase the recharge rate to the aquifer. Surface waters within Santa Rosa Sound would see a positive benefit since effluent discharge from the wastewater treatment plants would no longer be discharging into the surrounding Class II and III water bodies (EA Table 4-1, pages 4-11 thru 4-12).

Federally listed threatened and endangered species are not known to inhabit the site. However, the presence of two state-listed species, the black bear and the Sherman's fox squirrel, were identified during a site walk. These species as well as other wildlife residing in the area would be temporarily impacted from construction activities. This impact would be minimal and offset by the extensive areas of undisturbed habitat that surrounds the proposed site. And it is unlikely the RIB system would serve as a wildlife attractant for water since the effluent that is discharged into each basin would not stand for any appreciable amount of time, thus being an unreliable water source (EA Section 4.2.12, pages 4-8 thru 4-11).

No significant cumulative impacts to physical environment, air quality, surface water, wetlands, hazardous and toxic substances, traffic, cultural resources, flood hazard, visual resources and biological resources would result with implementation of the proposed action. There is a positive cumulative benefit to groundwater and surface water. The RIB system would recharge the aquifer, which would restore and maintain groundwater resources throughout this area. It would also improve the water quality of Santa Rosa Sound and the Gulf Island National Seashore. However, the proposed action could facilitate increased growth in Santa Rosa County which could have an increase in noise complaints from residents adjacent to military training activities (EA Section 4.2.14, pages 4-12 thru 4-14).

The Florida Department of Environmental Protection will require a wastewater permit and collection and transmission permit, which ensures compliance with state water quality standards. They will also require a national pollutant discharge elimination system permit, which states erosion control measures that will be taken to prevent runoff from the site during construction activities. The SRCBOCC will require a conditional use permit and building permit to ensure compliance with the county's comprehensive land management plan and Florida building codes.

No-Action Alternative: There would be no impacts to the physical environment, noise, air quality, groundwater, wetlands, hazardous and toxic substances, traffic, cultural resources, flood hazard, visual resources and biological resources under the no-action alternative. The SRCBOCC would need to address the elevated copper levels of the effluent to continue discharging to the surface waters of the Gulf Island National Seashore (EA Table 4-1, 4-11 thru 4-12).

PUBLIC PARTICIPATION

A notice was published in the *Pensacola News Journal* and the *Fort Walton Beach Daily News* on 14 Jan 05 inviting the public to review and comment upon the draft EA and FONSI. This review period ended on 28 Jan 05 and no public comments were received.

In response to internal review comments received from the Air Force, a revised Draft EA and FONSI were prepared with a second public review held from 22 Feb 05 to 24 Mar 05. No public comments were received (EA Appendix D, Public Notifications).

FINDING OF NO PRACTABLE ALTERNATIVE

Taking the above information into consideration, pursuant to Executive Order 11988, *Floodplain Management* and the authority delegated by Secretary of the Air Force Order 791.1, I find there is no practicable alternative to conducting the proposed action within the floodplain and that the proposed action includes all practicable measures to minimize harm to the environment. This finding fulfills both the requirements of the referenced Executive Order 32 CFR 989.14 requirements for a Finding of No Practicable Alternative.

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and the environmental analysis contained in the attached EA and as summarized above, I find the proposed decision of the Air Force to allow a lease of 328 acres for the construction and operation of a reclaimed water RIB System at Eglin AFB will not have a significant impact on the human or natural environmental, therefore, an environmental impact statement is not required. This analysis fulfills the requirements of the National Environmental Policy Act, the President's Council on Environmental Quality and 32 CFR Part 989.

JAMES R. PENNINO, SES
Command Civil Engineer
Directorate of Installations and
Mission Support

19 Jan 06
Date

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Appendix

Tables

Figures

Acronyms

AAC	Air Armament Center
AFI	Air Force Instruction
AO	Administrative Order
AWT	advanced wastewater treatment
BASH	Bird Aircraft Strike Hazard
BHWG	Bird Hazard Working Group
bls	below land surface
BMP	best management practice
BOD	biochemical oxygen demand
CAA	Clean Air Act
CBOD	carbonaceous biological oxygen demand
CEQ	Council on Environmental Quality
CFR	*Code of Federal Regulations*
cm/s	centimeter per second
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DoD	U.S. Department of Defense
DU	dwelling unit
EA	environmental assessment
EAFB	Eglin Air Force Base
EC	Eglin Air Force Base Encroachment Committee
EDR	Environmental Data Resources, Inc.
EIAP	environmental impact analysis process
EMH	Environmental Management Directorate–Historic Preservation Division
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
^{o}F	degrees Fahrenheit
FAA	Federal Aviation Authority
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
ft	Feet
gpd	gallons per day
gpd/ft^2	gallons per day per square foot
gpm	gallons per minute
HDPE	high-density polyethylene
HNWS	Holley Navarre Water System
INRMP	Integrated Natural Resources Management Plan

IRP	Installation Restoration Program
JLUS	Joint Land Use Survey
MAJCOM	Major Command
µg/L	micrograms per liter
mg/L	milligrams per liter
mgd	million gallons per day
mL	Milliliter
mph	miles per hour
mpn	most probable number
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge and Elimination System
NRCS	Natural Resource Conservation Service
NRMB	National Resources Management Branch
NBU	Navarre Beach Utilities
NVBWWTF	Navarre Beach Wastewater Treatment Facility
NWI	National Wetlands Inventory
OFW	Outstanding Florida Water
RIB	rapid-rate infiltration basin
RO	reverse osmosis
ROW	right-of-way
SCADA	supervisory control and data acquisition
SHPO	State Historic Preservation Officer
SR	State Road
SRCBOCC	Santa Rosa County Board of County Commissioners
SSRU	South Santa Rosa Utilities
T&E	threatened and endangered
TN	total nitrogen
TP	total phosphorus
TSS	total suspended solids
UAV	Unpiloted Airborne Vehicle
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WQA	Water Quality Act

Executive Summary

ES.1 Introduction

This Environmental Assessment (EA) evaluates the environmental consequences of the construction and operation of a reclaimed water rapid-rate infiltration basin (RIB) system on Eglin Air Force Base (EAFB), Florida. The RIB system is being constructed to receive and distribute highly treated domestic effluent from the three utilities that service the South Santa Rosa County region–Navarre Beach Utilities (NBU), South Santa Rosa Utilities (SSRU), and Holley Navarre Water System (HNWS). The reclaimed water will be discharged from the RIB system to the surficial aquifer beneath the site. Included in this EA is the analysis of the environmental impact of the RIB system on EAFB property.

The proposed system is being developed to address the regional needs of South Santa Rosa County. The Santa Rosa County Board of County Commissioners (SRCBOCC), pursuant to its powers and duties as enumerated in Paragraph 125.01(1)(k), F.S., and Subsection 125.01101, F.S., provides sewage collection and treatment services in South Santa Rosa County through franchise agreements with the SSRU and the HNWS. The SRCBOCC also owns and operates the NBU, providing service to that section of Santa Rosa Island that lies within South Santa Rosa County. Problems associated with providing for adequate disposal of reclaimed water in South Santa Rosa County along the Fairpoint Peninsula and Holley Navarre areas are well documented.

In response to difficulties experienced by the regional utilities to provide for adequate and reliable service to the region, the SRCBOCC conducted a study of the regional needs and alternatives for a regional solution. This effort produced the *Conceptual Level Evaluation–Alternative Effluent Disposal Strategies for South Santa Rosa County, Florida* (CH2M HILL, 1998). This study identified land application on the Eglin Reservation in the vicinity of the proposed site as a viable solution to the region's future needs.

Subsequent to the previous study, the SRCBOCC also considered the problems associated with the discharge from the Navarre Beach Wastewater Treatment Facility (NVBWWTF) to Santa Rosa Sound. This part of Santa Rosa Sound is within the Gulf Island National Seashore and is designated an Outstanding Florida Water (OFW). The Florida Department of Environmental Protection (FDEP) is charged with providing the highest level of protection possible to waters that are designated as OFWs. The discharge from the NVBWWTF, although it is high-quality effluent, cannot meet the State Class III Marine standard for copper. The Board considered several alternatives to the existing surface water discharge for the NVBWWTF. Land application on the Eglin Reservation was identified in that effort as a viable alternative for the NVBWWTF.

The Board also has a regional responsibility to consider the future in terms of all of the utilities in the region and the capacity for disposal of the anticipated future flows. In view of these considerations, the Board concluded that land application on the Eglin Reservation is the only means by which to address its responsibility on a regional basis.

ES.2 Alternatives Considered

ES.2.1 Proposed Action

The SRCBOCC proposes to lease approximately 328 acres of Air Force property for the purpose of constructing and operating a reclaimed water RIB system. The proposed RIB system would be constructed to receive and distribute highly treated reclaimed wastewater from the three utilities operating in South Santa Rosa County, Florida. These utilities are the NBU, the HNWS, and the SSRU. The reclaimed wastewater would be pumped (piped) from these utility companies to the RIB system, where it would filter down from the infiltration basins to the surficial aquifer beneath the site.

The proposed site is located on EAFB property west of State Road (SR) 87 and south of EAFB Range Road 726. A buffer distance of no less than 500 feet (ft) would be maintained from SR 87, and a buffer distance of no less than 10,000 ft from the north-south runway of Choctaw Air Field would be maintained. Of the 328 acres, 200 acres would be a phased development as demand for wastewater disposal occurred. Initially, Phase I (40 acres) would be constructed; then Phase II (90 acres); and then finally Phase III (70 acres). The remaining 128 acres would be set aside as a contingency area that might be required in the event a regulatory review by FDEP determined the need for an additional area. Access to facilities and infiltration basins would be by 15-foot-wide gravel base roads. A 2-acre Operations Compound consisting of a combined office and an equipment storage and maintenance shed surrounded by a chain link fence would be constructed to support maintenance activities. Manpower maintenance work schedules would be normal daylight duty hours.

A series of RIBs would be constructed on the site in phases over a 20-year period. This system would enable the recycling of up to 7 million gallons per day (mgd) of highly treated reclaimed wastewater generated by the South Santa Rosa County utilities. Santa Rosa County anticipates that the project would be developed in three phases. Each phase would be constructed as necessary to meet the region's growing effluent disposal needs.

As shown in **Figure 2-1** (Section 2), the site will consist of a series of RIBs constructed in phases over a 20-year period to recycle up to 7 mgd of highly treated reclaimed water that will be generated by NBU, SSRU, and HNWS. The SRCBOCC anticipates that the project would be developed in three phases, as shown in **Table ES-1**. Each phase would be brought online to meet the region's growing reclaimed water disposal needs.

ES.3 No-action Alternative

Under the no-action alternative, the NBU would continue to discharge treated effluent to Santa Rosa Sound, the SSRU and the HNWS would be required to provide for the future needs of the region in a piecemeal fashion, and the RIB system and associated pipeline would not be built. Selection of the no-action alternative will represent a failure of the process to logically plan and provide for regional infrastructure, as required by the County's Comprehensive Management Plan.

TABLE ES-1
Development Summary for Proposed Santa Rosa County Rapid-rate Infiltration Basin System
EA Report of RIB System, EAFB, Florida

Phase	No. Rib Cells	Rib Bottom Area (acres)	Disturbed Area for RIB Construction (acres)	Access Roads (ft)	Disturbed Area for Access Roads (acres)	Area for Onsite Operations Facilities (acres)
1	9	24.0	40	12,500	4.3	2.0
2	12	38.2	61	6,000	2.0	–
3	8	26.0	45	5,000	1.7	–
Totals	**29**	**88.2**	**146**	**23,500**	**8.0**	**2.0**

Notes:
RIB = rapid-rate infiltration basin
ft = feet

Because of the physical limitations and geography of the region, and the fact that most of the land that can support such a system in this region is located on the Eglin Reservation, the proposed action represents the only reasonable solution to this need. Therefore, either the proposed action is consistent with the National Environmental Policy Act (NEPA) or it is not consistent. There are no other alternatives that involve the use of federal lands. Therefore, the No-action Alternative is the only alternative compared to the proposed action as a basis for determining consistency with NEPA.

ES.4 Environmental Issues and Concerns

No significant environmental concerns have been identified for the proposed action. **Table ES-2** summarizes the expected effects of the proposed action on the environmental issues analyzed as part of this EA.

TABLE ES-2
Comparative Impact Summary
EA Report of RIB System, EAFB, Florida

Resource Area	Proposed Action	No-action Alternative
Mission, EAFB	No impact	No impacts because no change from existing conditions would occur.
Topography, Soils, and Geology	No impact to topography, geology, or soils	No impacts because no change from existing conditions would occur.
Noise	No impact	No impacts because no change from existing conditions would occur.
Air Quality	No impact	No impacts because no change from existing conditions would occur.

TABLE ES-2
Comparative Impact Summary
EA Report of RIB System, EAFB, Florida

Resource Area	Proposed Action	No-action Alternative
Groundwater	Possible beneficial impact by the raising of local groundwater levels; otherwise, no impact	No impacts because no change from existing conditions would occur.
Surface Water	No adverse impact. However, the proposed action is expected to have a direct beneficial impact on Santa Rosa Sound because a WWTF would be diverted from the Sound.	The existing water quality problems remain, which are an exceedance of the copper standard and the continued discharge of domestic effluent within the Gulf Islands National Seashore.
Hazardous and Toxic Materials and Wastes	No impact	No impacts because no change from existing conditions would occur.
Terrestrial Biota	No impact	No impacts because no change from existing conditions would occur.
Aquatic Biota	No impact	No impacts because no change from existing conditions would occur.
Wetlands	No impact	No impacts because no change from existing conditions would occur.
Threatened and Endangered Species	No impact	No impacts because no change from existing conditions would occur.
Cultural Resources	No impact	No impacts because no change from existing conditions would occur.
Socioeconomic	The proposed action will facilitate development of the Fairpoint Peninsula Holley Navarre area to the extent that the availability of utility infrastructure will be more reliable.	The no-action alternative would necessarily limit development of the region. It may impede development to the extent that the availability of utility infrastructure will be less reliable. This may have a negative impact on the region's ability to support military personnel. This would have a negative impact on the local economy and base missions.
Visual Resources	No impact	No impacts because no change from existing conditions would occur.

Notes:
EAFB = Eglin Air Force Base
WWTF = wastewater treatment facility

Design features of the proposed RIBs will be fully coordinated with the EAFB Range Configuration Control Committee to ensure that features such as fencing, roads, vegetative barriers, etc., do not affect the Eglin mission. Coordination will be accomplished by the proponent at the earliest site design stages.

ES.5 Environmental Compliance

Table ES-3 summarizes the status of the compliance of the project with applicable federal environmental statutes and executive orders.

TABLE ES-3
Federal Environmental Statutes and Executive Orders
EA Report of RIB System, EAFB, Florida

Acts	Compliance Status	EA Action
Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469)	In compliance	Meetings were held with the Eglin Cultural Resources Division. In addition, letters were sent out and received from the Florida Division of Historical Resources.
Clean Air Act, as amended (Public Law 88-206)	In compliance	No air emission will result from the operation or construction of the system.
Clean Water Act (CWA), as amended (Public Law 95-217)	In compliance	There will be no impact to wetlands or waters of the state as a result of construction or operation of the system.
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Public Law 96-510), as amended by the Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499)	In compliance	A search for contaminated sites was conducted and none were identified. Furthermore, no hazardous materials will be associated with the construction or operation of the system.
Endangered Species Act of 1973, as amended (Public Law 93-205)	In compliance	The construction or operation of the system will not affect any threatened or endangered species.
Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661, et seq.)	In compliance	No impacts will occur to any bodies of water as a result of this action. Furthermore, EAFB will consult with the U.S. Fish and Wildlife Service and the Florida Department of Environmental Protection, if necessary.
National Environmental Policy Act of 1969 (Public Law 91-190)	In compliance	This EA is being prepared in accordance with NEPA.
National Historic Preservation Act of 1966, as amended (Public Law 89-665)	In compliance	Meetings were held with the Eglin Cultural Resources Division. In addition, letters were sent out and received from the Florida Division of Historical Resources.
Noise Control Act of 1972, as amended	In compliance	No permanent noise impacts will occur. Noise impacts are minimal and temporary, associated with construction and site maintenance activities, and will be buffered by vegetation borders.
Resource Conservation and Recovery Act (Public Law 94-580)	In compliance	A search for contaminated sites was conducted and none were identified. Furthermore, no hazardous materials will be associated with the construction or operation of the system.

TABLE ES-3
Federal Environmental Statutes and Executive Orders
EA Report of RIB System, EAFB, Florida

Acts	Compliance Status	EA Action
Solid Waste Disposal Act of 1965, as amended (including Resource Conservation and Recovery Act and amendments)	In compliance	No hazardous materials will be associated with the construction or operation of the system, and the system will receive no solid or hazardous waste either in construction or operation. All solid waste generated by the construction will be removed and disposed at an approved landfill facility.
Toxic Substances Control Act of 1976 (Public Law 94-469)	In compliance	A search for contaminated sites was conducted and none were identified. Furthermore, no hazardous materials will be associated with the construction or operation of the system.
Watershed Protection and Flood Prevention Act of 1954 (16 U.S.C. 1101, et seq.)	In compliance	The project will not affect the ground level elevations within a designated floodplain.
Wetlands Conservation Act (Public Law 101-233)	In compliance	There will be no impact to wetlands or waters of the state as a result of construction or operation of the system.
State of Florida Environmental Resources Permit and related permits (Dredge and Fill /Wetlands Permit)	In compliance	There is no ERP permit process for this area of Florida. In addition, no wetland impacts will result from the construction or operation of this project that might require permitting under the CWA (see above, this table).
NPDES Storm Water Permit	In compliance	Application with the appropriate storm water runoff and erosion control plan will be filed as part of preconstruction activities. Project design will account for any necessary storm water management on the project (roadside swales).
Floodplain Management (Executive Order 11988)	In compliance	The project will not affect a designated floodplain during which changes to topography would affect the floodplain.
Protection of Wetlands (Executive Order 11990)	In compliance	There will be no impact to wetlands or waters of the state as a result of construction or operation of the system.
Federal Compliance with Pollution Standards (Executive Order 12088)	In compliance	All other applicable pollution laws are in compliance.

Notes:
EAFB = Eglin Air Force Base
CWA = Clean Water Act
U.S.C. = United States Code
EA = environmental assessment
NEPA = National Environmental Policy Act
ERP = Environmental Resources Permit
NPDES = National Pollutant Discharge Elimination System

1.0 Introduction

The Santa Rosa County Board of County Commissioners (SRCBOCC) proposes to lease approximately 328 acres of U.S. Air Force (USAF) property for the purpose of constructing and operating a reclaimed water rapid-rate infiltration basin (RIB) system. The proposed RIB system would be constructed to receive and distribute highly treated reclaimed wastewater from the three utilities operating in South Santa Rosa County, Florida. These utilities are the Navarre Beach Utilities (NBU), the Holley Navarre Water System (HNWS), and the South Santa Rosa Utilities (SSRU). The reclaimed wastewater would be pumped (piped) from these utility companies to the RIB system, where it would filter down from the infiltration basins to the surficial aquifer beneath the site.

The proposed site is located on Eglin Air Force Base (EAFB) property west of State Road (SR) 87 and south of EAFB Range Road 726. A buffer distance of no less than 500 feet (ft) would be maintained from SR 87, and a buffer distance of no less than 10,000 ft from the north-south runway of Choctaw Air Field would be maintained. Of the 328 acres, 200 acres would be a phased development as demand for wastewater disposal occurred. Initially, Phase I (40 acres) would be constructed; then Phase II (90 acres); and then finally Phase III (70 acres). The remaining 128 acres would be set aside as a contingency area that might be required in the event a regulatory review by the Florida Department of Environmental Protection (FDEP) determined the need for an additional area. Access to the facilities and infiltration basins would be by 15-foot-wide gravel base roads. A 2-acre Operations Compound consisting of a combined office and an equipment storage and maintenance shed surrounded by a chain link fence would be constructed to support maintenance activities. Manpower maintenance work schedules would be normal daylight duty hours.

In addition to the proposed RIB site, the reclaimed water would be delivered to the site through a reclaimed water pumping and distribution system originating at the Navarre Beach Wastewater Treatment Facility (NVBWWTF). The reclaimed water conveyance system, in total, is approximately 12 miles long. This reclaimed water distribution system also would traverse a small section of the Eglin Reservation located in South Holley. This short segment of the conveyance system is referred to throughout the remainder of this document as the South Holley Segment.

The South Holley Segment is approximately 500 ft long, along the western boundary of the SR 87 easement at the western boundary of the Eglin Reservation. Within the 500-foot segment, a transmission pipeline that would transport the treated effluent to the RIB system would be installed. Currently, the South Holley Segment is being used as a residential yard and drainage swale for SR 87. Few environmental features, aside from mature pine trees, are found on this segment. The proposed segment of force main would not affect these trees.

A series of RIBs would be constructed on the site in phases over a 20-year period. This system would enable the recycling of up to 7 million gallons per day (mgd) of highly treated reclaimed wastewater generated by the South Santa Rosa County utilities. Santa Rosa

County anticipates that the project would be developed in three phases. Each phase would be constructed as necessary to meet the region's growing effluent disposal needs.

The proposed system is being developed to address the regional needs of South Santa Rosa County. The SRCBOCC, pursuant to its powers and duties as enumerated in Paragraph 125.01(1)(k), F.S., and Subsection 125.01101, F.S., provides sewage collection and treatment services in South Santa Rosa County through franchise agreements with the SSRU and HNWS. The SRCBOCC also owns and operates the NBU, providing service to that section of Santa Rosa Island that lies within South Santa Rosa County. Problems associated with providing for the adequate disposal of reclaimed water in South Santa Rosa County along the Fairpoint Peninsula and Holley Navarre areas are well documented. **Figure 1-1** provides a general location map of the region.

In response to difficulties experienced by the regional utilities in providing for adequate and reliable service to the region, the SRCBOCC conducted a study of the regional needs and alternatives for a regional solution. This effort produced the *Conceptual Level Evaluation–Alternative Effluent Disposal Strategies for South Santa Rosa County, Florida* (CH2M HILL, 1998).

This study identified land application on the Eglin Reservation in the vicinity of the proposed site as a viable solution to the region's future wastewater disposal needs.

1.1 Fairpoint Peninsula

The Fairpoint Peninsula includes the City of Gulf Breeze and the unincorporated areas known as Tiger Point, Midway, and Holley Navarre. The Fairpoint Peninsula is the fastest-growing area in Santa Rosa County and one of the fastest-growing areas in the State of Florida. The County's Comprehensive Plan and Land Development Code requires all new subdivisions within 1/2 mile of service to connect to a central sewer system. To prepare for future growth and to sustain reliable service, the County must provide adequate disposal capacity and infrastructure. Sufficient land area to provide for adequate long-term disposal capacity on Santa Rosa Island and the Fairpoint Peninsula is not available. Furthermore, the land and water table elevations on the island and peninsula are not favorable for rapid-rate infiltration of this magnitude, nor does sufficient open land area exist for slow-rate irrigation on the island and the peninsula to meet these future needs.

Fairpoint Peninsula and Santa Rosa Island are characterized by low land elevations and wetland areas with little separation between the surface elevations and the groundwater table. The peninsula is bounded by Santa Rosa Sound, East Bay, and Pensacola Bay.

The majority of these water bodies are Class II waters approved for shellfish harvesting, and new discharges of domestic wastewater are prohibited to these waters. The Island is bounded by Santa Rosa Sound and the Gulf of Mexico. These waters are within the Gulf Island National Seashore and are designated as Outstanding Florida Waters (OFWs).

Both the SSRU and HNWS currently are developing public access reuse systems that provide reclaimed water to golf courses and large commercial developments. These efforts will continue. However, it is not expected that these systems will be capable of providing for the projected future needs of the region.

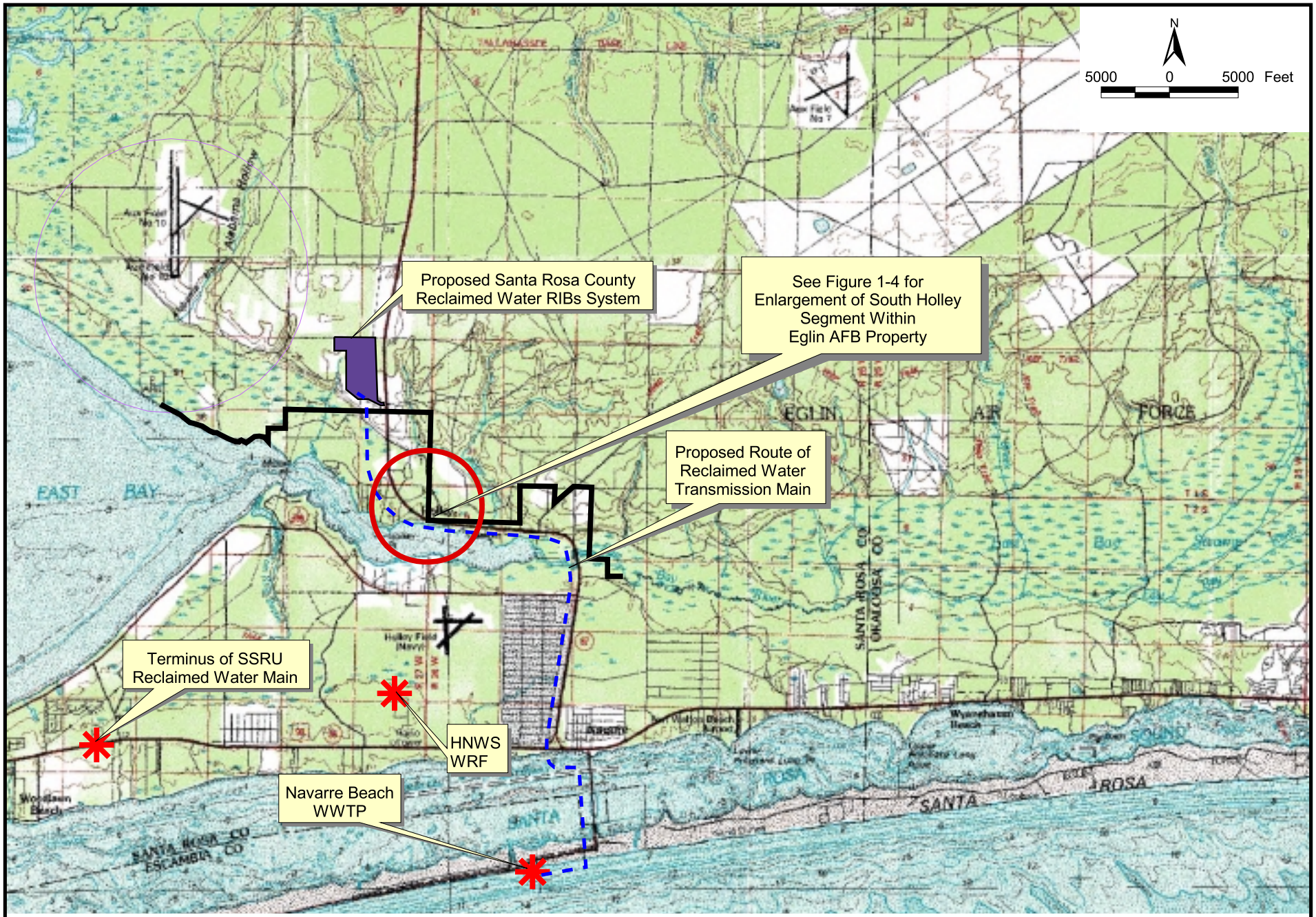

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Figure 1-1
General Project Location Map
Santa Rosa County RIB System

1.1.1 Navarre Beach Wastewater Treatment Facility

The proposed system is to be developed in two to three phases over a 20-year period. SSRU and HNWS needs are not expected to result in a demand for the system until the second or third phase of the project. The immediate need is relative to the NBU.

The NVBWWTF is owned and operated by the SRCBOCC. Currently, the NVBWWTF is permitted to discharge 900,000 gallons per day (gpd) of treated domestic effluent to Santa Rosa Sound. In May 2000, the FDEP issued National Pollutant Discharge Elimination System (NPDES) permit FL0023981-001-DW1P to the NVBWWTF. In addition to the NPDES permit, FDEP issued to the SRCBOCC an Administrative Order (AO) requiring the facility to come into full compliance with state and federal water quality standards by May 31, 2005. The AO was issued because the effluent discharged from the facility–while of high quality in terms of conventional constituents such as carbonaceous biochemical oxygen demand (CBOD), total suspended solids (TSS), total nitrogen (TN), and total phosphorus (TP)–had concentrations of total recoverable copper that exceeded the State Class III marine water standard of 3.7 micrograms per liter (µg/L).

Copper naturally occurs in the potable water supply at levels near or above the state and federal Class III Marine water standard of 3.7 µg/L. As the potable water passes through the potable water system located on Navarre Beach, copper leaches from the plumbing and fixtures. As the raw wastewater enters the treatment facility, the levels of total recoverable copper range from 100 µg/L to 400 µg/L. The wastewater treatment process removes a majority (80 percent to 90 percent) of this copper, but a conventional domestic wastewater treatment process is not designed to achieve compliance with the standard of 3.7 µg/L. In October 2001, the utility installed a chemical process to aid in the coagulation of the copper, but this process can only reliably achieve concentrations down to 36 µg/L.

Coupled with the concerns for compliance with the total recoverable copper standard for discharge to Class II and III marine waters is the fact that the NVBWWTF discharges to waters within the Gulf Island National Seashore, an OFW. Furthermore, the waters immediately adjacent to the zone of discharge are classified as Class II marine waters, approved for shellfish harvesting. The State of Florida water quality standards require that the highest level of protection possible be afforded to OFWs. These waters were classified by the State of Florida pursuant to the Clean Water Act (CWA), 33 United States Code (U.S.C.) ss/1251 et seq.

Santa Rosa County completed the *Wastewater Treatment and Effluent Disposal Comprehensive Plan for the Navarre Beach Wastewater Treatment Facility* (CH2M HILL, March 2001). In the development of this plan, the County considered several alternatives to the existing discharge to Santa Rosa Sound from the NVBWWTF:

- Direct Reuse/Public Access Irrigation on Santa Rosa Island
- Class V Deep Injection Wells
- Spray Irrigation on Utility-owned Property (Purchase Required)
- Rapid-rate Infiltration on Utility-owned Property (Purchase Required)
- Natural Wetlands Disposal
- Spray Irrigation on Eglin Reservation Property
- Rapid-rate Infiltration on Eglin Reservation Property

- Privatization of Wastewater Services
- Class I Deep Injection Wells
- Class V Shallow Injection Wells

Again, this study was commissioned by the SRCBOCC to address the specific problems and needs of the NBU. Initially, the effort was focused on containing the NVBWWTF discharge on Santa Rosa Island and, if not on the island, areas on the peninsula were examined thoroughly. The proposed use of Eglin property was not considered until the screening of other alternatives for the NVBWWTF was unsuccessful.

Then the SRCBOCC considered the difficulty of addressing the needs of the NBU, along with the ongoing effort to address the future needs of the other utilities, and concluded that the use of Eglin property was the only alternative that could effectively address these needs in an environmentally sound and regional application.

1.2 Alternatives Background

The list of alternatives above was selected for consideration based on the study performed by CH2M HILL in 1998. On the basis of experience and familiarity with the region, the list above captures all of the reasonable alternatives that provide any potential for development. The potential for any of these applications varies with each alternative. Each was screened with respect to costs, the SRCBOCC's ability to implement it, needs addressed, regulatory constraints, technical risk, and environmental concerns.

Discharge to the Gulf of Mexico was not considered along with these alternatives, because it is not a reasonable alternative solution. The waters along Santa Rosa Island, including the Gulf of Mexico, are within the Gulf Island National Seashore. Waters within the Gulf Island National Seashore are classified as OFW. The FDEP is charged with providing the highest level of protection to OFWs. It is extremely unlikely that the FDEP would issue a permit for a domestic wastewater discharge to the Gulf of Mexico under these circumstances. Furthermore, the same Class III Marine Standard for total recoverable copper exists for the Gulf of Mexico as it does for Santa Rosa Sound. A proposed discharge to the Gulf of Mexico, therefore, would not resolve the issue confronting the NBU and the other utilities, or enable them to comply with the AO from the FDEP. A brief explanation of the screening of the various alternatives is presented below.

Discharge to Class V deep injection wells was ruled out because of the risks associated with penetrating the confining layer separating the Upper and Lower Floridan Aquifers. There is considerable risk associated with injecting water under pressure to the Lower Floridan, because doing so could result in contamination of the Upper Floridan. This alternative was rejected on this basis.

Discharge to natural wetlands is not a viable alternative. All of the water bodies near the SSRU, HNWS, and NBU systems, which are buffered from the uplands by wetlands, are Class II waters approved for shellfish harvesting. This classification extends through the wetlands to the uplands, including the wetlands in this classification. New domestic wastewater discharges to Class II waters are prohibited by the FDEP rules.

Privatization of services for Navarre Beach would not resolve the need for future capacity, nor would it resolve the conflict between the Navarre Beach discharge and the Class III Marine Water standard for copper. This alternative simply passes the problem from the County to a private entity without providing a solution.

A Class I deep well injection for the NVBWWTF was considered. This alternative would involve injecting the reclaimed water directly into the Upper Floridan Aquifer. This alternative was rejected for the NVBWWTF because of the high cost and associated environmental concerns. Implementing this alternative would require that the treatment system at the NVBWWTF be modified to include post-treatment with reverse osmosis (RO) prior to injection. This treatment process results in a brine waste stream that would either have to be discharged to Santa Rosa Sound or be injected into the Lower Floridan Aquifer through a second injection well. This alternative is simply not viable because of costs and the environmental regulatory constraints of managing the resulting waste stream from the RO process.

Class V shallow injection wells involve the use of a series of wells that would inject water into the surficial aquifer. This alternative was rejected for the same reason as the Class I deep well injection alternative. It requires treatment through RO prior to injection and results in a waste stream that must be injected into the Lower Floridan aquifer. This alternative is not cost-effective and, considering the environmental risks, was rejected.

Reuse on Santa Rosa Island for the NVBWWTF was first evaluated in 1999 by Fabre Engineering. That effort was documented in the *Navarre Reuse Feasibility Study* (Fabre Engineering, 1999). This study concluded that reuse of reclaimed water on Santa Rosa Island for the NVBWWTF would not account for the future needs of this facility over the long term. Adequate capacity from the available land area on Santa Rosa Island within Navarre Beach would only provide 66 percent of the needed capacity requirements for this facility.

CH2M HILL reevaluated the potential for reuse of reclaimed water on Santa Rosa Island in 2000. On the basis of this study, it is estimated that only about 75 percent of the capacity requirements for this facility can be achieved through reuse. The University of Florida was consulted with respect to the proposed land application of reclaimed water on the barrier island (Personnel Communication, November 2000). The University did not concur with the proposed use, citing concern for the ability of the native dune vegetation to uptake the nutrients and subsequent leaching of nutrients. The University also did not support the proposed loading rate of 1.5 inches per week, further reducing the potential capacity of island reuse below the estimated 75 percent.

Additional concerns for the encouragement of non-native vegetation makes the island reuse alternative a non-viable alternative. Preventing the introduction and encouragement of non-native vegetation is the policy of the State of Florida, and is part of the County's Land Development Code. This concern stems from the increased amount of water and nutrients made available through reclaimed water that would tend to favor species that are not indigenous to the coastal barrier island environment.

Nor are reuse on Santa Rosa Island in conjunction with continued surface water discharge or a combination of reuse on the island and reuse on the peninsula discharge viable alternatives. These alternatives are not viable because the continued surface water discharge

cannot comply with the Class III Marine Water Standard for copper. Furthermore, the combined costs for developing a reuse system on the island to achieve less than 75 percent capacity and the costs of a pipeline across Santa Rosa Sound to account for the additional 25 percent or more of the capacity requirements are not cost-effective.

