RCS 05-001

EGLIN AIR FORCE BASE
FLORIDA

FINAL
ENVIRONMENTAL ASSESSMENT

FOR THE OKALOOSA REGIONAL AIRPORT EXPANSION AT EGLIN AIR FORCE BASE, FL

JUNE 2006

Report Documentation Page

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FINDING OF NO SIGNIFICANT IMPACT
FOR
THE OKALOOSA REGIONAL AIRPORT EXPANSION AT
EGLIN AIR FORCE BASE, FLORIDA
RCS 05-001

Pursuant to the Council on Environmental Quality regulations for implementing procedural provisions of the National Environmental Policy Act (40 Code of Federal Regulations [CFR] 1500-1508), Department of Defense Directive 6050.1 and Air Force Regulation 32 CFR Part 989, the Okaloosa Regional Airport (ORA) with support from the Air Force has conducted an Environmental Assessment (EA) of the probable environmental consequences for implementing the ORA expansion project at Eglin Air Force Base (AFB), Florida.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action

Under the proposed action, the Air Force would approve expanding existing federal land lease at the ORA to allow for construction of a separate rental car parking and maintenance area. A total of 36 acres of Air Force property is required to support this expansion. The ORA would develop the proposed site to provide parking areas for five separate rental car agencies totaling 800 parking spaces, two new access points to the rental car parking location (one access point located on State Road (SR) 85 for deliveries and a second connecting to the terminal loop road for ready/return operations), a truck inspection area, an office/maintenance bay, a car wash and fueling area, an electrical duct extension from SR 85, and additional stormwater management facilities. As part of this action, a security fence would be installed along SR 85, outside the 36-acre project area. These improvements were recommended as part of a Vulnerability Assessment performed at the ORA and subsequently endorsed by the U.S. Department of Homeland Security, Federal Aviation Administration and Transportation Security Administration jointly.

No-Action Alternative

Under the no-action alternative, the Air Force would not approve expanding the existing lease to ORA, which would not enable them to make improvements to the commercial rental car area. While the SR 85/SR 123 interchange improvements and configuration would occur, the necessary reconfiguration of the airport layout segregating commercial and public traffic flows would not occur. Without this segregation, ORA would be vulnerable to threats from large commercial delivery vehicles. In addition, there would be a continued degradation in traffic efficiency to public and military personnel utilizing airport services.

SUMMARY OF ENVIRONMENTAL IMPACTS FROM THE PROPOSED ACTION AND ALTERNATIVES

An EA was conducted to determine potential impacts to human and natural environments resulting from the proposed action and the no-action alternative. A summary of the findings are discussed below with detailed discussion found in Chapter 4 (Environmental Consequences) of the EA.

Water Resources (EA Section 4.1, pages 4-1 to 4-3)
There would be no adverse impacts to surface water with implementation of best management practices (BMPs) for construction activities. The Air Force would require ORA to incorporate stormwater and erosion control measures. The ORA would meet all federal and state regulations for increased stormwater management. The proposed action and no-action alternative would not have any direct or indirect (runoff) impact on wetlands as wetland dredge-and-fill activities would not occur. To comply with Florida Department of Environmental Protection water regulations, the existing stormwater retention pond would be expanded to treat surface water runoff as part of the proposed action. In addition, implementation of a stormwater, erosion, and sedimentation control plan and a stormwater pollution prevention plan, required by Florida Department of Environmental Protection under the National Pollutant Discharge Elimination System (NPDES) regulations, would occur. Adherence to these requirements would minimize detrimental impacts to the adjacent creek system under the proposed action.

Soils (EA Section 4.2, pages 4-4 to 4-5)
Implementation of erosion control measures associated with permit requirements would minimize soil erosion. As a result, there would be no adverse impacts on soils from the proposed action. Soil would not be impacted under the no-action alternative.

Air Quality (EA Section 4.3, pages 4-5 to 4-6)
There would be no adverse impacts associated with air quality from the proposed action as air emissions would be short-term and would diminish once construction activities are completed. Air quality would not be impacted under the no-action alternative.

Bird Airstrike Hazard (EA Section 4.4, page 4-7)
Implementation of Federal Aviation Administration (FAA) guidelines (FAA Advisory Circular 150/5200-33A) for stormwater management system design would negate adverse impacts on safety or aircraft damage associated with the proposed action. There would be no impacts associated with the no-action alternative.

Utility Infrastructure (EA Section 4.5, pages 4-7 to 4-9)
There would be no adverse impacts to the capacity or usage of existing utilities from the proposed action or the no-action alternative.

Hazardous Materials and Waste (EA Section 4.6, pages 4-10 to 4-11)
There would be no impacts to environmental restoration program sites or from storage and uses of hazardous materials if the proposed action is implemented. The ORA would meet all federal and state regulations as well as Air Force instructions on handling, storing, and disposing of hazardous materials and waste. Eglin AFB personnel would respond to fuel spills at the ORA to provide containment, clean-up, and remediation as stipulated in the Base Emergency Response Plan and Spill Prevention and Response Plan. In addition, Eglin would provide direction to the ORA concerning clean-up and remediation process. Under the no-action alternative the ORA would continue to following Air Force requirements as stipulated in the lease agreement.

Solid Waste (Section 4.7, pages 4-11 to 4-12)
There would be no impact on the capacity of local landfills to handle solid waste, as the waste increase to the landfills from the proposed project activities would be one percent or less under the proposed action. Solid waste would not be impacted under the no-action alternative.

Biological Resources (EA Section 4.8, pages 4-12 to 4-14)
There is a potential impact to gopher tortoises, a state-listed species of concern. However, prior to any land disturbing activities, Eglin AFB Natural Resource Branch would conduct a survey of the project area to determine if gopher tortoises are present. This is standard pre-construction practice at Eglin AFB. If tortoises are found, Eglin AFB personnel would relocate them to another Eglin site outside the project area in accordance with Fish and Wildlife Commission (FWC) Permit #WR05399. While the tortoise is not federally listed, it is considered a keystone species – a species whose presence is ecologically significant to the survival of other species within its environment. The federally listed eastern indigo snake utilizes abandoned tortoise burrows. As part of the tortoise survey, Eglin personnel would ensure no indigo snakes are present. If present, the snake would be relocated under an existing U.S. Fish and Wildlife Service permit. Should an indigo snake be sighted, project personnel would be directed to cease any activities and allow the snake sufficient time to move away from the site on its own before resuming construction activities.

SUMMARY OF MANAGEMENT ACTIONS

The following is an overview of plans, permits, and management actions required to reduce potential impacts as discussed in Chapter 5 of the EA.

PLANS

Site Design Plan

Stormwater Pollution Prevention Plan

Stormwater, Erosion, and Sedimentation Control Plan

PERMITS

Storm Water Facility Design and Construction Permit

Generic Permit for Storm Water Discharge from Construction Activities that Disturb One or More Acres of Land (NPDES Permit)

Base Civil Engineering Work Clearance Request, AF Form 103, 19940801 (*EF-V3*)

Utility Extension Permits for Waste Water and Drinking Water Systems

Comply with Eglin's Title V permit and all applicable requirements

Costal Zone Management Act Consistency Determination

MANAGEMENT ACTIONS

Water Resources

Permits and site plan designs would include site-specific management requirements for erosion and sediment control.

Entrenched silt fencing and staked hay bales would be installed and maintained along the perimeter of demolition debris stockpile areas.

Demolition debris stockpiles would be removed in a timely manner.

Waste receptacles, including dumpsters, would be covered to prevent rainwater from entering.

Drinking water and wastewater collection/transmission lines would be properly abandoned during demolition of existing facilities.

The aforementioned BMPs would be inspected and maintained to ensure effectiveness.

Soil/Erosion

Where applicable, rough grade slopes or use terrace slopes to reduce erosion.

Inspection and maintenance of BMPs are required under the stormwater construction general permit.

Air Quality

Reasonable precautions would be taken to minimize fugitive particulate emissions during ground-disturbing/construction activities in accordance with Rule 62-296, Florida Administration Code.

Bird Aircraft Strike Hazard (BASH)

The Federal Aviation Administration (FAA) recommends safety standards and practices in the FAA Advisory Circular 150/5200-33A to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports. For new stormwater management facilities, the FAA recommends the following:

On-airport stormwater detention ponds should be designed, engineered, constructed and maintained for a maximum 48-hour detention period for the storm and remain completely dry between storms.

Utilize steep-sided, narrow, linearly shaped water detention basins.

All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated.

Biological Resources

A gopher tortoise survey be completed before construction begins and relocation, if applicable, be performed pursuant to FWC Permit #WR05399.

Safety

Federal requirements that govern construction activities include, but are not limited to:

OSHA: U.S. Department of Labor, Occupational Safety and Health Administration regulations including, but not limited to:

Construction Title 29, Part 1910, Section 12 of the Code of Federal Regulations.

Safety for workers would be strengthened by proper traffic control measures in work zones. The state of Florida recommends several different strategies for increasing safety in roadway work zones. Among these are:

Increase usage of law enforcement to enforce traffic restrictions in work zones.

Emphasize training among work zone traffic control personnel.

Improve methods to reduce duration of work zone activities.

Improve public awareness and education during National Work Zone Awareness week.

Cultural Resources

Although there are no known eligible resources within the proposed project footprint, inadvertent discovery of cultural resources would be immediately reported to Eglin's Cultural Resources Branch (96 CEG/CEVH).

Socioeconomics

In accordance with EO 13101, affirmative procurement (buying products containing recycled materials) should be used if economical and practical.

PUBLIC REVIEW

The draft EA for the ORA Expansion and the Finding of No Significant Impact were available for public review and comment at the Fort Walton Beach Public Library, 185 SE Miracle Strip Parkway, Fort Walton Beach, Florida, the Crestview Public Library, 1445 Commerce Drive, Crestview, Florida, and the Niceville Library, 206 Partin Drive, Niceville, Florida. Copies were available for public review and comment from 28 November 2005 - 5 January 2006. No public comments on the draft EA were received.

The Florida State Clearinghouse conducted a review of the draft EA for the ORA Expansion and sent the following comments on 27 January 2006:

Fish and Wildlife Commission - The FWC finds this project consistent and does not expect the proposed action to significantly impact state-listed species, but recommends that a gopher tortoise survey be completed before construction begins and relocation, if applicable, be performed pursuant to FWC Permit #WR05399.

Florida Department of Environmental Protection - As noted in the draft EA, construction of the proposed airport improvements must meet state stormwater quality treatment requirements in accordance with Rule 62-25, FAC. In addition, any project that disturbs one or more acres of land during construction will require a separate Phase II NPDES Permit.

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 the ORA to make improvements to their facility at Eglin AFB FL, will not have a significant impact on the human or natural environment, 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.