1.2.1 South Santa Rosa Utility and Holley Navarre Water System

The SSRU and HNWS currently operate and are developing reuse systems. These utilities provide reuse for 100 percent of their respective existing flows. Both utilities have been developing additional capacity as demand became imminent, which has resulted in a costly piecemeal approach that has not provided assurances that future capacity needs will be met. Both systems expect to be able to rely on this proposed RIB system in the event that the limitations of the potential disposal capacity along the Fairpoint Peninsula, as previously discussed, prevent them from providing for future demands.

The SSRU and the HNWS franchise areas account for 100 percent of the land area between the NBU system and the proposed RIB site on EAFB. The NBU examined areas within the HNWS franchise area for a site that possibly could be purchased and used for land application. **Figure 1-2** illustrates the geographic limitations for a regional system. During the study for Navarre Beach, three parcels within the HNWS franchise area were examined. These areas are essentially the only land areas of sufficient size to be considered for such an application. Had these parcels yielded more potential, the County could have purchased these properties or exercised its power of eminent domain. However, the use of these parcels was determined not to be viable because they cannot yield the required capacity and because of concerns for low land elevations with respect to the groundwater table, or the proximity to sensitive wetlands.

1.2.2 Potential Land Application Parcels

Parcel 1 is approximately 234 acres. Of this 234 acres, approximately two thirds of it is wetlands. Williams Creek bisects this area as it flows south to Santa Rosa Sound. Excluding the wetlands areas from use leaves insufficient land area on this site for spray irrigation of the capacity requirements for the NBU, and certainly for a regional system. Although there is sufficient land area on which to locate a rapid-rate infiltration system on this site for the NBU, it is unlikely that the full capacity requirements for the a regional system could be achieved in this manner because of the limited buffer area between the land application area and Williams Creek. Separation between the land surface and the groundwater table makes this site an unlikely candidate for rapid-rate infiltration. Furthermore, the FDEP's and local environmental groups' opposition to rapid-rate infiltration in this area is well documented. The FDEP probably would not issue a permit for this alternative. Also, because this area is within the HNWS franchise area, it is likely that HNWS would oppose NBU's use of this site without considering the needs of the HNWS' system. This site simply cannot serve as a regional solution.

Parcel 2 is approximately 715 acres. Approximately 60 percent of this site is wetlands. The upland areas within this parcel are extremely low lying and there would be little if any separation between the ground surface and water table, thus making it unsuitable for the land application of reclaimed water.

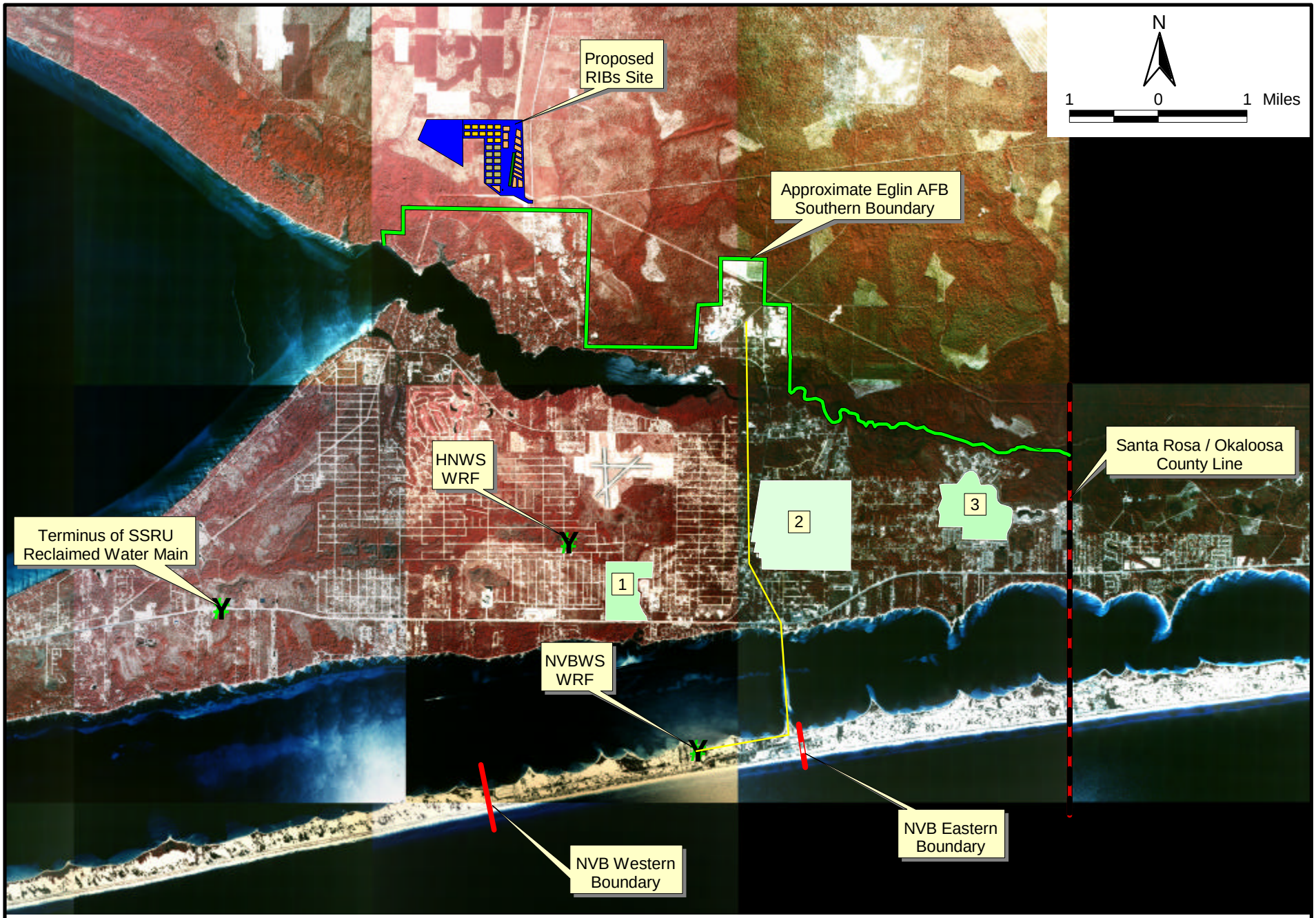

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Figure 1-2
Geographic Limitations
for a Regional System

Parcel 3 is approximately 216 acres. This parcel is located within an existing residential subdivision and currently is being developed with additional single-family homes. It would not be practical to consider this site as a location for land application from a regional standpoint or for the NBU independently.

These are the only parcels of sufficient size in South Santa Rosa County that could even be considered to provide for the long-term capacity needs of the region. The SSRU and HNWS will continue to develop their systems and to make reclaimed water available to new and existing developments, which will defer their respective needs for use of the proposed RIB system to the latter phases of the proposed project. Developing public access reuse systems requires time, and the supply and demand must exist to make them viable.

Slow-rate land application, a forested irrigation system on Eglin property, also was considered. Slow-rate land application on the Eglin Reservation was the preferred alternative, because of the costs and the minimal environmental concerns. This alternative would be the most easily permitted through the FDEP permitting process, and is compatible with EAFB's existing use of the land as a reforestation area. However, this alternative would require approximately 1,300 acres and was deemed to be mission impactive by the EAFB Encroachment Committee (EC).

The NBU would have to spend in excess of $2 million dollars to construct the pipeline necessary to convey the reclaimed water from its facility across Santa Rosa Sound to the mainland. Doing so is not cost-effective unless the projected build-out capacity is available upon completion of the pipeline. The only alternative is to develop the proposed site for 100 percent of the future capacity needs for NBU. Eventually, the SSRU and HNWS will maximize their ability to distribute reclaimed water on the peninsula and ultimately will divert future flows above those developed for public access reuse on the peninsula to the proposed system.

Diverting the reclaimed water north of the Yellow River to Central Santa Rosa County is simply not cost-effective. As proposed, the reclaimed water must be conveyed a distance of more than 10 miles to the proposed RIBs site. Diverting the reclaimed water north of the Yellow River would add another 10 or more miles to the required pipeline length, which would add as much as $5 to $10 million to the estimated project costs. Even if the County were to consider employing its power of eminent domain to use areas north of the Yellow River, this approach would increase the cost of the project to an unreasonable amount. This estimated cost does not even consider the political and environmental problems associated with diverting the flows to a location north of the Yellow River, which could drive the costs even higher.

Once all of these alternatives for the NBU were screened and considered by the SRCBOCC in the context of the needs for the entire region, using land on the Eglin Reservation for rapid-rate land application emerged as the only alternative that addresses the regional needs and meets all of the criteria with respect to regulatory requirements, costs, and environmental concerns, and that is acceptable to the EAFB EC. **Figure 1-3** provides a location map of the proposed RIBs site.

The proposed site represents the only viable site for the development of a regional system for South Santa Rosa County. Ways to contain the effluent from the NBU on Santa Rosa

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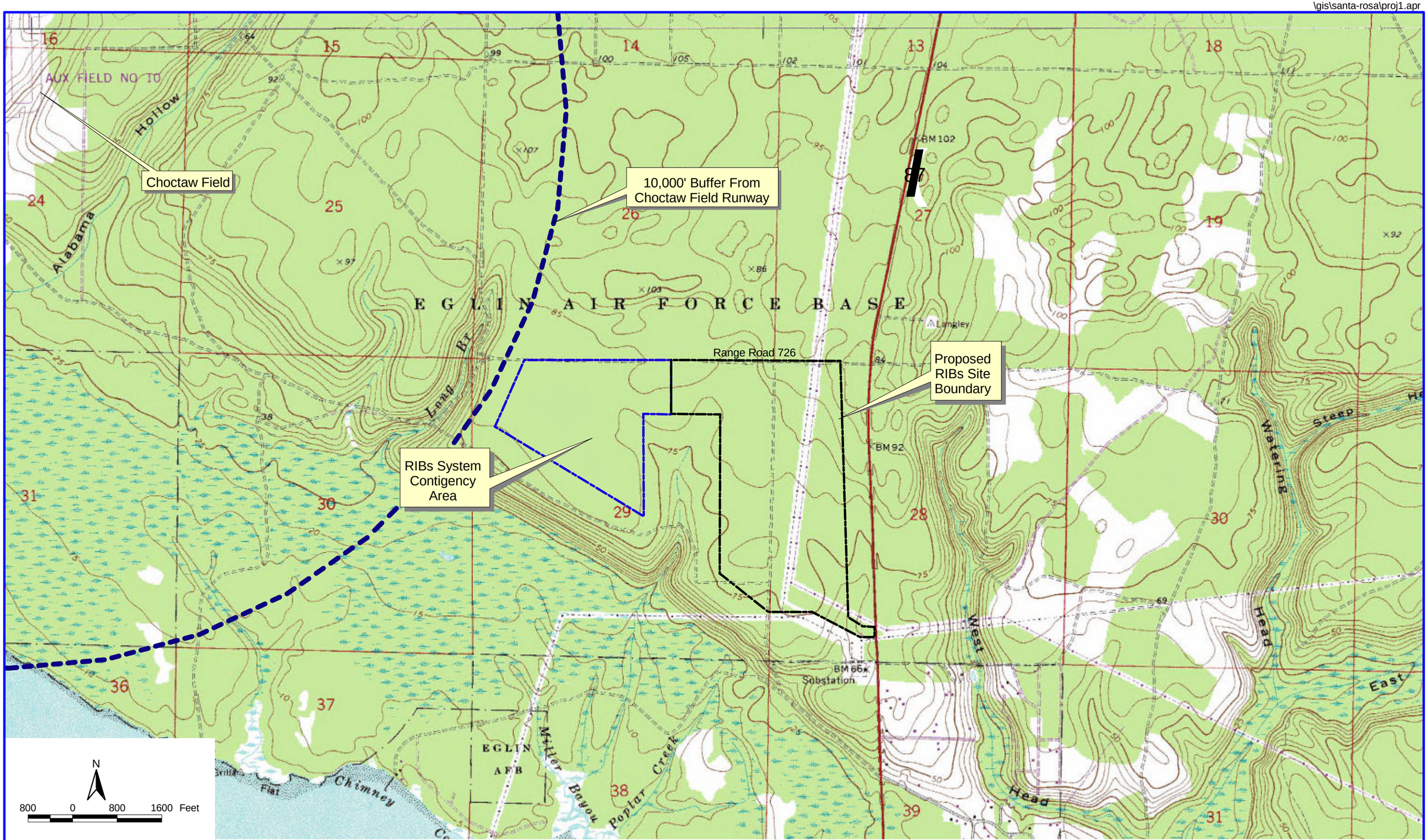

Source : USGS 7.5 Minute Holley Quadrangle.

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Figure 1-3
RIB Site Location Map
Santa Rosa County RIB System

Island were considered thoroughly. None of these alternatives were found to provide for the required build-out capacity, or they were found not to be cost-effective, or the environmental risks were not acceptable. Land area on the Fairpoint Peninsula for disposal of the NVBWWTF effluent was considered. Only three parcels of sufficient size exist for this purpose. The use of these sites for the NBU is not viable because of the low land elevations with respect to the groundwater table, they either contain or are too close to existing wetlands, or they currently are being developed for other purposes.

Furthermore, use of land on the peninsula for the NBU results in a conflict with the other utilities operating on the peninsula that are dependant on the limited resources existing on the peninsula for their existing flows. The alternatives are severely limited by the region's proximity to the Eglin Reservation. Diverting these flows north of Eglin is simply cost prohibitive. Areas east and west of SR 87 on the Eglin Reservation were examined. Areas east of SR 87 on Eglin were determined to be mission impactive by the EAFB EC. The use of all areas west of SR 87 were determined to be mission impactive by the EC except for the use of the proposed site. **Table 1-1** summarizes the alternatives considered for the NBU. An examination of these alternatives for the NBU, in conjunction with the County's efforts to address regional needs for wastewater disposal capacity, indicates that the proposed site is the only viable alternative.

TABLE 1-1
Summary of Evaluation of Alternatives for the NVBWWTF that were Considered and Rejected
EA Report of RIB System, EAFB, Florida

Alternative	Description	Rejection Criteria
[1.] Direct Reuse	Provide public access reuse quality reclaimed water for irrigation of landscaped areas on Navarre Beach.	The Navarre Beach section of Santa Rosa Island does not have sufficient reuse capacity to meet the long-term needs of the facility. The potential for encouraging non-native vegetation is high and this alternative was discouraged.
[1.] Class V Deep Injection Wells	Construct a single well for injection into the Lower Floridan Aquifer.	Very costly with respect to the potential risk that the aquifer may not be capable of accepting the proposed flow rate of 1.0 mgd. Risk associated with penetrating the confining layer separating the Lower and Upper Floridan Aquifers.
[1.] Spray Irrigation on Utility-owned Property	Purchase approximately 200 acres to be spray irrigated.	Suitable parcels of this size are not available in this area to address the long-term regional needs.
[1.] Rapid-rate Infiltration on Utility-owned Property	Purchase approximately 24 acres for rapid-rate infiltration basins (RIBs).	Suitable land parcels of this size are not available in this area that are sustainable for rapid-rate infiltration and that would provide for long-term regional needs. The land elevations on the Fairpoint Peninsula and Holley Navarre area are low with respect to groundwater elevations and are not suitable for rapid-rate infiltration.

TABLE 1-1
Summary of Evaluation of Alternatives for the NVBWWTF that were Considered and Rejected
EA Report of RIB System, EAFB, Florida

Alternative	Description	Rejection Criteria
[1.] Natural Wetlands Disposal	Purchase approximately 200 acres of wetlands property for discharge into a receiving wetland.	All wetlands in proximity to Navarre Beach are contiguous to Class II waters and thus are Class II. According to the Florida Administrative Code, discharges of domestic wastewater into Class II waters are not allowed.
[1.] Privatization of Wastewater Services	Sell the Navarre Beach Assets to the Holley Navarre Water System.	This alternative dos not solve the problem of the discharge to Santa Rosa Sound. The Holley Navarre Water System does not have the capacity to receive the treated water from Navarre Beach.
[1.] Class I Deep Injection Wells	Treat water to potable water standards and inject the reclaimed water into the Upper Floridan.	Indirect potable re-use has never been permitted in northwest Florida. Requires a second injection well to inject rejects from the treatment process to the Lower Floridan. Cost prohibitive.
[1.] Class V Shallow Injection Wells	Construct a series of shallow wells for injection of the reclaimed water into the sand and gravel aquifer.	Requires treatment to groundwater standards. Requires a second injection well to inject rejects from the treatment process to the Lower Floridan. Cost prohibitive.
[2.] Forested Irrigation	Construct a 980- to 1,300-acre forested irrigation system on property leased from EAFB.	The Eglin Encroachment Committee determined that this alternative would affect EAFB's mission.
Land parcels on the eastern side of Hwy. 87	Construct the RIBs on two land parcels on the eastern side of Hwy. 87.	The EAFB Encroachment Committee determined that this alternative would affect EAFB's mission.

Notes:
[1.] The alternatives above were evaluated for the NVBWWTF. Each was determined not to be feasible for the NVBWWTF. These alternatives do not facilitate a solution to the regional demand for wastewater disposal capacity. The limitations of the other existing utilities in the region, Holley Navarre Water System and South Santa Rosa Utilities, have been well documented. The Santa Rosa County Board of County Commissioners has a regional responsibility that extends beyond the service boundaries of the NVBWWTF. Therefore, each of the alternatives above was rejected for implementation.
[2.] This alternative was proposed at locations adjacent to the proposed site. The alternative was determined by Eglin to require too large a site, to be too close to Choctaw Field, and to represent an unacceptable encroachment onto EAFB.
mgd = million gallons per day
EAFB = Eglin Air Force Base

The 1998 study for regional solutions did not include the NBU. This study was performed in response to the difficulties the SSRU was having associated with the development of adequate disposal capacity for its system on the Fairpoint Peninsula. This situation resulted

in a moratorium on new connections to the SSRU system and created a situation wherein the SRCBOCC was unable to comply with the state-mandated comprehensive growth management plan. It was not until May 2000 that the Board became aware of the problems being experienced by the NBU. The SRCBOCC needs an appropriate plan to provide for adequate and reliable future service on a regional basis that includes the SSRU, HNWS, and NBU. Therefore, the SRCBOCC, in an effort to adequately plan for the future needs of the region, and not just for Navarre Beach, resolved to address these problems from a regional perspective. To accomplish this objective, the County proposes to develop regional infrastructure to provide adequate wastewater disposal capacity on a regional basis for a 20-year period. This improvement is needed to keep pace with a rapidly growing population. Population growth within the study area, South Santa Rosa County, in the 1990s was documented in the Census 2000 at 112 percent.

It is foreseeable that the project will facilitate further development in Santa Rosa County. As the population increases and the County approves the development of the areas bordering EAFB, an increase in noise complaints is likely to result from Eglin's mission activities. To mitigate these impacts and to facilitate good relations between Eglin and its future neighbors in Santa Rosa County, EAFB approved the County's RIBs system, but conditioned its approval on the County's imposition of reasonable noise mitigation measures. These measures may include appropriate zoning to prohibit the development of noise-sensitive communities in or near Eglin's borders. Alternatively, or in addition and subject to Eglin's approval, these measures may include provisions within the County building code to mandate noise buffers in all new construction.

The present design of the RIB system that is considered in this Environmental Assessment (EA) will allow for future expansion to accommodate additional system users. However, the initial phase is directed to receiving reclaimed water from the NBU.

EAFB covers approximately 464,000 acres and includes parts of Okaloosa, Walton, and Santa Rosa counties, Florida. EAFB has been in operation since 1935, during which time the base has been used for a variety of testing and training operations in support of national defense goals. EAFB provides host support to the Air Armament Center (AAC), which is responsible for the development, acquisition, testing, deployment, and sustenance of all air-delivered weapons. The AAC accomplishes its mission on Eglin through three components: the Armament Product Directorate, the 46th Test Wing, and the 96th Air Base Wing.

1.3 Purpose and Need for the Proposed Action

The purpose of the proposed action is to provide a sound environmental solution to the infrastructure needs of South Santa Rosa County, including the City of Gulf Breeze, the unincorporated areas of south Santa Rosa County (Tiger Point/Midway), and Holley Navarre and Navarre Beach, for the disposal of reclaimed water from the SSRU, HNWS, and NBU systems. The RIB system is needed to meet the stringent effluent limitations imposed by the FDEP, which currently regulates the effluent discharge to Santa Rosa Sound, and to provide reliable reclaimed water disposal capacity on a regional basis. The State of Florida also is responsible for enforcing these same requirements pursuant to its delegated authority from the U.S. Environmental Protection Agency (EPA).

The NBU must meet the FDEP guidelines for total recoverable copper discharge by May 31, 2005, to be in compliance with the NPDES permit. The plant currently cannot meet this discharge limitation and must look for an alternative to the surface water discharge. The proposed system also will provide the highest level of protection possible for the Gulf Island National Seashore by eliminating the direct discharge.

In addition to the NBU's needs, the RIB system would provide reserve disposal capacity for future use by the other utilities that operate in the area. It is anticipated that in future years, the other regional utilities, the SSRU and HNWS, will require additional disposal capacity and will use the RIB system as a disposal option. Thus, the RIB system will provide a regional solution to increased effluent disposal demands caused by rapid growth in the area.

This EA evaluates the potential environmental effects associated with the construction and operation of a RIB system on EAFB property. Prepared by CH2M HILL, this EA meets the requirements of the National Environmental Policy Act (NEPA) and 32 *Code of Federal Regulations* (CFR) Part 989.

1.4 Location of the Proposed Action

The proposed action's location is adjacent to a southern property boundary of EAFB at the junction with SR 87 (Sections 28 and 29 of Township 1 S, Range 27 W on Holley Florida, U.S. Geological Survey [USGS] 7.5-minute topographic map; **Figure 1-1**) in Santa Rosa County, Florida. EAFB Range Road 726 borders the site to the north and SR 87 is the eastern boundary. To the south and west, the site boundary is located approximately on the 75-foot contour topographic break that enters the lowland of East Bay. This line extends from the northwestern corner of the Gulf Power electric substation, northwest approximately 5,600 ft, not including the unnamed intermittent creek feature in its path.

Another portion of the project, associated with the conveyance from the NVBWWTF to the RIB system site, is located in an approximate 500-foot section of EAFB along the western side of SR 87, within a property corner, west of the intersection of Bob Tolbert Road and SR 87 (intersection of SR 87 and Section 1 and 6, of Township 2, Range 27 and 26 W; see **Figures 1-2 and 1-4**). In this area, a segment of transmission main will be installed that eventually will supply reclaimed water to the RIB system. For the purposes of this EA, this section will be referred to as the South Holley Segment.

Eventually, after all phases of the project have been implemented, the RIB system and all supporting facilities will occupy approximately 200 acres of EAFB property. Currently, the area that is being considered for the RIB system is used by EAFB as natural interstitial buffer area, mainly consisting of reverting clear cuts and silviculture operations. Choctaw Field is located approximately 10,000 ft to the northwest of the western boundary of a RIB contingency area and more than 13,000 ft from the proposed active RIB site.

1.5 Applicable Regulatory Requirements and Coordination

This subsection summarizes the most applicable environmental regulations, consultation requirements, and public involvement issues pertaining to the proposed action.

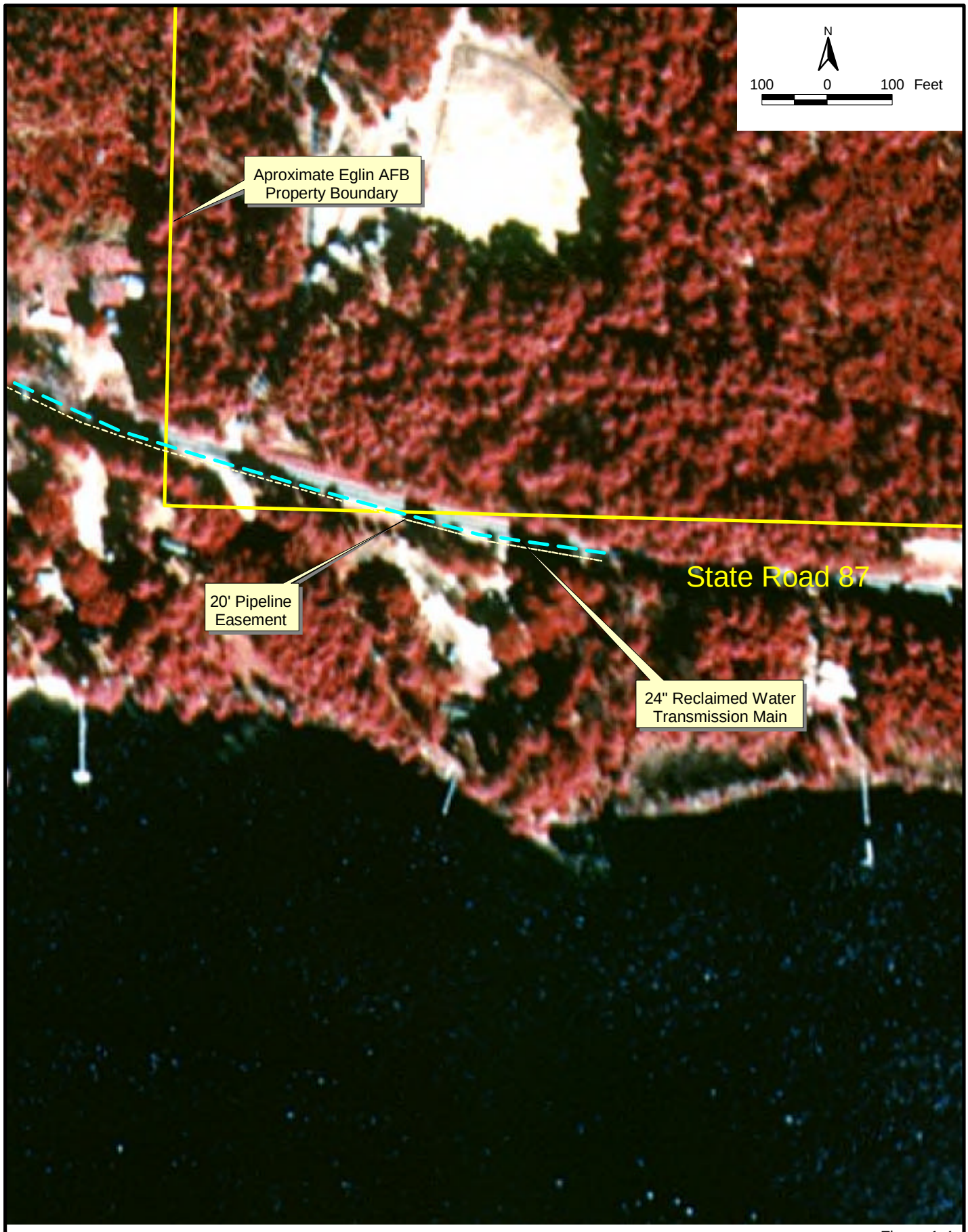

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Figure 1-4
Proposed Transmission Main South Holley Segment Through Eglin AFB
Santa Rosa County RIB System

1.5.1 Applicable Federal and State Laws

1.5.1.1 Environmental Policy

NEPA of 1969 and Title 40 of the CFR, Parts 1500 through 1508 (40 CFR 1500-1508) require federal agencies to consider the potential environmental consequences of proposed actions and alternatives. U.S. Department of Defense (DoD) Directive 6050.1 (32 CFR 214) provides DoD policies and procedures to supplement 40 CFR 1500-1508. Specific tasks and procedures for complying with NEPA through the environmental impact analysis process (EIAP), including responsibilities, compliance requirements, and document preparation and processing, are found in 32 CFR Part 989. Executive Order (EO) 11514, "Protection and Enhancement of Environmental Quality" (amended by EO 11991), provides a policy directing the federal government to take leadership in protecting and enhancing the environment.

1.5.1.2 Biological Resources (Vegetation and Habitat, Wildlife, and Threatened and Endangered Species)

The Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1543) provides a policy for federal agencies (with the assistance of the Secretary of the Interior/Commerce) to ensure that their actions do not jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of the habitat of a species that is determined to be critical.

The Fish and Wildlife Coordination Act provides a policy for the Secretary of the Interior (through the U.S. Fish and Wildlife Service [USFWS]) and for the National Marine Fisheries Service (NMFS) (through the Secretary of Commerce) to assist and cooperate with federal, state, and public or private agencies and organizations in the conservation and rehabilitation of wildlife.

1.5.1.3 Wetlands

The CWA of 1977 and the Water Quality Act (WQA) of 1987 (33 U.S.C. 1251 et seq., as amended) provide a policy for protecting wetlands and other waters of the United States. Section 404 of the CWA requires permits from the U.S. Army Corps of Engineers (USACE) to discharge dredged or fill material into such systems. EO 11990, "Protection of Wetlands," requires federal agencies to minimize or avoid adverse impacts to wetlands and to preserve and enhance their beneficial values. Per 32 CFR Part 989, as a finding contained in the draft Finding of No Significant Impact (FONSI), a Finding of No Practicable Alternative (FONPA) must be submitted (five hard copies and an electronic version) to the Major Command (MAJCOM) EPF when the alternative selected could be located in wetlands or floodplains, and must discuss why no other practicable alternative exists to avoid impacts.

1.5.1.4 Cultural Resources

The National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. 470 et seq., as amended) provides a policy for the protection of historic resources from federal actions. Protection of Historic Properties (36 CFR 800) provides specific procedures that federal agencies must implement, such as consulting with the State Historic Preservation Officer (SHPO), to ensure compliance with the NHPA.

The Archeological Resources Protection Act of 1979 requires federal agencies to conduct archaeological investigations on lands under their jurisdiction to determine the nature and extent of the protected cultural resources present, and to help manage extant resources in accordance with permit and enforcement provisions of the act.

1.5.1.5 Water Resources

The CWA of 1977 and the WQA of 1987 provide federal policy on maintaining and restoring water quality to protect and enhance waters of the United States. Section 404 of the CWA requires permits from the USACE to discharge dredged or fill material into waters of the United States.

EO 11988, "Floodplain Management," provides federal policy for reducing flood damage risk, minimizing the impacts of floods potentially resulting from a federal action, and preserving the natural and beneficial values provided by floodplains and floodways.

As a finding contained in the draft FONSI, a FONPA must be submitted (five hard copies and an electronic version) to the MAJCOM EPF when the alternative selected could be located in wetlands or floodplains, and must discuss why no other practicable alternative exists to avoid impacts.

1.5.1.6 Air Quality

The Clean Air Act (CAA) (42 U.S.C. 7401 et seq., as amended) provides a policy directing federal agencies to protect and enhance air quality. The CAA also requires agencies to verify that proposed actions conform to state implementation plans for attaining air quality goals.

1.5.1.7 Noise

The Noise Control Act of 1972 provides a policy that directs federal agencies to limit noise emissions to within compliance levels.

1.5.2 Consultation Requirements

Letters were sent to the following agencies to ascertain additional information or to ascertain input to the proposed action:

- FDEP, Florida State Clearinghouse, Tallahassee, Florida
- USFWS, Panama City Ecological Service and Fishery Resources Office
- Florida Division of Historical Resources, Tallahassee, Florida

Meetings were held with the following persons to ascertain additional information or to ascertain input to the proposed action:

- Mr. Bob Miller, Natural Resources Branch, Jackson Guard, EAFB
- Ms. Lynn Shreve, Cultural Resources Management Division, EAFB
- Multiple meetings with the EAFB EC

1.5.3 Public Involvement

EAFB will make the Draft EA and the FONSI available to affected agencies and to the public for a review period of 30 days.

EAFB advertised the November 2003 Draft EA and FONSI for public comment on January 14, 2004, in the *Fort Walton Daily News*, and in the *Pensacola News Journal* on January 14, 2004. The comment period was from January 14 through January 28, 2004.

In response to review comments received from the USAF, a revised Draft EA and FONSI were prepared in February 2005. SRCBOCC advertised the February 2005 Draft EA and FONSI for public comment on February 22, 2005. The additional public comment period was from February 22 through March 24, 2005.

No public comments were received by EAFB on the November 2003 or the February 2005 Draft EAs as a result of the public notification and public comment periods.

1.6 Environmental Assessment Logic, Scope, and Organization

This EA discusses the applicable regulatory requirements and existing conditions that serve as the context for evaluating the potential environmental impacts associated with the proposed action and alternatives. On the basis of the nature of the proposed action and the affected environment, this EA evaluates the type and extent of the potential environmental impacts associated with the proposed action. The EA is formatted as follows:

- **Section 1** defines the purpose and need for the proposed action.
- **Section 2** describes the proposed action and the no-action alternative.
- **Section 3** provides general information about the existing conditions and describes the environmental resources that could be affected by the proposed action.
- **Section 4** discusses the environmental consequences (impacts) associated with the proposed action.
- **Section 5** provides a list of preparers.
- **Section 6** provides a list of agencies and persons consulted during the development of the EA.
- **Section 7** lists references.
- **Appendix A** contains agency correspondence.
- **Appendix B** provides the Federal Agency Coastal Zone Management Act (CZMA) Consistency Determination
- **Appendix C** contains the proposed Mitigation Plan.
- **Appendix D** contains the Public Notification Announcement.

2.0 Description of the Proposed Action and Alternatives

2.1 Introduction

As described in the introduction of this report, several alternatives were considered before the conclusion was reached that the use of federal lands was the only viable alternative to address the regional needs for reclaimed water disposal capacity for South Santa Rosa County. The proposed action addresses a regional resolution that must occur within Santa Rosa County. The locations of the regional facilities affected by this action also mandate that the solution to the need for future reclaimed water disposal capacity must be provided from within South Santa Rosa County.

It is impractical to consider diverting the wastewater flows north, across EAFB and the Yellow River to North Santa Rosa County. The cost of the piping alone makes this alternative cost prohibitive. Political and other environmental concerns pose another obstacle to this alternative.

The SRCBOCC considered purchasing land on the mainland, but only three parcels are available within a reasonable distance from the region common to all three utilities operating in the region, that are large enough to consider. Upon further examination, these parcels were ruled out because of physical and environmental constraints. Either the land elevations on these parcels are too low with respect to groundwater elevations, or the land supports extensive wetland or riverine systems that limit the potential capacity of these sites. The County's powers of eminent domain are moot with respect to the mainland south of the proposed site and the Eglin Reservation.

Furthermore, the geography of the region limits the number of possible alternative uses of federal lands. An extensive review by the EAFB EC indicated that the proposed action is the only alternative providing for a regional solution involving the use of federal lands that is acceptable to the EC. Therefore, the proposed action either is consistent with NEPA or it is not consistent. A comparison of alternative uses of federal lands to address the purpose and need will not result in a less or more acceptable impact. Any other location for the proposed site will result in unacceptable mission impacts. Therefore, for the purposes of this EA, only two alternatives were considered–the proposed action and the no-action alternative.

This section of the EA describes the proposed action and the no-action alternatives. The proposed action is to construct and operate a 7-mgd RIB system on EAFB. The proposed construction includes the force mains, piping, and other appurtenant structures required to operate the system. The no-action alternative is for the NVBWWTF to continue to discharge reclaimed water to Santa Rosa Sound, and for the other utilities to develop additional capacity in a piecemeal fashion and/or to resort to using septic tanks for wastewater disposal in the region. Several other alternatives previously were evaluated by Santa Rosa County for the NVBWWTF, but were rejected because of environmental concerns not associated with the use of federal property. The other alternatives considered for the

NVBWWTF fail to provide the required future capacity requirements for Navarre Beach, and do not address the future regional demand for reclaimed water disposal capacity. Therefore, those alternatives are not considered in this EA.