JEFF MUNDEY, P.E.
Deputy Command Civil Engineer
Directorate of Installations and Mission Support

16 Jun 06
DATE

RCS 05-001

FINAL
ENVIRONMENTAL ASSESSMENT

FOR THE OKALOOSA REGIONAL AIRPORT EXPANSION AT EGLIN AIR FORCE BASE, FL

Submitted to:

96th Civil Engineer Group
Environmental Management Division
96 CEG/CEV
Eglin AFB, FL 32542

JUNE 2006

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LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

µg/m^3	Micrograms per Cubic Meter
796 CES/CEOP	796 Civil Engineers Programs Flight
96 CEG/CEVC	96th Civil Engineer Group, Environmental Management Division, Compliance Branch
96 CEG/CEVCE	96th Civil Engineer Group, Compliance Branch, Environmental Engineering Section
96 CEG/CEVH	96th Civil Engineer Group, Environmental Management Division, Cultural Resources Branch
96 CEG/CEVR	96th Civil Engineer Group, Environmental Management Division, Restoration Branch
96 CEG/CEVSN	96th Civil Engineer Group, Environmental Management Division, Stewardship Branch, Natural Resources Section
96 CEG/CEVSNW	96th Civil Engineer Group, Environmental Management Division, Stewardship Branch, Natural Resources Section, Wildlife
96 CEG/CEVSP	96th Civil Engineer Group, Environmental Management Division, Stewardship Branch, Environmental Analysis Section
AAC	Air Armament Center
ACAM	Air Conformity Applicability Model
AFB	Air Force Base
AFI	Air Force Instruction
AFPD	Air Force Policy Directive
AST	Above Ground Storage Tank
BASH	Bird-Aircraft Strike Hazard
BMP	Best Management Practice
BRAC	Base Realignment and Closure
C&D	Construction and Demolition
CAA	Clean Air Act
CCCL	Coastal Construction Control Line
CEM	Continuous Emissions Monitoring
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DoD	Department of Defense
EA	Environmental Assessment
EO	Executive Order
EPCRA	Emergency Planning & Community Right-to-Know Act
ERP	Environmental Restoration Program
ESA	Endangered Species Act
ETS	Emission Tracking System
FAA	Federal Aviation Administration
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FS	Florida Statutes
ft^2	Square Feet
GIS	Geographic Information System
GPW	Gallons per Wash
HAP	Hazardous Air Pollutants
IWR	Impaired Waters Rule
MCF	Million Cubic Feet
MEC	Mission Enhancement Committee
mg/m^3	Milligrams per Cubic Meter
MGD	Million Gallons per Day
MS4	Municipal Separate Storm Sewer Systems

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS CONT'D

NAAQS	National Ambient Air Quality Standards
NEI	National Emissions Inventory
NHPA	National Historic Preservation Act
NO_2	Nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NWFWMD	Northwest Florida Water Management District
NWI	National Wetlands Inventory
O_3	Ozone
OCWS	Okaloosa County Water and Sewer
ORA	Okaloosa Regional Airport
OSHA	Occupational Safety and Health Administration
OWS	Oil Water Separator
Pb	Lead
PM_{10}	Particulate Matter less than 10 microns in diameter
$PM_{2.5}$	Particulate Matter With a Diameter Less Than or Equal to 2.5 Microns
POL	Petroleum, Oils and Lubricants
ppm	Parts per million
PSD	Prevention of Significant Deterioration
RCRA	Resources Conservation and Recovery Act
RCW	Red-cockaded Woodpecker
ROI	Region of Influence
SARA	Superfund Amendments and Reauthorization Act
SER	Significant Emissions Rate
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SPCC	Spill Prevention, Control and Countermesasure
SR	State Road
SWPPP	Stormwater Pollution Prevention Plan
U.S.	United States
USACE	United States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

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1. PURPOSE AND NEED FOR ACTION

1.1 PROPOSED ACTION

The Proposed Action is for the Air Force to expand the existing federal land lease at the Okaloosa Regional Airport (ORA) for the construction of a separate rental car parking and maintenance area (Figure 1-1, Figure 1-2). The proposed development of the rental car facility includes the construction of a new entrance from State Road (SR) 85 North for large delivery vehicles, fencing along SR 85 North, new rental car parking spaces, new office and maintenance facilities for rental car companies, fueling and washing areas, a vehicle and aviation fuel farm, and an expanded stormwater discharge system. As part of the Proposed Action, Eglin Air Force Base (AFB) would expand the current land lease an additional 22.6 acres to accommodate the development.

1.2 BACKGROUND

The United States (U.S.) Air Force leases federal land to Okaloosa County, FL, for the purpose of airport operations at the ORA under Lease No. AFMC-EG-1-01-004. The Air Force executed an expanded lease on 26 February 2001 to increase airport parking areas. The ORA has presented a request to the Mission Enhancement Committee (MEC) for an additional 22.6 acres to the existing lease to provide a separate rental car parking and maintenance area (rental car facility). The MEC evaluated and gave conceptual approval to the additional land request on 27 February 2005 and 28 June 2004, respectively.

1.3 NEED FOR PROPOSED ACTION

The need for the Proposed Action centers around a high military and public demand for efficiency of services and convenience of rental car operations; a need to reconfigure the layout of commercial operations; a requirement for higher security and safety for commercial operations at public airports; and a requirement to move the existing fuel storage area away from the aircraft operations area. Recent Base Realignment and Closure (BRAC) recommendations for a Joint Strike Fighter Integrated Training Center to be located at Eglin AFB, and realignment of the 7th Special Forces Group from Fort Bragg, North Carolina to Eglin AFB, will bring several thousand additional military service personnel and family members to the area. Military personnel, contract personnel, and associated business at Eglin increase flight operations and rental car operations at the ORA. Currently, the ORA does not have the capacity to contain all rental car needs at the airport, which has resulted in airport rental car services to occur off site.

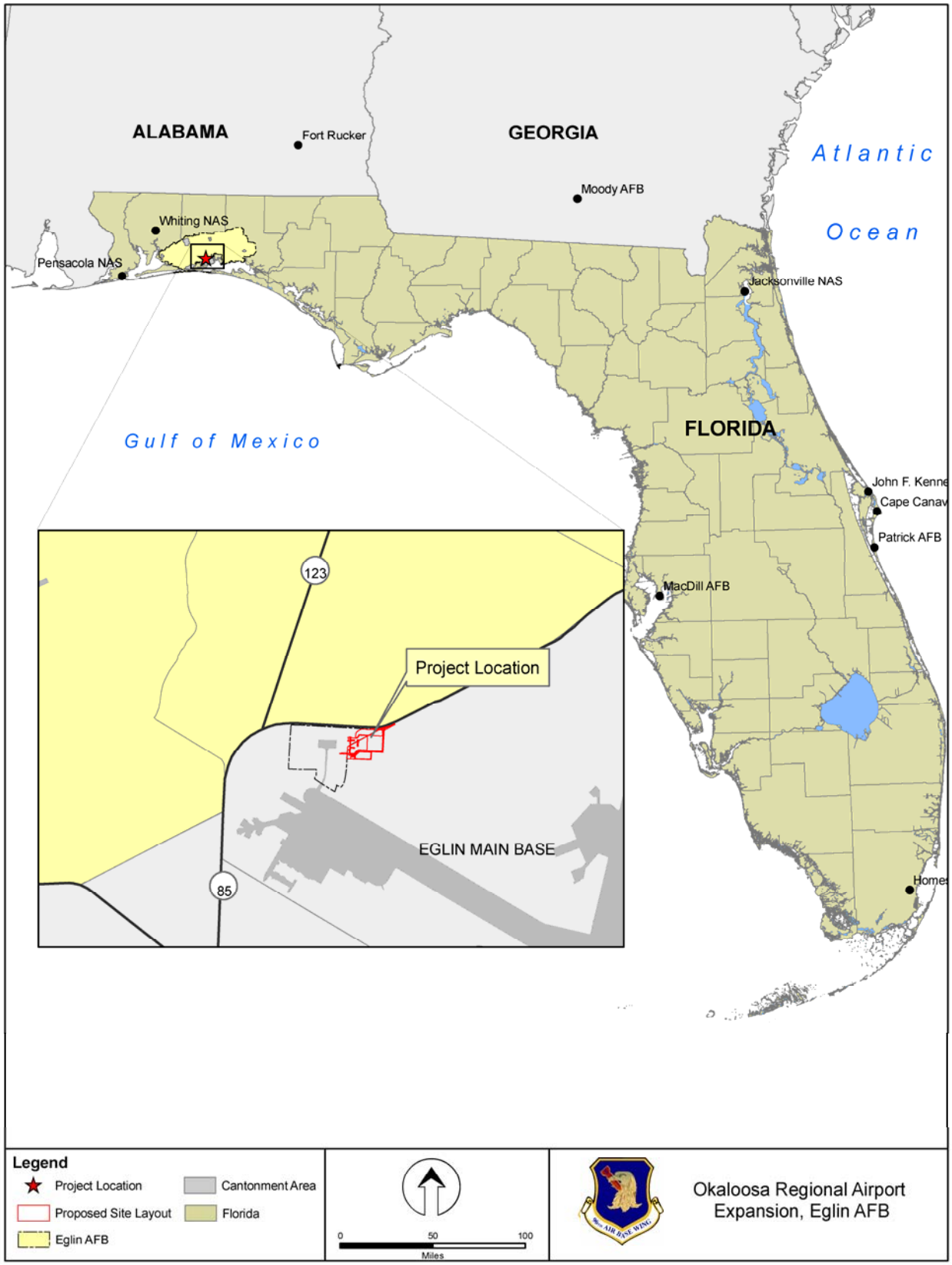

Figure 1-1. Geographic Location of the Okaloosa Regional Airport and Proposed Action

Figure 1-2. Okaloosa Regional Airport Existing Lease Area (Red) and Proposed Area of Lease Expansion (Black)

The State of Florida Strategic Intermodal Systems has focused on providing an improved interchange at the intersection of SR 85 and SR 123. This proposed new interchange, located on the west side of the ORA, will improve traffic flow into the west side of the airport facility. This transportation improvement has driven the need to relocate all commercial activities on the eastern side of the airport facility for safety and to allow more parking and public access improvements on the western side. The Federal Aviation Administration (FAA), the U.S. Department of Homeland Security, and the Transportation Security Administration jointly require airports to maintain commercial traffic at a distance from public areas to minimize impacts from an explosion. A vulnerability assessment recently performed on the existing airport configuration and operations reported that all commercial vehicles must keep a distance of at least 300 feet from the terminal for minimal impacts from explosives (GS & P Aviation Security, 2003). Finally, the ORA must relocate the existing fuel storage area due to FAA regulations. The placement of the fuel storage area with commercial operations and delivery entrance on the east side of the ORA would increase safety of fuel delivery and storage.

The federal government requires ORA to perform the Proposed Action to increase homeland security measures at the airport. A vulnerability assessment was recently performed on the existing airport configuration and operations (GS & P Aviation Security, 2003). This assessment resulted in a requirement for large delivery vehicles to access the airport from a separately constructed entrance. The U.S. Department of Homeland Security, Transportation Security Administration, subsequently endorsed this requirement. The separate entrance along with an expanded parking area for rental car maintenance and fencing installation are all measures to provide additional airport security.

1.3.1 Objective of the Proposed Action

The objectives of the Proposed Action are listed below:

- Expand the space available for commercial rental car operations to accommodate all rental car operations on-site for increased convenience and efficiency.
- Move all commercial operations to include rental car facilities and vehicle/aviation fuel delivery and containment to the east side of the ORA property. This will create more space on the west side of the airport terminal for a possible future parking garage and potential expansion of the terminal area.
- Create a separate entrance for all commercial traffic to the airport on the far east side of the proposed lease expansion. This will increase safety and security by (1) moving commercial traffic away from the SR 85/SR 123 interchange, (2) segregating all commercial operations on the east side of the airport, (3) consolidating commercial vehicle access and inspections in one general area as the Eglin commercial entrance gate is less than one mile north (east) on SR 85, and (4) meet the requirement to restrict commercial traffic from within 300 feet of the terminal.

The minimum standards, or selection criteria, are listed below:

- Require, at the minimum, 25 acres to provide space for paved areas, stormwater structures, office and maintenance facilities, and a fuel farm area.