Other alternatives such as 1,300-acre and 983-acre forested irrigation systems on Eglin property adjacent to the proposed site were considered by Santa Rosa County. EAFB considered that these alternatives would adversely affect its mission. Therefore, these alternatives are not presented in this EA. EAFB identified the proposed alternative as being the only alternative of the three presented that was acceptable within the purview of the EAFB EC. Thus, although other alternatives were considered, they are not presented in this EA because they were determined not to be implementable by the County or they were not acceptable to the EAFB EC. **Table 1-1** summarizes the other alternatives considered and the criteria on which they were rejected.

2.2 Environmental Justice

On February 11, 1994, President Clinton issued EO 12898, "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations." The purpose of the EO is to avoid the disproportionate placement of any adverse environmental, economic, social, or health impacts from federal actions and policies on minority and low-income populations. The President directed EPA to ensure that agencies analyze the effects on minority and low-income communities, including human health, social, environmental, and economic effects.

This EA concludes that no major environmental, economic, social, or health impacts will occur to low income and minority populations, per EPA. All activities are confined to undisturbed areas on EAFB. The proposed site is at a minimum distance of approximately 2,200 ft from the nearest housing development, the Holley area, to the south. This area is populated by low to middle income families. The proposed project will not have an adverse impact on this community.

Furthermore, considering the following aspects of the system, there should be no impacts to low income or minority populations:

- Construction of the pipeline to the RIBs will be along maintained highly traveled roadways; the pipeline will be buried, and thus not visible to local residents.
- The RIB system will not be visible from SR 87 or any other public viewpoints. A vegetation buffer will be maintained surrounding the system.
- The RIB system will be odorless. The pipeline system also will be odorless.
- The RIB system will generate no noise during operation. During construction, there may be some noise from construction equipment, but most of that noise is expected to be absorbed by the vegetation buffer.
- There will be no raw sewage disposed onsite. The water in the system is approved by the State of Florida for land application and will meet primary and secondary drinking water standards before being discharged from the RIB site.

2.3 History of the Formulation of Alternatives

NEPA and 32 CFR Part 989 require the consideration of reasonable alternatives to the proposed action. Only alternatives that would reasonably meet the defined need for the proposed action require detailed analysis in this EA.

Ten other alternatives were considered during the planning of this project; however, they were all considered to be non-viable, leaving the present action as the only viable alternative to meet the project objectives and needs. These other 10 alternatives were rejected in all or part based on the criteria listed in the Air Force EA Guidance Document (see **Table 1-1**). Because no other suitable locations for the RIB system have been identified on EAFB, or elsewhere in the vicinity of South Santa Rosa County, Florida, no other alternatives are evaluated in this EA. The alternatives for this EA are the proposed action and the no-action alternative. The no-action alternative is defined as no construction of a RIB system on EAFB property and continued wastewater discharge to Santa Rosa Sound.

2.4 Proposed Action

2.4.1 Proposed Facilities and Construction Activities

The SRCBOCC proposes to lease approximately 328 acres of USAF property for the purpose of constructing and operating a reclaimed water RIB system. The proposed RIB system would be constructed to receive and distribute highly treated reclaimed wastewater from the three utilities operating in South Santa Rosa County–the NBU, HNWS, and SSRU. The reclaimed wastewater will be pumped (piped) from these utility companies to the RIB system, where it would filter down from the infiltration basins to the surficial aquifer beneath the site.

A series of RIBs would be constructed on the site in phases over a 20-year period. This approach would enable a recycling of up to 7 mgd of highly treated reclaimed wastewater generated by the South Santa Rosa County utilities. Santa Rosa County anticipates that the project would be developed in three phases. Each phase would be constructed as necessary to meet the region's growing effluent disposal needs.

2.4.1.1 Site Location, Buffers, and Project Phasing

The proposed site is located on EAFB property and totals approximately 328 acres (**Figures 2-1** and **2-2**). The proposed site is located on EAFB property west of SR 87 and south of EAFB Range Road 726. A buffer distance of no less than 500 ft would be maintained from SR 87, and a buffer distance of no less than 10,000 ft from the north-south runway of Choctaw Air Field would be maintained. Of the 328 acres, 200 acres would be a phased development as demand for wastewater disposal arose. Initially, Phase I (40 acres) would be constructed; then Phase II (90 acres); and then finally Phase III (70 acres). The remaining 128 acres would be set aside as a contingency area that might be required in the event a regulatory review by FDEP should determine the need for an additional area. Access to facilities and infiltration basins would be by 15-foot-wide gravel base roads. A 2-acre Operations Compound consisting of a combined office and an equipment storage and maintenance shed surrounded by a chain link fence would be constructed to support

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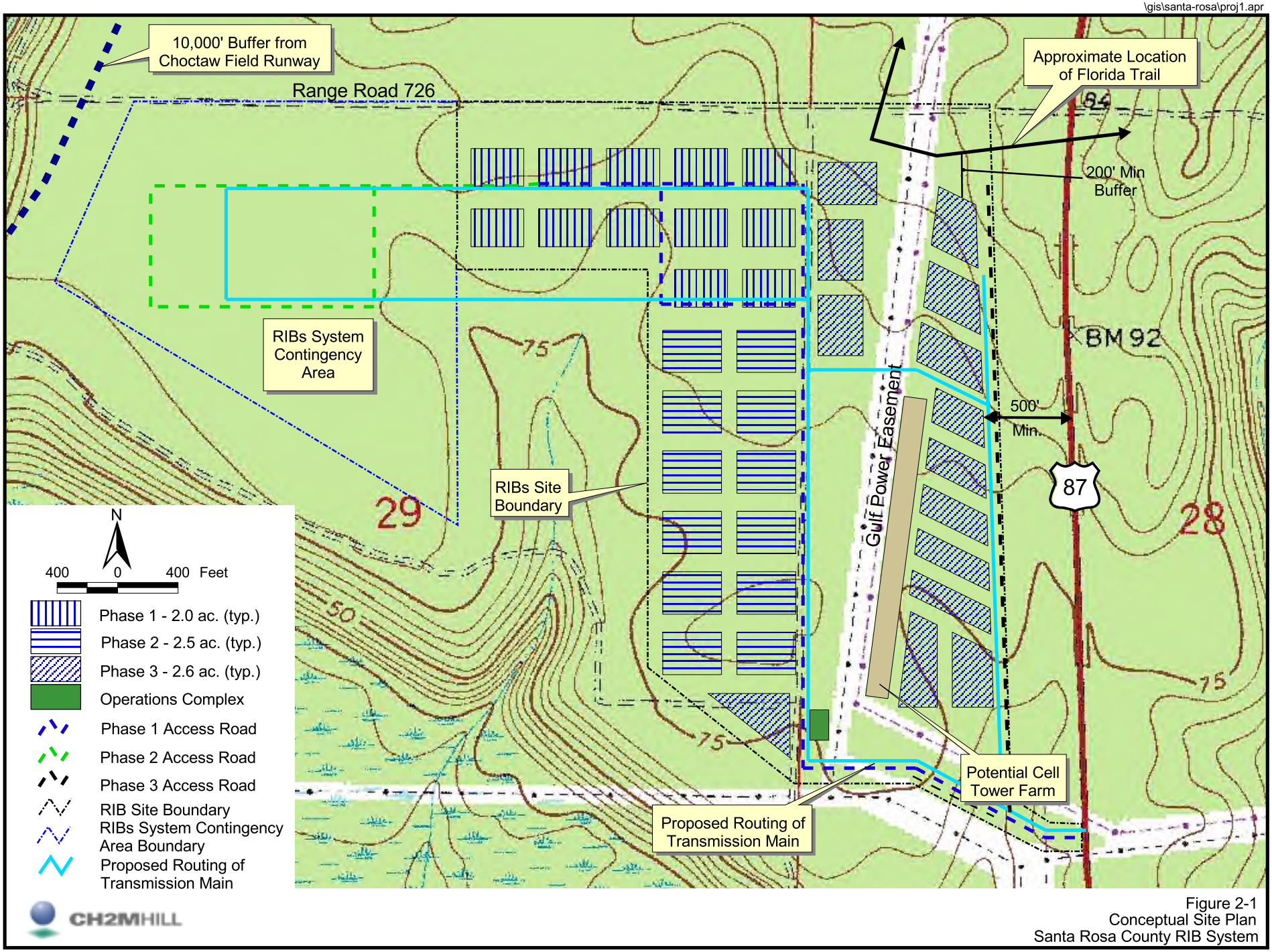

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Figure 2-1
Conceptual Site Plan
Santa Rosa County RIB System

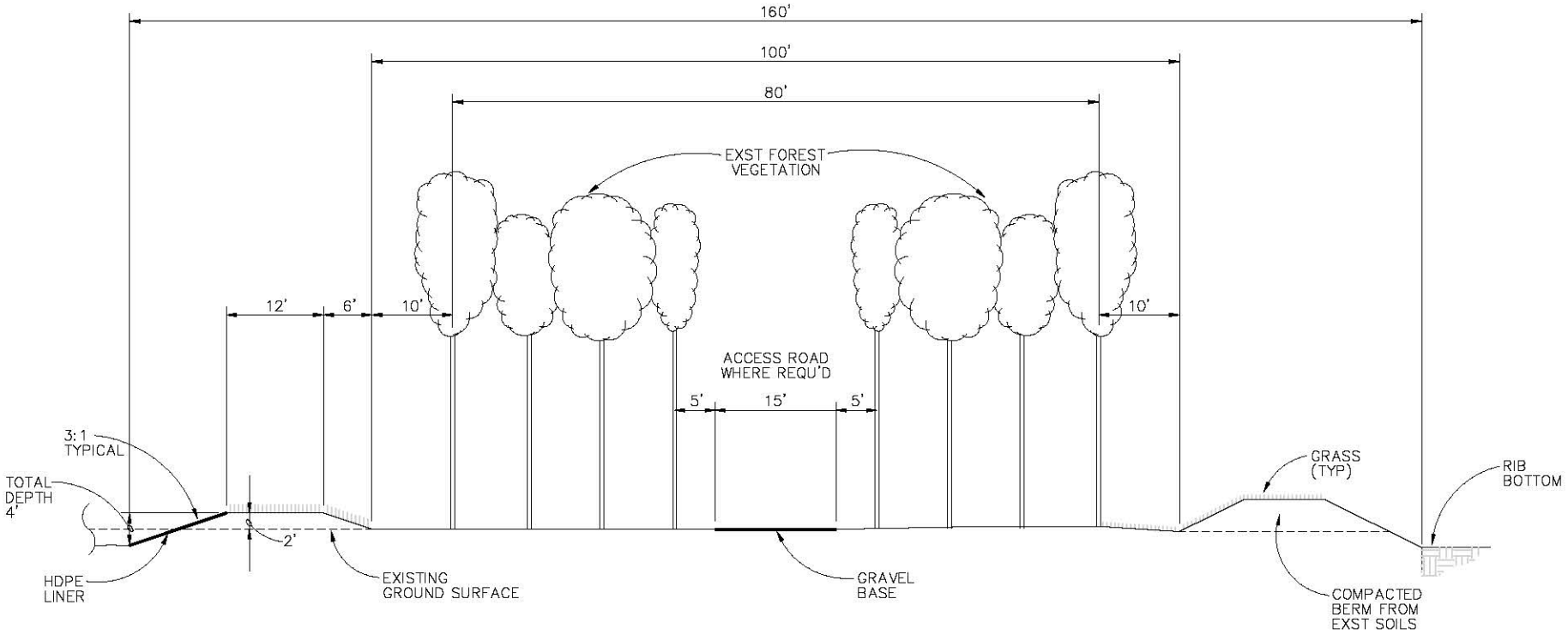

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Figure 2-2
Typical RIB Configuration

maintenance activities. Manpower maintenance work schedules would be normal daylight duty hours.

The proposed project would not result in changing any wildlife migratory patterns and would not result in ponding water that would attract any more birds to the area than those currently inhabiting this area. However, this setback from the Field 10 runway is consistent with the guidelines provided in *Wildlife Hazard Management at Airports* (U.S. Department of Agriculture [USDA] and Federal Aviation Authority [FAA], January 2000). Bird Aircraft Strike Hazard (BASH) is discussed in Section 4.2.12.2 (page 4-10). The proposed location would provide a minimum buffer of 500 ft from SR 87. The drainage feature in the middle of the site also would have a minimum buffer of 500 ft from the site.

The site would consist of a series of RIBs constructed in phases over a 20-year period to recycle up to 7 mgd of highly treated reclaimed water generated by the SSRU, HNWS, and NBU. Santa Rosa County anticipates that the project would be developed in three phases (**Table 2-1)**. Each phase would be brought online as necessary to meet the region's growing effluent disposal needs.

The site plan drawing shown in **Figure 2-1** is a conceptual design. This design is intended to provide a firm capacity of 7 mgd. Before finalizing the design of the system, a FONSI must be signed, a property lease must be executed, a groundwater mounding analysis must be performed, and an FDEP Wastewater Permit must be obtained. So far, the process to secure a FONSI from the time the County decided to embark on this endeavor has required more than 30 months. During this time, the project has been exposed to various authorities, which has resulted in changes to the conceptual plan. Recently, the County learned that a portion of the site has been committed to a cell tower farm and that a small segment of the National Scenic Trail coincides with the northeastern corner of the site. Each of these instances has resulted in minor changes to the conceptual plan. Should the remaining regulatory review require further changes to the conceptual plan, then the contingency area shown in **Figure 2-1** may be used to ensure a firm capacity of 7 mgd. This EA considered the entire site, including the conceptual site plan area and the contingency area, so that if further changes to the conceptual site plan are required, further study of an additional area will not be required.

TABLE 2-1
Proposed Implementation Phases for the Santa Rosa County Regional Rapid-rate Infiltration Basin System
EA Report of RIB System, EAFB, Florida

Phase	Design Capacity (mgd)	Total Capacity (mgd)	Implementation Period
1	2	2	Initial
2	3	5	5 to 10 years
3	2	7	10 to 20 years

Note:
mgd = million gallons per day

2.4.1.2 Rapid Infiltration Basins

A preliminary conceptual layout of the proposed RIB system is shown in **Figure 2-1.** **Table 2-2** summarizes the approximate areas by phase to be devoted to the construction of the RIB system, site access roads, and other operational facilities. It is anticipated that the development of the 200 acres will occur from north to south (from Range Road 726 south).

TABLE 2-2
Development Summary for the Proposed Rapid-rate Infiltration Basin System
EA Report of RIB System, EAFB, Florida

Phase	No. Rib Cells	Rib Bottom Area (acres)	Disturbed Area for RIB Construction (acres)	Access Roads (ft)	Disturbed Area for Access Roads (acres)	Area for Onsite Operations Facilities (acres)
1	9	24.0	40	12,500	4.3	2.0
2	12	38.2	61	6,000	2.0	–
3	8	26.0	45	5,000	1.7	–
Totals	**29**	**88.2**	**146**	**23,500**	**8.0**	**2.0**

Notes:
RIB = rapid-rate infiltration basin
ft = feet

For the initial 2-mgd phase, approximately 40 acres would be cleared to construct 9 RIB cells with a total bottom area of approximately 24 acres. RIB sizes would vary from 1.3 to 3.7 acres, and the RIBs would have either square or rectangular shapes. Most RIBs would have bottom areas of approximately 3 acres. Approximately 38 acres and 26 acres of the RIB system bottom area would be added during Phases 2 and 3 to increase the system disposal capacity to 5 mgd and 7 mgd, respectively. Ultimately, approximately 146 acres of the 203-acre site would be cleared and developed into RIBs to provide a build-out recycling capacity of 7 mgd. The remaining acreage would be used for support facilities such as access roads, piping areas, and buffers.

As shown in **Figure 2-2**, the construction area for each RIB would include the bottom area and a 40-foot-wide band extending out from the RIB bottom for the construction of berms and distribution piping. The RIBs would be spaced approximately 100 ft apart (from the outside toe-of-slope of the RIB berms) to minimize the hydraulic interference of adjacent basins (**Figure 2-2**). Existing trees and vegetation in the area between RIBs would not be disturbed except for the construction of site access roads. The following steps typically would be used to construct the RIBs:

- Cut existing marketable timber vegetation within the designated construction area of each RIB. This step will be coordinated with the Natural Resources Branch at Jackson Guard. EAFB will have the first opportunity to remove any marketable timber from this site. After Eglin has removed any marketable timber, an independent contractor will finish clearing the remaining vegetation.

- Clear and grub the remaining vegetation within the designated construction area of each RIB; vegetation will be chipped or mulched and removed offsite.
- Excavate approximately 2 ft below existing grade and use the excavated material to construct a 2-foot-high berm that will delineate each basin. Excess material will be removed from the site. Berms will have 3:1 side slopes and a top width of 12 ft.
- After rough grading for each of the basins and berms, install distribution piping, valves and appurtenances, discharge structures, and a concrete access ramp for each RIB cell.
- Install a high-density polyethylene (HDPE) liner on the inside slope of each RIB bank to eliminate the need to establish and maintain a grass cover on the inside berms.
- Conduct final grading of the basin bottoms, top of berms, and outside slopes, rip basin bottoms to minimize any compaction of basin bottoms from construction activities, and seed the top of berms and outside slopes with drought-tolerant grass. The drought-tolerant grass will be recommended by the local Natural Resource Conservation Service (NRCS) and approved by EAFB.

2.4.1.3 Site Access Roads

A network of 15-foot-wide access roads will be constructed on the site to access the individual RIBs and the system of groundwater monitoring wells. Primary access to the site will be from EAFB Range Road 726. A main north-south access road will extend from Range Road 726 to SR 87 just north of a Gulf Power substation and provide a southerly access point to the RIB site. An existing forest road within the RIB system project area will be modified to be used as the north-south access road. This road will only be developed to the extent needed during each phase of the project. Access roads will be constructed from a gravel base to provide all-weather access to the site, while at the same time promoting the infiltration of rainwater. Swales will be constructed adjacent to roads to capture and infiltrate any remaining storm water runoff. The swales will be constructed according to FDEP requirements.

2.4.1.4 Groundwater Monitoring Wells

The FDEP will require that the RIB system comply with state groundwater standards during its operation. Therefore, a network of groundwater monitoring wells will be installed for compliance monitoring at the zone of discharge. The zone of discharge will coincide with the site boundaries. The number and placement of the groundwater wells will be governed by the predominant direction of groundwater flow from the site. The location and configuration will be determined through the FDEP permitting process. The FDEP permit application requires a groundwater monitoring plan that can only be designed once a groundwater mounding analysis has been completed.

The FDEP will require one or more compliance wells to be installed downgradient from the RIB system; the exact number of wells will be determined by the FDEP. In addition to the downgradient wells, the FDEP will require background wells, as well as intermediate wells located in the RIB system site, for comparison purposes. The background monitoring wells will be placed upgradient of the RIB system site, but still within the site boundaries. Wells will be installed to the highest groundwater aquifer, and will be 2 to 4 inches in diameter.

The monitoring wells will be installed in accordance with FDEP standards. Groundwater will be tested quarterly for selected primary and secondary drinking water parameters and standards. The discharge from the RIB system must comply with the primary and secondary drinking water standards at the edge of the zone of discharge.

Inherent in the FDEP design requirements for RIB systems is an assurance that the groundwater discharge from a RIB system will meet the applicable groundwater standards. This assurance is provided by the allowable hydraulic loading rates and the more stringent effluent limits on total nitrate (12 milligrams per liter [mg/L] for a single sample maximum). Furthermore, the water quality of the current discharge from the NVBWWTF meets the FDEP groundwater discharge standards without the additional treatment that will be provided by the RIB system. The SSRU facility is an advanced wastewater treatment (AWT) facility and provides reclaimed water that exceeds the groundwater discharge standards without the additional treatment provided by the RIB system. The HNWS facility also provides reclaimed water that meets the groundwater discharge requirements prior to the additional treatment to be provided by the RIB system.

2.4.1.5 Operations Compound

An operations compound consisting of a combined office and equipment storage and maintenance shed will be located on approximately 2 acres of land located adjacent to EAFB Range Road 726. This facility will provide a work area for staff to operate and maintain the RIB system. The RIB system operation will be monitored from the NVBWWTF. Therefore, plant staff will only be present during routine maintenance procedures and generally during normal working hours. There will be no requirement for plant staff to be present during the evening or night hours; thus, there will be no external lighting associated with the facility that would adversely affect USAF or Navy operations in the area. A chain link fence will be installed around the compound area to provide security for the facility. A 50-foot buffer (minimum) will shield the facility from Range Road 726. Fuel will not be stored onsite, but will be transported to the site as required for the operation of maintenance equipment.

2.4.1.6 Transmission and Distribution Piping

Reclaimed water will be conveyed to the site via a force main from the NVBWWTF. A transmission pipeline will transfer reclaimed water from the NVBWWTF facilities and potentially from other utilities in the County to the RIB site. The transmission main diameter will range from 14 to 24 inches and the force main generally will parallel the SR 87 corridor. The pipeline will enter EAFB at two points. The first point will be at the South Holley Segment. The South Holley Segment is approximately 500 ft long and will be located along the western boundary of the SR 87 easement. Across this segment, the pipeline will be buried below the land surface to a depth of approximately 5 ft.

The transmission pipeline will enter EAFB again near the main RIB system at a point along the western side of the SR 87 corridor. A 30-foot easement is required for the installation of the pipeline on Eglin property. The transmission pipeline would enter the southern boundary of the RIB site via an easement along the main north-south access road. It would be extended to the northern boundary of the site along the same route as the main north-south access road.

A distribution-piping network will deliver reclaimed water from the transmission line to individual RIBs. Distribution piping will be installed adjacent to site access roads or in cleared areas associated with RIB construction activities. The installation of all piping and appurtenances will be coordinated with the RIB and access road construction.

2.4.1.7 Site

The reclaimed water to be discharged to the RIBs will meet the State of Florida public access reuse standards provided in Rule 62-610.460, Florida Administrative Code (F.A.C.). Therefore, fencing of the entire RIB site will not be required. This area will remain open for access and egress. However, signs will be installed to advise the public that reclaimed water is being applied to the site. These signs will conform to FDEP guidelines.

2.4.1.8 Site Utilities

Electricity will be supplied to the work building via the nearest public utility. It is likely that the electricity infrastructure will be aboveground, but routed adjacent to existing roads or access roads that will be built during construction. Potable water will be supplied to the operation facilities from the HNWS. A single toilet will be provided, with a septic tank and drainfield. Water uses and wastewater production onsite will be limited.

2.4.1.9 Sediment and Erosion Control

During the construction of the RIB system, sediment and erosion control practices will comply with all local, state, and federal requirements. Examples of best management practices (BMPs) that will be used on the site include silt fencing, hay bales, temporary seeding of disturbed areas, and sediment traps and basins.

2.4.1.10 Estimated Construction Time

It is estimated that it will take a contractor approximately 12 months to construct the Phase 1 RIB facilities after receiving a Notice-to-Proceed. The construction of the Phase 2 and Phase 3 facilities is expected to take 12 to 18 months each.

2.4.2 Operations and Maintenance Activities

2.4.2.1 Reclaimed Water Quality

The reclaimed water that will be applied to the RIB system will be treated, at a minimum, to secondary treatment standards followed by tertiary treatment before disinfection. To meet the public access reuse standards, the reclaimed water will meet high-level disinfection standards. Under Rules 62-610.510, and 62-610.460, F.A.C., the maximum allowable pollutant concentrations for the reclaimed water are as follows:

- Biochemical oxygen demand (BOD)–20 mg/L
- TSS–5 mg/L
- Nitrate nitrogen–less than 12 mg/L
- Fecal coliform–75 percent of all samples are non-detect, with no single sample greater than 25 most probable number (mpn) colonies per 100 milliliters (mL). These criteria exceed the FDEP's minimum standards for effluent to be discharged to rapid-rate

infiltration systems, in that tertiary treatment followed by high-level disinfection typically are not required for RIBs. However, the treatment will provide reclaimed water that meets the requirements necessary to maintain military and public access to the area.

Because the Class GII groundwater standard for nitrate is 10 mg/L, the FDEP requires that reclaimed water nitrate concentrations be less than or equal to 12 mg/L when introduced into rapid-rate systems. Also, the groundwater discharged from the system must meet the 10-mg/L Class GII groundwater standard for nitrate at the edge of the zone of discharge defined by the site boundaries. However, the NVBWWTF currently produces a much higher quality effluent than that described by FDEP's maximum allowable pollutant levels, with the exception of fecal coliform. Minor modifications to the treatment facility will be required to achieve the high level disinfection required for public access reuse. The allowable annual average pollutant concentrations contained in the current NPDES permit for the NVBWWTF are as follows:

- BOD–5 mg/L
- TSS–5 mg/L
- TN–9 mg/L
- TP–3 mg/L
- Fecal coliform–25 mpn colonies/100 mL

Other facilities that may ultimately discharge to the RIB system either already meet these maximum allowable limits or will be required to modify their treatment processes to meet these requirements.

2.4.2.2 Design Hydraulic Loading Rates

Preliminary estimates of the required RIB wetted area were made using an average annual unit hydraulic loading rate of 1.9 gpd per square foot (gpd/ft^2), or approximately 3 inches per day. This hydraulic loading rate is the maximum allowed by the FDEP without providing additional site-specific data and justification for a higher application rate. Using this rate, the minimum required RIB bottom areas for 2-, 5-, and 7-mgd capacities are approximately 24, 60, and 85 acres, respectively. The conceptual layout shown in **Figure 2-1** provides RIB bottom areas for the three development phases of 24.0, 62.2, and 88.2 acres, respectively. Using these areas, the calculated average RIB loading rate for the 7-mgd design flow would be 1.82 gpd/ft^2. The hydraulic loading rate for Phase 1 (2-mgd capacity) would be approximately 1.9 gpd/ft^2. Because basins will be loaded cyclically, actual daily hydraulic loading rates will be two to three times higher than the average annual loading rate and will depend on the actual loading and resting cycle selected for the RIB system. For instance, in Phase 1, the 9 RIB cells probably would be broken into 3 groups. Each RIB group would be loaded for 7 days and rested for 14 days. The effective daily rate for each RIB group would be 5.7 gpd/ft^2, but on an annual average daily basis, the loading rate will not exceed 1.9 gpd/ft^2 of bottom area.

Reclaimed water will be introduced into each RIB cell via multiple outlet structures to promote the uniform loading of each basin. At the end of the loading cycle, reclaimed water then will be diverted to the next RIB group and the first group will be allowed to dry. At the end of the resting period, the RIB group will again be ready for loading. Periodically, the RIB bottoms will be disked to promote the breakdown of residual organics left on the RIB

bottom and to re-aerate the soils in the RIB bottom. The frequency of disking depends on the type of soils in the RIB, the loading and resting cycle, and the quantity of suspended solids in the reclaimed water. Because of the high quality of the reclaimed water expected to be discharged, the RIB cells probably will be disked approximately once per month, or even less frequently.

2.4.2.3 Staffing

After the construction of Phase 1, the RIB system will be monitored and operated by the current staff at the NVBWWTF. The existing level of staffing provided at the NVBWWTF is one Lead Operator, Class B; two Class C operators; and five operator trainees. The NVBWWTF is manned 6 days a week for 8 hours per day. Existing staff will be responsible for inspecting the RIB system on a daily basis. Additional staffing levels will be provided as required. The Phase 1 operating history would be used to assess the staffing requirements for future phases.

2.4.2.4 General Maintenance Activities

In addition to the periodic disking of the basin bottoms, other typical operation activities would include the following:

- Maintenance of small tractors, disking, and mowing equipment
- Maintenance and repair of distribution piping, valves, appurtenances, and supervisory control and data acquisition (SCADA) system
- Periodic mowing of berms and other grassed areas adjacent to the RIBs and operations compound
- Collection and logging of hydraulic loading and other operational data
- Quarterly sampling of groundwater monitoring wells

2.5 No-action Alternative

Under the no-action alternative, Santa Rosa County would not construct and operate the RIB system on EAFB, or elsewhere. The SSRU and the HNWS would be left to provide for future disposal capacities in a piecemeal fashion, and the NBU would continue to discharge treated effluent to Santa Rosa Sound. The no-action alternative will limit the future capacities of these systems, thereby creating a conflict among the utilities, the SRCBOCC, and the FDEP once these utilities have maximized their abilities to distribute reclaimed water on the Fairpoint Peninsula and Santa Rosa Island.

2.6 Alternatives Eliminated from Further Study

The proposed action (construction and operation of a RIB system) is the only viable alternative. **Table 1-1** summarizes the other alternatives considered and the reasons that they could not be implemented.

The purchase of federal property was discussed but not carried forward for further analysis for the following reasons. EAFB made a cognitive policy decision not to offer this parcel for sale. The proposed 328-acre RIBs parcel is located in an important buffer area adjacent to land areas used for Guard and Marine battle tank training. It also is close to Choctaw Field, which is used by the Navy for flight training and Unpiloted Airborne Vehicle (UAV) operations. EAFB believes that out-granting this property for this compatible land use (the RIBs) is best served through a lease that will allows continued oversight and control to be maintained by EAFB. And if the property should not be needed by the community in the future, then the EAFB boundary and buffer would be maintained.

3.0 Existing Conditions

3.1 Introduction

This section discusses the environmental resources that could be affected by the proposed action. The components of the affected environment discussed in this section are physical setting (including topography, geology, and soils), noise, air quality, groundwater, surface water, wetlands, hazardous and toxic substances, traffic, cultural resources, flood hazards, visual resources, and biological resources (terrestrial flora and fauna, aquatic flora and fauna, and threatened and endangered species).

3.2 Description of the Project Area

3.2.1 Physical Setting

3.2.1.1 Climate

EAFB has a humid, subtropical climate characterized by abundant sunshine and rainfall, warm and humid summers, and mild winters. The temperature at EAFB ranges from a maximum average temperature of 90 degrees Fahrenheit (^{o}F) to a minimum average temperature near 42 ^{o}F. The annual rainfall averages approximately 60 inches, primarily in the summer and late winter or early spring. Most of the summer rainfall is from scattered showers and thunderstorms that are often heavy and last only 1 to 2 hours (Eglin, 2002).

Prevailing winds are usually from the north in the winter and from the south in the summer. March is the windiest month based on average hourly velocity, and August has the lowest average velocity winds (Eglin, 2002).

Relative humidity is high throughout the year. The temperature-humidity index goes up to 79 by early June and stays between 79 and 81 during most of the afternoon hours until late September (Eglin, 2002).

3.2.1.2 Topography

The topography of the proposed RIB system site can be described as relatively flat, with elevations from 75 to 100 ft above mean sea level (msl) (USGS, 1994). The slope on the proposed site tends toward the south and southwest.

The topography at the South Holley Segment is relatively flat, with an elevation of approximately 10 to 15 ft (USGS, 1994). The topography of this area tends to the south toward East Bay.

3.2.1.3 Geology

Surficial sandy sediments to a depth of 400 to 600 ft characterize the area encompassing the project. The sand and gravel aquifer, as it is known, is underlain by a sedimentary bedrock composed of limestone, known as the Upper Floridan Aquifer, as is the entire panhandle of

Florida. The regional geologic structure is a simple monocline dipping to the southwest at 30 to 40 ft per mile. The uppermost bedrock occurs at a depth of approximately 400 ft. Overlaying this bedrock is material that comprises the Citronelle Formation. This formation is composed of alluvial deposits of cross-bedded sands and gravels, with lenses of clay that thicken toward the west. Throughout most of the region, the principally sand and gravel formation that overlays the limestone formation is separated by two thick beds of sandy clay, known as the Pensacola Clay.

3.2.1.4 Soils

The proposed RIB system is located entirely on the Lakeland Sand soil association (USDA, 1980). Lakeland soils are characterized as excessively drained, nearly level to gently sloping soil primarily on broad ridgetops in uplands. Slopes are smooth to concave. The permeability in Lakeland Sand is rapid and the runoff is slow. The erosion hazard is slight.

The soils on the South Holley Segment consist of the Pactolus soil association (USDA, 1980). Pactolus soils are generally zero to 5 percent slopes, nearly level to gently sloping, moderately well drained to somewhat poorly drained, and sandy.

3.2.2 Noise

The noise levels on EAFB result from a combination of man's activities and natural activities. Major types of actions that result in human-generated noise in the vicinity of the RIB system include vehicular traffic from SR 87 and aircraft operations from Choctaw Field. The rural nature of the RIB system and its limited access do not lend themselves to public noises. Natural noises are created at the RIB system site from thunder and wind.

Noise near the South Holley Segment is mainly generated by passing traffic on SR 87. Natural noise is created from thunder and wind. On the basis of the field visit conducted in January 2003, there appears to be no noise generated on the South Holley Segment by EAFB operations.

3.2.3 Air Quality

The terrain and the prevailing meteorological conditions influence the quality of the air near EAFB and in the area between Eglin and Navarre Beach. Adverse air quality conditions normally are associated with strong ground-based inversions. These effects are moderated, however, by wind. Ground-based inversions occur on the installation nearly every morning and usually subside in the early morning as a result of surface heating. During the winter, stagnating conditions may at times persist for up to a week. According to the FDEP, the entire Florida Panhandle is in attainment for all National Ambient Air Quality Standards (NAAQS) (Personal Communication, June 1, 2004).

3.2.4 Groundwater

Groundwater at Eglin occurs under generally unconfined conditions in the surficial aquifer system within the Citronelle Formation. The depth to groundwater ranges from just a few feet in low-lying areas to more than 90 ft in some upland areas. The surficial aquifer system, which includes the sand and gravel aquifer, is underlain by the Pensacola Clay. This confining unit occurs at depths ranging from 50 to 300 ft below land surface (bls) and ranges in thickness from 50 to 500 ft. The low-permeability Pensacola Clay separates the surficial

aquifer system from the underlying Floridan aquifer system, which is a primary source of water supply in the Eglin area. The Floridan Aquifer system is composed of permeable limestone formations. Most water supply wells in the area are completed within the upper Floridan aquifer system to depths ranging from approximately 400 to 900 ft bls.

In the vicinity of the proposed RIB site, the Upper Floridan Aquifer generally is located at an elevation of between 600 and 1,000 ft below msl. The proposed RIB site is at about elevation 75 ft above msl. Therefore, the spatial distance is between 675 and 1,075 ft msl.

More importantly, the Pensacola Clay Confining Bed is a layer of clay that protects the Upper Floridan and separates it from the permeable sand and gravel layer and the ground surface. In the vicinity of the proposed RIB site, the Pensacola Clay formation is about 500 ft thick and extremely dense. This layer has a permeability coefficient of about 0.0000000001 centimeter per second (cm/s).

The exact depths to groundwater on the RIB system site and at the South Holley Segment are not known. During the initial investigation of the RIB site, a series of hand augered borings was taken throughout the site to a depth of 25 ft bls. Groundwater was not encountered at any of these borings. Although no hand augers were obtained at the South Holley Segment, it is suspected that groundwater is near the surface, considering the site's location in relation to the nearby bay.

3.2.5 Surface Water

No perennial water bodies are located on the proposed RIB system site. The nearest perennial water body is Long Branch, located approximately 500 to 1,000 ft from the site (USGS, 1994). An intermittent unnamed stream is located approximately 1,500 ft from the site. This stream was confirmed during a field reconnaissance of the site in January 2003, during which a biologist investigated drainage features that were evident on the USGS topographic maps.

There are no perennial water bodies located on the South Holley Segment (USGS, 1994). However, a ditch that runs parallel to SR 87 through the area is likely to convey water during precipitation events. This ditch was observed to be dry during a site visit in January 2003. The nearest water bodies to the South Holley Segment are an unnamed tributary of East Bay located approximately 200 ft to the east, and East Bay approximately 300 ft to the south.