- Locate on Eglin AFB property.
- Avoid conflict with Eglin AFB mission requirements or other lease requirements.
- Locate so the commercial area is contiguous with the existing terminal.
- Locate so the commercial area is contiguous with the airfield at Eglin AFB (due to fuel storage area).
- Avoid conflict with the ammunitions storage area on Eglin AFB.
- Consolidate commercial activities on the eastern side of the ORA property to allow for potential future growth plans on the western side of the ORA property for additional parking and terminal expansion (keep public access and parking on the western side of the ORA).
- All commercial vehicles must be kept at a minimum of 300 feet away from the terminal.
- Locate the commercial entrance as far away as possible from the public access area and close to the Eglin AFB commercial entrance to the east of the ORA.
- Consolidate both vehicle and aviation fuels at an area that is off of the airport operations area and contiguous with the commercial operations area.

1.4 RELATED ENVIRONMENTAL DOCUMENTS

The following documents are environmental studies and findings related to the project site.

- *Finding of No Significant Impact*, Joint Use Agreement between ORA and Eglin Air Force Base, 19 November 2001.
- *Environmental Assessment for Proposed 108.23 Acre Lease* (RCS #97-565), Okaloosa County Regional Airport, Eglin Air Force Base, Florida, November 1999.
- *Environmental Baseline Document for Proposed 108.23 Acre Lease* (RCS #97-565), Okaloosa County Regional Airport, Eglin Air Force Base, Florida, December 1999.
- *Finding of No Significant Impact*, Okaloosa County Airport Parking Lot Expansion, 08 June 1992.

1.5 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The Air Force prepared this document in accordance with the requirements of the National Environmental Policy Act of 1969, the Council on Environmental Quality (CEQ) regulations of 1978, and Title 32 Code of Federal Regulations (CFR) Part 989. To initiate the environmental analysis the Civil Engineer Programs Flight (796 CES/CEOP) submitted an Air Force (AF) Form 813, Request for Environmental Impact Analysis, to the 96th Civil Engineer Group, Environmental Management Division, Stewardship Branch, Environmental Analysis Section (96 CEG/CEVSP). A review of the AF Form 813 by 96 CEG/CEVSP determined that the Environmental Impact Analysis Process Working Group should address the Proposed Action.

1.5.1 Issues Eliminated from Detailed Analysis

Land Use

The area of the lease expansion and site of Proposed Action is a combination of the community (service) and industrial land uses (U.S. Air Force, 2001). The Proposed Action would not impact or change the designated land use because the activities proposed are compatible with the current land use for Eglin AFB. Consequently, the Air Force does not expect any land use impacts associated with the Proposed Action and has not carried this issue forward for more detailed analysis.

Floodplains

The site of the ORA and the proposed lease expansion does not contain any 100-year floodplain areas. The Air Force does not expect the Proposed Action to impact or impede floodplain functionality and has not carried this issue forward for more detailed analysis.

Socioeconomics/Environmental Justice

Socioeconomics addresses the potential for positive and negative impacts from the Proposed Action on the local economy. The local economy would experience a positive impact due to improved rental car services and security measures provided at the airport. The Air Force does not expect any negative impacts on employment, housing, or base and county services.

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, ensures that federal agencies focus attention on the potential for a proposed federal action to cause disproportionately high and adverse health effects on minority populations or low-income populations. Based on preliminary analysis, no environmental justice concern areas including low-income and/or minority populations are adjacent to the proposed site. The vicinity of the project site is predominantly unimproved military property with the ORA being the only civilian land use. There are no residential areas in the immediate vicinity of the Proposed Action. The activities associated with the Proposed Action would not affect any low-income or minority populations.

Safety/Protection of Children

Contractors would conduct construction activities in accordance with Occupational Safety and Health Administration (OSHA) standards. Undeveloped military land surrounds the project site and is not adjacent to any residential areas, schools, daycares, or structures that would house children. The project site is not located within an airfield accident potential zone. The Air Force has not carried this issue forward for more detailed analysis because they do not expect any negative impacts on safety.

The Proposed Action would increase safety overall. The separate entrance, along with expanded parking area for rental car maintenance and fencing installation, would provide additional airport security. Furthermore, a vulnerability assessment prepared for the airport showed the need for a separate entrance for large delivery vehicles for airport security.

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, mandates that all federal agencies assign a high priority to addressing health and safety risks to children. The EO also requires that federal agencies coordinate research priorities on children's health and ensure that their standards take into account special risks to children. The Air Force does not expect activities associated with the Proposed Action to expose children to elevated health and safety risks as the proposed locations are not residential areas or utilized for recreation.

Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires that federal agencies analyze the impacts of federally directed or funded undertakings on historic properties. No significant cultural resources including archaeological sites or historic structures are located in the vicinity of the Proposed Action. Therefore, the Air Force excluded Cultural Resources from any further analysis.

Cultural resources sites are avoided where possible in nearly all activities conducted on Eglin AFB and, in the rare events where they cannot be avoided, the Base Historic Preservation Officer and the State Historic Preservation Officer develop mitigation strategies to recover cultural resources prior to the activity that would disturb a site. All ground-disturbing activities at Eglin must be subject to prior consultation and approval with Eglin's Historic Preservation Section that oversees and maintains records on all cultural resource activities on the base. The ORA must report any findings of historic artifacts during construction activities to 96th Civil Engineering Group, Environmental Management Division, Cultural Resources Branch (96 CEG/CEVH) immediately, so they can implement further site evaluation and protection measures. If the ORA requires any work not included as part of the Proposed Action put forward in this Environmental Assessment (EA) in the future, they must coordinate these plans with the 96 CEG/CEVH office prior to their approval and implementation.

Noise

The use of construction and land-clearing equipment could generate noise above and beyond the background ambient noise levels, which are predominantly aircraft in this area. The heavy equipment would produce noise, particularly during site preparation. The project activities would not contribute appreciably to the ambient noise environment.

1.5.2 Issues Carried Forward for Detailed Analysis

Preliminary analysis based on the scope of the Proposed Action identified the following potential environmental issues warranting detailed analysis: water resources, soils and erosion, air quality, bird aircraft strike hazard (BASH), utilities, hazardous materials and waste, solid waste, and biological resources.

1.6 APPLICABLE REGULATORY REQUIREMENTS AND COORDINATION

Reviews of pertinent documents, site visits, and communication with Eglin personnel found no identified threatened and endangered species or cultural resources within the proposed project area. As a result, the Air Force does not require any consultations with regulatory agencies for

cultural resources or threatened or endangered species for the Proposed Action. If any cultural artifacts are discovered during ground-disturbing activities, coordination with 96 CEG/CEVH is required.

The following management actions must be implemented to reduce impacts to air quality.

- During ground-disturbing and construction activities, contractors will take reasonable precautions to control dust emissions and unconfined particulate matter. Reasonable precautions include but are not limited to:
  - Application of water or chemicals to control emissions from grading, construction and land clearing.
  - Removal of particulate matter from roads and other paved areas from work areas to prevent particulates from becoming airborne.
  - Landscaping or planting of vegetation.

The Air Force would require the ORA to obtain a design and construction permit in accordance with Chapter 62-25 Florida Administrative Code (FAC) (Rule 62-25), because the Proposed Action would increase the impervious surface area. According to Rule 62-25, the ORA must submit a notice of intent to use the general permit for new stormwater discharge facility construction prior to project initiation.

The construction area is larger than one acre; therefore, the Proposed Action would require coverage under the Phase II National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge from construction activities that disturb one or more acres of land (Rule 62-621, FAC). The ORA must coordinate with the 96th Civil Engineer Group, Environmental Management Division, Compliance Branch, Engineering Section (96 CEG/CEVCE) to obtain stormwater permits and any necessary utility extension permits. In accordance with Florida Department of Environmental Protection (FDEP) regulations, the Proposed Action would involve the construction of a stormwater discharge feature to provide on-site treatment of stormwater. Design of the project would consider the area landscape and physical features to determine whether a detention pond or series of swales would be used to contain runoff. A Florida-registered professional engineer would design the proposed detention features to meet FDEP regulations.

This construction project requires consistency with Florida's Coastal Zone Management Act (CZMA). The U.S. Air Force will submit a Consistency Determination for FDEP review.

1.7 DOCUMENT ORGANIZATION

This EA follows the organization established by CEQ regulations (40 CFR, Parts 1500-1508). This document consists of the following chapters.

1. Purpose and Need for Action
2. Description of Proposed Action and Alternatives
3. Affected Environment

4. Environmental Consequences
5. Plans, Permits, and Management Actions
6. List of Preparers
7. References

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2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

As federal regulations require, this EA addresses the possible environmental impacts of the Proposed Action and a No Action Alternative. Section 2.1 details the Proposed Action, Section 2.2 discusses alternatives to the Proposed Action, and Section 2.3 summarizes the issues and potential impacts associated with the Proposed Action and the No Action Alternative.

2.1 PROPOSED ACTION

The Proposed Action involves utilizing 22.6 acres of an Air Force lease expansion and 10 acres of the existing lease area, a total of 36 acres, to construct a rental car facility. The ORA would develop the proposed 36-acre site to provide parking areas for five separate rental car agencies totaling 800 parking spots; two new access points for the rental car parking location (one access point located on SR 85 for deliveries, and a second connecting to the terminal loop road for ready/return operations); a truck inspection area; an office/maintenance bay, car wash and fueling area; and an electrical duct extension along the proposed access road to provide power and other services to future rental car facilities. The Proposed Action also includes installation of a security fence along SR 85 outside of the 36-acre project area. The removal and disposal of the existing 3,000-gallon vehicle fuel tank and the two existing 20,000-gallon aviation fuel tanks would also be included in the project. Finally, the project includes expanded stormwater management facilities to accommodate runoff from impervious surfaces associated with the new roadway and parking development. Figure 2-1 illustrates the Proposed Action; Table 2-1 summarizes the facilities that the ORA would construct in the expansion area.

2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, the ORA would not make the improvements required in the vulnerability assessment and endorsed by the U.S. Department of Homeland Security for increased safety and the Air Force would not expand the lease. The lack of a separate entrance, fencing, and expanded parking area would leave the airport vulnerable to threats from large delivery vehicles and other activities associated with commercial rental car operations. The continuance of existing space and operations for rental car leasing companies may also impact the quality and efficiency of customer service.

2.3 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

The Proposed Action was presented to the MEC as the only viable alternative that would reasonably meet the needs and requirements for the rental car facility and the existing airport. The ORA examined all possible configurations; however the existing stormwater detention ponds, requirement for additional stormwater ponds and the existing airfield posed constraints on alternative configurations. The ORA did not document or present any other viable alternatives to the MEC.

Table 2-1. Proposed Action Project Components

Component	Size	Purpose
Paved Areas	***11 acres***	
Parking Area	4 acres	Parking for five separate rental car agencies, totaling 800 parking spots.
Rental Car Circulation	4.4 acres	Traffic circulation area between parking, rental office area, wash area, and fuel island.
Fuel Farm Area	0.52 acres	Traffic circulation area around fuel facility.
Access Roads	2.2 acres	A separate entrance from SR 85, a connection to the terminal loop road for ready/return operations, and a segregated truck inspection area.
Structures	***23,300 ft^2***	
Rental Office Area	13,500 ft^2	Space for five tenants where each tenant would have an office area with two bay maintenance areas with a storage mezzanine.
Fuel Island	5,400 ft^2	10 or 12 lanes/five- or six-pump fueling facility that all five tenants would utilize.
Wash Area	4,400 ft^2	Enclosed area of five wash bays with automatic car wash and recycling system.
Fuel Farm		Containment area with 50,000-gallon storage capacity for vehicle fuel and 80,000-gallon storage capacity for aviation fuel.
Existing Fuel Tanks		The ORA would remove and dispose of the two existing 20,000-gallon aviation fuel tanks and the existing 3,000-gallon vehicle fuel tank.
Miscellaneous Structures (Dumpster Enclosure, Facility and Tenant Signage, Covered Walkway Extension)		Signage and connection to the covered walk at the terminal.
Stormwater Ponds	***13.2 acres***	
Existing Pond	4.7 acres	Expansion of drainage facilities and stormwater treatment ponds to accommodate the roadway and parking development.
Expansion of Existing Pond	5.1 acres	
New Pond	3.4 acres	
Other	Size to be determined during design planning	
Lighting/Utility Service		Extension of electrical duct bank along proposed access road to provide lighting and utility services to future rental car facilities.
Fencing		Installation of fence along SR 85 North to provide security.

ft^2 = square feet

2.4 COMPARISON OF ALTERNATIVES

Table 2-2 summarizes the issues and potential impacts associated with the alternatives.

Table 2-2. Summary of Issues, Potential Impacts of Proposed Action and No Action Alternative

Issue	Proposed Action	No Action
Water Resources	The Air Force anticipates that, through the implementation of best management practices (BMPs) and required stormwater and erosion control measures, there would be no adverse impacts to surface waters. The ORA would meet federal and state regulations for increased stormwater management. The Proposed Action would not have any direct impacts on wetlands, as wetland dredge-and-fill activities would not occur. By adhering to permitting requirements and incorporating storm water BMPs, erosion runoff would not be a secondary impact to the wetland area.	No impacts would occur.
Soils/Erosion	Implementation of erosion control measures associated with permit requirements would minimize the potential for soil erosion. As a result, the Air Force does not anticipate adverse impacts.	No impacts would occur.
Air Quality	The Air Force does not expect any adverse impacts associated with air quality, as air emissions would be short-term and would diminish once construction activities are completed.	No impacts would occur.
BASH	The Air Force has determined that if FAA guidelines (FAA Advisory Circular 150/5200-33A) are met for the stormwater management system design, they do not anticipate any adverse impacts on safety or aircraft damage associated with the Proposed Action.	No impacts would occur.
Utilities	The Air Force anticipates that there would be no adverse impacts to the capacity or usage of existing utilities from the Proposed Action.	No impacts would occur.
Hazardous Materials and Waste	The Air Force expects no impacts to ERP sites or from storage and uses of hazardous materials, as the ORA would meet management requirements and federal and state regulation requirements.	No impacts would occur.
Solid Waste	The Air Force does not expect the Proposed Action to adversely impact the capacity of local landfills to handle solid waste, as the waste increase to the landfills from the project activities would be 1% or less.	No impacts would occur.
Biological Resources	The Air Force does not anticipate impacts to the federally- listed eastern indigo snake or state-listed gopher tortoise because a pre-construction survey will be performed to identify any gopher tortoise burrows and relocate any protected species present.	No impacts would occur.

ERP = Environmental Restoration Program; FAA = Federal Aviation Administration

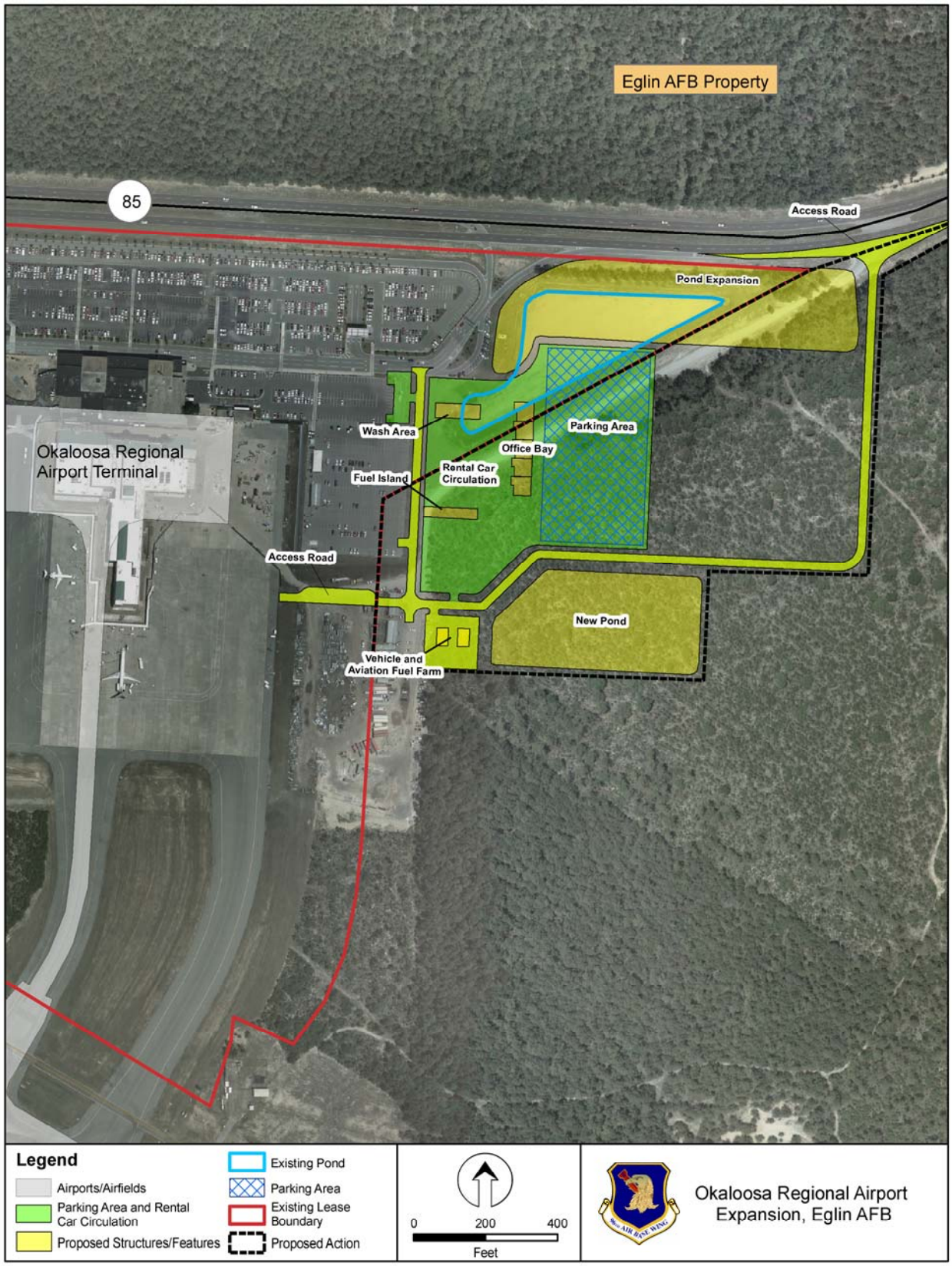

Figure 2-1. Existing Aerial Photography and the Proposed Rental Car Facility at the Okaloosa Regional Airport

3. AFFECTED ENVIRONMENT

3.1 WATER RESOURCES

This section describes the qualitative and quantitative characteristics of water resources in or adjacent to the Proposed Action work site at the ORA. These resources include surface waters, stormwater, and wetlands. There are no floodplain areas within or adjacent to the project and, therefore, this section does not address floodplains.

3.1.1 Surface Water

Surface water is any water that lies above groundwater, such as ponds, creeks, and streams. Ponds and wetlands occur where local shallow clay and silt layers restrict the downward movement of water to the regional water table (U.S. Air Force, 1995). Tom's Creek and its tributaries represent the only surface waters in the vicinity of the proposed work site. Tom's Creek is located 1,340 feet south of the southern extent of the project (Figure 3-1). The proposed project site is located in the watershed for Tom's creek and the topography indicates that the water flow from the project site would be directed towards the creek.

Surface Water Quality

Section 303 of the Clean Water Act (CWA) requires states to establish water quality standards for waterways, identify those that fail to meet the standards, and take action to clean up these waterways. Florida recently adopted the Impaired Waters Rule (IWR, Chapter 62-303, FAC), with amendments, as the new methodology for assessing the state's waters for 303(d) listing. Waters determined to be impaired using the methodology in the IWR and adopted by Secretarial Order, are submitted to the U.S. Environmental Protection Agency (USEPA) for approval as Florida's 303(d) list. No specific water quality data were available for Tom's Creek.

FDEP submits updates to Florida's 303(d) List of Impaired Surface Waters to USEPA every 2 years. The *2004 Integrated Water Quality Assessment for Florida: 2004 305(b) Report and 303(d) List Update* (FDEP, 2004) satisfies the listing and reporting requirements of Sections 303(d) and 305(b) of the CWA. River basins across Florida have been divided into groups, which FDEP addresses according to a rotation schedule. The eastern portion of Okaloosa County drains to the Choctawhatchee-St. Andrews Bay Basin (Group 3) (FDEP, 2004a).

3.1.2 Stormwater

ORA currently uses an existing stormwater detention pond to manage stormwater runoff. The 4.7-acre pond was built in accordance with FDEP regulations to effectively manage stormwater runoff from the parking areas and other impervious surfaces detailed in Lease No. AFMC-EG-1-01-004, executed on 26 February 2001 to increase airport parking areas (U.S. Air Force, 1999). However, the current stormwater pond configuration is not large enough to meet the FDEP regulatory requirements for the Proposed Action.

Stormwater Regulations

Requirements for large-scale construction projects (over one acre) in Florida include a NPDES general permit for stormwater discharge, a Stormwater Pollution Prevention Plan (SWPPP), and adherence to Phase II Municipal Separate Storm Sewer Systems (MS4) permitting. Proper implementation and maintenance of BMPs are widely used to reduce the peak flow and maximum runoff of stormwater to permit-mandated levels in order to retain the first one inch of runoff (FAC Chapter 62-25).

3.1.3 Wetlands

Wetlands are areas of transition between terrestrial and aquatic systems where the water table is usually at, or near, the surface, or the land is covered by shallow water (USFWS, 1979). Abiotic and biotic environmental factors such as morphology, hydrology, water chemistry, soil characteristics, and vegetation contribute to the diversity of wetland community types. The term *wetlands* describes marshes, swamps, bogs, and similar areas. Local hydrology and soil saturation largely affects soil formation and development, as well as the plant and animal communities found in wetland areas (USEPA, 1995). Wetland hydrology is considered one of the most important factors in establishing and maintaining wetland processes (Mitsch, 2000).

Wetlands are defined in the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory, 1987). The majority of jurisdictional wetlands in the United States are described using the three wetland delineation criteria; hydrophytic (aquatic) vegetation (hydrophytes), wetland (hydric) soils, and hydrology (Environmental Laboratory, 1987). The closest wetland resources associated with Tom's Creek are located 1,340 feet south of the southern extent of the project, as depicted in Figure 3-1.