3.2.6 Wetlands

According to the National Wetlands Inventory (NWI) maps for Holley, Florida, no wetlands are located on or immediately adjacent to the proposed RIB system site (USGS, 1979). The nearest wetlands are approximately 1,000 ft to the south-southwest. Given the high permeability of the soil, storm water runoff to these wetlands is not likely. The biologist conducted a limited site reconnaissance of the site in January 2003 and found no wetlands in areas that had the potential for wetland development, such as depression and drainage pathways. All areas investigated were determined from USGS topographic maps, NWI maps, and aerial photography.

There are no wetlands within or immediately adjacent to the South Holley Segment (USGS, 1979). The nearest wetlands include a forested wetland approximately 500 ft to the north and an emergent wetland 500 ft to the south on East Bay. The forested wetland is upgradient of the South Holley Segment, whereas the emergent wetland is downgradient. Direct storm water runoff from the South Holley Segment to these wetlands is not likely, given the topography and drainage patterns in the area. Furthermore, construction in the South Holley Segment will not alter the existing drainage pattern. Any overland flow from the South Holley Segment to the south would be filtered by existing residential lawns.

3.2.7 Hazardous and Toxic Substances

According to the EAFB Installation Restoration Program (IRP) Management Action Plan, no known or suspected hazardous or toxic sites are present on or adjacent to the RIB system site or the South Holley Segment (EAFB, 2000).

The only hazardous materials (as defined in Air Force Instruction [AFI] 32-7086) that will be needed to construct or operate the RIB system are petroleum products (oil, lubricants, and fuel) used in the construction and operation machinery. No hazardous materials will be stored or staged in the RIBs during construction or operation. BMPs will be followed for all refueling activities. Once construction has been completed, no fuels or petroleum products to operate machinery will be stored onsite. Furthermore, during the operation of the RIBs, only small gasoline engines such as grass mowers will be refueled on the site; all other larger equipment such as maintenance equipment or larger tractor mowers will be refueled offsite. Any maintenance on operational equipment also will be conducted offsite.

The EPA Table II Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 Chemical List for Reporting Year 2003 (including Toxic Chemical Categories) was obtained from EPA's website and reviewed. The effluent that will be applied to the RIBs is a high-quality domestic effluent that will not contain the chemicals noted on this list. Furthermore, there are no significant industrial users of the utilities that will discharge to this system.

3.2.8 Traffic

Access to the RIB system will be via SR 87 and existing Eglin range roads. Access within the RIBs will be via access roads that will be constructed between the individual cells. There are no paved roads on Eglin property in the vicinity of the RIBs. Access to the South Holley Segment will be either via the construction right-of-way (ROW), or by SR 87.

SR 87 is the primary north-south artery that connects the southern coastal area of Santa Rosa County, Florida, with the City of Milton, Florida, in the central region of the county. This highway is generally an undivided two-lane roadway with 10- to 12-foot-wide lanes and stabilized shoulders, and is classified by the Florida Department of Transportation (FDOT) as a minor arterial in the state transportation network. It has an unrestricted access classification (Carlan Killam, 1997). A traffic counting program revealed that approximately 92 percent of all daily SR 87 traffic consists of automobiles, and the remaining 8 percent is made up of a combination of light, medium, and heavy trucks (Carlan Killam, 1997).

3.2.9 Cultural Resources

A meeting was held with Eglin's Cultural Resources Management Division (AAC Environmental Management Directorate–Historic Preservation Division [AAC/EMH]), to ascertain any cultural resources on or adjacent to the proposed site (including both the RIB system and the South Holley Segment). According to the representative from this Division, there are no sites on or adjacent to the proposed action site. Furthermore, both the RIB system site and the South Holley Segment are located in low probability areas, indicating that the likelihood for cultural resources to be present is low.

In addition, the Florida Department of State, Division of Historical Resources, was consulted (see Appendix A for letters submitted and received). This Division responded as follows:

> *"A review of the Florida Master Site File and our records indicated that there is one known archaeological site (8SR347) recorded within the project area (i.e. on the project site) along with a number of archaeological sites adjacent to the project area (map enclosed). However, these sites have been determined to be ineligible for listing in the National Register. Therefore, it is the opinion of this office that the proposed project will have no effect on historic properties."*

Eglin has conducted cultural resource surveys to the south of the RIB system site in high probability areas, but no features were identified from these surveys. There have been no cultural resource surveys conducted by EAFB along the South Holley Segment.

3.2.10 Flood Hazard

The proposed RIB system site is located outside the 100-year floodplain, whereas the South Holley Segment appears to be within the 100-year floodplain (Eglin, 2002).

3.2.11 Visual Resources

The area surrounding the proposed RIB system site is generally rural, with no businesses or homes in the near vicinity. The nearest housing development is adjacent to the EAFB southern property line, approximately 2,200 ft to the south of the RIB system. Between this housing development and the RIB system is a Gulf Power substation and its associated 200- to 300-foot-wide power line corridor. There are no public viewing areas or natural scenic areas for sight-seeing along this portion of SR 87. The speed limit along SR 87 within the Eglin Reservation is 55 miles per hour (mph), which does not allow for sightseeing via passing vehicular traffic.

Existing visual effects on the area include a Gulf Power substation and associated powerline ROWs that bisect the proposed RIB system site. The powerline ROWs are approximately 150 to 250 ft wide and are maintained periodically. Vegetation within the ROWs is mostly small oak shrubs and invasive species such as briars. There is a considerable amount of illegal refuse disposal throughout the proposed RIB system area, commonly consisting of small piles of household refuse including mattresses, television sets, and other scrap.

The proposed location for the RIB system, as well as the surrounding and adjacent area, is open to public access. Hunters, hikers, campers, and fishermen are generally the receptors that may use the area for its visual resources.

According to the EAFB 2002-2003 Outdoor Recreation, Hunting, and Freshwater Fishing Map, as well as field surveys of the area, a Florida National Scenic Trail Trailhead traverses an area north of the RIB system site. From the east, the trail traverses SR 87 approximately 250 to 300 ft south of Range Road 726, paralleling the southern side of the range road for approximately 600 to 800 ft along the northern boundary of the site, before it makes a northerly turn away from the proposed RIB system site. The trail is marked with orange paint on trees, is approximately 2 to 3 ft wide, and is basically a worn foot trail through the forested areas. No motorized vehicles, bicycles, or horses are allowed to use the trail. According to the map, there are no camping facilities associated with the trail in the area of the RIB system.

The South Holley Segment is also open to recreational users, but considering that the area is between residential yards and SR 87, it is unlikely the area is used by recreational users such as hikers and hunters. The use of this area also is limited by the difficult access from SR 87, its small size, and limited use as a recreational area, and the fact that most potential users would not realize that this segment is part of EAFB.

3.2.12 Biological Resources

3.2.12.1 Terrestrial Flora and Fauna

The area is a mosaic of management activities including areas not maintained, fire maintained areas, and managed planted pine areas. This vegetation mixture covers 100 percent of the proposed action footprint, with no open barren areas or large areas of scrub/shrub to consider. The vegetation age in the RIBs footprint varies with silviculture practices and the most recent plantings.

Traversing the area, mainly from north to south, is a 150- to 250-foot-wide powerline easement that is maintained periodically to eliminate higher growing species such as trees. The ROWs generally consist of opportunistic species such as hollies; sapling sized oaks; and ground cover of herbs, ferns, and briars.

The flora of the proposed RIB system site is a mixture of pine species including longleaf *(Pinus palustris*), sand pine (*Pinus clausa*), and slash pine (*Pinus elliottii*). The area is a mosaic of silvicultural activities and reverting clear-cut area. In some areas, plantings are evident and trees are mature, probably ready for harvesting. In other areas, the vegetation is a mixture of pine and turkey oak. Pine plantings are evident in the 1997 aerial photography and on the ground. In general, the tree diameter in the areas that have been allowed to grow is approximately 12 inches at breast height.

Other tree and shrub species associated with the pine areas include sparkleberry (*Vaccinium arboreum*), turkey oak (*Quercus laevis*), and sand-live oak (*Quercus geminata*). Ground cover is sparse, with only a few species observed, including reindeer moss and bracken ferns (*Pteridium aquilinum*). Ground cover probably is limited by the management of the land for silviculture and the overstory of pines that limit growth.

During meetings with the Natural Resource Division, the representatives indicated that the areas where the proposed RIB system will be situated would be used for future silviculture activities. Silviculture activities include all species of pine including sand, slash, and longleaf. After the sand and slash pine have been harvested, longleaf pine would be the

preferred replanting species. It is the forestry division's intent to restore with longleaf pine where possible.

Terrestrial fauna found on, and adjacent to, the proposed site include those typically found in Northwest Florida and in open longleaf pine forests and longleaf sandhill uplands. **Table 3-1** lists the species that may occur on, in, or near the vicinity of the proposed RIB system site. Notable species include red-tailed hawk; great horned owl; fox squirrel; eastern diamondback rattlesnake; pine snake; white tailed deer; various toads, newts, and salamanders; various mice and shrews; and various song birds (Eglin, 2002).

TABLE 3-1
Species that Potentially Occur or Have Been Sighted on or near the RIB System Site
EA Report of RIB System, EAFB, Florida

Common Name	Scientific Name
Birds	
Blue jay	*Cyanocitta cristata*
Ground dove	*Columbina passerina*
Red-headed woodpecker	*Melanerpes erythrocephalus*
Rufous-sided towhee	*Pipilo erythrophthalmus*
Wild turkey	*Meleagris gallopavo*
Redtailed hawk	*Buteo jamaicensis*
Southeastern kestrel	*Falco sparverius*
American robin	*Turdus migratorius*
Red bellied woodpecker	*Melanerpes carolinus*
Eastern Bluebird	*Sialia sialis*
Northern Mockingbird	*Mimus polyglottos*
Northern cardinal	*Cardinalis cardinalis*
Bobwhite	*Colinus virginianus*
Reptiles	
Gopher frog	
Eastern tiger salamander	*Ambystoma tigrinum*
Gopher tortoise	*Gopherus polyphemus*
Indigo snake	*Drymarchon corais*
Eastern spadefoot toad	*Scaphiopus holbrookii*
Florida Pine Snake	*Pituophis melanoleucus mugitus*
Eastern diamondback rattlesnake	*Crotalus adamanteus*

TABLE 3-1
Species that Potentially Occur or Have Been Sighted on or near the RIB System Site
EA Report of RIB System, EAFB, Florida

Common Name	Scientific Name
Mammals	
Fox squirrel	*Sciurus niger*
Old field mouse	*Peromyscus polionotus*
Cotton mouse	*Peromyscus gossypinus*
Least shrew	*Cryptodus parva*
Mole	*Scalopus aquaticus*
Cottontail	*Sylvilagus floridanus*
White tailed deer	*Odocoileus virginianus*
Black bear	*Ursus americanus floridanus*
Bobcat	*Lynx rufus*
Red fox	*Vulpes vulpes*
Coyote	*Canis latrans*

During site visits in April 2001, June 2002, and January 2003, various anoles and skinks, a fox squirrel, a coral snake, and a woodpecker were observed on and near the proposed site. Deer, raccoon, and fox and/or coyote tracks also were observed, although none of these animals were seen.

The proposed action is not within, nor is it near, areas of significant botanical sites established by EAFB, nor in areas established by the Florida Natural Areas Inventory as high-quality natural communities (Eglin, 1999; 2002). The proposed action is not within, nor is it near, the Game Species Management Emphasis Areas designated by EAFB for white tail deer, wild turkey, or bobwhite quail (Eglin, 1999).

The proposed action is not within the Sand Pine Control Management Emphasis Area designated by EAFB (Eglin, 1999). The proposed site is not within, or near, the Old-Growth Longleaf Pine Management Emphasis Area (Eglin, 1999). The proposed RIB system site is within the Low Burn Prioritization Area (Eglin, 2002). The South Holley Segment is within the Non-treatment Area (Eglin, 2002).

According to the *Integrated Natural Resources Management Plan* (INRMP) (Eglin, 2002), and through interpreting the burn prioritization in Figure 4-7 of that plan, a low burn prioritization area would be one that is not regularly managed with prescribed burns to facilitate ecosystem health; mission requirements; the presence of rare, fire-dependent species; management objectives; smoke management constraints; and forest management activities. On the scale used by EAFB for the burn prioritization, the low category is the lowest category, with four other categories being managed above it.

No forestry management practices would be administered in a non-treatment area such as the South Holley Segment.

The South Holley Segment has a minimal potential for terrestrial wildlife other than birds and the occasional small mammal because the area is between residential yards and SR 87. Flora on this segment mainly consists of large, very mature, longleaf pines. The groundcover primarily is maintained yard and roadside ditch.

3.2.12.2 Aquatic Flora and Fauna

There are no perennial or intermittent waterbodies on, or immediately adjacent to, the proposed RIB system site. Thus, there are no aquatic flora or fauna on this site. Furthermore, the nearest perennial water body to the site is approximately 1,500 to 2,000 ft to the south-southwest.

There are no perennial or intermittent waterbodies on or immediately adjacent to the South Holley Segment. Thus, there are no aquatic flora or fauna on the site. There is, however, an intermittent ditch along SR 87 that will convey water, but this ditch is not noted on the USGS map and is not expected to provide habitat for aquatic species because of its intermittent nature. The nearest waterbody to this segment is an unnamed tributary of East Bay, located approximately 250 ft to the east, and East Bay approximately 300 ft to the south of the Eglin property boundary.

During the field reconnaissance conducted in January 2003, no aquatic systems were noted in areas likely to have them, according to the USGS topographic maps.

3.2.12.3 Threatened and Endangered Species

The following information was ascertained from Eglin's 2002 INRMP (Eglin, 2002).

There are 11 federally listed threatened or endangered (T&E) species that are being actively managed on EAFB because they occur on the Eglin Reservation either year-round or seasonally. The 11 species include red-cockaded woodpecker, bald eagle, piping plover, Okaloosa darter, gulf sturgeon, flatwood salamander, indigo snake, loggerhead sea turtle, green sea turtle, leatherback sea turtle, and Florida perforate lichen. Other federally listed species, such as the manatee, peregrine falcon, and wood stork, have been documented on Eglin during seasonal migrations. The American alligator, which is common on Eglin, also is federally listed, because of its similarity in appearance with the endangered American crocodile (Eglin, 2002).

There are 64 state-listed species found on Eglin. Most (51) of the 64 state-listed T&E species are plants. Of the 13 state-listed T&E animal species, only 4 (snowy plover, least tern, Southeastern American kestrel, and black bear) are not also federally listed as a T&E species. An additional 10 animal species are state-listed as "Species of Special Concern" that are not federally listed and 24 plant species are listed as a "Management Concern" by the USFWS (Eglin, 2002).

In total, EAFB supports 93 rare or listed terrestrial and fresh water species of plants and animals of conservation concern. Of the 93 species, 62 are considered globally rare (species or subspecies ranking of G3 or higher). Four species or subspecies have a G1 ranking

[2 animals (Gulf sturgeon, Santa Rosa beach mouse), 1 plant (hairy-peduncled beakrush), and 1 lichen (Florida perforate lichen)] (Eglin, 2002).

To supplement the above information, CH2M HILL met with the Natural Resources Management Branch (NRMB) to assess the effect of the proposed action on T&E species. According to the information supplied by the NRMB, there are no federally listed species noted on or immediately adjacent to the RIBs site. However, there is potential habitat for flatwoods salamander north of SR 87 near the South Holley Segment. During a field visit conducted by a CH2M HILL biologist in January 2003, no potential habitat for the flatwoods salamander was observed along the South Holley Segment. The segment is mainly maintained residential yards and an intermittent road ditch. No wetlands were observed in the South Holley Segment.

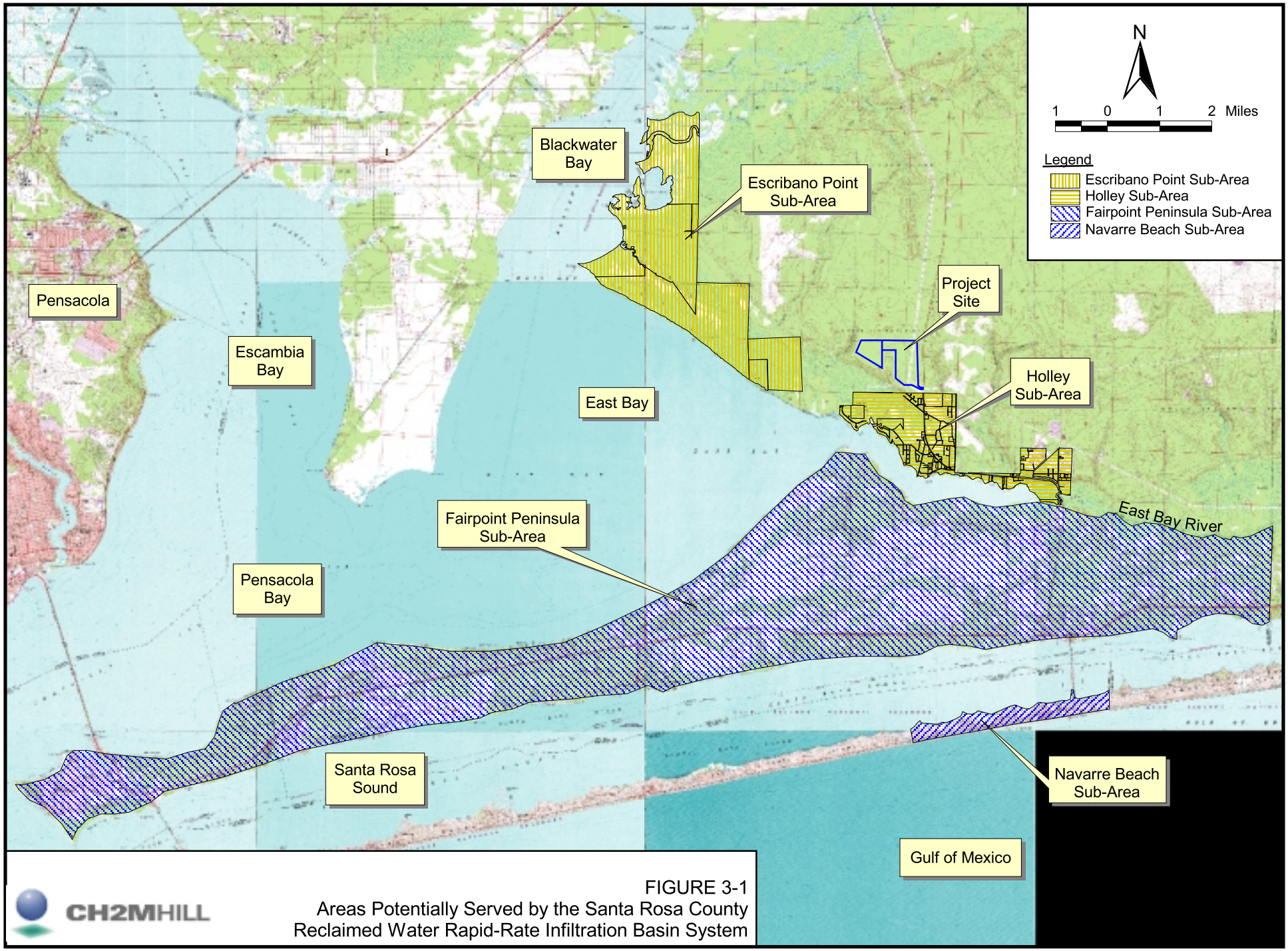
An interview with NRMB staff indicated that a black bear (a state-listed species) was sighted near the proposed RIB system. The date of this sighting is unknown. Furthermore, during a site visit, a CH2M HILL biologist identified a Sherman's fox squirrel, a state species of special concern, on the RIB system site. According to the INRMP (Eglin, 2002), sandhill areas, much like those found on the proposed RIB system site, are not considered to be prime habit for black bears on Eglin. This topography accounts for the extraordinary large home ranges of the black bears on Eglin, because so much of Eglin is sandhill habitat. Most black bears on Eglin use the large swamps and floodplain forests in the southwestern and northern portions of the reservation (Eglin, 2002).

The Sherman's fox squirrel prefers sandhills, pine flatwoods, and pastures and other open, ruderal habitat with scattered pines and oaks. It depends on a variety of oak trees for seasonal food and nest materials. Longleaf pine cones and seeds are important foods (Hipes, et al., 2001). The proposed RIB system is situated on mostly sandhill areas, with many areas having scattered oaks.

3.3 Socioeconomic Resources

Santa Rosa County has experienced dramatic growth during the past 10 years. According to the latest census figures, the County's population grew by 44 percent between 1990 and 2000. In the Midway/Fairpoint Peninsula/Navarre Beach area, however, population growth was even more rapid, at 70 percent. Associated with this growth is a pressing demand for increased wastewater disposal capacity. The Fairpoint Peninsula and the Navarre Beach areas are physically limited in their capacity to provide these services, especially for domestic reclaimed water disposal. The limited capacity for reclaimed water disposal on the Fairpoint Peninsula has led to restrictions being placed on development in the SSRU franchise area. Although these conditions have been ameliorated for the time being, long-term capacity has not been provided by the SSRU, HNWS, or NVBU. **Figure 3-1** shows the areas that potentially will be served by the proposed Santa Rosa County Regional Reclaimed Water System.

The areas immediately to the east, west, and north of the proposed RIBs site are contained within the Eglin Reservation and under the ownership and control of the USAF. These areas are considered buffer areas for operations at Choctaw Field and the nearest Eglin Test Ranges. This area is undeveloped and will remain under USAF ownership.



CH2MHILL

FIGURE 3-1
Areas Potentially Served by the Santa Rosa County Reclaimed Water Rapid-Rate Infiltration Basin System

Immediately to the south of the proposed RIB site, off the Eglin Reservation, the Holley-Navarre areas are zoned by Santa Rosa County as a mixture of agricultural and residential areas, with some general commercial zoning immediately adjacent to major roadways such as SR 87. These existing residential areas are generally single family dwellings, with a mixture of one- and two-story structures. Commercial properties in the area are generally small retail businesses such as restaurants, shops, gas stations, and convenience stores. In some parts of Navarre and the Navarre Beach area on Santa Rosa Island, the retail businesses also cater to the thriving tourism industry of the area as development continues beyond the implementation of the proposed action.

Another area, designated as the Escribano Point sub-area in **Figure 3-1**, is a contiguous area of privately and state-owned land located west of Choctaw Field, between the EAFB boundary and East Bay. This area consists primarily of upland and wetland coniferous forests and currently is undeveloped. Most of the land in this sub-area currently is under state ownership or under negotiation to be acquired by the state.

With respect to the location of the RIB system, for the entire area affected by the proposed action, development generally is occurring between the southern boundary of the Eglin Reservation and the coastline. Also, future growth and development in this area are regulated by the Santa Rosa County Comprehensive Growth Management Plan, enacted as required by the State of Florida. Development is limited to the east, west, and north of the proposed RIB site by EAFB's mission and land holdings. The USAF regulates the development of these areas.

Critical socioeconomic factors in South Santa Rosa County include, but are not limited to, recreation, tourism, military munitions testing and training, growth management, growth patterns, small businesses, schools, churches, wastewater treatment and disposal, noise, land use, and water supply.

Currently, no lands within the study area are closed to development because of the limited availability of wastewater collection, treatment, and disposal services. These undeveloped lands can be used for purposes such as schools, hospitals, and housing, notwithstanding the construction and operation of the system. These lands can and will be developed using existing wastewater treatment and disposal services, or if not available, they can currently be developed with either septic tanks or onsite packaged sewage treatment plants.

Data were obtained from EAFB regarding the location, frequency, and nature of previous complaints regarding noise from Eglin's activities. The areas most likely to continue to be affected by the noise created by Eglin's testing of warfare munitions lies south of the Yellow River, between East Bay and Eglin, and are designated as the Holley and Escribano Point sub-areas in **Figure 3-1**. The combined acreage of these sub-areas is approximately 6,678 acres. Compared to the total area to be serviced by the proposed system, approximately 36,300 acres, the 6,678 acres represent approximately 19 percent of the total area affected by the proposed action. That is, only about 19 percent of the total area affected by the proposed action may potentially be adversely affected by the noise created by EAFB's mission of testing warfare munitions.

The Existing Land Use Map Overlay of Santa Rosa County in the Holley and Escribano Point sub-areas reveals that these areas consist of multiple land uses, as shown in **Figure 3-2**.

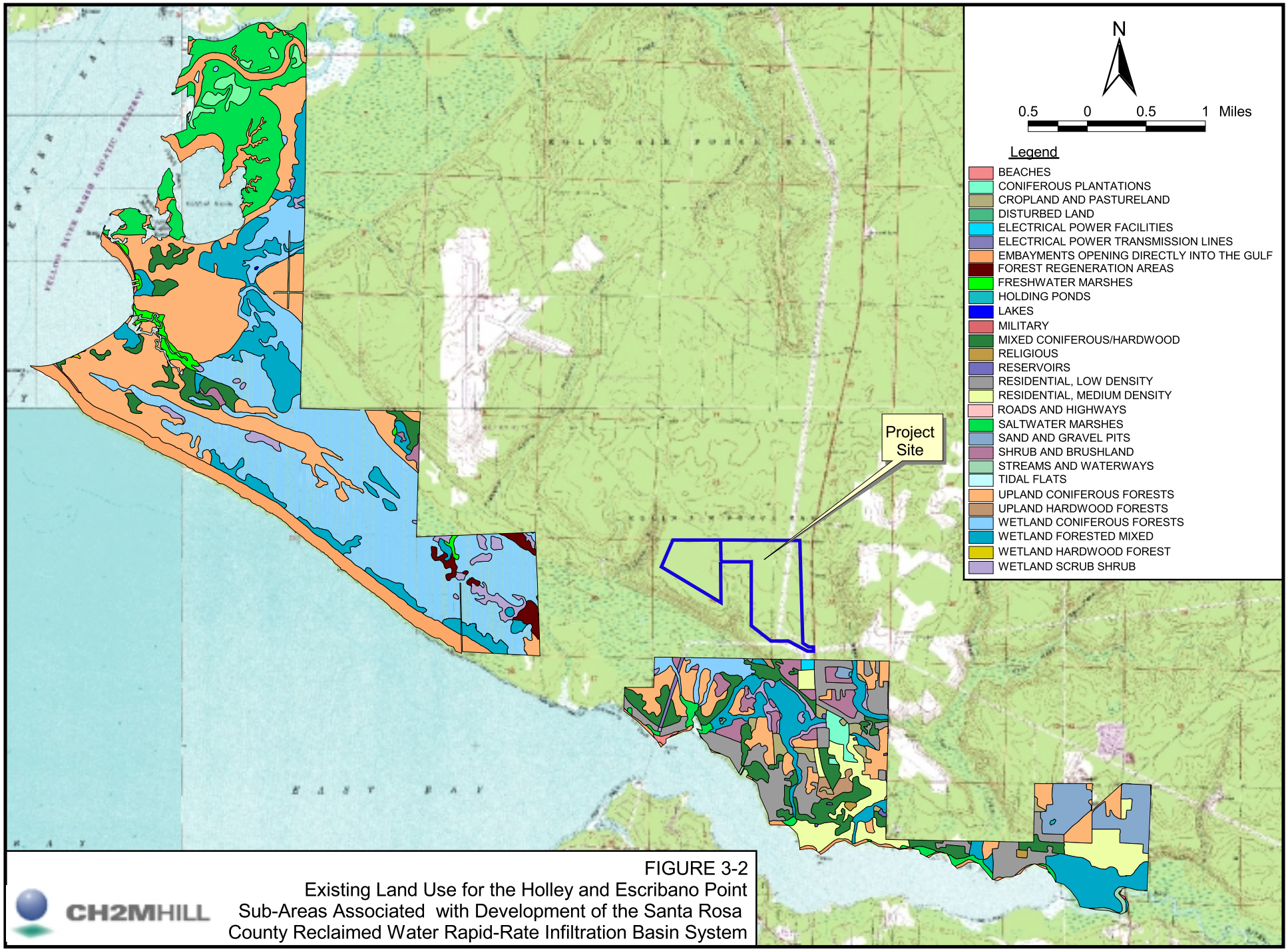


FIGURE 3-2
Existing Land Use for the Holley and Escribano Point Sub-Areas Associated with Development of the Santa Rosa County Reclaimed Water Rapid-Rate Infiltration Basin System

CH2MHILL

Table 3-2 lists the existing land use data for the Holley and Escribano Point sub-areas.

TABLE 3-2
Existing Land Use for the Holley and Escribano Point Sub-areas Associated with Development of the Santa Rosa County Reclaimed Water Rapid-rate Infiltration Basin System
EA Report of RIB System, EAFB, Florida

Existing Land Use Description	Area (acres)
Beaches	11
Coniferous Plantations	34
Cropland and Pastureland	50
Disturbed Land	1
Electrical Power Facilities	6
Electrical Power Transmission Lines	10
Embayments Opening Directly to the Gulf	400
Forest Regeneration Areas	53
Freshwater Marshes	44
Holding Ponds	1
Mixed Coniferous/Hardwood	413
Religious	7
Reservoirs	4
Residential, Low Density	371
Residential, Medium Density	288
Roads and Highways	1
Saltwater Marshes	520
Sand and Gravel Pits	191
Shrub and Brushland	132
Streams and Lake Swamps	60
Streams and Waterways	18
Tidal Flats	2
Upland Coniferous Forests	1,405
Upland Hardwood Forests	27
Wetland Coniferous Forests	1,704
Wetland Forested Mixed	804
Wetland Hardwood Forest	1
Wetland Scrub/Shrub	120
Total Area	**6,678**

On the basis of these data, using the Florida Land Use, Cover, and Forms Classification System definitions, approximately 10 percent of the affected area (659 acres) currently is designated as low-density (fewer than 2 dwelling units [DUs] per acre) or medium-density (2 to 5 DUs per acre) residential. Using these densities, there could be up to 742 DUs on the low-density areas and between 576 to 1,440 DUs on the medium-density residential areas.

A review of the June 4, 2004, Santa Rosa County Future Land Use Map from the Santa Rosa County Comprehensive Plan 2000-2020, reveals that approximately 4,211 acres of land within the affected areas are classified as Single Family Residential, with a maximum allowable density of 4 DUs per acre. In addition, 4 acres of land are classified as Residential, with a maximum allowable density of 18 DUs per acre. See **Figure 3-2** for the Santa Rosa County Future Land Use Map classifications for the Holley and Escribano Point sub-areas associated with the development of the Santa Rosa County Regional Reclaimed Water System. In other words, approximately 16,916 homes potentially could be built in this area in the future, if the Holley and Escribano Point sub-areas were developed to the maximum extent allowed by the Santa Rosa County Future Land Use Plan. This is the existing potential number of homes that could be permitted in this area as allowed by the Santa Rosa County Comprehensive Plan, and is not a function of the proposed action. **Table 3-3** lists the future land use data for the affected area, as allowed by the County's current comprehensive plan.

TABLE 3-3
Future Land Use for the Holley and Escribano Point Sub-areas Associated with Development of the Santa Rosa County Reclaimed Water Rapid-rate Infiltration Basin System
EA Report of RIB System, EAFB, Florida

Land Use Category	Area (acres)
Agricultural	360
Commercial	46
Conservation/Recreation	1,571
Industrial	267
Military	158
Residential	4
Single Family Residential	4,211
Water	61
Total	**6,678**

Given that the total area potentially affected by the proposed action is approximately 36,300 acres and includes the City of Gulf Breeze, the unincorporated areas of Santa Rosa County along U.S. 98, Navarre, the unincorporated areas along U.S. 98 between Navarre and Okaloosa County, Navarre Beach, Escribano Point, and Holley, the area potentially affected by the noise from EAFB activities is relatively small, approximately 19 percent. There is also an extensive buffer between the active ranges on Eglin and this relatively small area located southeast of the Eglin ranges and west of Choctaw Field.

Areas located south of Holley, including Navarre, Navarre Beach, and the unincorporated areas of Santa Rosa County along U.S. 98, currently are not known to be affected adversely by the noise created from EAFB activities. These areas are substantially developed and continue to develop rapidly. No documented evidence that the areas south of Holley have been adversely affected by the noise emanating from EAFB activities was revealed during this assessment. In addition, it appears that most, if not all, of the land within the Escribano Point sub-area ultimately will be owned by the state and will not be available for development, thus dramatically reducing the development potential of these sub-areas and mitigating, to a large extent, the potential source of noise complaints by the public.

4.0 Environmental Consequences

4.1 Introduction

The primary purpose of an EA prepared in accordance with NEPA is to identify the potential effects of major federal actions on the environment. The identification of potential impacts included the consideration of both the context and the degree of the impact. When feasible, distinctions were made between short-term and long-term, and negligible and adverse, impacts. A negligible impact may have an inconsequential effect or be unlikely to occur; an adverse impact would have negative consequences. If the current condition of a resource is improved or an undesirable impact is lessened, the impact is considered beneficial. Finally, a "no impact" determination is made when the proposed action does not affect a given resource. Where appropriate, cumulative impacts were discussed. Cumulative impacts on the proposed action involve past, present, and foreseeable future actions.

Ten other alternatives were considered during the planning of this project; however, they were all considered to be non-viable, leaving the proposed action as the only viable alternative to meet the project objectives and needs. These other 10 alternatives were rejected based on the criteria listed in **Table 1-1**. The alternatives for this EA are the proposed action and the no-action alternative. The no-action alternative is defined as no construction of a RIB system on EAFB and continued wastewater discharge to Santa Rosa Sound.

This section is organized to present the potential environmental consequences for each component of the project for both the proposed and the no-action alternative. The project is then evaluated for regulatory compliance with all applicable state and federal statues and EOs.

4.2 Effects of All Alternatives on the Affected Environment

The effects of the proposed action and the no-action alternative were considered.

4.2.1 Physical Setting

4.2.1.1 Topography

Proposed Action

The proposed action will have a negligible effect on the local topography. The topography within the RIB system will change and become more undulating, given the construction of the individual RIB system berms. However, this change will only affect the immediate topography within the site. The topography surrounding the RIB system, offsite, will not be affected by the proposed action.

The South Holley Segment construction will have no impact on topography, because the construction ROW will be restored to preexisting contours and conditions for operation.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on the topography.

4.2.1.2 Geology

Proposed Action

The proposed action will have no impact on geology, because the RIB system construction and operation will not occur at depths that will affect geologic formations such as bedrock. It is anticipated that the deepest excavation on the RIB system site will be approximately 5 ft for the burial of the distribution pipes. Along the South Holley Segment, again, the deepest excavation will be approximately 5 ft bls, a depth that will not affect geologic formations.

The installation of the groundwater monitoring well network is not expected to have an impact on the geology, because the wells will be installed in the upper aquifer, and not to bedrock. Wells will be installed according to FDEP specifications.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on the geology.

4.2.1.3 Soils

Proposed Action

The proposed action is expected to have a negligible impact on soils, with short-term impacts mainly being confined to the construction of the individual RIBs, access roads, and associated piping. The top 3 to 5 ft of the soil profile in each RIB will be permanently disturbed, but considering that the Lakeland sands can be in excess of 83 inches, the impact on soils is considered minor and negligible.

In the South Holley Segment, the soil will be disturbed to a depth of approximately 5 ft for the pipeline installation. The soils will experience some mixing, but this impact is considered negligible and short-term.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts to soils.

4.2.2 Noise

Proposed Action

The proposed action will have negligible and short-term impacts on local noise levels. The construction of the RIB system will contribute the most to local noise sources, but these effects are considered minor and short term. During the operation of the RIB system, there will be minimal noise created by maintenance activities such as mowing and maintenance of the RIB berms, but no noise is anticipated from the application of the water to the RIB system. Noise recipients in the area are minimal and limited mainly to nearby wildlife. Motorists on SR 87 should not hear the construction of the RIB system, given the vegetation buffer that will be maintained between the RIB system and the road. Furthermore, motorists

on SR 87 will be traveling at such speed that if they were to hear construction noise, the effects would be short term.

During the construction in the South Holley Segment, passing motorists, as well as nearby residents, would be construction noise receptors. The increase in noise would occur for approximately 6 weeks.

Given the proximity of the RIB system to SR 87 and to Choctaw Field air operations (approximately 13,000 ft to the northwest), no negative noise impacts are expected from the operation of the RIB system. Minimal noise impacts are expected from the construction in the South Holley Segment.

Given that the RIB system will not generate any noise following construction, the users of the Florida National Scenic Trail will not be bothered during usage. However, users of the trail may hear noises during construction, mainly from earth-moving machinery, but this impact is considered minor and short term. Furthermore, it is likely that the noises generated during construction will be absorbed by the surrounding vegetation.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts to local noise levels.

4.2.3 Air Quality

Proposed Action

According to the FDEP, the entire Florida Panhandle is in attainment for all NAAQS (Personal Communication, June 21, 2004). The proposed action will have no impact on air quality in the area. The construction of the RIB system may contribute some minor air pollutants from construction equipment, but given the traffic on SR 87, these inputs are considered minor and short-term. During the operation of the RIB system, there is no activity that would contribute to changes in air quality, other than exhaust from maintenance equipment, which again is considered minor and short term.

Reclaimed water discharged to the RIB system will be nearly odorless. A public workshop was held on November 2, 2000. During this workshop, the public was provided with the opportunity to learn more about the issues associated with this project. During this workshop, several beakers of water were placed at the registration table. Each of the beakers held water obtained from different sources–the HNWS potable water supply, the Midway Water System potable water supply, treated effluent from NVBWWTF, and water from Santa Rosa Sound. As the participants registered, they were asked to examine each of the beakers and to determine which beaker contained the treated effluent from the NVBWWTF. Once they had examined the beakers by sight and smell, they were asked to submit a ballot indicating which beaker they thought contained the treated effluent from the NVBWWTF. The majority of people who submitted a ballot selected the beaker containing the potable water from the HNWS as the beaker most likely to contain the treated effluent from the NVBWWTF. The discharge will not result in any negative air quality impacts. Local residents and workers, at any distance, will never detect the presence of the reclaimed water at this site.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on air quality.

4.2.4 Groundwater

Proposed Action

It is anticipated that the proposed action will have a positive impact on the regional groundwater resources by increasing recharge to the surficial aquifer. The low levels of pollutants–CBOD, TSS, TN, TP, and fecal coliform–contained in the treated effluent are not expected to have a negative impact on groundwater resources because the system will be designed to meet the state's primary and secondary drinking water standards at the edge of the zone of discharge, which is coincident with the site boundaries. The minimum waste treatment and disinfection standards found in Rule 62-610.410 and Rule 62-610.460, F.A.C., to be applied will ensure that the groundwater discharge from the site will meet the FDEP Class GII groundwater standards provided by Rules 62-520.400, 62-520.410, 62-520.420, and Chapter 62-550, F.A.C.

A records search for environmental data within 1 1/2 miles of the center of the site performed by Environmental Data Resources, Inc. (EDR), identified only one potable water well within this area. The records indicate that this is a shallow well with a permitted flow rate of 2 gallons per minute (gpm). This well is located 1 mile south of the site and on the eastern side of SR 87, and is not considered to be downgradient of the proposed site. Any other non-permitted wells for residential uses would be at least 2,200 to 4,000 ft southeast and south of the property. Although this area is in the downgradient direction, because the discharge will be in compliance with groundwater standards, the proposed activity will not have an adverse impact on any groundwater resources that may be used within these residential areas north of the East River and south of the site.

Furthermore, between the proposed site and these residential areas to the south is an extensive wetland system. Water from the proposed site would have to pass through an extensive soil matrix approximately 2,000 to 4,000 ft, and then pass through the extensive wetland system before it could reach these residential areas. Any wells in these areas probably would be used for residential irrigation. As stated above, the reclaimed water will be required to meet primary and secondary drinking water standards before being discharged from the zone of discharge, which coincides with the project boundaries. Therefore, in the unlikely event that any of the reclaimed water were to reach these residential areas, it would not pose a threat to any of the existing uses of the surficial aquifer in these areas.

It is also important to note that although the existing discharge from the NVBWWTF does not meet the FDEP Class III Marine Water standard for copper of 3.7 μg/L, as provided by Rule 62-302.530, F.A.C., it does comply with the FDEP Class GII groundwater standard for copper of 1 mg/L, as provided by Rule 62-550.320, F.A.C. The copper standard for a discharge to a Class GII groundwater is 270.3 times greater than the copper standard for a Class III marine water. This difference is because the marine standard is based on toxic effects to aquatic life and the Class GII groundwater standard is based on human health criteria.

It is expected that the construction in the South Holley Segment will have a negligible impact on groundwater. It is likely that groundwater will be encountered in pipeline ditches throughout this area; therefore, all construction will be conducted in compliance with the BMPs specified by the regulating agencies, as well as by EAFB. Impacts to groundwater during operation are considered negligible and short term.

The installation of the groundwater monitoring well network is considered to have a negligible impact to groundwater. All wells will be installed according to approved FDEP guidelines and long-term monitoring will prevent the introduction of contaminants to the aquifer. Furthermore, the groundwater wells will be locked at all times to prevent tampering.

Finally, Santa Rosa County has received from the FDEP a hold harmless letter that will release EAFB from any future contamination. A copy of that letter is included in **Appendix A**.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts to groundwater.

4.2.5 Surface Water

Proposed Action

The proposed action would have no impacts on surface water features on the sites or in the near vicinity of the sites. No surface water features are located on or immediately adjacent to the proposed sites, according to the USGS topographic maps and the January 2003 field reconnaissance. Additionally, there will be no discharge of the effluent to any surface water features in the area, because all effluent will be directed to individual RIBs.

The operation of the RIB system is expected to have a beneficial impact on the quality of Santa Rosa Sound because the effluent discharge from the NVBWWTF will be diverted some distance to the proposed land application site. As future phases are complete, the operation of the RIB system potentially will benefit other water bodies adjacent to the Fair Point Peninsula, because these flows would be diverted to the proposed land application site, thus reducing the potential of overloading the existing disposal areas on the peninsula.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on topography.

4.2.6 Wetlands

Proposed Action

The proposed action will have no impact on wetlands because no wetlands are located on or adjacent to the sites. Before construction, the contractor will be required to obtain an NPDES storm water permit. This permit requires that an erosion control plan be implemented to treat runoff from the site before it enters the adjacent wetlands.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on topography.

4.2.7 Hazardous and Toxic Substances

Proposed Action

The proposed action will have no impact on hazardous or toxic substance sites because no such sites are known to be located at or near the proposed RIB system site or the South Holley Segment. In addition, the proposed action will not contribute any hazardous or toxic substances to the sites or local area. BMPs will be used during the construction and operation of the proposed action to ensure that hazardous and toxic substances are not introduced into the area.

During the construction of the RIBs, the following BMPs will be used to control the release of hazardous and toxic substances such as petroleum products used for construction equipment:

- Before the initiation of the construction phase, a kickoff meeting will be held with the contractor to review the project requirements. During this meeting, the contractor will be made aware of the stringent requirements to prevent hazardous material releases and the process that will be used in the event of a release.
- A central and convenient location near an existing roadway will be designated as the refueling and maintenance area. This area will be stocked with spill control materials such as absorbent pads or other absorbent materials. Furthermore, the area will be contoured to preclude runoff from the site in the event of a spill.
- There will be no storage of hazardous materials onsite during the construction phase. Hazardous materials will be trucked in as needed to fuel and maintain the construction equipment.
- The contractor will be required to contact a local emergency response company to ensure that the site can be controlled in the event of a major spill.
- Any spills, regardless of quantity, will be cleaned up immediately upon discovery and be reported to the project manager. Contaminated soil will be disposed offsite at an approved facility.
- During refueling, the fuel nozzles will be monitored continuously to prevent overfilling of tanks and potential spills.

During the operation of the RIBs system, the only potential hazardous materials onsite will be petroleum products used to refuel small maintenance equipment such as mowers and trimmers. All major maintenance equipment such as tractors will be refueled and maintained offsite. As was the case during the construction phase, a centralized refueling location will be designated at an offsite facility owned and operated by Santa Rosa County. In the event a spill occurs from the refueling of the small maintenance equipment, the spill will be immediately cleaned up, recorded, and reported to the maintenance supervisor.

Contaminated soil will be contained and disposed by approved methods. Finally, no hazardous materials will be stored onsite.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on hazardous or toxic sites.

4.2.8 Traffic

Proposed Action

The proposed action will have no impact on traffic because the RIB system users will use existing roads (SR 87) and internal access roads that will be constructed between individual RIBs. There will be no additional public roads constructed, nor will any existing public roads be modified to divert or interrupt traffic patterns.

Some minor traffic interruptions caused by construction equipment loading and offloading may occur during the construction of the pipeline in the South Holley Segment, but these interruptions are considered short term and minor. During the operation of the RIB system, access to this area will be on a need-to-access-only basis for such operations as system repairs.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on local traffic.

4.2.9 Cultural Resources

Proposed Action

The proposed action will have no impact on cultural resources, because no known cultural or historical resources are located on the proposed RIB site or near the South Holley Segment. Representatives from the Cultural Resources Management Division of EAFB have indicated that the RIB site and the South Holley Segment are considered to be "low probability" areas for cultural features. Furthermore, the State Division of Historical Resources has indicated that the project will have no impact to the known site.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts to local cultural resources.

4.2.10 Flood Hazard

Proposed Action

The proposed action will have no impact to the 100-year flood level because the RIB site is not located in a floodplain. The South Holley Segment, although in the 100-year floodplain, will be returned to pre-construction contours and conditions; thus, there will be no effect on the floodplain.

No-action Alternative

Under the no-action alternative, all sites and flood hazards would remain unchanged.

4.2.11 Visual Resources

Proposed Action

The proposed action will have minimal visual impacts to recreational users of the area surrounding the RIB system. Recreational hikers and hunters will notice the individual RIB cells and associated support facilities. Motorists on SR 87 should not be visually affected by the construction or operation of the RIB system because a vegetation buffer approximately 300 ft wide will be maintained between SR 87 and the RIB system.

A vegetation buffer of at least 200 ft will be maintained between the RIB system and the Florida National Scenic Trail that parallels Range Road 726. Furthermore, the operation of the RIB system will not limit access to the trail. To prevent users of the trail, as well as other recreational users in the area, from meandering into the RIB system, proper signage will be installed advising users of the application of reclaimed water, thus discouraging access. In addition, users of the trail will not smell the RIB system because it is odorless.

Impacts to visual resources in the South Holley Segment will be minor during construction. During construction, local residents and passing motorists will notice the roadside construction, but considering that the speed limit through the area is 45 mph, passing motorists will only experience short-term impacts. There will be no permanent impacts to visual resources in this area during the operation of the proposed action, because the area will be returned to pre-construction conditions and the pipeline will be buried below land surface.

No-action Alternative

Under the no-action alternative, there would be no change in topography or impact on visual resources.

4.2.12 Biological Resources

4.2.12.1 Terrestrial Flora

Proposed Action

There will be a permanent impact to the existing vegetation within the RIB site, given that all vegetation within the individual RIBs will be removed during the construction and not be allowed to return during operation. Throughout all phases of the construction and operation of the RIBs, of the 328 acres that were once a mixture of various aged pines, 156 acres (or roughly 48 percent) of the forested areas will be converted to open infiltration basins and associated support facilities such as roads. The remaining 172 acres will remain intact as forested areas to provide a buffer between the proposed RIBs and the surrounding areas. Following are the anticipated impacts by construction phase:

- Phase 1: Approximately 46.3 acres of existing forest cover will be permanently lost to the construction and operation of the RIB system, access roads, and onsite operation facilities. Vegetation will consist of mainly slash pine and sand pine, with minimal longleaf areas mainly in early successional stages. Approximately zero acres will be

permanently lost to the installation of the main distribution pipeline because either existing utility easements or easements along existing access roads will be used for the construction of the pipeline. Vegetation mainly consists of longleaf, sand, and slash pine of various diameters and ages. Ground cover throughout the area is sparse; thus, the impact on a local scale is considered minor.

- Phase 2: Approximately 63 acres of existing forest cover will be permanently lost to the construction and operation of the RIB system and associated access roads.
- Phase 3: Approximately 46.7 acres of existing forest cover will be permanently lost to the construction and operation of the RIB system and associated access roads.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts on terrestrial flora.

4.2.12.2 Terrestrial Fauna

Proposed Action

Impacts to the terrestrial wildlife from the construction and operation of the proposed action are expected to be minimal and offset by the ability of species to use adjacent habitat. These impacts are regionally insignificant, because there are extensive areas of similar habitat close by. The most obvious impact will be the displacement of various species from the RIB system area to nearby habitats during the construction and operation of the system. Generally, birds, small reptiles, and small mammals will be affected the most by the loss of habitat, because of their limited migration range in comparison to the size of the RIB system construction site. Furthermore, some mortality to the smaller wildlife species such as small rodents and reptiles will be associated with the construction of the system.

Larger wildlife species such as squirrels, deer, opossum, and raccoon probably will vacate the area during construction and use the area only periodically during operation as travel routes. Foraging within the active RIB system will be limited by the periodic maintenance that will maintain the bottom of the basins as barren sand, thus not providing foraging habitat. It is not likely that the RIB system will serve as a wildlife attractant because the water that is discharged into each basin will not stand for any appreciable amount of time, if at all, and the water application will be cyclic between basins (no one basin will receive a continuous flow of water). This process will eliminate the potential for aquatic species such as birds and fish to become reliant on a water source.

The RIB system area is located adjacent to expansive, relatively undisturbed habitat that is the same as the habitat lost during the RIB system construction. The surrounding areas provide ample habitat for the species that currently thrive in the area.

Generally, during operation of the RIB system, wildlife will not use the site for nesting and feeding, but may be casual occupants passing through from one area to another. Smaller wildlife species such as birds, small mammals, and reptiles may use the buffer areas between the RIBs for various life stages including nesting and foraging.

EAFB is concerned that the open areas of the RIB system may attract coastal birds such as seagulls during winter months as cold fronts move through the area. EAFB also is concerned that the RIB site has the potential to attract other migratory birds such as killdeer

and plovers that use the open areas for foraging and nesting. However, the design of the RIBs will preclude standing water; thus, it is unlikely that waterfowl (geese or ducks) or wading birds (heron or egrets) will use the RIBs.

Bash Effects

The USAF Bird/BASH Team has reviewed the proposal and renders the opinion that "the proposed rapid infiltration basin (RIB) system proposed for used at EAFB can be operated without increasing the local bird/wildlife hazards to aviation safety. For this to be true it is necessary for the RIBs to be operated as proposed; no standing water 24 hours after a basin is filled, keep basins clear of emerging vegetation, and the RIBs will (would) not be located directly under the local traffic patterns. As recommended by the USAF BASH Team, Santa Rosa County would regularly monitor bird/wildlife activity at the RIBs and take action to reduce any BASH problems that develop. The County would accept responsibility for remediating any BASH hazards that may arise from the RIBs to include any harassment, funding or NEPA action that may be required to accomplish this task. The county would consult with the Eglin BASH program. The Eglin Bird Hazard Working Group (BHWG) should recommend actions to be taken as necessary if any bird/wildlife activity develops due to the RIBs. (AFCS/SEFW communication email, 30 Nov 2001, to Dennis Teague, AAC/EMSNW)."

According to communication from Major Peter Windler, November 30, 2001, and December 7, 2001, the proposed RIB system operation would pose no BASH impacts. The communications from Major Windler are located in **Appendix A**.

No-action Alternative

Under the no-action alternative, there would be no change to any site and no impacts on wildlife.

4.2.12.4 Aquatic Flora and Fauna

Proposed Action

No aquatic habitats are present on, or adjacent to, the RIB system site or the South Holley Segment. Thus, the proposed action will have no impacts on aquatic flora or fauna.

The proposed action is anticipated, however, to have a positive effect on Santa Rosa Sound by diverting the NVBWWTF effluent, thus reducing impacts to the sound.

No-action Alternative

Under the no-action alternative, the site would remain in its existing condition and the NVBWWTF would continue to discharge its effluent to Santa Rosa Sound. Although the no-action alternative will contribute no additional impacts to Santa Rosa Sound that are not already being realized, it will not further Santa Rosa County's goal to eliminate the discharge. The elimination of the discharge to Santa Rosa Sound can only benefit the system by eliminating an additional nutrient and fecal coliform source.

4.2.12.5 Threatened and Endangered Species

Proposed Action

The proposed action, including both the RIB system and the South Holley Segment, will not adversely affect any federally listed species. There are, however, two state-listed mammal

species in the area of the RIB system–the black bear that was identified by the Natural Resources Branch at Jackson Guard; and the Sherman's fox squirrel, which was identified by a CH2M HILL biologist during a site reconnaissance in 2002. The fox squirrel is considered a species of special concern and the black bear is considered state-threatened in this area.

Although the state-listed species potentially are found on the RIB system site, it is expected that the impact to these species will be minor and short term. Impacts are associated more with habitat loss than with a direct physical impact from construction and operation. Both species will be able to migrate to other suitable habitat adjacent to the site during the construction and operation of the RIB system. Furthermore, the amount of habitat alteration is insignificant in the regional context, given the nearby large expanses of undisturbed areas.

No-action Alternative

Under the no-action alternative, all sites would remain in their existing conditions, resulting in no impacts to T&E species.

A comparative impact summary (**Table 4-1**) compares the proposed action to the no-action alternative for each resource area discussed above. The design features of the proposed RIBs will be fully coordinated with the EAFB Range Configuration Control Committee to ensure that features such as fencing, roads, vegetative barriers, etc., do not affect the Eglin mission. Coordination will be accomplished by the proponent at the earliest site design stages.

TABLE 4-1
Comparative Impact Summary
EA Report of RIB System, EAFB, Florida

Resource Area	Proposed Action	No-action Alternative
Topography, Soils, and Geology	No impact to topography, geology, or soils.	No impacts because no change from existing conditions would occur.
Noise	No impact	No impacts because no change from existing conditions would occur.
Air Quality	No impact	No impacts because no change from existing conditions would occur.
Groundwater	Possible beneficial impact by the raising of local groundwater levels; otherwise, no impact.	No impacts because no change from existing conditions would occur.
Surface Water	No impact. However, the *proposed action* is expected to have a direct beneficial impact to Santa Rosa Sound because a WWTF would be diverted from the Sound.	The existing water quality problems remain, which are an exceedance of the copper standard and the continued discharge of domestic effluent within the Gulf Islands National Seashore.
Hazardous and Toxic Materials and Wastes	No impact	No impacts because no change from existing conditions would occur.
Terrestrial Biota	No impact	No impacts because no change from existing conditions would occur.
Aquatic Biota	No impact	No impacts because no change from existing conditions would occur.

TABLE 4-1
Comparative Impact Summary
EA Report of RIB System, EAFB, Florida

Resource Area	Proposed Action	No-action Alternative
Wetlands	No impact	No impacts because no change from existing conditions would occur.
Threatened and Endangered Species	No impact	No impacts because no change from existing conditions would occur.
Cultural Resources	No impact	No impacts because no change from existing conditions would occur.
Socioeconomic	The proposed action will facilitate development of the Fairpoint Peninsula\Holley Navarre area to the extent that the availability of utility infrastructure will be more reliable.	The no-action alternative will necessarily limit development of the region. It may impede development to the extent that the availability of utility infrastructure will be less reliable. This may have a negative impact on the region's ability to support military personnel, which in turn would have a negative impact on the local economy and base missions.
Flood Hazard	No Impact	No impacts because no change from existing conditions would occur.
Visual Resources	No impact	No impacts because no change from existing conditions would occur.

Notes:
WWTF = wastewater treatment facility

4.2.13 Cumulative Impacts

According to the Council on Environmental Quality (CEQ) regulations, the cumulative effects analysis in an EA should consider the potential environmental impacts resulting from the "incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions" (40 CFR 1508.7).

No other projects on Eglin property, in the immediate vicinity of the RIB system, have been identified that would contribute to the impacts realized by the construction and operation of the RIBs. The area surrounding the proposed RIB site generally is used by Eglin as a buffer area with little active development, but with some silviculture activities. These silviculture activities are managed by EAFB on a rotational basis; thus, the area surrounding the RIBs constantly is in some type of disturbance, be it logging practices or fire maintenance.

Other actions that may occur in areas south of the RIB system, off the Eglin Reservation, generally would be associated with land development such as housing subdivisions; commercial developments such as strip malls and gas stations; and infrastructure such as roads, schools, and hospitals. The locations and patterns of future development are governed and regulated by the Santa Rosa County Comprehensive Land Management Plan and Land Development Code. Generally, these types of developments result in cumulative

effects over many years, and not so much in the near future on a large scale, as would be the case with a major industrial complex. No direct relationship is expected between the proposed action and potential future actions by Santa Rosa County with respect to the development of these areas.

Potential negative cumulative effects of the RIB system include the following:

- On the Eglin Reservation, the development of 328 acres of upland forested pine habitat managed for timber into a RIB system. Then, on a regional scale, the decrease of 328 acres used as upland habitat.
- A decrease of 328 acres of Eglin range space that potentially could be used for mission-related activities.
- The proposed action will facilitate growth in Santa Rosa County. Continued growth in South Santa Rosa County will have a negative impact on Eglin's ability to test warfare munitions by exposing a larger population to noise caused by Eglin's activities.

Potential positive cumulative benefits of the RIBs system include the following:

- The NVBWWTF effluent discharge will be eliminated from Santa Rosa Sound, which will positively affect the water quality of Santa Rosa Sound and the Gulf Island National Seashore.
- The RIBs will act to recharge the surficial aquifer, which will restore and maintain groundwater resources in the area of the site.
- Construction and operation of the proposed RIBs will provide reclaimed water disposal capacity on a regional basis to the three utilities in the study area–NVBU, HNWS, and SSRU. These utilities are faced with extremely limited resources that are suitable for reclaimed water disposal, and they are surrounded by Class II Marine Waters (approved for shellfish harvesting), to which new domestic wastewater discharges are not allowed. Providing this capacity on a regional basis will ensure a reliable level of service and preclude the need to employ packaged sewage treatment plants and septic tanks, in the event that the existing disposal capacities of these utilities are consumed before the area reaches its build-out potential.
- Providing reclaimed water disposal capacity on a regional basis will enable these utilities to provide service on a reliable basis. This, in turn, will assist local governments and utilities to keep pace with the rate at which this area is developing. Additionally, it will provide value to the military in that these services are readily available to military personnel and contractors moving to this area to support Eglin's missions.
- Ensuring these services on a reliable basis will allow the local utilities and governments to avoid conflicts such as those that occurred in the mid- to late-1990s in this area, when the FDEP placed a moratorium on the SSRU for failing to provide adequate disposal capacity. The immediate response from developers was to submit requests to the County for septic tank permits and to FDEP for permits for the installation of package sewage treatment plants. Development did not cease, but this conflict was difficult for the local community to overcome. The end result was that the SSRU was able to provide additional capacity on an incremental basis. At this point, neither the SSRU nor the

HNWS has provided the additional long-term capacity for this area that the proposed action would provide. Therefore, the potential for a similar future conflict exists as development continues at a rapid pace, notwithstanding the status of the proposed action. The proposed action will have a positive cumulative effect by allowing local governments to provide the services that they are obligated to provide, in a reasonable and effective manner.

On the basis of these considerations the positive cumulative benefits outweigh the negative cumulative impacts; thus, the proposed action is clearly in the public's best interests. However, a plan to mitigate or minimize the impact to Eglin's ability to test warfare munitions is being prepared.

4.2.14 Irreversible and Irretrievable Impacts

There are no irreversible or irretrievable impacts associated with the proposed action. In the event that EAFB should require Santa Rosa County to abandon the system and restore the site, the site could be restored to its current condition. All piping and equipment could be removed from the site. The earthen berms constructed to form the basins could be graded to restore the pre-existing topography, long-leaf pines could be replanted in the areas cleared to construct the RIBs, and any reclaimed water applied to the site would dissipate rapidly following the cessation of application. The reclaimed water to be applied will be free from any hazardous or industrial chemicals, so there would be virtually no contamination remaining in the soils or surficial aquifer. Within a brief time, the groundwater would return to its pre-action natural state. Within a relatively brief period of time, the long-leaf pines would flourish in the re-planted areas.

4.3 Compliance with State and Federal Statutes and Executive Orders

The proposed action was evaluated for compliance with all applicable state and federal environmental statues and EOs. The project was found to be in compliance in all cases (**Table 4-2**). **Table 4-3** identifies the permits that will be required for the proposed alternative.

Furthermore, a consistency review of this EA is presented in **Appendix B**, with the USAF's Consistency Determination under the CZMA, Section 307, and 15 CFR Part 930, Subpart C. The information in this Consistency Determination is provided pursuant to 15 CFR Section 930.39.

4.4 Plans, Permits, and Environmental Management Requirements

4.4.1 Plans

A mitigation plan for the Santa Rosa County RIB system will be required. A mitigation plan provides an environmental management plan to mitigate impacts associated with the Santa

TABLE 4-2
Federal Environmental Statutes and Executive Orders
EA Report of RIB System, EAFB, Florida

Acts	Compliance Status	EA Action
Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469)	In compliance	Meetings were held with the Eglin Cultural Resources Division. In addition, letters were sent out and received from the Florida Division of Historical Resources.
Clean Air Act, as amended (Public Law 88-206)	In compliance	No air emissions will result from the operation or construction of the system.
Clean Water Act (CWA), as amended (Public Law 95-217)	In compliance	There will be no impact to wetlands or waters of the state as a result of construction or operation of the system
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Public Law 96-510), as amended by the Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499)	In compliance	A search for contaminated sites was conducted and none were identified. Furthermore, no hazardous materials will be associated with the construction or operation of the system.
Endangered Species Act of 1973, as amended (Public Law 93-205)	In compliance	The construction or operation of the system will not affect any threatened or endangered species.
Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661, et seq.)	In compliance	No impacts will occur to any bodies of water as a result of this action. Furthermore, Eglin will consult with the U.S. Fish and Wildlife Service and the FDEP, if necessary.
National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190)	In compliance	This EA is being prepared in accordance with NEPA.
National Historic Preservation Act of 1966, as amended (Public Law 89-665)	In compliance	Meetings were held with the Eglin Cultural Resources Division. In addition, letters were sent out and received from the Florida Division of Historical Resources.
Noise Control Act of 1972, as amended	In compliance	No permanent noise impacts will occur. Noise impacts are minimal and temporary, associated with construction and site maintenance activities, noise that will be buffered by vegetation borders.
Resource Conservation and Recovery Act (Public Law 94-580)	In compliance	A search for contaminated sites was conducted, and none were identified. Furthermore, no hazardous materials will be associated with the construction or operation of the system.
Solid Waste Disposal Act of 1965, as amended (including Resource Conservation and Recovery Act and amendments)	In compliance	No hazardous materials will be associated with the construction or operation of the system, and the system will receive no solid or hazardous waste either in construction or operation. All solid waste generated by the construction will be removed and disposed at an approved landfill facility.

TABLE 4-2
Federal Environmental Statutes and Executive Orders
EA Report of RIB System, EAFB, Florida

Acts	Compliance Status	EA Action
Toxic Substances Control Act of 1976 (Public Law 94-469)	In compliance	A search for contaminated sites was conducted, and none were identified. Furthermore, no hazardous materials will be associated with the construction or operation of the system.
Watershed Protection and Flood Prevention Act of 1954 (16 U.S.C. 1101, et seq.)	In compliance	The project will not affect the ground level elevations within a designated floodplain.
Wetlands Conservation Act (Public Law 101-233)	In compliance	There will be no impact to wetlands or waters of the state as a result of construction or operation of the system
State of Florida Environmental Resources Permit (ERP) and related permits (Dredge and Fill /Wetlands Permit)	In compliance	There is no ERP permit process for this area of Florida. In addition, no wetland impacts will result from the construction or operation of this project that might require permitting under the CWA (see above, this table).
National Pollution Discharge Elimination System (NPDES) Storm Water Permit	In compliance	An application with an appropriate storm water runoff and erosion control plan will be filed as part of the preconstruction activities. The project design will account for any necessary storm water management on the project (roadside swales).
Floodplain Management (Executive Order 11988)	In compliance	The project will not affect a designated floodplain during which changes to topography would affect the floodplain.
Protection of Wetlands (Executive Order 11990)	In compliance	There will be no impact to wetlands or waters of the state as a result of the construction or operation of the system.
Federal Compliance with Pollution Standards (Executive Order 12088)	In compliance	All other applicable pollution laws are in compliance.

Notes:
U.S.C. = United States Code
EA = environmental assessment
FDEP = Florida Department of Environmental Protection

Rosa County RIB system at EAFB. These impacts have been documented in the EA FONSI for the Santa Rosa County RIB system at EAFB.

A mitigation plan is assembled to clearly define those mitigation practices the SRCBOCC and its contractors are committed to perform. The plan is aimed at protecting and preserving valuable public resources. Santa Rosa County realizes it responsibilities for ensuring that all of its contractors and subcontractors comply with the environmentally regulated plans, specifications, permit requirements, and project-specific management practices defined in the contractor's scope of work and presented in this document *(*refer to **Appendix C** for the Mitigation Plan).

4.4.2 Permits

Table 4-3 summarizes the permits that will be required for this project.

TABLE 4-3
Permits Required
EA Report of RIB System, EAFB, Florida

Permit Type	Regulatory Agency	Applicable Regulations	Issues
Wastewater Permit	FDEP	Chapters 62-620 and 62-610, F.A.C.	Establishes reasonable assurance that adequate treatment is provided to ensure compliance with state water quality standards.
Collection and Transmission Permit	FDEP	Chapter 62-604, F.A.C.	Establishes reasonable assurance that adequate treatment is provided to ensure compliance with state water quality standards.
Conditional Use Permit	SRCBOCC	Santa Rosa County Comprehensive Management Plan	Ensures compliance with the County's Comprehensive Land Management Plan.
Building Permit	SRCBOCC	Santa Rosa County Land Development Code	Ensures compliance with the State of Florida Building Codes.
NPDES Storm Water Permit	FDEP	Chapter 62-621, F.A.C.	Requires an erosion control program to prevent runoff from the site during construction.

Notes:
NPDES = National Pollutant Discharge Elimination System
FDEP = Florida Department of Environmental Protection
SRCBOCC = South Santa Rosa County Board of County Commissioners
F.A.C. = Florida Administrative Code

4.4.3 Environmental Management Requirements

4.4.3.1 Mitigation

1. It is foreseeable that the project will facilitate further development in Santa Rosa County. As the population increases and the County approves the development of the areas bordering EAFB, an increase in noise complaints is likely to result from Eglin's mission

activities. To mitigate these impacts and to facilitate good relations between EAFB and its future neighbors in Santa Rosa County, Eglin approved the County's RIB system, but conditioned its approval on the County's imposition of reasonable noise mitigation measures. These measures may include appropriate zoning to prohibit the development of noise-sensitive communities in or near Eglin's borders. Alternatively, or in addition to and subject to Eglin's approval, these measures may include provisions within the County building code to mandate noise buffers in all new construction.

2. Avoidance of potential BASH. Management practices will be implemented to avoid potential BASH impacts.

3. Avoidance of impacts to the Eglin mission. Design features of the proposed RIBs will be fully coordinated with the EAFB Range Configuration Control Committee to ensure that features such as fencing, roads, vegetative barriers, etc., do not affect the Eglin mission. Coordination will be accomplished by the proponent at the earliest site design stages.

4.5 Socioeconomic Resources

As stated in Section 3.3, the existing socioeconomic resources to be considered that may be affected by the proposed action include, but are not limited to, recreation, tourism, military munitions testing and training, growth management, growth patterns, schools, small businesses, wastewater treatment and disposal, noise, land use, and water supply. Of these resource areas, those that will be affected are growth patterns, growth management, wastewater disposal, and military activities.

Implementation of the proposed action will facilitate planned development, in that utility infrastructure will be centralized and available to the public on a more reliable basis. Off-base development primarily will be governed by the supply of undeveloped land and the demand for new development. Off-base development also will be guided by the future land designations in the Comprehensive Plan. The proposed action will not result in a change to the existing Comprehensive Plan.

Development and growth will be limited to the degree that centralized wastewater treatment and disposal systems are available. The proposed action will make these services more available, thereby facilitating the existing growth patterns. However, the impact on growth by the proposed action will be limited to the extent that these undeveloped lands could be developed without the aid of centralized wastewater treatment and disposal services. It is important to note that the proposed project will not open new areas to development, because no lands currently are closed for development due to the lack of utility services. Some of these undeveloped areas could be developed using septic tanks and package treatment plants. The proposed action will preclude the use of these less desirable wastewater treatment disposal systems, and thus will have a positive effect on this socioeconomic resource.

The RIB system will not occupy vital space needed by EAFB for such factors as housing, mission exercises, bombing ranges, training facilities, or aircraft storage or maintenance, all factors that would directly affect the socioeconomics of EAFB. The area already contains existing infrastructure utilities (Gulf Power utility corridor and substation) located on the Eglin Reservation in the same general area as the proposed RIBs. The Fairpoint Regional

Utility System recently installed a potable water line between the Gulf Power corridor and Highway 87. EAFB also has approved, in concept, plans for constructing a cell tower farm on land that would be co-located with the proposed RIBs.

The proposed action will impose some minor limitations on Eglin's use of the 328 acres of property on which the proposed system will be located. However, the proposed system will be designed so that the reclaimed water that is applied will meet high-level disinfection standards, thereby making it safe for military personnel to have access and egress across the site. Given that the area of the proposed RIBs is considered a buffer area and is close to other infrastructures such as utility lines and major state roads, as well as the proximity of residential areas to the south, the use of the area is already mission limited. Thus, the socioeconomic impact of the proposed action is less than, for example, an activity that would jeopardize the expansion of an existing bombing range, expansion of a runway, or development of a housing facility.

Most of Eglin's development is centered around the Cantonment area of the installation, some 20 miles to the east of the RIB site, so it is unlikely that the RIB site would be used for future office or housing development. Furthermore, given the proximity of the RIB system to the previously mentioned limitations, it is unlikely that the area would be considered for such activities as active bombing ranges, runways, or USAF research, all of which are integral to Eglin's mission.

The proposed system will serve many of the existing and future military personnel and contractors who work on EAFB and Hurlburt Field in support of Eglin's missions. Because the proposed system has military value, in that the local community will be better able to support existing and future military personnel with reliable wastewater treatment and disposal service, there will be a positive impact on EAFB's socioeconomic state.

The remaining concern is the impact to Eglin's ability to perform testing of warfare munitions resulting from the continued development of the Holley and Escribano Point sub-areas, which are closest to Eglin's test ranges and within the area to be serviced by the proposed system. As these areas continue to develop, the impact from noise caused by Eglin's testing of warfare munitions will be more apparent. However, the majority of the potential development is some distance south of the Eglin Reservation in this area, thus limiting the increased potential for noise from EAFB's activities to affect these areas. The areas of greatest concern for impacts resulting from Eglin's activities are the Holley and Escribano Point sub-areas, as described in Section 3.3.

Notwithstanding the impact on the military's ability to perform testing of warfare munitions as a result of the proposed action, the Santa Rosa County Commission places a high value on the military presence in Santa Rosa County. Military bases in Santa Rosa County, including NAS Whiting Field, the other NAS outlying fields, and EAFB, are considered to be mainstays of the local economy in Santa Rosa County. As such, the Santa Rosa County Commission is proactive in taking the steps necessary to protect the future of the military presence in Santa Rosa County. To this end, Santa Rosa County has conducted a Santa Rosa County Joint Land Use Study (JLUS) to manage the socioeconomic factors associated with the Outlying Fields managed by NAS Whiting Field, including NOLF Choctaw to the west of the RIB site. This document may be accessed through the County's

website at the following address: http://www.co.santa-rosa.fl.us/santa_rosa/zoning/jlusdraft.html.