Wetland Regulations

USACE is the lead agency in protecting wetland resources. This agency maintains jurisdiction over federal wetlands (33 CFR 328.3) under Section 404 of the CWA (30 CFR 320-330) and Section 10 of the Rivers and Harbors Act (30 CFR 329). USEPA assists the USACE (in an administrative capacity) in the protection of wetlands (40 CFR 225.1 to 233.71). Furthermore, EO 11990, Protection of Wetlands, offers additional protection to these resources. In addition, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service have important advisory roles. FDEP regulates wetlands through the Wetlands/Environmental Resource Permit program under Part IV, Florida Statutes Section 373 and FDEP's Chapter 62-312, Dredge and Fill Program. FDEP issues a Section 401 certification under the authority of the CWA (40 CFR 230.10[b]).

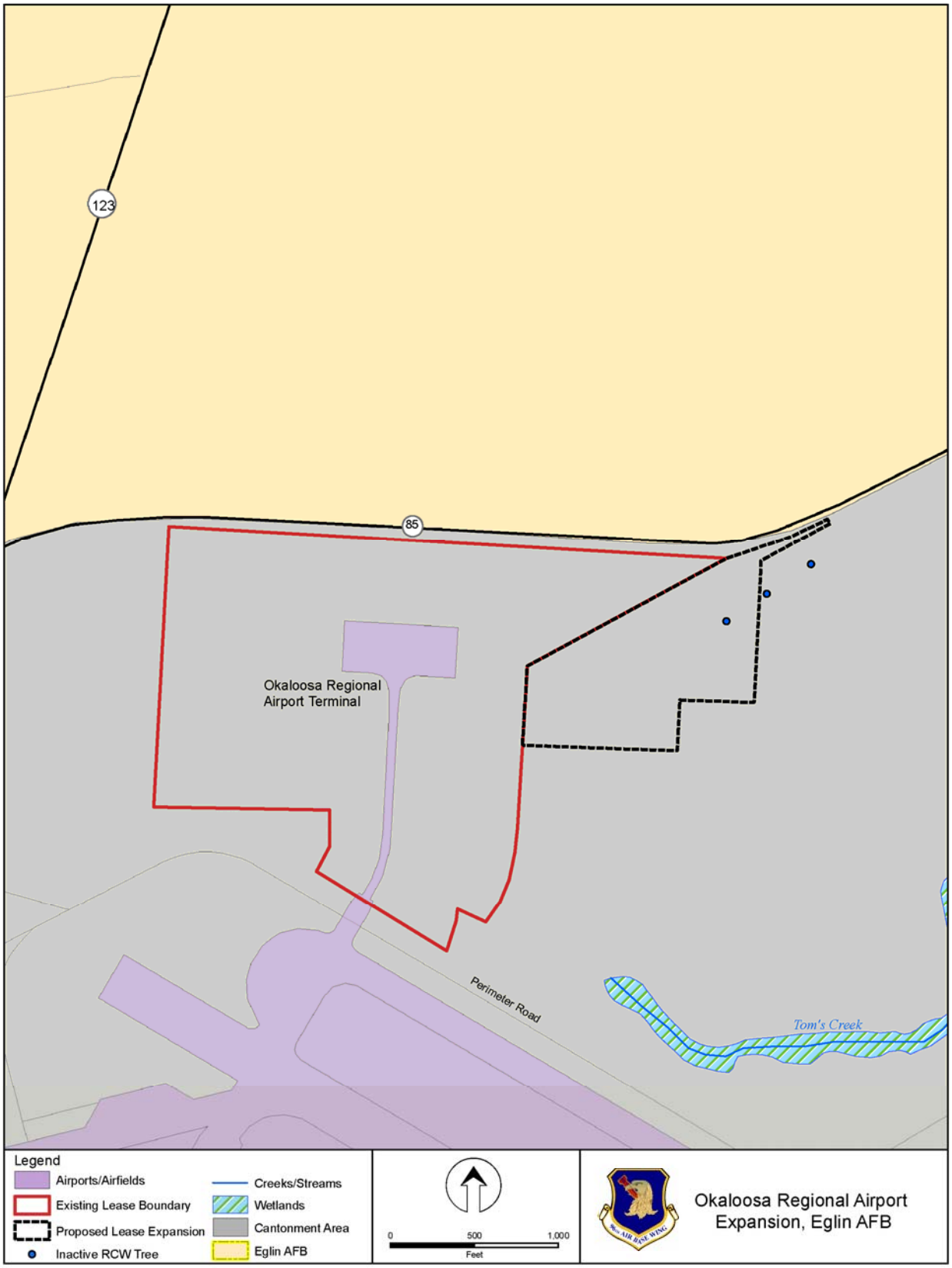

Figure 3-1. Location of Wetlands and Surface Waters Adjacent to the Okaloosa Regional Airport

3.2 SOILS

This section discusses soil types within the project areas of the proposed airport expansion. The ORA will require grading of the proposed project site to perform the Proposed Action. Currently, the proposed project site is partly paved, partly cleared, and partly landscaped.

Soil, as a resource, is defined in terms of drainage capacity, erodibility, composition, and the topography of the proposed project location. Soils occurring at the project location are typical of the types of soil that occur over much of Eglin AFB. The primary soil association is Lakeland-Troup (Overing et al., 1995). This association is nearly level to strongly sloping with some excessively drained soils that are sandy throughout and some soils that have at least 40 inches of sand over loamy subsoil. Included within the Lakeland-Troup association, there are Lakeland sands and Urban land. General descriptions of these types are described in the following paragraphs. The project site of the Proposed Action consists of approximately 81 percent Lakeland sand (0 to 5 percent slopes) and 19 percent Urban land (0 to 5 percent slopes).

Lakeland soils are generally located on broad ridge tops in the uplands with smooth to concave slopes. This soil has a surface layer of dark grayish brown sand about four inches in thickness. Zero to 5 percent slopes are typically nearly level to gently sloping soils and are often excessively drained. Five to 12 percent slopes are generally located on upland hillsides and around depressions with smooth-to-concave slopes. This soil has a surface layer of dark grayish brown sand about 3 inches thick. The subsurface layer is a yellowish-brown to grayish-brown sand that reaches to a depth of 83 inches. Lakeland sands contain a relatively deep water table of 72 inches or more (Overing et al., 1995).

Urban land is generally located on nearly level to gently sloping hillsides and is located in areas covered with pavement or urban development. Urban land is predominant in the land located in and around the ORA. This soil is difficult to characterize, as the natural soil cannot be observed (Overing et al., 1995). Typically, these soils have been cut to a depth of 12 inches or more and have been covered with fill to an average depth of 12 inches. With the dominate coverage of Lakeland soils in surrounding areas, it is likely that these Urban soils retain some Lakeland characteristics below this initial surface layer.

Depending on their properties and the topography in which they occur, soils have varying degrees of susceptibility to erosion. In general, Lakeland sand is slightly susceptible to water and wind erosion under natural conditions, though nearly all of the sandy soils have a high susceptibility to wind and water erosion should the area be cleared of vegetation. Urban soils have had their topsoil stripped or refilled at some time in their usage history, and so the erosion properties of these soils can be difficult to gauge.

Like the soil characteristics described above, topography and surface drainage features are other factors to consider when undertaking various activities due to the erosion potential. The landscape under consideration is fairly level, with slight rises. No major water features or streams are located in association with the proposed project site. Soil slopes generally are 5 percent or less throughout the project area. As a result, erosion is not expected to be a major concern.

3.2.1 Existing Conditions

Soil characteristics and percent composition at the existing ORA lease area and proposed lease expansion are provided below in Table 3-1. Table 3-1 also displays soil types and basic erodibility characteristics for the Proposed Action location.

Table 3-1. Soil Types and Erodibility at the Existing and Proposed Lease Expansion Areas

Soil Type	Slopes	Approximate % Coverage In Respective Area	Location of Soil Type	Erodibility	
				From Water	From Wind
Lakeland sand	0 to 5%	81	Proposed Project Area	Slight	Slight
Urban land	0 to 5%	19	Proposed Project Area	variable	variable

Source: Overing et al., 1995

In addition, the area along SR 85 where the security fence would be placed is characterized as Lakeland sand.

3.3 AIR QUALITY

Identifying the affected area for an air quality assessment requires knowledge of sources of air emissions, pollutant types, emissions rates and release parameters, proximity to other emissions sources, and local as well as regional meteorological conditions. Refer to the Air Quality Appendix for a review of air quality and associated methodologies used for emissions calculations.

3.3.1 Definition of the Resource

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The levels of pollutants are generally expressed on a concentration basis in units of part per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). For the air quality analysis, the region of influence (ROI) centers on Okaloosa County, where the proposed activities would occur.

Pollutant concentrations are compared to the National Ambient Air Quality Standards (NAAQS) and state air quality standards to determine potential effects. These standards represent the maximum allowable atmospheric concentration that may occur and still protect public health and welfare, with a reasonable margin of safety. The NAAQS identify maximum allowable concentrations for the following criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM_{10}), and lead (Pb) (40 CFR 50). In the case of SO_2, the state of Florida has established more stringent standards (FAC 62-204.240 [1][a-b]). The Air Quality Appendix details the NAAQS and the state of Florida air quality requirements.

Based on measured ambient air pollutant concentrations, USEPA designates whether areas of the U.S. are meeting the NAAQS or not. Those areas demonstrating compliance with the NAAQS are considered "attainment" while those that are not are known as "non-attainment." Those areas that cannot be classified on the basis of available information as meeting or not meeting the NAAQS for a particular pollutant are "unclassifiable" and are treated as attainment until proven otherwise.

3.3.2 Existing Conditions

Regional Air Quality

FDEP operates air quality monitors in various counties throughout the state (FDEP, 2003), including neighboring Santa Rosa County. USEPA has designated that all counties within the state of Florida are classified as "attainment" for criteria pollutants per FDEP.

The Clean Air Act (CAA) also establishes a national goal of preventing degradation or impairment in attainment areas. As part of the Prevention of Significant Deterioration Program (PSD), areas are designated as Class I, II, or III. Congress designates national parks and wilderness areas as Class I areas, where any appreciable deterioration in air quality is considered significant. Class II areas are those where moderate, well-controlled industrial growth could be permitted. Eglin AFB is in a Class II area. Class III areas allow for greater industrial development. Currently there are no designated Class III areas in the United States. Under the PSD program, before a new major source of air emissions is constructed, its emissions are estimated to determine if significant emissions rate (SER) thresholds are exceeded. If a source is to be modified, then its emissions are evaluated and compared to the SER thresholds to determine if modifications are significant. The SER thresholds are used to ascertain whether pollution controls or air quality dispersion modeling are necessary for the construction project (USEPA, 1990). It should be noted that mobile sources as well as those associated with construction activities are excluded from the PSD applicability process.

Baseline Emissions

An air emissions inventory qualitatively and quantitatively describes the amount of emissions from a facility or within an area. Emissions inventories locate pollution sources, define the type and size of sources, characterize emissions from each source, and estimate total mass emissions generated over a period of time, normally a year. These annual rates are typically represented in tons per year. Inventory data establish relative contributions to air pollution concerns by classifying sources and determining the adequacy, as well as necessity, of air regulations. Accurate inventories are imperative for development of appropriate air quality regulatory policy. These inventories include both stationary and mobile sources. Stationary sources encompass equipment/processes such as boilers, electric generators, surface coating, and fuels handling operations. Mobile sources include motor vehicles, aerospace ground support equipment, and aircraft operations.

For comparison purposes, USEPA's 1999 National Emissions Inventory (NEI) data for Okaloosa County is presented in Table 3-2. The county data include emissions data from point sources (a stationary source that can be identified by name and location), area sources (a point source whose emissions are too small to track individually, such as a home or small office building, or a

diffuse stationary source, such as wildfires or agricultural tilling), and mobile sources (any kind of vehicle or equipment with gasoline or diesel engine, airplane, or ship).