The JLUS put forth several recommendations to the SRCBOCC for changes to the County's Comprehensive Management Plan and Land Development Code that would, if implemented, minimize to the greatest extent possible any conflicts between any future land uses in proximity to NOLF Choctaw Field. These recommendations emphasize land acquisition and density controls. Although this study focused on the protection of the outlying fields most vulnerable to encroachment, the recommendations put forth with respect to OLF Choctaw Field essentially will result in the same protection from encroachment being afforded to the Eglin test ranges in Santa Rosa County. Santa Rosa County will continue to work with EAFB to create a relationship that promotes coordination and planning to minimize the impacts to the critical socioeconomic factors that may affect Eglin's missions, as well as the mission of the NAS.

To enhance the County's current and future efforts to protect the military from encroachment and to minimize the impacts to EAFB resulting from the proposed action, a plan to mitigate the nature and extent of development that will occur in the Escribano Point and Holley areas is being prepared.

5.0 List of Preparers

5.1 CH2M HILL

Bill Dunn: A senior environmental scientist responsible for review and quality assurance in the preparation of the EA. Dr. Dunn is a professional wetland scientist with more than 25 years of experience in wetland sciences. Dr. Dunn has extensive experience in water resource management and the use of forested systems for domestic wastewater disposal. He holds a Ph.D. in Systems Ecology, an M.S. in botany from the University of Florida, and a B.S. in Biology from Tufts University.

Mike Letson: An environmental scientist responsible for preparing the EA, Mr. Letson has 12 years of experience with biological inventories, T&E species surveys, and wetland delineations. Mr. Letson holds an M.S. degree in limnology from the State University of New York College at Brockport and a B.S. degree in biology.

Greg Brubaker, P.E.: A senior professional engineer responsible for reviewing the EA. Mr. Brubaker has more than 19 years of experience in the permitting, design, and construction of all types of slow-rate and rapid-rate reclaimed water systems. Mr. Brubaker holds a B.S. degree in Agricultural Engineering from the University of Florida and has been a Florida registered engineer since 1988.

Neal A. Rogers Jr., P.E.: Mr. Rogers is the project manager for the Santa Rosa County Regional Reclaimed Water Disposal System Project. Mr. Rogers is a professional engineer with more than 19 years of experience. Mr. Rogers served 13 years with the FDEP as a permitting engineer. Mr. Rogers has been involved in several large federally sponsored projects in Florida. Mr. Rogers served 5 years with the FDEP as a supervisor in the Domestic Wastewater Permitting Section. Mr. Rogers has extensive experience with permits issued under the NPDES program. Mr. Rogers has been with CH2M HILL for the last 4 years. He holds a B.S. in Ocean Engineering from Texas A&M University.

Vicky Potter: Ms. Potter is a senior technical editor and group leader for the Montgomery office's Publications group. She has 11 years of experience with CH2M HILL, working in all areas of environmental, water, and wastewater reports; prior to that, she had 10 years of experience as a writer and editor for Auburn University. She holds an M.S. in Family and Child Development and a B.A. in journalism, both from Auburn University.

6.0 Agencies and Persons Consulted or Given Copies of the EA

6.1 Letters

CH2M HILL sent letters to the following agencies:

- U.S. Fish and Wildlife Service, Panama City Ecological Services & Fisheries Resources Office, January 9, 2003.
- Florida Department of Environmental Protection, Florida State Clearinghouse, Tallahassee Florida, January 9, 2003.
- Florida Department of State, Division of Historical Resources, Tallahassee, Florida, January 13, 2003.

6.2 Meetings

Meetings were held with the following agency representatives to ascertain pertinent information for inclusion in the EA:

- Mr. Bob Miller, Natural Resources Branch, Jackson Guard, EAFB. Meeting held with Mike Letson, CH2M HILL, on January 3, 2003.
- Ms. Lynn Shreve, Cultural Resources Management Division, EAFB. Meeting held with Mike Letson, CH2M HILL, on January 10, 2003.

6.3 Additional Meetings

Meetings also were held among Santa Rosa County, CH2M HILL, and the Eglin Encroachment Committee (the Committee) to discuss project specifics. During this time, the Committee requested additional information, to which Santa Rosa County and CH2M HILL responded. Following are relevant dates for contacts among the Committee, Santa Rosa County, and CH2M HILL:

- May 31, 2001: Initial land application system was proposed to the Committee.
- July 12, 2001: An additional data request was submitted by the Committee to Santa Rosa County.
- August 1, 2001: Meeting was held to discuss alternatives to the original land application proposal.
- November 15, 2001: Meeting was held to discuss the RIB system options with the Committee.

- January 7, 2002: The Committee granted conditional conceptual approval of the RIB system.
- June 24, 2002: The Committee requested additional information about the RIB system.
- August 13, 2002: The Committee requested additional information regarding the RIB system.
- August 15, 2002: The Committee requested additional information about the RIB system.
- September 9, 2002: The Secretary of the Air Force granted conditional approval of the RIB system.

6.4 Public Comment

- January 14, 2004. Public Notice of the Draft EA availability was advertised in the Fort *Walton Beach Daily News* by EAFB.
- January 14, 2004. Copies of the Draft EA were placed in the Gulf Breeze and Navarre, Florida, public libraries for public review and comment.
- January 19, 2004. Public Notice of the Draft EA availability was advertised in the *Pensacola News Journal* by EAFB.
- February 22, 2005. Public Notice of the Draft EA availability was advertised in the Fort *Walton Beach Daily News* by SRCBOCC.
- February 22, 2005. Copies of the Draft EA were placed in the Gulf Breeze and Navarre, Florida, public libraries for public review and comment.
- February 22, 2005. Public Notice of the Draft EA availability was advertised in the *Pensacola News Journal* by SRCBOCC.

7.0 References

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Eglin Air Force Base Installation Restoration Program. March 1, 2000. *Management Action Plan*.

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Hipes, D., D. R. Jackson, K. NeSmith, D. Printiss, and K. Brandt. 2001. *Florida Natural Areas Inventory Field Guide to the Rare Animals of Florida.*

Natural Resources Conservation Service. 1980. *Soil Survey of Santa Rosa County, Florida. United States Department of Agriculture.*

Natural Resources Conservation Service. Wolfe, S.H., et al. 1988. "An ecological characterization of the Florida Panhandle." U.S. Fish and Wildlife Service. *Biol. Rep.* 88(12). Minerals Management Service. OCS Study\MMS 88-0063; 277 pp.

Personal Communication. June 1, 2004. Mike Letson, CH2M HILL, contacted via phone Charles Norman, Florida Department of Environmental Protection (FDEP) Air Division.

Personal Communication. November 2000. Neal Rogers, CH2M HILL, contacted via e-mail Jerry Kidder, University of Florida.

Personal Communication. November 30, 2001, and December 7, 2001. Correspondence

U.S. Department of Agriculture and Federal Aviation Authority. January 2000. *Wildlife Hazard Management at Airports.*

U.S. Department of Agriculture. 1980. *Soil Survey of Santa Rosa County, Florida.*

1 U.S. Geological Survey. 1979. *National Wetland Inventory Map, Holley, Florida.*

2 U.S. Geological Survey. 1994. *7.5 minute Quadrangle Map, Holley, Florida.*

APPENDIX A

Agency Correspondence

5-28-02

Department of
Environmental Protection

Jeb Bush
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

David B. Struhs
Secretary

May 23, 2002

Mr. Robert J. Arnold
Eglin AFB Encroachment Committee
101 West D Avenue, Suite 222
Eglin AFB, Florida 32542-5492

Dear Mr. Arnold:

The Department is advised that, with respect to the rapid infiltration basins proposed by Santa Rosa County to be located within the boundaries of the Federal Reservation also known as Eglin Air Force Base, you are in need of certain assurances from the Department relating to operation of the facility before a lease agreement with the County can be executed. The Department hereby agrees to exercise its enforcement discretion and not to make any claim or take any enforcement action upon the United States of America for injury to the State's lands or natural resources or for violations, including violations of any permits issued by the Department to either the County or the United States, due to the County's operation of the proposed facility; where the United States has not caused or contributed to such damages or violations of Department statutes, rules or permit conditions. This statement is not intended to waive the state's sovereign immunity or to waive any claim or action against the County or parties other than the United States of America.

Please be further advised that a standard requirement of the proposed permit is that the Department must have reasonable site access to the facility during construction and operation for inspection purposes. It is my understanding that this condition is acceptable to the Air Force

Please call David Morres at (850) 595-8300 or Betsy Hewitt in our Office of General Counsel at (850) 921-9935, should you have any questions.

Sincerely,

Mary Jean Yon
Director of District Management

MJY/hdm

cc: Donald R. Fitch, Environmental Attorney, Eglin AFB
Colonel Michael R. Newberry
Betsy Hewitt, Office of General Council
Hunter Walker, Santa Rosa County Administrator
Neal Rogers, P.E., CH2M Hill

Jordan Alvin G Civ 96 ABW

From: Windler Peter R Maj AFSC/SEFW (BASH) [Pete.Windler@kafb.saia.af.mil]
Sent: Friday, November 30, 2001 8:11 AM
To: Teague Dennis D Civ AAC/EMSNW
Cc: Granger, Matthew; Hall, David; LeBoeuf Eugene A Civ AFSC/SEFW; Swaby, Donnavan
Subject: Waste Water Treatment Proposal

Dennis,

Based on the information you provided for our review, we believe the proposed rapid infiltration basin (RIB) waste water treatment system proposed for use at Eglin AFB can be operated without increasing the local bird/wildlife hazards to aviation safety. In order for this to be true it is necessary for the RIB to be operated as proposed; no standing water 24 hours after a basin is filled, keep basins clear of emerging vegetation, and the RIBs will not be located directly under the local traffic patterns.

We recommend the following:

1. Word the lease agreement to require the county to regularly monitor bird/wildlife activity at the RIBs and take action to reduce any BASH problems which develop.

2. Require the county to accept responsibility for remediating any BASH hazards that may arise from the installation of these ponds to include any harassment, funding or NEPA action that may be required to accomplish this task.

3. The Eglin BASH program regularly monitor bird/wildlife hazards at the waste water treatment facility and address them at the Bird Hazard Working Group (BHWG) meetings. The BHWG should recommend actions to be taken as necessary if any bird/wildlife activity develops due to the RIBs.

Contact myself or Mr. Gene LeBoeuf, Chief of the USAF BASH Program, at DSN 246-5679 with any questions.

Maj Pete Windler
Senior Wildlife Ecologist
USAF Bird/Wildlife Aircraft Strike Hazard (BASH) Team
DSN 246-5674
Comm (505) 846-5674
Fax x0684

Jordan Alvin G Civ 96 ABW

From: Windler Peter R Maj AFSC/SEFW (BASH) [Pete.Windler@kafb.saia.af.mil]
Sent: Friday, December 07, 2001 10:43 AM
To: Teague Dennis D Civ AAC/EMSNW
Cc: Granger, Matthew; Hall, David; LeBoeuf Eugene A Civ AFSC/SEFW; Swaby, Donnavan
Subject: Santa Rosa County WW Proposal

Importance: High

Dennis,

Based on the information you sent us for review, we have the following comments on the proposed Santa Rosa Waste Water treatment project:

1. The Eglin area averages 60" of annual rainfall. Proposed alternatives one and two will add 78" to 104" additional precipitation to the habitat within the project areas. This substantial increase in water will lead to changes in the habitat over time.
-What will the environmental impacts be of doubling the "rainfall?"
- Initially the potential bird hazards from a forested spray field at the proposed application rates will likely be minimal. However, this too will change with time. The increased "rainfall" will bring about increased vegetation and insect activity, thus increasing the attraction of the area to birds and wildlife. As the habitat changes within the treatment area, the bird hazard will increase.

2. Our understanding is the proposed treatment area is currently a minimal bird hazard to aircraft using the auxillary field. Alternatives one and two will most likely improve the attractiveness of the proposed area to birds. Generally, we recommend against improving habitat near airfields. Alternative three, rapid infiltration basins (RIBs) is farthest from the airlfield and presents the least likelihood of increasing bird hazards near the airfield. The RIBs can be actively managed to lessen attractiveness to birds.

3. At this time, the airfield is used by Navy training aircraft on an infrequent basis. Training airspace is already at a premium and future base closures could lead to increased activity at the airfield. Locating the waste water treatment facility as far from the airfield as possible could minimize future aircraft/wildlife conflicts.

4. Word the lease agreement to require the county to regularly monitor bird/wildlife activity at the treatment site and take action to reduce any BASH problems which develop.

5. Require the county to accept responsibility for remediating any BASH hazards that may arise from the implementation of the proposed waste water treatment facility to include any harassment, funding or NEPA action that may be required to accomplish this task.

6. The Eglin BASH program should regularly monitor bird/wildlife hazards at the waste water treatment facility and address them at the Bird Hazard Working Group (BHWG) meetings. The BHWG should recommend actions to be taken as necessary if any bird/wildlife activity develops due to the RIBs.

The Air Force BASH Team prefers the proposed alternatives in the following order:

1. Alternative 3 - Rapid Infiltration Basin (RIB) System
2. Alternative 2 - Modified Forest Irrigation System - 2.0 inches per week
3. Alternative 1 - Forested Irrigation System - 1.5 inches per week

Contact myself or Mr. Gene LeBoeuf, Chief of the USAF BASH Program, at DSN 246-5679 with any questions.

Maj Pete Windler
Senior Wildlife Ecologist
USAF Bird/Wildlife Aircraft Strike Hazard (BASH) Team
DSN 246-5674
Comm (505) 846-5674
Fax x0684

CH2M HILL
1700 Sea Lark Lane
Navarre, FL
32566-7472
Tel 850.939.6300
Fax 850.939.0035

CH2MHILL

January 9, 2003

Gail Carmody
Field Supervisor
United States Fish and Wildlife Service
1612 June Avenue
Panama City, Florida 32405-3721

Subject: Environmental Assessment for a Proposed Rapid Infiltration Basin System on Eglin Air Force Base.

Dear Ms. Carmody:

Santa Rosa County recently received conceptual approval from the Secretary of the Air Force to "bed-down" a rapid infiltration basin system (RIBS) on Eglin Reservation property. The proposed site is approximately 200 acres located south and east of Field 10, Choctaw Field. The application site will service the Navarre Beach Waste Water Treatment Facility. Additional capacity will be provided for other utilities in South Santa Rosa County. The conditional approval is subject to several conditions, including the preparation of an Environmental Assessment (EA). CH2M HILL is currently preparing the EA for the Santa Rosa County (Florida) Commissioners. The EA is being prepared for the application site on Eglin property.

The proposed site for the RIBS is located along the southern property boundary of Eglin AFB at the junction with State Road (SR) 87 (Sections 28 and 29 of Township 1 S, Range 27 W on Holly Florida, USGS 7.5 minute Topographic map,) in Santa Rosa County, Florida. Range Road 726 to the north and SR 87 to the east borders the site. It includes the area between the Gulf Power easement and SR 87. A vicinity map is included in Attachment 1. As part of the project, there is a pipeline that will cross a property corner of Eglin AFB at Bob Tolbert Road in Holley, Florida (Attachment 2).

A preliminary conceptual layout of the proposed RIB system is shown in Attachment 2. The proposed plan is to develop the site in two to three phases over a 20-year or longer period. For the initial phase, approximately 40 acres will be cleared to construct 9 RIB cells with a total bottom area of approximately 24.0 acres. RIB size will vary from 1.3 to 3.7 acres and will have either square or rectangular shapes. Most RIBs will have bottom areas of approximately 3 acres. In future years, approximately 38 acres and 37 acres of RIB bottom area would be added to the system in Phases 2 and 3 to increase the system disposal capacity. Ultimately, approximately 160 acres of the 200-acre site would be partially cleared and developed into RIBs to provide a buildout reclaimed water disposal capacity.

The construction area for each basin would include the wetted bottom area and a 40-foot wide berm extending out from the basin bottom. The basins would be spaced approximately 100 feet apart (from outside toe-of-slope of berms forming each basin) to minimize the hydraulic interference of adjacent ponds. Existing trees and vegetation would not be disturbed in the area between RIBs except for the construction of site access roads. The following steps would typically be used to construct the RIBs:

- Cut existing marketable timber
- Clear and grub remaining vegetation within the designated construction area of each RIB; vegetation will be chipped/mulched and removed offsite.
- Excavate approximately 2 feet below existing grade and use excavated material to construct a 2-foot high berm. Excess cut material will be removed from the site. Berms will have 3:1 side slopes and a top width of 12 feet.
- After rough grading of pond and berms, install distribution piping, valves and appurtenances, discharge structures, and a concrete access ramp for each RIB cell.
- Install high-density polyethylene liner on inside slope of RIB to eliminate the need to establish and maintain a grass cover on inside berms.
- Conduct final grading of pond bottom, top of berm, and outside slopes, rip pond bottoms to minimize any compaction of pond bottoms from construction activities, and seed the top of berms and outside slopes with drought-tolerant grass.

CH2M Hill has consulted with Jackson Guard at Eglin AFB to identify any threatened and endangered species issues on or immediately adjacent to the project area. The results of these consultations will be included in the EA. In general, the only concern that Jackson Guard had was potential flatwood salamander habitat along a portion of the project located at the first tributary west of Dean Creek, near a property corner of Eglin AFB (see Attachment 2).

CH2M Hill is requesting that your office review the attached location map for the proposed action and provide any comments regarding listed species that are within or in the near vicinity of the project site. Please direct all letter correspondence to my attention at:

CH2M HILL
1766 Sea Lark Lane
Navarre, Florida 32566

If you require any additional information on the project, please contact me at (850) 939-8300 x27. Thank you for accommodating this request.

Sincerely,

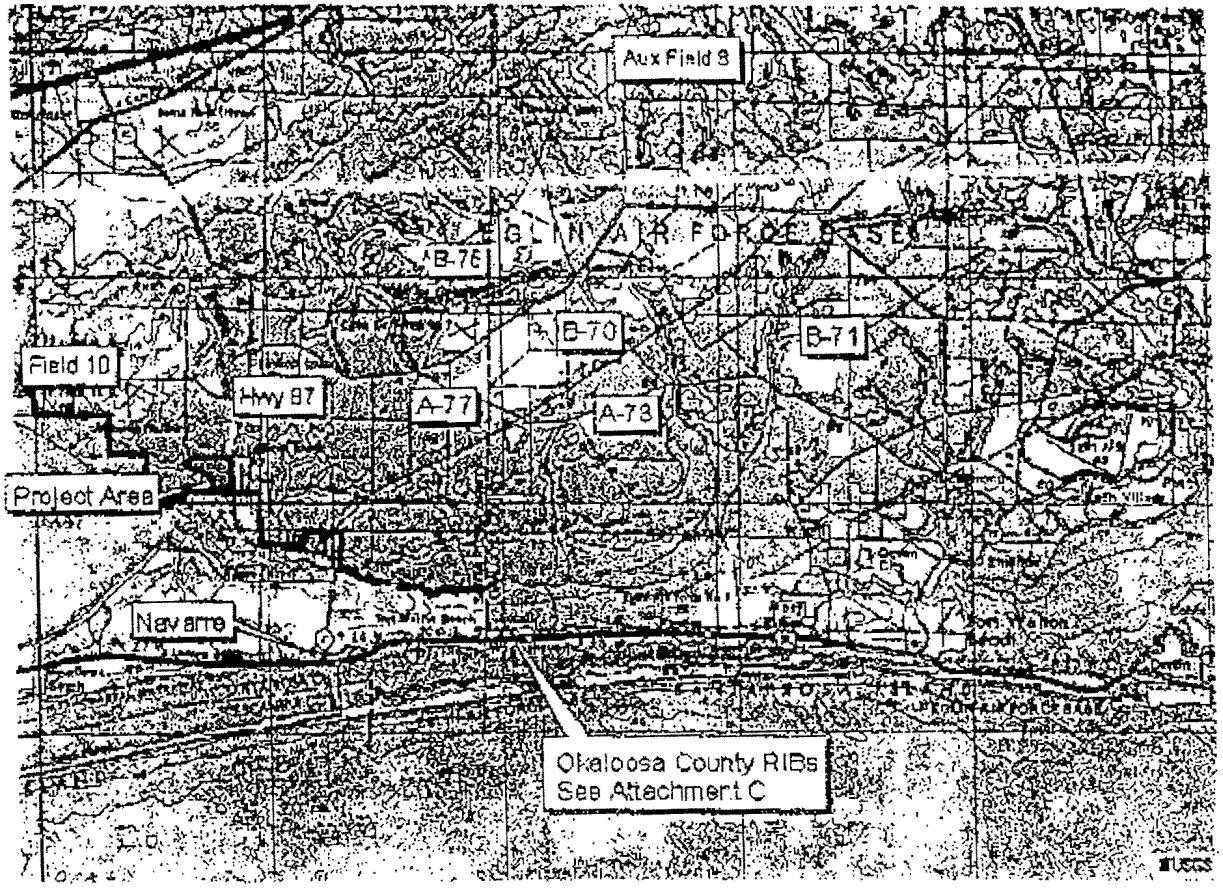
CH2M HILL

Mike Letson
Project Environmental Scientist

Attachments

Xc: Roger Blaylock--Santa Rosa County
Hunter Walker—Santa Rosa County
Terry Wallace—Santa Rosa County
Neal Roger—CH2M HILL
File

ATTACHMENT 1



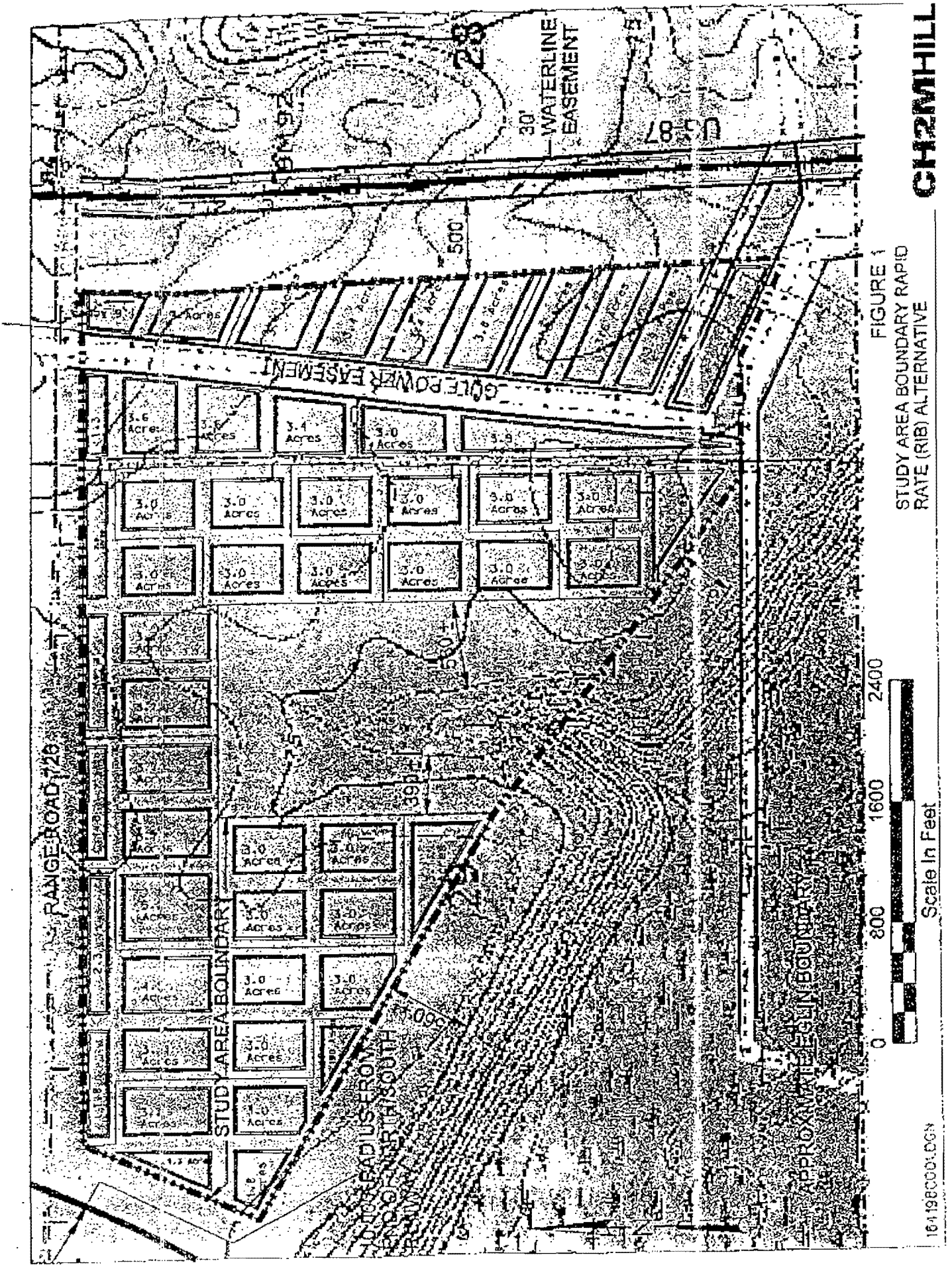
Attachment A
Santa Rosa County Regional
Reclaimed Water Disposal System

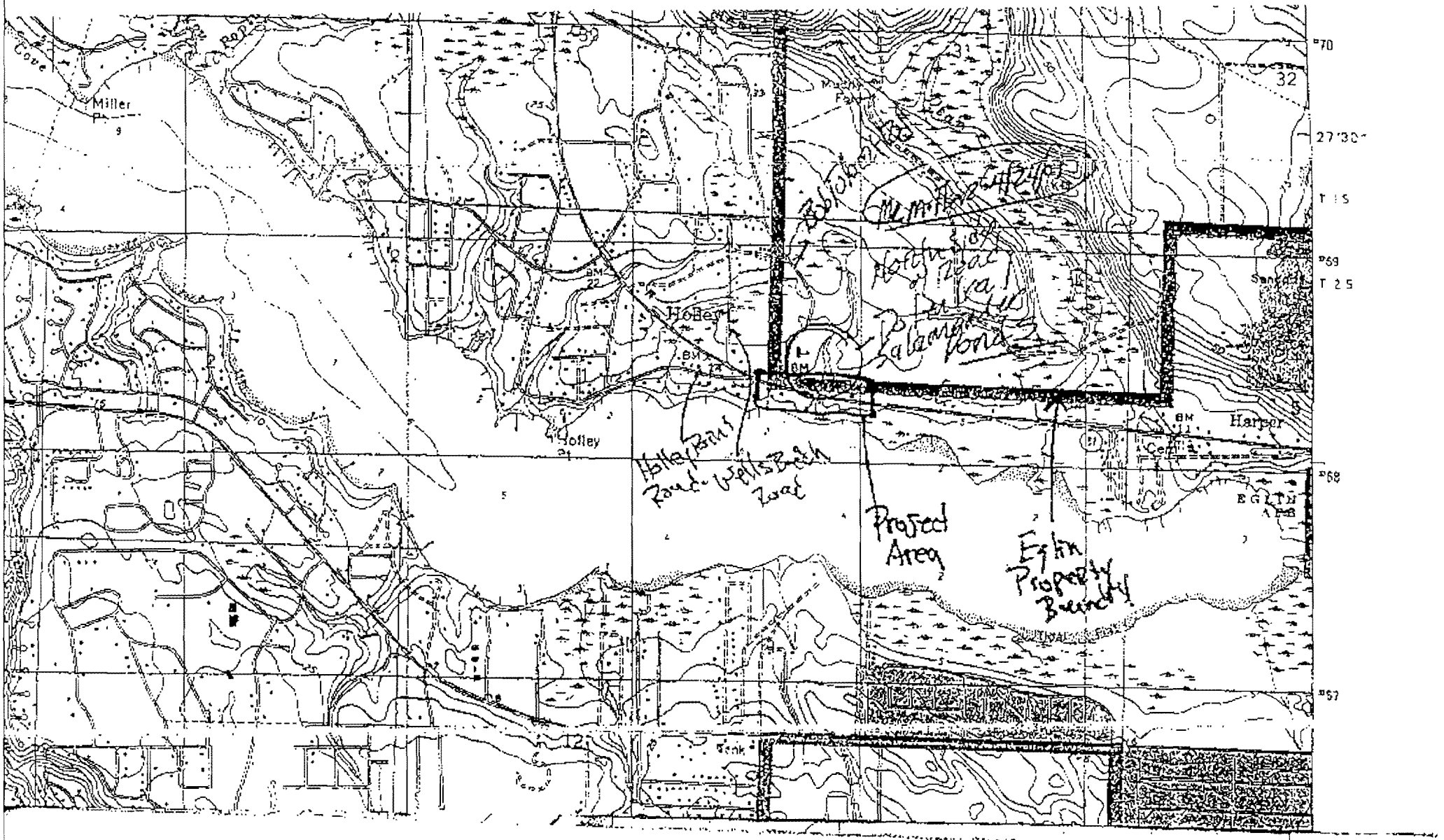
N

3 0 3 6 Miles

CH2M HILL

ATTACHMENT 2


CH2MHILL
FIGURE 1
STUDY AREA BOUNDARY RAPID RATE (RIB) ALTERNATIVE
Scale In Feet
0
800
1600
2400
APPROXIMATE SUBDIVISION BOUNDARY
STUDY AREA BOUNDARY
N. RANGE ROAD 7/26
ROAD 7/26 SOUTH
GOLF POWER EASEMENT
30' WATERLINE EASEMENT
500'
3900'
3.0 Acres
3.4 Acres
3.6 Acres



Holley, FL
1994
7.5 Quadrangle

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Field Office
1601 Balboa Avenue
Panama City, FL 32405-3721

Tel: (850) 769-0552
Fax: (850) 763-2177

IN REPLY REFER TO:

February 14, 2003

Mr. Mike Letson
Project Environmental Scientist
CH2M HILL
Navarre, Florida 32566

Re: FWS No. 4-P-03069
Rapid Infiltration Basin System
Eglin AFB
Santa Rosa County, Florida

Dear Mr. Letson:

Thank you for your letter of January 9, 2003, requesting our comments on the project referenced above. This response is provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and Section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Proposed activities consist of the installation of a rapid infiltration basin system (RIBS) on 200 acres on Eglin Air Force Base (AFB) property. The site will service the Navarre Beach Waste Water Treatment Facility. We offer the following preliminary comments on this project:

Section 7(a)(2) of the Act requires Federal agencies to ensure that their actions do not jeopardize the continued existence of listed species, or destroy or adversely modify critical habitat. The Federal agency (or its designee) responsible for authorizing, funding, or implementing an action is required to determine whether listed species, proposed species, critical habitat, or proposed critical habitat may be present in the area that would be influenced by that action. If such species or habitat may be present, the Federal agency is required to determine whether the action may directly, indirectly, and/or cumulatively affect such species or habitat.

To make such a determination, the following information should be considered and summarized in a biological information report:

1. The results of an on-site inspection of the areas affected by the action.

2. The views of recognized experts on the species at issue.

3. A review of the literature and other information.

4. An analysis of the effects of the action on the species and habitat, including consideration for the cumulative effects, and the results of any related studies.

5. An analysis of alternative actions considered by the Federal agency for the proposed action.

If the proposed action potentially involves listed species or critical habitat, the Federal agency must consult with the Fish and Wildlife Service (Service). Consultation can be informal or formal. It may be concluded informally if an action can be implemented in a way that is not likely to adversely affect listed species or critical habitat. Coordination with the Service to explore this possibility is encouraged.

If a determination is made that listed species or critical habitat may be adversely affected, the Federal agency must request, in writing, formal consultation with the Service. If the proposed action is likely to jeopardize the continued existence of proposed species or result in the destruction or adverse modification of proposed critical habitat, the Federal agency must confer with the Service.

If the Federal agency determines that no listed species, proposed species, critical habitats, or proposed critical habitats occur in the area of project influence, the project is not likely to adversely affect such species or habitats, or there would be no effect on such species or habitats, this office requests the opportunity to review the information on which such a determination is based, and to concur with that determination.

Section 7(d) of the Act underscores the requirement that the Federal agency and permit or license applicant shall not make any irreversible or irretrievable commitment of resources during the consultation period which, in effect, would deny the formulation or implementation of reasonable alternatives regarding their actions on listed species.

Our comments regarding possible effects of a project on wetlands will be made to the Army Corps of Engineers during their permitting process, if permits are required. In general, we recommend that wetland impacts be avoided and minimized to the extent practicable, and unavoidable impacts be compensated with appropriate mitigation measures.

As part of the Section 7 process outlined above, we would expect to be consulting with the Jackson Guard Natural Resources Branch at Eglin AFB. During our review of the project, we would need to know of any potential impacts to flatwoods salamander habitat in the area. In your environmental analysis, we would also like to see a discussion of the ability of the proposed site to function as a RIB.

We hope you find this information helpful. Please contact Stan Simpkins of this office at extension 234 for additional information and coordination. For flatwoods salamander issues, please contact our "species lead," Hildreth Cooper (ext. 221).

Sincerely yours,

Gail A. Carmody
Project Leader

cc
Rick McWhite, Jackson Guard, Eglin AFB

PCFO:S.Simpkins:sks:kh:02-12-3:850-769-0552:SKS/ss/[c:\etan\4p03069.wpd

CH2M HILL
1766 Sea Lark Lane
Navarre, FL
32566-7472
Tel 850.939.8300
Fax 850.939.0035

CH2MHILL

January 13, 2003

Janet Matthews
Division of Historical Resources
Attention: Review and Compliance Section
500 South Bronough Street
Tallahassee, Florida 32399-0250

Subject: Environmental Assessment for a Proposed Rapid Infiltration Basin System on Eglin Air Force Base.

Dear Ms. Matthews:

Santa Rosa County recently received conceptual approval from the Secretary of the Air Force to "bed-down" a rapid infiltration basin system (RIBS) on Eglin Reservation property. The proposed site is approximately 200 acres located south and east of Field 10, Choctaw Field. The application site will service the Navarre Beach Waste Water Treatment Facility. Additional capacity will be provided for other utilities in South Santa Rosa County. The conditional approval is subject to several conditions, including the preparation of an Environmental Assessment (EA). CH2M HILL is currently preparing the EA for the Santa Rosa County (Florida) Commissioners. The EA is being prepared for the application site on Eglin property.

The proposed site for the RIBS is located along the southern property boundary of Eglin AFB at the junction with State Road (SR) 87 (Sections 28 and 29 of Township 1 S, Range 27 W on Holly Florida, USGS 7.5 minute Topographic map,) in Santa Rosa County, Florida. Range Road 726 to the north and SR 87 to the east borders the site. It includes the area between the Gulf Power easement and SR 87. A vicinity map is included in Attachment 1. As part of the project, there is a pipeline that will cross a property corner of Eglin AFB at Bob Tolbert Road in Holley, Florida (Attachment 1).

A preliminary conceptual layout of the proposed RIB system is shown in Attachment 2. The proposed plan is to develop the site in two to three phases over a 20-year or longer period. For the initial phase, approximately 40 acres will be cleared to construct 9 RIB cells with a total bottom area of approximately 24.0 acres. RIB size will vary from 1.3 to 3.7 acres and will have either square or rectangular shapes. Most RIBs will have bottom areas of approximately 3 acres. In future years, approximately 38 acres and 37 acres of RIB bottom area would be added to the system in Phases 2 and 3 to increase the system disposal capacity. Ultimately, approximately 160 acres of the 200-acre site would be partially cleared and developed into RIBs to provide a buildout reclaimed water disposal capacity.