Table 3-2. 1999 National Emissions Inventory Data for Okaloosa County (tons/year)

Source Type	NO_x	CO	PM_{10}	VOCs	SO_2
Point Source	1,458	50,296	5,502	8,718	16
Nonroad	1,072	15,033	144	1,969	115
On-road	5,061	40,563	146	4,114	192
Area source	1,196	46,093	10,865	5,385	345
Totals	***8,787***	***151,985***	***16,657***	***20,186***	***668***

NOTE: USEPA has developed 2002 NEI data, however, the data has not been finalized; therefore, 1999 NEI data is used for the analysis.
VOCs = volatile organic compounds

For purposes of analysis, a threshold of individual pollutant emissions not exceeding 10 percent of the total ROI's emissions for each pollutant was used (Shipley Associates, 1995). The air analysis detailed Chapter 4 focused on emissions from construction and mobile source activities, the major environmental issues associated with the Proposed Action.

3.4 BIRD AIRCRAFT STRIKE HAZARD (BASH)

The potential for bird aircraft strikes are a serious safety concern because of the potential for damage to aircraft and injury to aircrews. Bird aircraft strikes have resulted in the loss of hundreds of lives worldwide and billions of dollars of aircraft damage during the past century (FAA Advisory Circular 150/5200-33A). Proper land use and facility planning is essential to minimize hazardous wildlife attractants. Land features at a facility that might attract wildlife and birds to congregate in the area include poorly drained locations and detention ponds utilized in stormwater management.

The FAA recommends safety standards and practices in the FAA Advisory Circular 150/5200-33A to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports. For new stormwater management facilities, the FAA recommends the following:

- On-airport stormwater detention ponds should be designed, engineered, constructed and maintained for a maximum 48-hour detention period for the storm and remain completely dry between storms.
- Utilize steep-sided, narrow, linearly shaped water detention basins.
- All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated.

All construction and design plans, including stormwater management design, at public-use airports must undergo FAA review to ascertain that all project and facility elements satisfy the concerns of the FAA.

3.5 UTILITY INFRASTRUCTURE

This section describes the existing utility infrastructure, such as electricity, wastewater treatment, potable water supply, and natural gas serving the ORA.

3.5.1 Electricity

The Gulf Power Company serves much of Okaloosa County (including the cities of Fort Walton Beach, Cinco Bayou, Destin, Mary Esther, Shalimar, Crestview, Niceville, and Valparaiso). Gulf Power is an operating company of the Southern Company, along with Georgia Power Company, Alabama Power Company, Mississippi Power Company, and Savannah Electric. As the largest system in the nation, the Southern Company pools power and draws as needed. An existing transmission line parallel to Perimeter Road supplies electricity to the ORA facility, as Figure 3-2 depicts.

3.5.2 Wastewater Treatment

The CWA (33 United States Code [USC] 1151 et seq., 1251 et seq.) is the basic federal legislation governing wastewater discharges. The implementing federal regulations include the NPDES permitting process (40 CFR 122), general pretreatment programs (40 CFR 403), and categorical effluent limitations, including limitations for pretreatment of direct discharges (40 CFR 405, et seq.).

The Florida Air and Water Pollution Control Act (Florida Statutes, Title 28 Section 403) governs industrial and domestic wastewater discharges in the state. FDEP has delegated enforcement authority to the Northwest Florida Water Management District (NWFWMD). The implementing state regulations are contained in FAC 62. These regulations establish water quality standards, regulate domestic wastewater facility management and industrial waste treatment, establish domestic wastewater treatment plant monitoring requirements, and regulate stormwater discharge.

Okaloosa County Water and Sewer (OCWS) is the local service provider for wastewater treatment in the region, however, Eglin AFB water and sewer utility services at the Plew Heights Treatment Facility handles wastewater from the ORA. The Plew Heights Treatment Facility operated at a daily average flow in 2004 at 0.657 million gallons per day (MGD), which is 44 percent of the capacity of that facility (Brown, 2004).

3.5.3 Potable Water

FDEP regulates potable water supply systems in Florida. The Florida Safe Drinking Water Act and FDEP rules have incorporated federal primary and secondary drinking water standards as identified in the Safe Drinking Water Act (42 USC 201, 300 et seq.) and the National Primary Drinking Water Regulations. FDEP classifies public water supply systems as those with at least 15 service connections or those that regularly serve 25 individuals daily at least 60 days of the year. The Florida Water Resources Act (Florida Statutes, Title 28 Section 373) requires a comprehensive approach to water management based on regional hydrological boundaries. The act also provides for the creation of five regional water management districts, including NWFWMD,

which maintains jurisdiction over the ORA. The Floridan Aquifer supplies most of the water needs in Okaloosa County.

OCWS provides service for potable water at the ORA. In 2004, the OCWS provided an average of 4.5 MGD to its providers, which was about 40 percent of the capacity of the system (Crews, 2004).

3.5.4 Natural Gas

Okaloosa County Gas District supplies natural gas to most of Okaloosa County, including Fort Walton Beach, Cinco Bayou, Destin, Mary Esther, Niceville, Okaloosa Island, Shalimar, Valparaiso, Eglin, and unincorporated areas. Okaloosa Gas District has contract reservations on two major pipelines, Gulf South Pipeline and Florida Gas Transmission, for a combined total maximum daily quotient of 34,000 million cubic feet (MCF) per day within the tricounty area of Santa Rosa, Okaloosa, and Walton Counties (U.S. Air Force, 2005).

3.5.5 Stormwater

The ORA maintains a 4.7-acre stormwater detention pond to provide on-site treatment of stormwater. This pond is located south of SR 85 near the eastern portion of the complex, as shown in Figure 3-2. Any addition of impermeable surfaces (i.e., concrete, asphalt) would result in an increase in stormwater runoff. Chapter 4 details the impacts to stormwater associated with the implementation of the Proposed Action.

3.6 HAZARDOUS MATERIALS AND WASTE

3.6.1 Policies and Regulations

According to the Resource Conservation and Recovery Act (RCRA), Section 6903(5), hazardous materials and waste are defined as substances that, because of "quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to increases in mortality or serious illnesses, or pose a substantial threat to human health or the environment." Hazardous materials, as referenced here, pertain to mission-related hazardous chemicals or substances meeting the requirements found in 40 CFR 261.21.24, are regulated under RCRA, and are guided by Air Force Instruction (AFI) 32-7042. The hazardous materials to be transported, stored, and used on-site for the Proposed Action consist of aviation fuel, vehicle fuel, and vehicle maintenance fluids and wastes.

Under federal law, the transportation of hazardous materials is regulated in accordance with the Hazardous Materials Transportation Act, 49 U.S.C. 1801 et seq. For the transportation of hazardous materials, Florida has adopted federal regulations that implement the Hazardous Materials Transportation Act, found at 49 CFR 178.

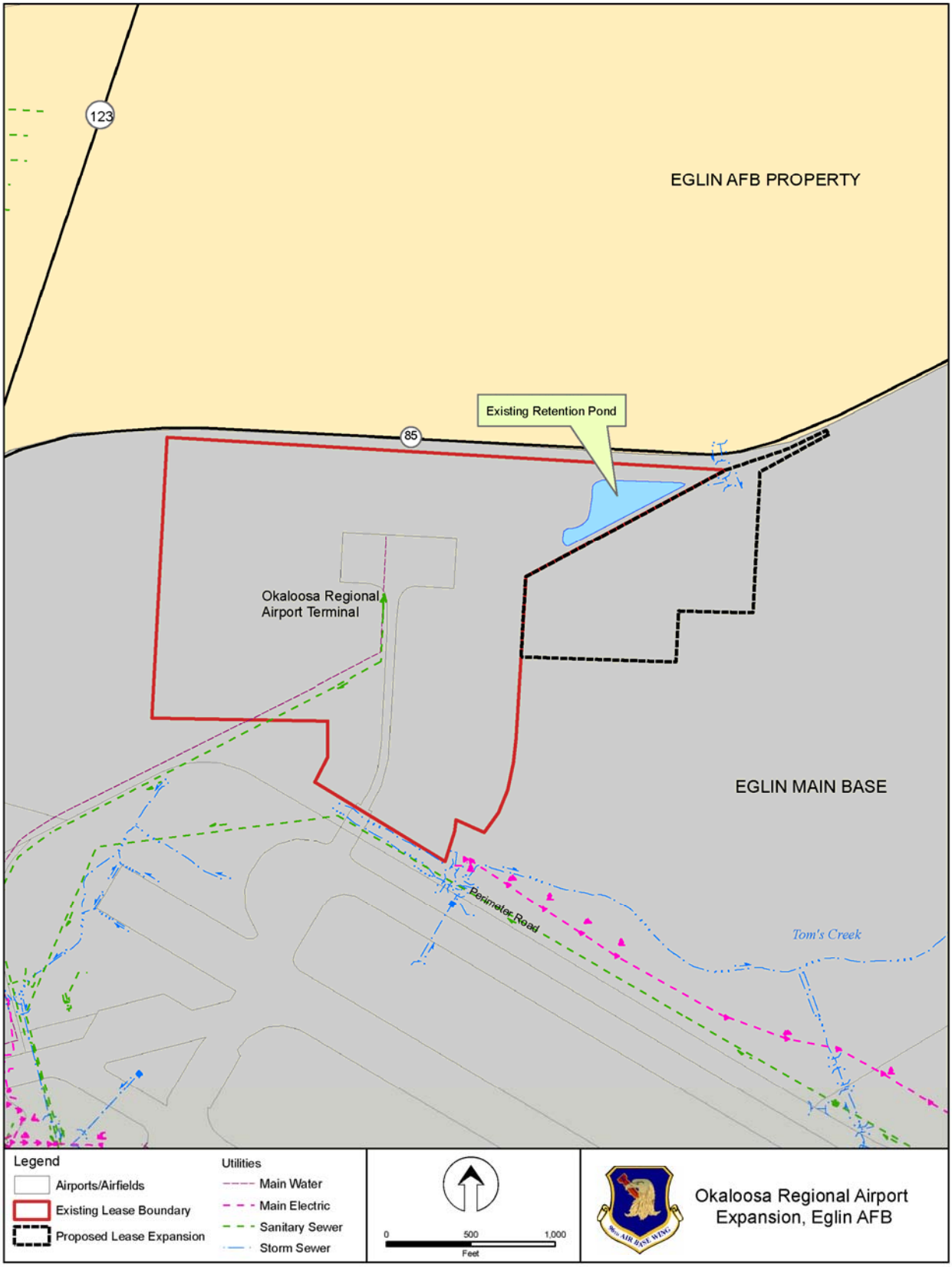

Figure 3-2. Location of Existing Utility Infrastructure at the Okaloosa Regional Airport

Hazardous materials are subject to and managed according to both federal and Florida state regulations. Federal laws regarding management of hazardous materials include the Emergency Planning and Community Right-to-Know Act (EPCRA) (42 USC 1001 et seq.) as part of the Superfund Amendments and Reauthorization Act (SARA) Title III (10 USC Sections 2701 et seq.). Management of hazardous materials in the workplace is regulated under OSHA regulations at Title 29 CFR 1910.1200.

State laws pertaining to hazardous materials management include the Florida Right-to-Know Act, Florida Statutes Title 17, Chapter 252, the Hazardous Waste section of the FDEP, and the Florida Department of Transportation (FDOT) Motor Carrier Compliance Department, which implements 49 CFR 178 under Florida statute annotated Title 29 Section 403.721.