The construction area for each basin would include the wetted bottom area and a 40-foot wide berm extending out from the basin bottom. The basins would be spaced approximately 100 feet apart (from outside toe-of-slope of berms forming each basin) to minimize the hydraulic interference of adjacent ponds. Existing trees and vegetation would not be disturbed in the area between RIBs except for the construction of site access roads. The following steps would typically be used to construct the RIBs:

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- Excavate approximately 2 feet below existing grade and use excavated material to construct a 2-foot high berm. Excess cut material will be removed from the site. Berms will have 3:1 side slopes and a top width of 12 feet.
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- Install high-density polyethylene liner on inside slope of RIB to eliminate the need to establish and maintain a grass cover on inside berms.
- Conduct final grading of pond bottom, top of berm, and outside slopes, rip pond bottoms to minimize any compaction of pond bottoms from construction activities, and seed the top of berms and outside slopes with drought-tolerant grass.

CH2M Hill has consulted with the Cultural Resources Management Division at Eglin and has determined that the proposed sites do not contain any known cultural resources, and that both sites are low probability sites.

CH2M Hill is requesting that your office review the attached location map for the proposed action and provide any comments regarding cultural resources that are within or in the near vicinity of the project site. Please direct all letter correspondence to my attention at:

CH2M HILL
1766 Sea Lark Lane
Navarre, Florida 32566

If you require any additional information on the project, please contact me at (850) 939-8300 x27. Thank you for accommodating this request.

Sincerely,

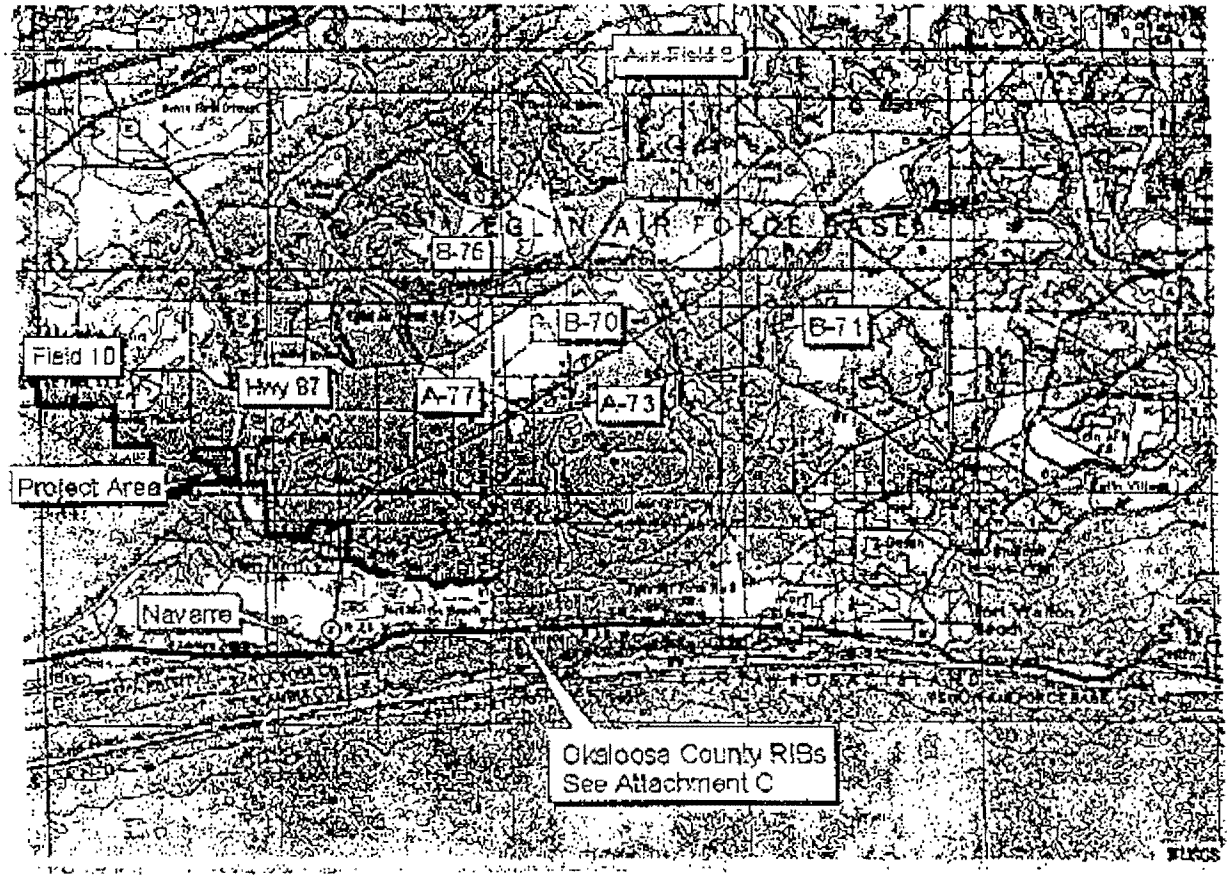
CH2M HILL

Mike Letson
Project Environmental Scientist

Attachments

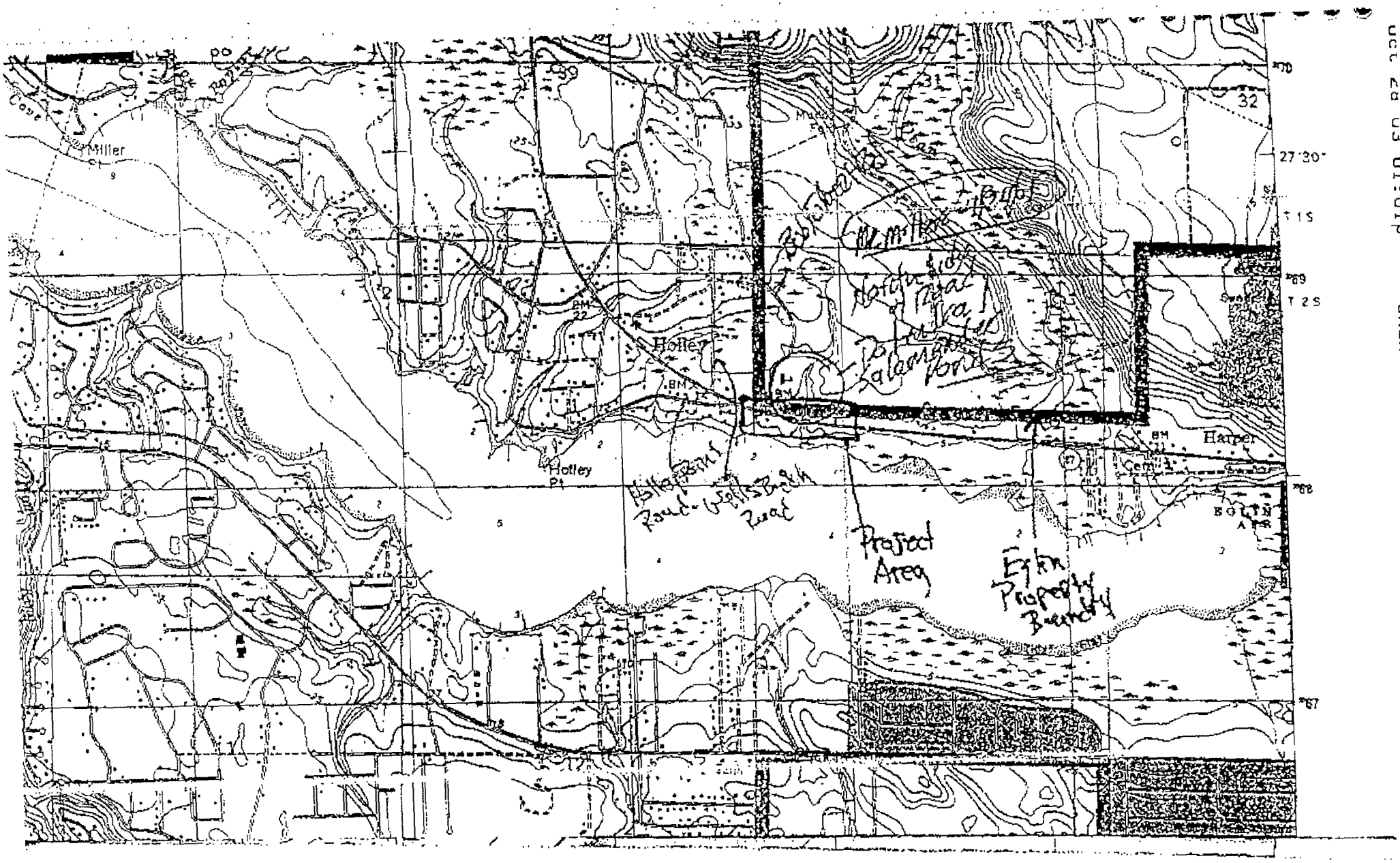
Xc: Roger Blaylock—Santa Rosa County
Hunter Walker—Santa Rosa County
Terry Wallace—Santa Rosa County
Neal Roger---CH2M HILL
File

ATTACHMENT 1



Attachment A
Santa Rosa County Regional
Reclaimed Water Disposal System

CH2M HILL



Holley, FL
1994
7.5 Quadrangle

ATTACHMENT 2

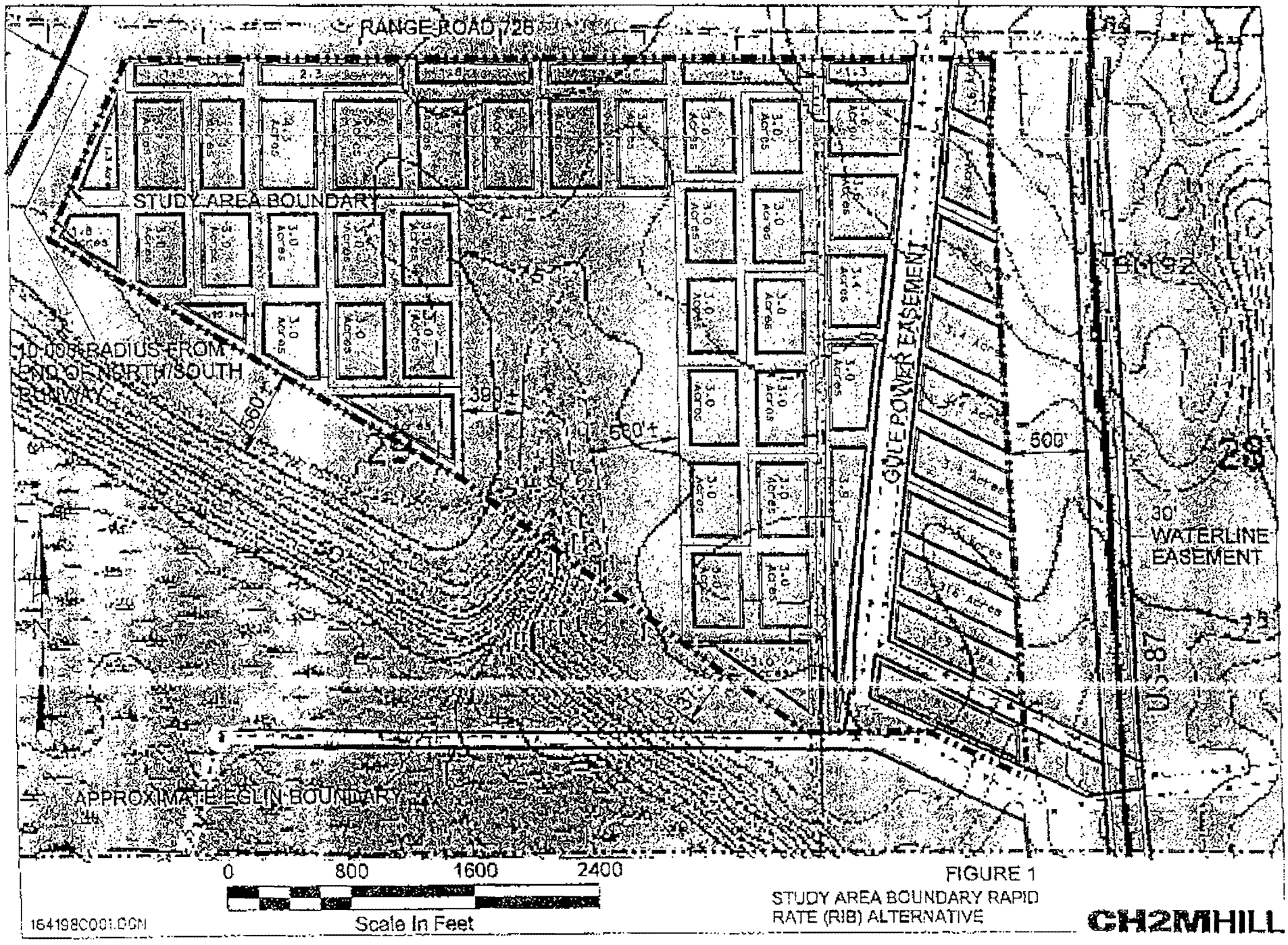


FIGURE 1
STUDY AREA BOUNDARY RAPID RATE (RIB) ALTERNATIVE

164198C001.DGN

CH2MHILL

FLORIDA DEPARTMENT OF STATE
Kenneth W. Detzner
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Mike Letson
CH2M HILL
1766 Sea Lark Lane
Navarre, Florida 32566

January 24, 2003

RE: DHR Project File No. 2003-339
Received by DHR January 14, 2003
Environmental Assessment for a Proposed Rapid Infiltration Basin System
Eglin Air Force Base, Santa Rosa County, Florida

Dear Mr. Letson:

Our office received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended and *36 CFR Part 800: Protection of Historic Properties* and the *National Environmental Policy Act of 1969, as amended*. The State Historic Preservation Officer is to advise Federal agencies as they identify historic properties (listed or eligible for listing, in the *National Register of Historic Places*), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

A review of the Florida Master Site File and our records indicated that there is one known archaeological site (8SR347) recorded within the project area along with a number of archaeological sites adjacent to the project area (map enclosed). However, these sites have been determined to be ineligible for listing in the National Register. Therefore, it is the opinion of this office that the proposed project will have no effect on historic properties.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservation Planner, by electronic mail *sedwards@mail.dos.state.fl.us*, or at 850-245-6333 or 800-847-7278.

Sincerely,

Frederick P. Gaske, Deputy SHPO

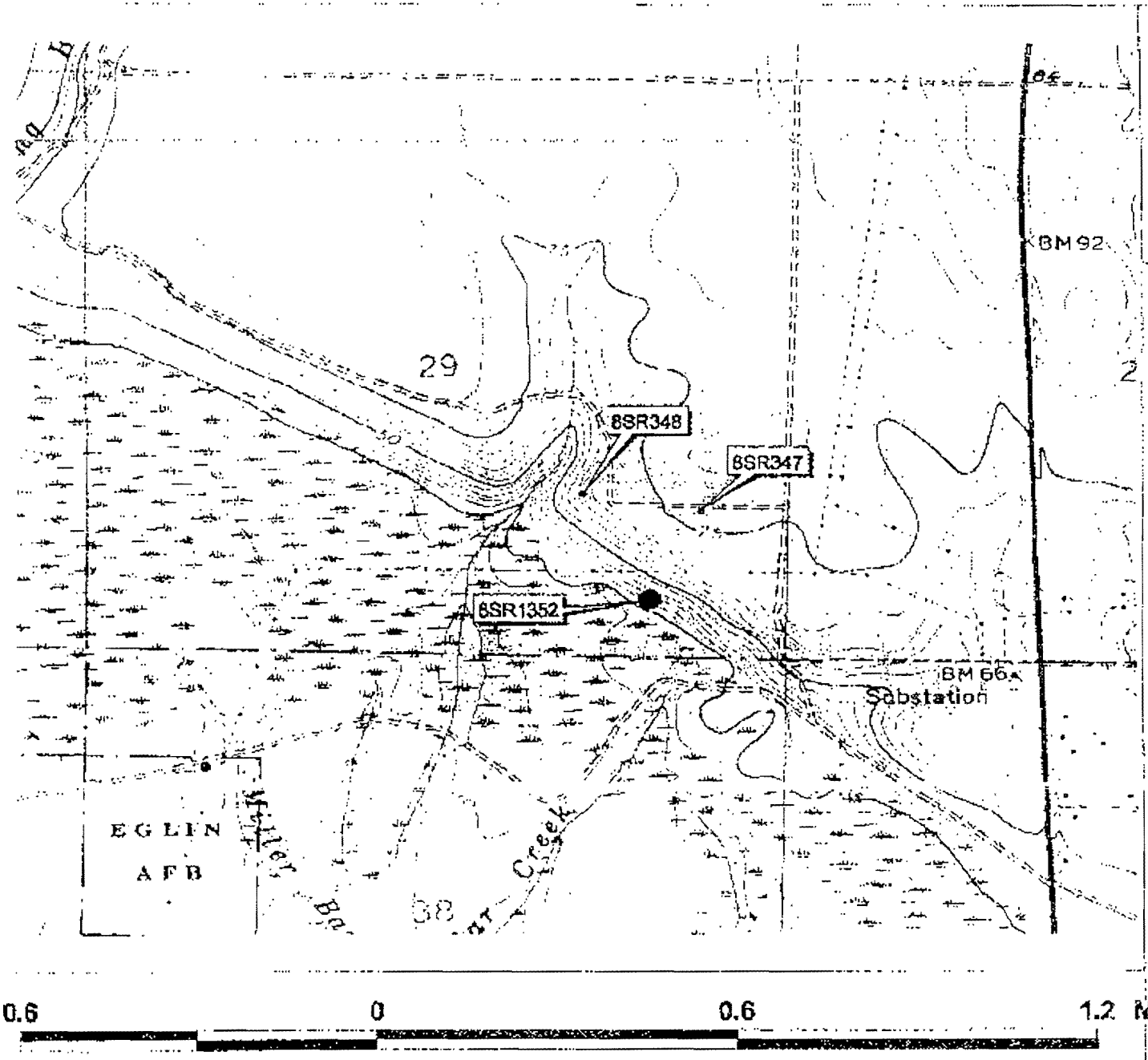
for Janet Snyder Matthews, Ph.D., Director, and
State Historic Preservation Officer

Enclosure

500 S. Bronough Street • Tallahassee, FL 32399-0250 • http://www.flheritage.com

☐ Director's Office (850) 245-6300 • FAX: 245-6435
☐ Archaeological Research (850) 245-6444 • FAX: 245-6436
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437
☐ Historical Museums (850) 245-6400 • FAX: 245-643

☐ Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476
☐ St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044
☐ Tampa Regional Office (813) 272-3843 • FAX: 272-2340



Compliance Review Section
DHR No. 2003-339
Rapid Infiltration Basin System
Eglin AFB, Santa Rosa County

Map Legend

- Sites
- NR Listed
- Bridges
- Cemeteries
- Lifequads

WARNING! The locations of the archaeological sites, historic structures, unmarked human burials, cemeteries, and other cultural features depicted on this map are for resource management and law enforcement purposes. It is a felony to excavate, or to remove, deface, destroy, or otherwise alter any archaeological site or specimen located upon any state owned and controlled lands, without the permission of the Division of Historical Resources (see Section 267.13, Florida Statutes), state law protects human burial sites on all lands regardless of ownership. It is a felony to knowingly and willfully disturb, destroy, remove, vandalize or damage marked or unmarked human burial sites or to remove grave goods or other objects placed at grave sites (see Sections 872.02 and 872.05, Florida Statutes).

Florida Department of State
Division of Historical Resources
Bureau of Historic Preservation
Compliance Review Section
500 South Bronough Street
Tallahassee, Florida 32399-0250
(850) 245-6333

CH2M HILL
1766 Sea Lark Lane
Navarre, FL
32566-7472
Tel 850.939.8300
Fax 850.939.0035

CH2MHILL

January 9, 2003

Cindy Cranick
Florida State Clearinghouse Coordinator
Florida Department of Environmental Protection
3900 Commonwealth Blvd
Mail Stop 47
Tallahassee, Florida 32399

Subject: Environmental Assessment for a Proposed Rapid Infiltration Basin System on Eglin Air Force Base.

Dear Ms. Cranick:

Santa Rosa County recently received conceptual approval from the Secretary of the Air Force to "bed-down" a rapid infiltration basin system (RIBS) on Eglin Reservation property. The proposed site is approximately 200 acres located south and east of Field 10, Choctaw Field. The application site will service the Navarre Beach Waste Water Treatment Facility. Additional capacity will be provided for other utilities in South Santa Rosa County. The conditional approval is subject to several conditions, including the preparation of an Environmental Assessment (EA). CH2M HILL is currently preparing the EA for the Santa Rosa County (Florida) Commissioners. The EA is being prepared for the application site on Eglin property.

The proposed site for the RIBS is located along the southern property boundary of Eglin AFB at the junction with State Road (SR) 87 (Sections 28 and 29 of Township 1 S, Range 27 W on Holly Florida, USGS 7.5 minute Topographic map,) in Santa Rosa County, Florida. Range Road 726 to the north and SR 87 to the east borders the site. It includes the area between the Gulf Power easement and SR 87. A vicinity map is included in Attachment 1. As part of the project, there is a pipeline that will cross a property corner of Eglin AFB at Bob Tolbert Road in Holley, Florida (Attachment 2).

A preliminary conceptual layout of the proposed RIB system is shown in Attachment 2. The proposed plan is to develop the site in two to three phases over a 20-year or longer period. For the initial phase, approximately 40 acres will be cleared to construct 9 RIB cells with a total bottom area of approximately 24.0 acres. RIB size will vary from 1.3 to 3.7 acres and will have either square or rectangular shapes. Most RIBs will have bottom areas of approximately 3 acres. In future years, approximately 38 acres and 37 acres of RIB bottom area would be added to the system in Phases 2 and 3 to increase the system disposal capacity. Ultimately, approximately 160 acres of the 200-acre site would be partially cleared and developed into RIBs to provide a buildout reclaimed water disposal capacity.

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CH2M Hill is consulting with Eglin AFB to identify issues on or immediately adjacent to the project area. The results of these consultations will be included in the EA.

CH2M Hill is requesting that your office review the attached location map for the proposed action and provide any comments. Please direct all letter correspondence to my attention at:

CH2M HILL
1766 Sea Lark Lane
Navarre, Florida 32566

If you require any additional information on the project, please contact me at (850) 939-8300 x27. Thank you for accommodating this request.

Sincerely,

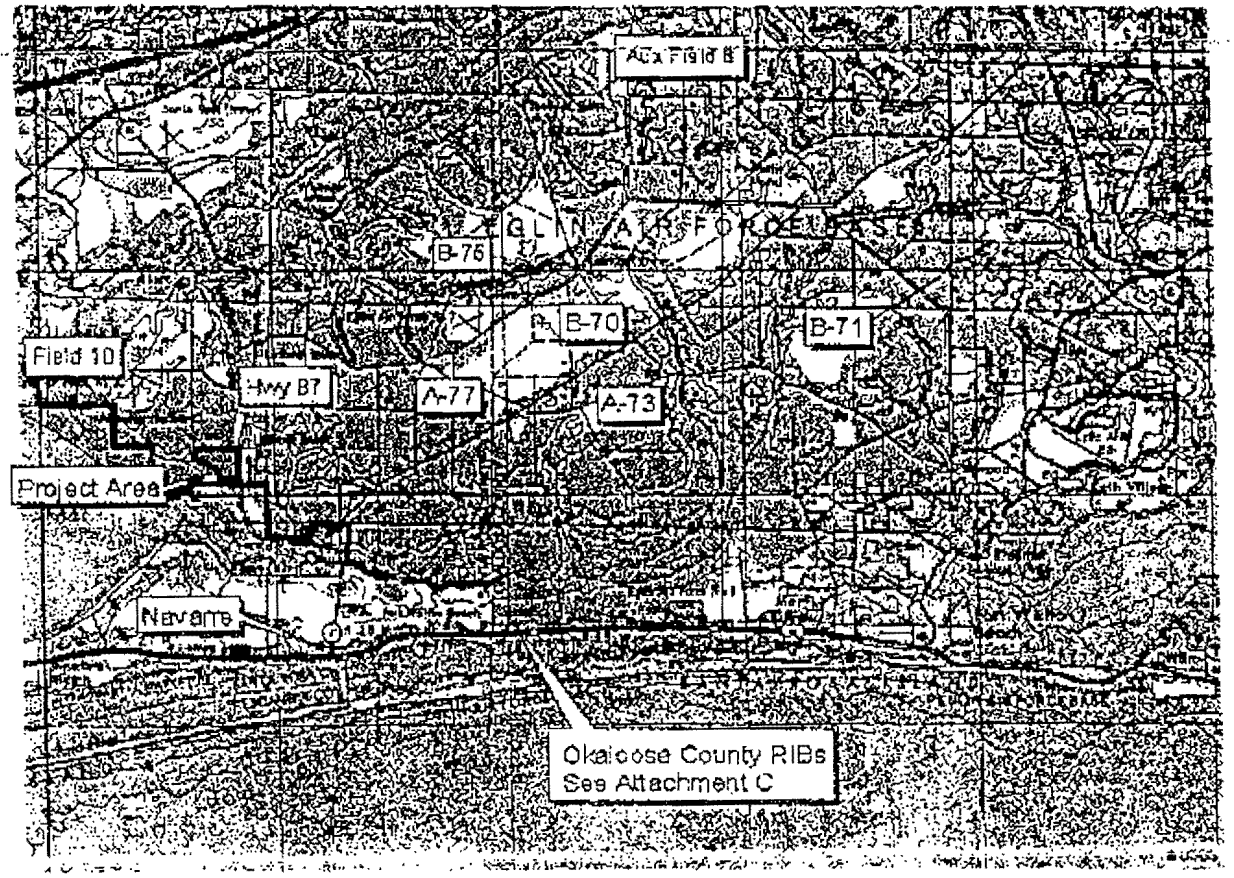
CH2M HILL

Mike Letson
Project Environmental Scientist

Attachments

Xc: Roger Blaylock—Santa Rosa County
Hunter Walker—Santa Rosa County
Terry Wallace—Santa Rosa County
Neal Roger—CH2M HILL
File

ATTACHMENT 1



Approximate Eglin Boundary

Attachment A
Santa Rosa County Regional
Reclaimed Water Disposal System

N

3 0 3 6 Miles

CH2M HILL

ATTACHMENT 2

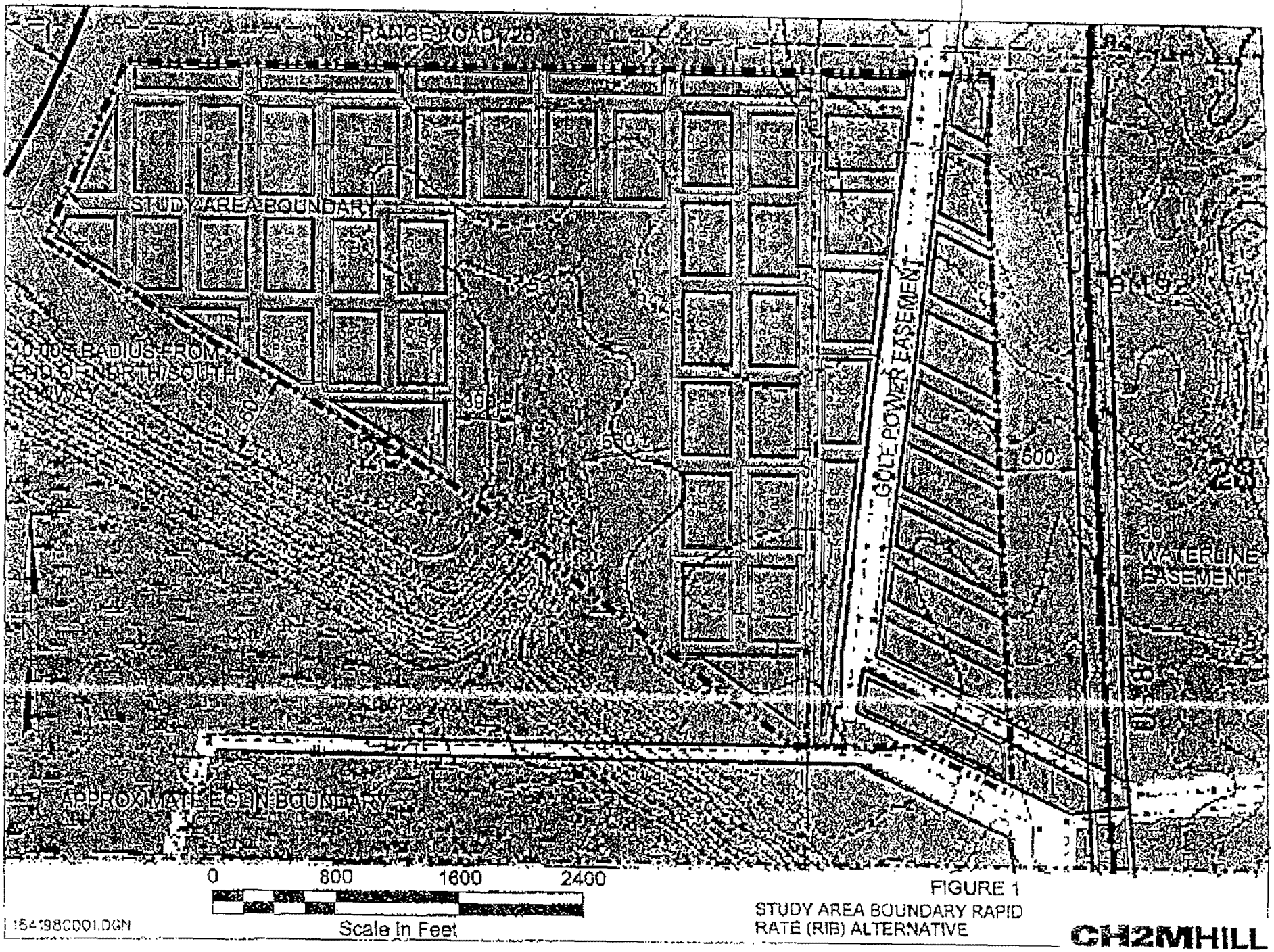
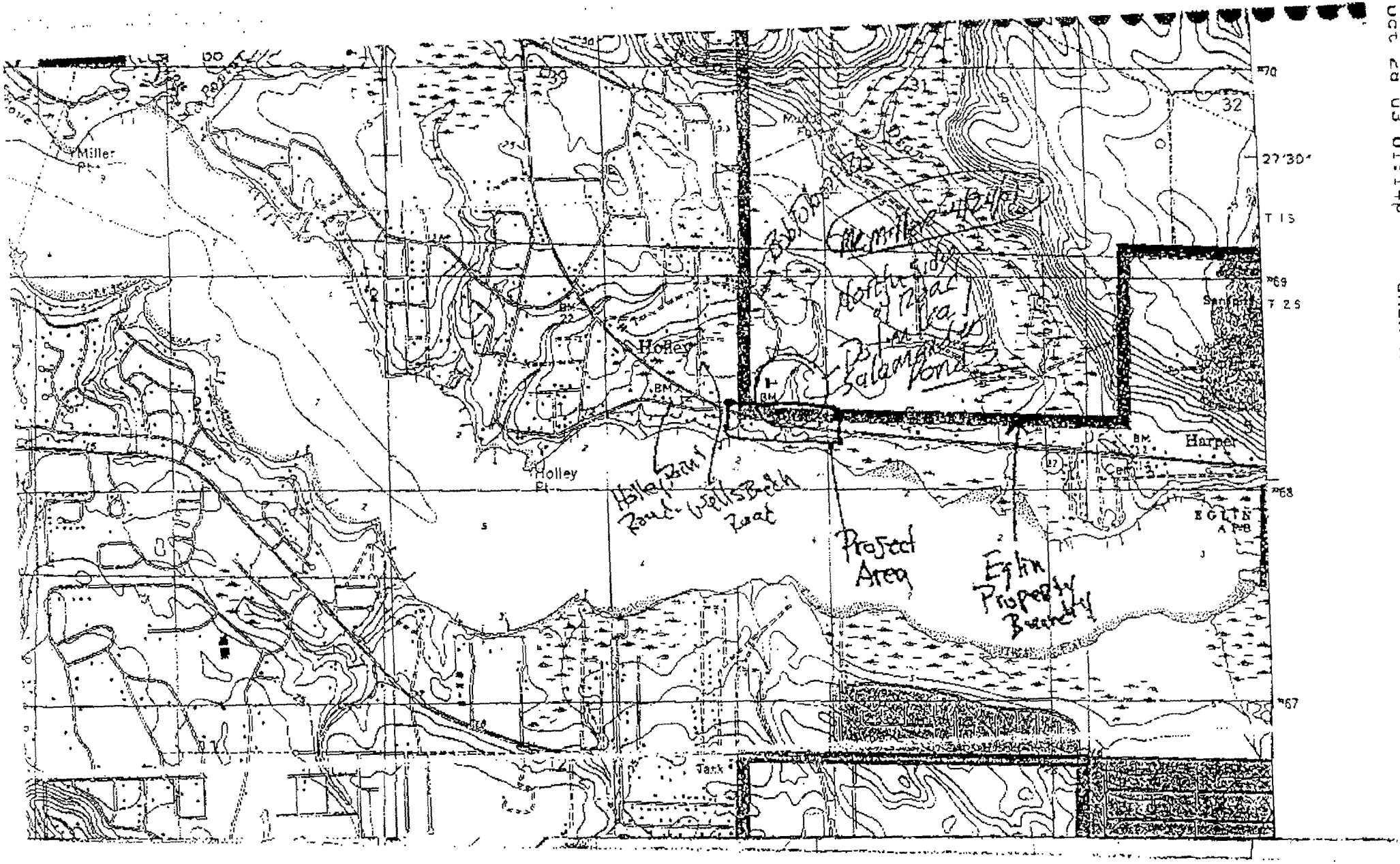


FIGURE 1
STUDY AREA BOUNDARY RAPID RATE (RIB) ALTERNATIVE

154198C001.DGN

CH2MHILL


Miller
Holley
Holley
Harper
Project Area
Eglin Property Boundary
Holley, FL
1994

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

March 6, 2003

Mr. Mike Lesson
CH2M HILL
1766 Sea Park Lane
Navarre, Florida 32566

RE: U.S. Air Force - Scoping Notice for Preparation of Environmental Assessment - Proposed Rapid Infiltration Basin System on 200 Acres at Eglin AFB to Serve Navarre Beach Wastewater Treatment Facility and Other South Santa Rosa County Utilities – Santa Rosa County, Florida
SAI: FL200301293353C

Dear Mr. Letson:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, and the Coastal Zone Management Act, 16 U.S.C. §1451-1464, as amended, has coordinated the review of the above-referenced notice for preparation of an environmental assessment (EA).

The Department of Environmental Protection (Department) notes that the EA should evaluate the potential biological and environmental impacts that may result from changes in the quality and quantity of groundwater, including effects on creeks and wetlands in the project vicinity. The proposed new effluent reuse/land application project and associated transmission facilities will require a Domestic Wastewater Permit under Chapter 403, F.S., and Rule Chapter 62-620, F.A.C., and may also require permits for stormwater management and wetland impacts. The applicant is advised to contact the Department's Northwest District Office regarding permitting requirements.

The Department of Transportation indicates that four road construction projects may be impacted by the referenced project. Therefore, close coordination with the DOT's District Three Office and the individual project managers is required. In addition, permits will be required for any work within state-owned rights-of-way. Please refer to the enclosed DOT comments for further details and contact information.

Based on the information contained in the referenced notification and the comments provided by our reviewing agencies, as summarized above and enclosed, the state has determined that, at this stage, the referenced project is consistent with the Florida Coastal Management

Program (FCMP). All subsequent environmental documents prepared for this project must be reviewed to determine the project's continued consistency with the FCMP. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews.

Thank you for the opportunity to review this project. If you have any questions regarding this letter, please contact Ms. Rosalyn Kilcollins at (850) 245-2163.

Sincerely,

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/rk

Enclosures

cc: Jerry Campbell, DOT

Florida Department of
Environmental Protection

Memorandum

TO: Florida State Clearinghouse

FROM: Rosalyn Kilcollins, Environmental Specialist
Office of Intergovernmental Programs

DATE: March 6, 2003

SAI: FL200301293353C - U.S. Air Force - Scoping Notice for Preparation of Environmental Assessment - Proposed Rapid Infiltration Basin System on Eglin AFB to Serve Navarre Beach Wastewater Treatment Facility and Other South Santa Rosa County Utilities – Santa Rosa County

The Department of Environmental Protection (Department) has reviewed the above-referenced notice and offers the following comments:

The Environmental Assessment (EA) should evaluate the potential biological and environmental impacts that may result from changes in the quality and quantity of groundwater, including affects on creeks and wetlands in the project vicinity.

The proposed project will require a Domestic Wastewater Permit under Chapter 403, F.S., and Rule Chapter 62-620, F.A.C., for the new effluent reuse/land application project and associated transmission facilities. The project may also require permits for stormwater management and wetland impacts. The applicant is advised to continue close coordination with the Department's Northwest District Office in Pensacola. For assistance regarding wastewater, stormwater and environmental permitting requirements, the applicant should contact the District Office at (850) 595-8300.

We appreciate the opportunity to comment on this proposed project. Please feel free to call me at (850) 245-2163 if you have any questions or need additional information.

/rfk

DATE: 1/10/03
COUNTY: SANTA ROSA
COMMENTS DUE DATE: 2/28/03
CLEARANCE DUE DATE: 3/11/03
Message:
SAI#: FL200301293353C

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
COMMUNITY AFFAIRS FISH and WILDLIFE COMMISSION STATE X TRANSPORTATION ENVIRONMENTAL PROTECTION	NORTHWEST FLORIDA WMD	ENVIRONMENTAL POLICY UNIT

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evalutation and is categorized as one of the following:

— Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

— Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

— Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

U.S. Air Force - Environmental Assessment - Proposed Rapid Infiltration Basin System (RIBS) - Eglin Air Force Base - 200 Acres Located South and East of Field 10, Choctaw Field - Santa Rosa County, Florida.

To: Florida State Clearinghouse
AGENCY CONTACT AND COORDINATOR (SCH)
2555 SHUMARD OAK BLVD
TALLAHASSEE, FLORIDA 32399-2100
(850) 414-6580 (SC 994-6580)
(850) 414-0479

E.O. 12372/NEPA
— No Comment
✓ Comment Attached
— Not Applicable

Federal Consistency
— No Comment/Consistent
✓ Consistent/Comments Attached
— Inconsistent/Comments Attached
— Not Applicable

RECEIVED
FEB 18 2003
OIP/OLGA

RECEIVED
FEB
OIP/OLGA

From:
Division/Bureau: FDOT-3
Reviewer: Jimmy Bailey for Gene Martin
Date: 2-11-03

Florida Department of Transportation
1074 Highway 90
Post Office Box 607
Chipley, Florida 32428

JEB BUSH
GOVERNOR

THOMAS F. BARRY, JR.
SECRETARY

Planning Department
February 13, 2003

Ms. Cindy Cranick
Florida State Clearinghouse
3900 Commonwealth Blvd.
Tallahassee, FL 32399

SUBJECT: SAI# FL200301293353C, Eglin RIBS
Santa Rosa County

Dear Ms Cranick:

The FDOT, Third District has projects that may potentially conflict with the proposed action. The Florida Department of Transportation, Third District has plans to multi-lane SR 87 from SR 30 (US 98) to SR 10 (US 90) [overall project number is 2204031] through a series of at least four construction projects divided due to logical termini. The southernmost project (2204021) is under construction at the current time and extends from SR 30 to Five Forks Road, a distance of approximately 3.743 miles.

The second construction project (2204425) extends from County Road 184 to SR 10 (US 90), a distance of approximately 3.380 miles, and is scheduled for Fiscal Year 2004.

The third construction project (2204423) will be from Five Forks Road to the boundary of Eglin Air Force Base, a distance of approximately 2.987 miles. Construction is slated for Fiscal Year 2005 and ends just south of the location of the proposed Navarre Beach Waste Water Treatment Facility. There are no expected conflicts between this construction project and the Navarre Beach proposal.

The fourth and final construction project (2204424) extends from the boundary of Eglin Air Force Base to CR 184, a distance of approximately 9.778 miles. This project is currently unfunded and has no year of construction scheduled. Storm water ponds will be required along the length of the project and this creates potential conflicts with the proposed Navarre Beach Waste Water Treatment Facility due to spatial considerations. However, the FDOT has at least 200 feet of easement for this portion of SR 87.

The planned improvements to SR 87 are being developed with the assistance of a consulting engineering firm, Post Buckley Schuh & Jernigan. FDOT, Third District is coordinating this response and future actions through that firm's Chipley, Florida Office. Their Project Manager is Mr. Wade Herod. He can be contacted at <RWHerod@pbsj.com> or 1141 Jackson Avenue; Chipley, Florida 32428; 850-638-2288 x229 and 850-638-3002 FAX or 850-415-0682 Cell. Further coordination with the FDOT, Third District should be directed to Jimmey Bailey, District Environmental Administrator at Post Office Box 607; Chipley, Florida 32428. Mr. Bailey is unable to speak so communication with him should be via e-mail (jimmey.bailey@dot.state.fl.us) or via FAX at 850/638-6368.

Eglin RIBS
Santa Rosa County
February 13, 2003

Mr. Bailey has requested that PBS&J further coordinate these projects with the Consultant, CH2MHILL, retained by Santa Rosa County for the Navarre Beach Waste Water Treatment Facility. Please provide Jimmey Bailey of this office with a copy of any environmental assessment prepared for this waste water project.

Any work within the State-owned rights of way of SR 87 will require a FDOT Utility Permit. Please contact Mr. James Lunsford at the Milton Maintenance Office at 850/981-2704 or SUNCOM 696-2704 for assistance. His e-mail is james.lunsford@dot.state.fl.us. His mailing address is 6025 Old Bagdad Highway; Milton, Florida 32583. His FAX number is 850/981-2719 or SUNCOM 696-2719. His cell phone is 850/418-0654.

Thank you for the opportunity to review this project.

Sincerely,

Jerry Campbell

Jerry Campbell
Planning Administrator

JC:JB:vb

Copies: Sandra Whitmire, FDOT CO
Jimmey Bailey, FDOT Dist 3
Gene Martin, FDOT Dist 3

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

FORM 525-010-20
STATE TRANSPORTATION PLANNER
09/02

INTERGOVERNMENTAL COORDINATION AND REVIEW ROUTING SHEET

RECEIVED
FEB 6 2003
DISTRICT PLANNING OFFICE
CHIPLEY, FL

DATE: 2/5/03

TO: ~~Tilda Langley~~, D1; Dave Byrd, D2; Denny Wood, D3; Gerry O'Reilly, D4; Carolyn Ismart, D5; Gary Donn, D6; Don Skelton, D7; Irwin, EMO; Alexander, Seaport; Ashbaker, Aviation; Lee, Rail

SAI#: F/20030129 3353 C

Application Description: Eglin RIBS

Date Response Due to the Clearinghouse: 2/28/3

Please review and comment regarding the attached application in accordance with Department Procedure 525-010-205. A response to the Director of the Clearinghouse and this routing sheet should be completed and returned as directed in the procedure.

The following criteria, as appropriate to the project, should be used to evaluate the application and develop your comments:

- Florida Transportation Plan
- Adopted Work Program
- Transportation Improvement Program (TIP)
- Right of Way Preservation and Advanced Acquisition
- Transit Development Program
- MPO Comprehensive Transportation Plan and 20 Year Transportation Plan
- Florida Rail System Plan
- Florida Aviation System Plan
- Local Airport Master Plan
- Florida Seaport Mission Plan
- Environment Commitments
- Unified Planning Work Program
- Level of Service
- Access Management

If comments are warranted based on other criteria, they should be included.

Application Type: General Aviation Rail Transit Environmental Seaport

Financial Project Identifier: 2204424 (if applicable).

(Name:) Sandra Whitmire
Central Office ICAR Coordinator - MS #28
Phone: (850) 414-4812 / SC 994-4812
FAX: (850) 413-7640 / SC 293-7640

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

FORM 525-010-20
STATE TRANSPORTATION PLANNER
05/02

INTERGOVERNMENTAL COORDINATION AND REVIEW
ROUTING SHEET

RECEIVED
FEB 6 2003
DISTRICT PLANNING OFFICE
CHIPLEY, FL

DATE: 2/5/03

TO: ~~Frank Langley~~, D1; Dave Byrd, D2; Donny Wood, D3; Gerry O'Reilly, D4; Carolyn Ismart, D5; Gary Donn, D6; Don Skelton, D7; Irwin, EMO; Alexander, Seaport; Ashbaker, Aviation; Lee, Rail

SAI#: F/2003012933530

Application Description: Eglin RIDS

Date Response Due to the Clearinghouse: 2/28/3

Please review and comment regarding the attached application in accordance with Department Procedure 525-010-205. A response to the Director of the Clearinghouse and this routing sheet should be completed and returned as directed in the procedure.

The following criteria, as appropriate to the project, should be used to evaluate the application and develop your comments:

- Florida Transportation Plan
- Adopted Work Program
- Transportation Improvement Program (TIP)
- Right of Way Preservation and Advanced Acquisition
- Transit Development Program
- MPO Comprehensive Transportation Plan and 20 Year Transportation Plan
- Florida Rail System Plan
- Florida Aviation System Plan
- Local Airport Master Plan
- Florida Seaport Mission Plan
- Environment Commitments
- Unified Planning Work Program
- Level of Service
- Access Management

If comments are warranted based on other criteria, they should be included.

Application Type: General Aviation Rail Transit Environmental Seaport

Financial Project Identifier: 2204424 (if applicable).

(Name:) Sandra Whitmire
Central Office ICAR Coordinator - MS #28
Phone: (850) 414-4812 / SC 994-4812
FAX: (850) 413-7640 / SC 293-7640

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Project Review Form

TO: State Clearinghouse
Department of Environmental Protection
3900 Commonwealth Boulevard, MS 47
Tallahassee, FL 32399-3000

DATE: February 7, 2003

SUBJECT: Project Review: Intergovernmental Coordination
Title: U.S. Air Force-Environmental Assessment-Proposed Rapid Infiltration Basin System (RIBS)-Eglin Air Force Base-200 Acres Located South and East of Field 10, Choctaw Field-Santa Rosa County, FL
SAI #: FL200301293353C

The District has reviewed the subject application and attachments in accordance with its responsibilities and authority under the provisions of Chapter 373, Florida Statutes. As a result review, the District has the following responses:

ACTION

__X__ No Comment.

_____ Supports the project.

_____ Objects to the project; explanation attached.

_____ Has no objection to the project; explanation optional.

_____ Cannot evaluate the project; explanation attached.

_____ Project requires a permit from the District under____.

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DEGREE OF REVIEW

__X__ Documentation was reviewed.

_____ Field Investigation was performed.

_____ Discussed and/or contacted appropriate office about project.

_____ Additional documentation/research is required.

_____ Comments attached.

SIGNED Maria Culbertson

Duncan Jay Cairns
Chief, Bur. Env. & Res Plng.

NTY: SANTA ROSA

DATE: 1/10/03
COMMENTS DUE DATE: 2/28/03
CLEARANCE DUE DATE: 3/11/03
SAI #: FL200301293353C

age:

STATE AGENCIES	WATER MNGMNT. DISTRICTS	CPB POLICY UNITS
COMMUNITY AFFAIRS ISH and WILDLIFE COMMISSION TATE RANSPORTATION NVIRONMENTAL PROTECTION	X NORTHWEST FLORIDA WMD	ENVIRONMENTAL POLICY UNIT

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Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

U.S. Air Force - Environmental Assessment - Proposed Rapi - Infiltration Basin System (RIBS) - Eglin Air Force Base - 200 Acres Located South and East of Fie d 10, Choctaw Field - Santa Rosa County, Florida

Florida State Clearinghouse
AGENCY CONTACT AND COORDINATOR (SCH)
2555 SHUMARD OAK BLVD
TALLAHASSEE, FLORIDA 32399-2100
(850) 414-6580 (SC 994-6580)
(850) 414-0479

EO. 12372/NEPA
- [x] No Comment
- [ ] Comment Attached
- [ ] Not Applicable

Federal Consistency
- [ ] No Comment/Consistent
- [ ] Consistent/Comments Attached
- [ ] Inconsistent/Comments Attached
- [ ] Not Applicable

NO COMMENT

ivision/Bureau: NWFWMD
Resource Management Div.
eviewer: Duncan J. Cairns
Date 7 FEB 03
ate:

SAI - USAF-EG
2003 - 1158

Message:

COMMENTS DUE DATE: 2/28/03
CLEARANCE DUE DATE: 3/11/03
SAI#: FL200301293353C

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNITS
COMMUNITY AFFAIRS FISH and WILDLIFE COMMISSION X STATE TRANSPORTATION ENVIRONMENTAL PROTECTION	NORTHWEST FLORIDA WMD	ENVIRONMENTAL POLICY UNIT X: 3-339

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The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evalutation and is categorized as one of the following:

— Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

— Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

— Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

U.S. Air Force - Environmental Assessment - Proposed Rapid Infiltration Basin System (RIBS) - Eglin Air Force Base - 200 Acres Located South and East of Field 10, Choctaw Field - Santa Rosa County, Florida.

RECEIVED
FEB 26 2002
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To: Florida State Clearinghouse
AGENCY CONTACT AND COORDINATOR (SCH)
2555 SHUMARD OAK BLVD
TALLAHASSEE, FLORIDA 32399-2100
(850) 414-6580 (SC 994-6580)
(850) 414-0479

E.O. 12372/NEPA
☑ No Comment
☐ Comment Attached
☐ Not Applicable

Federal Consistency
☑ No Comment/Consistent
☐ Consistent/Comments Attached
☐ Inconsistent/Comments Attached
☐ Not Applicable

From:
Division/Bureau: Division of Historical Resources
Bureau of Historic Preservation
Reviewer: S. Edwards
Date: 2-20-03

Frederick P. Gaske
Deputy SHPO
2/21/03

APPENDIX B

Federal Agency Coastal Zone Management Act Consistency Determination

APPENDIX B

Federal Agency Coastal Zone Management Act (CZMA) Consistency Determination RCS 02-911 Proposed Santa Rosa County RIB System at Eglin AFB, Florida

B.1 Introduction

This document provides the State of Florida with the U.S. Air Force's (USAF's) Consistency Determination under CZMA Section 307 and 15 *Code of Federal Regulations* (CFR) Part 930, Subpart C. The information in this Consistency Determination is provided pursuant to 15 CFR Section 930.39.

Pursuant to Section 307 of the Coastal Zone Management Act, 16 United States Code (U.S.C.) 1456, as amended, its implementing regulations at 15 CFR Part 930, this is a Federal Consistency Determination for proposed actions described within the Environmental Assessment (Section 2 of the EA).

B.2 Proposed Federal Agency Action

The Santa Rosa County Board of County Commissioners (SRCBOCC) proposes to lease approximately 328 acres of USAF property for the purpose of construction and operating a reclaimed water rapid-rate infiltration basin (RIB) system. The proposed RIB system would be constructed to receive and distribute highly treated reclaimed wastewater from the three utilities operating in South Santa Rosa County, Florida. The reclaimed wastewater will be pumped (piped) from these utility companies to the RIB system, where it would filter down from the infiltration basins to the surficial aquifer beneath the site.

The USAF Air Armament Center (ACC) has evaluated the proposed action described in the EA for the proposed Santa Rosa County reclaimed water RIB system at Eglin Air Force Base (EAFB) for potential effects to the land or water uses or natural resources of the State of Florida's coastal zone within the context of the statues listed in the Florida Coastal Zone Management Plan (see the following discussion).

B.3 Federal Consistency Review

Statutes addressed as part of the Florida Coastal Zone Management Program consistency review and considered in the analysis of the proposed action are discussed in **Table B-1**.

TABLE B-1
Comparative Impact Summary
Proposed Santa Rosa County RIB System at EAFB, Florida

Statute	Consistency	Scope of Statute
Chapter 161 Beaches and Shore Preservation	The proposed project will not adversely affect beach and shore management, specifically as it pertains to following : 1) The Coastal Construction Permit Program. Construction would not occur seaward of the mean high water line. 2) The Coastal Construction Control Line (CCCL) Permit program. Construction would not occur seaward of the CCCL, where wind and wave forces would potentially cause significant fluctuations in the beach/dune system. Further, all land activities occur on federal property. 3) The Coastal Zone Protection Program. Buildings would not be constructed between the seasonal high-water line and 1,500 ft landward of the CCCL.	Authorizes the Bureau of Beaches and Coastal Systems within the Florida Department of Environmental Protection to regulate the construction on or seaward of the State's beaches.
Chapter 163, Part II: Growth Policy: County and Municipal Planning: Land Development Regulation	The proposed action, which occurs primarily on federal property, confirms to local government comprehensive development plans.	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.
Chapter 186: State and Regional Planning	State and regional agencies were provided the opportunity to review the EA. The proposed action, which occurs primarily on federal property, conforms with State Comprehensive Plans and associated translational plans, including State Land Development Plan, Florida Water Plan, Florida Transportation Plan, and strategic regional policy plans.	Details the state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation.
Chapter 252: Emergency Planning	The proposed action would not increase the state's vulnerability to natural disasters. Emergency response and evacuation procedures would not be impacted by the proposed action. Activities described in the EA did not historically require closures of state roadways; thus, traffic delays are not expected.	Provides for the planning and implementation of the State's response to natural and manmade disasters, efforts to recover from natural and manmade disasters, and the mitigation of natural and manmade disasters.
Chapter 253: State Lands	The proposed action would not involve the use of state submerged lands. An environmental resource permit (ERP) and/or Joint Coastal Permit (JCP) would not need to be obtained.	Addresses the State's administration of public lands and property of the State, and provides direction regarding the acquisition, disposal, and management of State lands.

TABLE B-1
Comparative Impact Summary
Proposed Santa Rosa County RIB System at EAFB, Florida

Statute	Consistency	Scope of Statute
Chapter 258: State Parks and Preserves	The proposed action would not involve state conservation lands and water areas, state natural areas or environmentally unique and irreplaceable lands, state conservation lands, state historical or archeological sites or lands that are currently part of the recreational trails system.	Addresses the administration and management of State parks and preserves.
Chapter 259: Land Acquisition for Conservation or Recreation		Authorizes acquisition of environmentally endangered lands and outdoor recreation lands.
Chapter 260: Recreational Trails System		Authorizes the acquisition of land to create a recreational trails system and to facilitate the management of the system.
Chapter 375: Multipurpose Outdoor Recreation: Land Acquisition, Management and Conservation.		Develops a comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describes current recreational opportunities, estimates the need for additional recreational opportunities, and proposes the means to meet the identified needs.
Chapter 267: Historical Resources	The proposed action would not have a significant impact on cultural resources. Coordination with the State Historic Preservation Office is not required for this action.	Addresses the management and preservation of the State's archaeological and historical resources.
Chapter 288: Commercial Development and Capital Improvements	The proposed action occurs primarily on federal property. The proposed action is not anticipated to have any effect on future business opportunities on state lands, or the promotion of tourism in the region.	Provides the framework for promoting and developing the general business, trade, and tourism components of the State economy.
Chapter 334: Transportation Administration	Potential impacts to public transportation were evaluated in Section 4.0 of the EA. Based on the analysis the proposed action would not have an effect on water and land transportation within the region of influence.	Addresses the State's policy concerning transportation administration.
Chapter 339: Transportation Finance and Planning	Coordination with local government and the State Department of Transportation will continue.	Addresses the finance and planning needs of the State's transportation system.
Chapter 370: Saltwater Fisheries	Saltwater fisheries would not be affected.	Addresses the management and protection of the State's saltwater fisheries.

TABLE B-1
Comparative Impact Summary
Proposed Santa Rosa County RIB System at EAFB, Florida

Statute	Consistency	Scope of Statute
Chapter 372: Wildlife	Potential impacts to wildlife, including threatened and endangered species were evaluated in Section 4.0 of the EA. The proposed action would not significantly affect threatened and/or endangered species. BASH management and mitigation may be necessary during the operation of the RIBs.	Addresses the management of the wildlife resources of the State.
Chapter 373: Water Resources	The proposed action would not have impacts on surface and groundwater. Stormwater management, potable water use and impacts to water quality are discussed in Section 4 of the EA. The EA has determined that any consumptive use of water is a reasonable beneficial use of water as determined in Section 373.019 (5), Florida Statutes, will not interfere with any presently existing legal use of water, and use of water resources is consistent with the public interest. Best management practices would be implemented to minimize stormwater runoff. As discussed in Section 4.0 of this EA, potential impacts to water resources are avoided.	Addresses the State's policy concerning water resources.
Chapter 376: Pollutant Discharge Prevention and Removal	The proposed action does not involve the storage, transportation and/or discharge of pollutants. There would be no significant impacts from pollutant discharges.	Regulates the transfer, storage, and transportation of pollutants, and the cleanup of pollutant discharges.
Chapter 377: Energy Resources	Energy resource production, including oil and gas, and the transportation of oil and gas, would not be affected by the proposed action.	Address the regulation, planning, and development of energy resource of the State.
Chapter 380: Land and Water Management	The proposed action would primarily occur on federally owned lands. Under the proposed action development of state lands with regional (i.e. more than one county) impacts would not occur. Areas of Critical State Concern or areas with approved state resource management plans such as Northwest Florida Coast and the Escambia and Santa Rosa counties coastal areas would not be affected. Changes to coastal infrastructure such as bridge construction, capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing or construction would not occur.	Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.

TABLE B-1
Comparative Impact Summary
Proposed Santa Rosa County RIB System at EAFB, Florida

Statute	Consistency	Scope of Statute
Chapter 381: Public Health, General Provisions	The proposed action does not involve the construction of an on-site sewage treatment and disposal system.	Establishes public policy concerning the State's public health system.
Chapter 388: Mosquito Control	The proposed action would not affect mosquito control.	Addresses the mosquito control effort in the State.
Chapter 403: Environmental Control	The proposed action would not affect ecological systems and water quality of state waters. Effects on water quality, discussed in Section 4 would not be significant. The proposed action would not affect air quality. Air quality impacts analyzed in Section 4 would not be significant.	Establishes public policy concerning environmental control in the State.
Chapter 582: Soil and Water Conservation	The proposed action would not result in soil erosion and/or significant impacts to water quality from soil erosion. Best management practices for preventing and controlling erosion will be necessary during construction and operation.	Provides for the control and prevention of soil erosion.

Pursuant to 15 CFR 930.41, the Florida State Clearinghouse has 60 days from receipt of this document in which to concur with or object to this Consistency Determination, or to request an extension, in writing, under 15 CFR 930.41(b). Florida's concurrence will be presumed if EAFB does not receive it response on the 60th day from receipt of this determination.

APPENDIX C

Mitigation Plan

APPENDIX C

Mitigation Plan

The Mitigation Plan is underway and will be forwarded within 90 days as prescribed by 32 CFR 989.22(d). The SRCBOCC will propose certain land use controls to limit residential density in specific county areas to minimize the exposure of residents to the noise effects of military testing and training.

APPENDIX D

Public Notifications

Public Notification

PUBLIC NOTIFICATION

In compliance with the National Environmental Policy Act, Eglin Air Force Base announces the availability of a draft Environmental Assessment and Finding of No Significant Impact for RCS 02-911, Proposed Reclaimed Water Rapid-rate Infiltration Basin (RIB) System At Eglin AFB, Fla., for public review and comment.

The Proposed Action is to lease approximately 328 acres of U.S. Air Force property to the Santa Rosa County Board of Commissioners for the purpose of constructing and operating a reclaimed water Rapid Infiltration Basin System (RIBs). The proposed RIBs would be constructed to receive and distribute highly treated reclaimed wastewater from the three utilities operating in South Santa Rosa County, Fla. These utilities are the Navarre Beach Water and Sewer, the Holley Navarre Water System and the South Santa Rosa Utilities. The reclaimed wastewater will be pumped (piped) from these utility companies to the RIBs, where it would filter down from the infiltration basin to the surficial aquifer beneath the site.

The proposed site is located on Eglin AFB property west of State Road 87 and south of Eglin Range Road 726. A buffer distance of no less than 500 feet would be maintained from SR 87, and a buffer distance of no less than 10,000 feet from the north-south runway of Choctaw Air Field would be maintained.

Your comments on this draft EA are requested. Letters or other written or oral comments provided may be published in the Final EA. As required by law, comments will be addressed in the Final EA and made available to the public. Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the final EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the final EA. However, only the names and respective comments of respondent individuals will be disclosed. Personal home addresses and phone numbers will not be published in the Final EA.

Copies of the draft Environmental Assessment and Finding of No Significant Impact may be reviewed at the Navarre Library, 8484 James M. Harvell Rd., Navarre, Fla., 32566, (850) 936-6120, and the Gulf Breeze Library Branch, 1060 Shoreline Dr., Gulf Breeze, Fla.; (850) 932-4595. Copies will be available for review from February 22 through March 24, 2005. Comments must be received by Monday March 28, 2005.

For more information or to comment on this proposed action, contact: Mr. Mike Spaits, AAC/EM-PAV, 501 De Leon St., Suite 101, Eglin AFB, Fla., 32542-5133 or email: spaitsm@eglin.af.mil. Tel: (850) 882-2878, Fax.: (850) 882-3761

Public Notice

RCS 02-911
Reclaimed Water Rapid-rate Infiltration Basin (RIB) System

A public notice was published in the *Northwest Florida Daily News* and the *Pensacola News Journal* on Februrary 22, 2005 to disclose completion of the Draft EA, selection of the preferred alternative, and request comments during the 30-day pre-decisional comment period.

The 30-day comment period ended on March 24, 2005, with the comments required to this office not later than March 28, 2005.

No comments were received during this period.

Mike Spaits
96 CEG/CEV Public Information Specialist
Eglin AFB FL

PENSACOLA News Journal
Informed. In Tune. In Touch.

Published Daily-Pensacola, Escambia County, FL

STATE OF FLORIDA
County of Escambia

Before the undersigned authority personally appeared **KAY CHASTAIN** who is personally known to me and who on oath says that he/she is a representative of The Pensacola News Journal, a daily newspaper published in Pensacola in Escambia County, Florida; that the attached copy of advertisement, being a legal in the matter of **PUBLIC NOTIFICATION** published in said newspaper in the issue **FEBRUARY 22, 2005.** Affiant further states that the said Pensacola News Journal is a newspaper published in Pensacola, in said Escambia County, Florida, and that the said newspaper has heretofore been continuously published in said Escambia County, Florida each day and has been entered as second class mail matter at the post office in Pensacola, in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and Affiant further says that he/she has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this **22ND**
DAY OF FEBRUARY A.D. 2005.

Evelyn A. Mitchell
Notary Public

EVELYN A. MITCHEL
Notary Public-State of
Comm. Exp. Aug. 1, 2
Comm. No. DD 34264

PUBLIC NOTIFICATION

In compliance with the National Environmental Policy Act, Eglin Air Force Base announces the availability of a draft Environmental Assessment and Finding of No Significant Impact for RCS 02-911, Proposed Reclaimed Water Rapid-rate Infiltration Basin (RIB) System At Eglin AFB, Fla., for public review and comment.

The Proposed Action is to lease approximately 328 acres of U.S. Air Force property to the Santa Rosa County Board of Commissioners for the purpose of constructing and operating a reclaimed water Rapid Infiltration Basin System (RIBs). The proposed RIBs would be constructed to receive and distribute highly treated reclaimed wastewater from the three utilities operating in South Santa Rosa County, Fla. These utilities are the Navarre Beach Water and Sewer, the Holley Navarre Water System and the South Santa Rosa Utilities. The reclaimed wastewater will be pumped (piped) from these utility companies to the RIBs, where it would filter down from the infiltration basin to the surficial aquifer beneath the site.

The proposed site is located on Eglin AFB property west of State Road 87 and south of Eglin Range Road 726. A buffer distance of no less than 500 feet would be maintained from SR 87, and a buffer distance of no less than 10,000 feet from the north-south runway of Choctaw Air Field would be maintained.

Your comments on this draft EA are requested. Letters or other written or oral comments provided may be published in the Final EA. As required by law, comments will be addressed in the Final EA and made available to the public. Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the final EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the final EA. However, only the names and respective comments of respondent individuals will be disclosed. Personal home addresses and phone numbers will not be published in the Final EA.

Copies of the draft Environmental Assessment and Finding of No Significant Impact may be reviewed at the Navarre Library, 8484 James M. Harvell Rd., Navarre, Fla., 32566, (850) 936-6120, and the Gulf Breeze Library Branch, 1060 Shoreline Dr., Gulf Breeze, Fla., (850) 932-4595. Copies will be available for review from February 22 through March 24, 2005. Comments must be received by Monday March 28, 2005.

For more information or to comment on this proposed action, contact: Mr. Mike Spaits ,AAC/EM-PAV, 501 De Leon St., Suite 101, Eglin AFB, Fla., 32542-5133 or email: spaitsm@eglin.af.mil. Tel: (850) 882-2878, Fax.: (850) 882-3761

Legal No. 67522 17 Feb. 22, 2005

RECEIVED
MAR 0 1 2005

Daily News
NORTHWEST FLORIDA

Published Daily
Fort Walton Beach, Florida
Distributed in Okaloosa, Santa Rosa & Walton Counties

State of Florida
County of Okaloosa }

Before the undersigned authorized personally appeared _____
Jane E. Fletcher **,who on oath says that (s)he**
is Advertising Rep **of the Northwest Florida Daily News, a daily**
newspaper published at Fort Walton Beach, in Okaloosa County, Florida;
that the attached copy of advertisement, being a Legal Display
in the matter of Public Notification

_____

in the _____

Court, was published in said newspaper in the issues of _____
February 22, 2005

Affiant further says that the said Northwest Florida Daily News is a newspaper published at Fort Walton Beach, in said Okaloosa County, Florida, and that the said newspaper has heretofore been continuously published in said Okaloosa County, Florida, each day, and has been entered as second class mail matter at the post office in Fort Walton Beach, in said Okaloosa County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that (s)he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

STATE OF FLORIDA
COUNTY OF OKALOOSA

Subscribed and sworn to (or affirmed) before me this 02/22/2005
(Date)
by Jane E. Fletcher **,who is/are personally known to me or**
has/have produced Personally Known **as identification.**
(Type of identification)

_____ **Notary Public, Commission No.** _____

_____ **(Name of Notary typed, printed or stamped)**

Florida Notary Assn., Inc

the first extra hole to win the Nissan Open.

After rolling in the 4-footer, Scott had to remind himself what winners do.

First came an awkward smile, then he gently raised his hand to acknowledge the 200 people watching the bizarre conclusion under gray skies and a colorful array of umbrellas.

"It doesn't feel like we played much golf this week," of losing.

He was at a slight disadvantage, having not hit a shot since he tapped in for par to complete his second round Friday with a 6-under 65. The range was closed on Saturday. When he arrived at Riviera on Sunday afternoon to start the third round, the siren sounded to halt play.

He smoked his drive down the middle of the fairway in the playoff, leaving him a 5-wood. chance for Tiger Woods to return to No. 1 in the world this week. He needed to finish fourth to replace Vijay Singh, and wound up four shots out of the lead in a tie for 13th. Woods likely will have to win the Match Play Championship this week for the third straight year to reclaim No. 1.

Scott moved up to No. 7 in the world. He was awarded 75 percent of the world ranking points at Riviera.

Public Notification

PUBLIC NOTIFICATION

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For more information or to comment on this proposed action, contact: Mr. Mike Spaits AAC/EM-PAV, 501 De Leon St., Suite 101, Eglin AFB, Fla., 32542-5133 or email: spaitsm@eglin.af.mil Tel: (850) 882-2878, Fax.: (850) 882-3761

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 96TH AIR BASE WING (AFMC)
EGLIN AIR FORCE BASE FLORIDA

14 MAR 2005

Mrs. Vicki L. Preacher
Chief, Environmental Management Division
501 DeLeon St, Ste 101
Eglin AFB FL 32542-5133

Mr. Hunter Walker
County Administrator
3865 Caroline Street
Milton FL 32570-4978

RE: Environmental Assessment (EA), Proposed Santa Rosa County Reclaimed Water Rapid-rate Infiltration Basin (RIB) System at Eglin AFB, Florida

Dear Mr. Walker

The Air Force Material Command Headquarters (HQ AFMC) reviewed Santa Rosa County's responses to their comments on the subject EA. The responses were found to be satisfactory provided the attached expanded narrative pertaining to "Alternatives Eliminated from Further Study" is included in the final document.

Upon conclusion of the 30-day public review, please provide 4 hardcopies of the Draft Mitigation Plan, and provide 3 hard copies and 2 electronic copies of the final EA (with appendix added addressing public review and comments) and FONSI to Mr. Al Jordan, 96 CEG/CEVSP. The final EA and FONSI will be sent to HQ AFMC for signature. If you have any question, please contact Mr. Jordan, (850) 882-4435 or email alvin.jordan@eglin.af.mil.

Sincerely

VICKI L. PREACHER, GS-15

Attachment:
Expanded Alternatives Narrative

cc:
Mr. Roger Blalock, County Engineer
Mr. Neal Rogers, CH2MHill
Ms. Lorraine Caison, 96 CEG/CERR
Mr. Gary Pelham, 46 TW/CAX

ATTACHMENT
Expanded Alternatives Narrative

INSTRUCTION:
Include the following expanded narrative into EA, Section 2.6, "Alternatives Eliminated from Further Study". Include it as an additional paragraph of Section 2.6 beginning at line 26, page 2-14, Draft EA (November 2003).

"The purchase of Federal property was considered but not carried forward for further analysis for the following reasons. Eglin AFB made a cognitive policy decision not to offer this parcel for sale. The proposed 328-acre RIBS parcel is located in an important buffer area adjacent to land areas used for Guard and Marine battle tank training. It is also in close proximity to Choctaw Field which is used by the Navy for flight training and UAV operations. Eglin AFB feels that out-granting of this property for this compatible land use (RIBS) is best served by a lease that allows continued oversight and control to be maintained by Eglin. And if the property should not be needed by the community in the future, the Eglin AFB boundary and buffer would be maintained."

PENSACOLA
News Journal
Informed. In Tune. In Touch.

Published Daily-Pensacola, Escambia County, FL

STATE OF FLORIDA
County of Escambia

Before the undersigned authority, personally appeared NIKKI WINDHAM who is personally known to me and who on oath says that he/she is a representative of The Pensacola News Journal, a daily newspaper published in Pensacola in Escambia County, Florida; that the attached copy of advertisement, being a legal in the matter of **PUBLIC NOTIFICATION** was published in said newspaper in the issues **JANUARY 14 2004.** Affidavit further says that the said Pensacola News Journal is a newspaper published in Pensacola, in said Escambia County, Florida, and that the said newspaper has heretofore been continuously published in said Escambia County, Florida each day and has been entered as second class mail matter at the post office in Pensacola, in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and Affidavit further says that he/she has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this **19TH DAY OF JANUARY A.D., 2004.**

Bereth Ferguson
Notary Public

BERETH FERGUSON
"Notary Public-State of FL"
My Comm. Expires OCT. 10, 2005
Comm. No. DD048662

PUBLIC NOTIFICATION

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For more information or to comment on this proposed action, contact: Mr. Mike Spoon, AAC/EM-PAV, 501 De Leon St., Suite 101, Eglin AFB, Fla., 32542-5133 or email: spoonm@eglin.af.mil. Tel: (850) 882-2878, Fax.: (850) 882-5761.

Legal No. 65988 IT January 14, 2004

PUBLIC NOTIFICATION

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