Air Armament Center (AAC) Plan 32-9, Hazardous Materials Management, describes how Eglin complies with federal, state, Air Force, and Department of Defense (DoD) laws and instructions. All Eglin AFB organizations, tenants, and users are required to follow this plan.

Within the context of the federal, state, Air Force, and Eglin Air Force regulations, the following items are relevant to this assessment and are addressed in this section.

- *Environmental Restoration Program (ERP) Sites* – The Air Force uses the ERP to identify, characterize, and remediate past environmental contamination on Air Force installations.
- *Hazardous Materials and Hazardous Wastes Management* – Hazardous materials, listed under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and EPCRA, are defined as any substances that may present substantial danger to public health, welfare, or the environment because of quantity, concentration, or physical, chemical, or infectious characteristics. Examples of hazardous materials include petroleum products/fuels, natural gas, synthetic gas, and toxic chemicals. Hazardous wastes, listed under RCRA, are defined as any solid, liquid, or contained gaseous or semisolid waste, or any combination of wastes that pose a substantive present or potential hazard to human health or the environment. In addition, hazardous wastes must meet either a hazardous characteristic of ignitability, corrosivity, toxicity, or reactivity under 40 CFR 261, or be listed as a waste under 40 CFR 263.

3.6.2 ERP Sites

The Air Force uses the ERP to identify, characterize, and remediate past environmental contamination on Air Force installations. Although widely accepted at one time, the procedures followed for managing and disposing of wastes resulted in contamination of the environment. The ERP has established a process to evaluate past disposal sites, control the migration of contaminants, identify potential hazards to human health and the environment, and remediate the sites. Regulations affecting ERP management at Eglin integrate investigative and remedial protocols of the CERCLA and RCRA processes, as well as state environmental compliance programs, primarily those found in the FAC 62-770, Petroleum Contamination Site Cleanup Criteria. Digging activities are coordinated with 96th Civil Engineer Group Environmental Management Division, Restoration Branch (96 CEG/CEVR). Plans to manage ERP sites on

Eglin are addressed in the *Eglin Air Force Base Environmental Restoration Program Management Action Plan* (U.S. Air Force, 2003).

ERP Site ST-99 is located adjacent to Highway 85, approximately 425 yards west of the subject property (Figure 3-3). The site consists of three areas surrounding the ORA tank farm and a former spill site located on the runway apron south-southwest of the tank farm. Eglin AFB and FDEP personnel first noted contamination in July 1991 when they investigated a fuel spill at the airport.

From 1991 to 1994, contamination assessment activities included tank tightness tests, installation of deep soil borings, organic vapor analyses of surface and subsurface soils, and installation of groundwater monitoring wells. A Contamination Assessment Report, submitted to FDEP in June 1994, indicated that petroleum contaminants (diesel and jet fuel) were present in soils and groundwater. All Underground Storage Tanks (USTs) and piping at the tank farm were removed, along with a large quantity of petroleum-contaminated soil. Subsequent groundwater samples from the monitoring wells have indicated that there is no groundwater contaminant migration associated with the site. Consequently, FDEP has issued a decision of "no further action" indicating that no further remedial action is required for the site (U.S. Air Force, 2003).

3.6.3 Hazardous Materials and Waste Management

USEPA administers RCRA Subtitle C (40 CFR 260–270) regulations, which are applicable to the management of hazardous wastes, unless otherwise exempted by CERCLA regulations. Hazardous waste must be handled, stored, transported, disposed of, or recycled in accordance with these regulations. Impacts to hazardous materials and waste management would be considered significant if the federal action resulted in noncompliance with applicable federal and FDEP regulations or caused waste generation that current Eglin AFB waste management capacities could not accommodate.

The hazardous materials commonly used at Eglin consist of petroleum products including fuels, motor oils, and lubricants; hydraulic fluids and industrial solvents; propellants; paints and thinners; compressed gases; and pesticides. The greatest volume of hazardous materials Eglin uses includes jet fuels, diesel fuel, and unleaded gasoline, followed by solvents, compressed gases, other petroleum products, paints and thinners, and many others. The Air Force, as well as tenants such as the Army, Navy, Space Command, and base contractors, who utilize hazardous materials primarily obtain them by request through the pharmacy system. The pharmacy system on Eglin AFB controls the purchase and use of hazardous materials to minimize hazardous waste. Under the pharmacy system, use of all hazardous materials is scrutinized (i.e., evaluated and made available for use) to determine if a non-hazardous material can be substituted, or if the process can be altered to accommodate the use of non-hazardous materials (U.S. Air Force, 2003a).

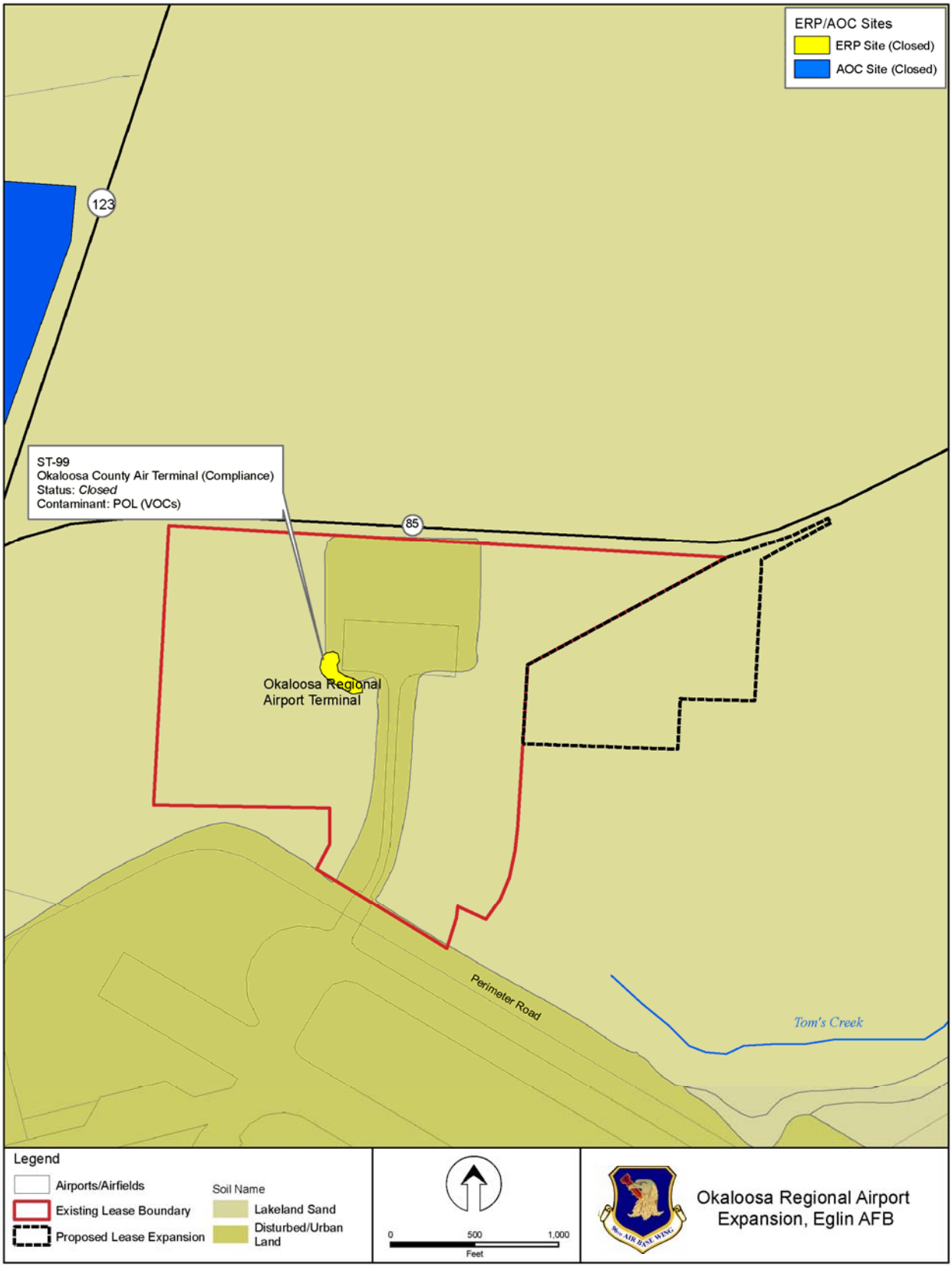

Figure 3-3. ERP Sites Located at the Okaloosa Regional Airport

The 96th Civil Engineer Group, Environmental Management Division, Compliance Branch (96 CEG/CEVC) currently coordinates an aggressive Oil and Hazardous Substance Pollution Contingency Plan, AAC Plan 32-6, to ensure that the wide variety of hazardous materials used on Eglin AFB are safely managed. The plan provides users with specific procedures to follow in the event of a hazardous substance release, including notification of proper authorities, spill response team responsibilities, and containment and cleanup procedures. AAC Plan 32-6 also provides an inventory of hazardous waste storage locations and an inventory of storage tanks.

All organizations and tenants operating on Eglin AFB must follow regulations set forth in Eglin's Hazardous Materials and Waste Management Plan. These plans describe the location of all hazardous material and waste storage areas. Organizations and tenants are responsible for implementing these plans and coordinating contractor activities with the Air Force. AAC Plan 32-9, Hazardous Materials Management, describes how Eglin complies with federal, state, Air Force, and DoD laws and instructions.

Petroleum Storage Tanks

The 96 CEG/CEVC manages underground storage tanks and aboveground storage tanks on Eglin AFB that contain hazardous materials. 96 CEG Plan 32-6, the *Oil and Hazardous Substance Pollution Contingency Plan*, establishes responsibilities and provides procedures in responding to and remediation of hazardous substance releases at Eglin. Personnel follow the Spill Prevention and Response Plan to prevent/reduce the release of hazardous substances from storage tanks and to properly manage new and existing storage tanks.

FDEP regulates above ground storage tanks (ASTs) with a capacity of 550 gallons or more under 62-762 FAC. Additionally, ASTs are subject to provisions under the CWA in 40 CFR 112. The operation and construction of ASTs are also subject to National Fire Protection Association fire codes and the Uniform Fire Code (U.S. Air Force, 2003a).

FAA Order 1050.15A, Fuel Storage Tanks at FAA Facilities, establishes agency policy, procedures, responsibilities, and implementation guidelines for compliance with regulations pertaining to underground storage tanks. Although no comprehensive federal regulation on ASTs existed prior to publication of this order, various regulations affect ASTs such as the Oil Pollution Prevention regulation codified at 40 CFR Part 112, including the requirement of a Spill Prevention, Control and Countermeasure (SPCC) Plan (40 CFR 112.7). The order also addresses FAA policy on ASTs until a single comprehensive regulation is promulgated (FAA, 1997). FAA facilities are also subject to management requirements under federal regulations, including 40 CFR Part 112, Oil Pollution Prevention (FAA, 1997).

There are two USTs currently located at the ORA. The USTs are of fiberglass, double-walled construction and are operated by National Rental Car (3,500-gallon tank) and Avis Rental Car (4,000-gallon tank). These USTs were installed in the mid-1990s and are equipped with interstitial monitoring systems. No leaks have been reported for these USTs. There are also several ASTs located at the airport. The ASTs contain aviation fuel, diesel, or gasoline. These ASTs are of steel construction and are equipped with secondary containment. No spills or leaks have been reported for the ASTs (U.S. Air Force, 2005). Table 3-3 lists storage tanks currently located at the ORA.

Table 3-3. Petroleum Storage Tanks at the Okaloosa Regional Airport

Type	Capacity	Description	Owner/Operator	Install Date
AST	3,000	Unleaded Gasoline	Okaloosa Regional Airport	May 1996
AST	20,000	Aviation Fuel	Okaloosa Regional Airport	May1996
AST	20,000	Aviation Fuel	Okaloosa Regional Airport	May 1996
AST	10,000	Diesel	Okaloosa Regional Airport	May1996
AST	500	Vehicular Diesel	Okaloosa Regional Airport	NA
AST	3,000	Unleaded Gasoline	Hertz/Budget Car Rental	NA
UST	3,500	Unleaded Gasoline	Avis Car Rental	1993
UST	4,000	Unleaded Gasoline	National Car Rental	February 1993

AST – Aboveground Storage Tank; UST – Underground Storage Tank; NA – Not Available
Source: FDEP, 2005

3.7 SOLID WASTE

The Solid Waste Disposal Act (42 USC 3251 et seq.) established guidelines for solid waste collection, transport, separation, recovery, and disposal systems. RCRA (42 USC 6901 et seq.) amended this act by shifting the emphasis from disposal to recycling and reuse of recoverable materials. Florida also has solid waste management regulations pertaining to solid waste facilities, state resource recovery and management programs, certification of resource recovery equipment, used oil and domestic sludge classification, utilization, and disposal criteria. FDEP develops and adopts rules that govern proper management of solid waste in the state. Most of the responsibility for solid waste management under the law rests with local governments. Generally, counties operate the solid waste disposal facilities to serve the cities and towns within their jurisdictions. This project is subject to federal, state, local, and Air Force regulations, since the Proposed Action would occur on Air Force property. If there are conflicting regulations or procedures and protocols, the most stringent would be used.

Florida solid waste management regulations include the following.

- **Florida Solid and Hazardous Waste Management Act (Florida Statutes 29 Chapter 403):** Requires that counties establish and operate solid waste disposal facilities and that each county implement a recycling program to achieve reduction of levels in the disposal of solid waste.

- **Florida Resource Recovery and Management Regulations (FAC 62-7):** Establish local resource recovery and management programs and regulate the collection, transport, storage, separation, processing, recycling, and disposal of solid wastes including sludge.

- **Florida Solid Waste Disposal Facility Regulations (FAC 62-701):** Establish regulations for the construction, operation, and closure of solid waste facilities.

Florida landfills are designated as Class I, II, or III. Class I landfills receive an average of 20 tons or more of solid waste per day (if weighed by scale), or 50 cubic yards or more of solid waste (as measured in place after covering). The permitting requirements for Class II landfills are the same as Class I landfills; Class II landfills are smaller. Class III landfills receive construction and demolition (C&D) debris, asbestos, carpet, cardboard, paper, glass, plastic, furniture other than appliances, and other materials that are not expected to produce leachate.

Air Force Policy Directive (AFPD) 32-70, Environmental Quality, establishes Air Force regulatory requirements and management of solid waste. AFPD 32-70 requires compliance with applicable federal, state, and local environmental laws and standards. For solid waste, AFI 32-7042 implements AFPD 32-70.

AFI 32-7042 requires that each installation have a solid waste management program that includes a solid waste management plan that addresses handling, storage, collection, disposal, and reporting of solid waste. AFI 32-7080 contains the solid waste requirement for preventing pollution through source reduction, resource recovery, and recycling.

Environmental Management administers solid waste management programs at Eglin AFB.

3.7.1 Local Solid Waste Disposal

Local solid waste is recycled or disposed of in landfills in Okaloosa, Walton, and Santa Rosa Counties. All landfills in this area are located, operated, and maintained by the respective county or privately operated. FDEP permits all landfills. Since the project would occur in Okaloosa County, the debris would be taken to Okaloosa County landfills.

Okaloosa County operates a Class I landfill near Baker, which is used for disposal of municipal solid waste generated in the northern part of the county, including Crestview. The county also operates a yard trash mulching facility at the Wright Landfill located on out-leased land on Eglin AFB. Three privately owned C&D debris landfills are located within Okaloosa County: Waste Recyclers, Point Center, and Arena Landfills. Table 3-4 lists the average annual amounts of C&D debris taken to C&D landfills in Okaloosa from 2000 to 2004.

Hurricane Ivan was a Category III storm that struck the Gulf Coast of Florida in September 2004. It wrought massive destruction of personal and public property, resulting in an increase in the amount of C&D debris generated in 2004–2005 for Santa Rosa County, Okaloosa County, and to a lesser extent, Walton County. However, after interviewing several of the area C&D landfill owners or employees (Waste Recyclers, Point Center, Arena), the life expectancies of the C&D landfills remain high (U.S. Air Force, 2005a). Point Center landfill owner, Phyllis Ensor, predicts the landfill to have 25 to 30 years of capacity remaining (U.S. Air Force, 2005b). For Arena landfill, the prediction is at least 18 to 20 years of capacity (U.S. Air Force, 2005a). The Santa Rosa County landfill continues to experience high rates of disposal for C&D debris 8 months after the hurricane. Based on conversations with local landfill operators, the Air Force determines that the additional debris from the clean-up of Hurricane Ivan has not significantly impacted the life cycle and capacity of local landfills (U.S. Air Force, 2005a).

Table 3-4. Construction and Demolition Debris Generated in Okaloosa County (tons)

Year	Okaloosa County[1]
2000	36,414
2001	42,487
2002	45,654
2003	64,758
2004*	201,265
Average	78,116

[1] U.S. Air Force, 2005

*Hurricane Ivan devastated the northwest Florida Gulf Coast in September 2004, causing a dramatic increase in the amount of debris being taken to area landfills in 2004 and 2005.

3.8 BIOLOGICAL RESOURCES

Much of Eglin remains in a relatively natural condition and its terrestrial habitats are home to an unusually diverse biological community including several sensitive species and habitats. Eglin applies a classification system of ecological associations to all its lands, based on floral, faunal, and geophysical characteristics. These ecological associations are described in Eglin's *Integrated Natural Resources Management Plan, 2002-2006* (U.S. Air Force, 2002).

Ten acres of the project site is part of the existing ORA lease. The natural features of this acreage have been replaced with pavement and landscaping.

3.8.1 Ecological Associations

The Sandhills Ecological Association characterizes 78 percent of Eglin's land base and is the predominant habitat type in the Proposed Action area. This association is primarily underlain by Lakeland Sand soils. These soils are deep, sandy, and excessively drained, creating brownish-yellow, strongly acidic soils that are low in natural fertility and organic content. In high quality sandhills habitat, dominant trees include stands of longleaf pine and, to a lesser degree, slash pine, along with turkey oak, sand live oak, and magnolia. However, in poor quality sandhills habitat that is severely fire suppressed, sand pine encroaches and becomes the dominant tree type. Low shrubs comprise an important group and include saw palmetto, persimmon, dwarf huckleberry, gopher apple, and oaks. The groundcover consists of various grasses and herbs including wiregrasses, bluestems, panic grasses, pinewoods dropseed, various asters, bracken fern, small-leaved milkpea, sensitive brier, and runner live oak. Table 3-5 lists some of the plant and animal species commonly found within the Sandhills Ecological Association.

Table 3-5. Typical Plant and Animal Species of Eglin's Sandhills Ecological Association

Plants		Animals	
Common Name	**Scientific Name**	**Common Name**	**Scientific Name**
Long Leaf Pine	*Pinus palustris*	Red-cockaded Woodpecker	*Picoides borealis*
Turkey Oak	*Quercus laevis*	Bobwhite Quail	*Colinus virginianus*
Blackjack Oak	*Q. marilandica*	Great Horned Owl	*Bubo virginianus*
Bluejack Oak	*Q. incana*	Gopher Tortoise	*Gopherus polyphemus*
Wiregrass	*Aristida stricta*	Indigo Snake	*Drymarchon corais*
Saw Palmetto	*Serona repens*	Diamondback Rattlesnake	*Crotalus adamanteus*
Bracken Fern	*Pteridium aquilinum*	Six-lined Racerunner	*Cnemidophorus sexlineatus*
Blueberry	*Vaccinium* spp.	Florida Black Bear	*Ursus americanus floridanus*
Yaupon	*Ilex vomitoria*	Fox Squirrel	*Sciurus niger*
Gallberry	*Ilex glabra*	Least Shrew	*Cryptodus parva*
Gopher Apple	*Licania michauxii*	Cottontail Rabbit	*Sylvilagus floridanus*
Blackberry	*Rubus cuneifolius*	Pocket Gopher	*Geomys pinetus*
Sand Pine	*Pinus Clausa*	White-tailed Deer	*Castor canadensis*
Pine-woods Bluestem	*Andropogon arctatus*	Feral Pig	*Sus scrofa*
Wiregrass	*Aristida stricta*	Raccoon	*Procyon lotor*

3.8.2 Sensitive Species

Sensitive species are those species protected under federal or state law, to include migratory birds (protected under the Migratory Bird Treaty Act), marine mammals (protected under the Marine Mammal Protection Act), and threatened and endangered species (protected under the Endangered Species Act [ESA]). An *endangered* species is one that is in danger of extinction throughout all or a significant portion of its range. A *threatened* species is any species that is *likely* to become endangered within the foreseeable future throughout all or a significant portion of its range.

Because the Federal government has not waived sovereign immunity for the ESA, the Air Force need not comply with the state's endangered species protection laws and is not legally required to protect, mitigate, get take permits, or consult for state-listed species. However, Eglin considers species that do not have federal status but do have special status within Florida to be sensitive species. State status categories include: state endangered, state threatened, state species of special concern, and state species of special concern candidate. Eglin Natural Resources Branch protects state-listed species through habitat management—specifically through the management of habitats identified as conservation targets by The Nature Conservancy. By addressing the needs of conservation targets that are sensitive, essential habitat, and cornerstone species; 96 CEG/CEVSNW indirectly supports the management of other species and habitat, including state-listed species.

Sensitive wildlife species have been documented to occur in the general area based on eyewitness reports and Eglin AFB data. The documented species are the state-listed Florida black bear, the state-listed gopher tortoise, and the federally listed red-cockaded woodpecker (RCW). An 18 January 2006 letter from the Florida Fish and Wildlife Conservation Commission indicates that the ORA expansion site could also contain habitat for the state and federally listed eastern indigo snake and Flatwoods salamander.

Red-Cockaded Woodpecker (RCW)

The RCW has been federally listed as "endangered" since 1970. There are no active RCW roosting cavities in the vicinity of the project area as indicated by a survey of mapped and recorded active sites. However, there are three inactive RCW trees: one within the lease expansion area and two on the eastern outside edge of the lease expansion area. The inactive trees are now considered to be unsuitable for the RCW due to insufficient forage habitat, an overgrown understory, and enlargement of cavities by other animals.

Gopher Tortoise

The Sandhills Ecological Association provides potential habitat for the gopher tortoise, a state-listed species of special concern. This tortoise lives in areas of generally well-drained sandy soils into which it digs extensive burrows for year around habitation. Eglin's Natural Resources Branch routinely surveys sites for the presence of gopher tortoise burrows and relocates any gopher tortoises found as a regular part of their forestry and land development activities. Relocation requires a state permit, which Eglin possesses.

Eastern Indigo Snake

The federally listed (threatened) eastern indigo snake is a large but very docile and nonvenomous snake which can grow up to 125 inches in length. It is carnivorous and will eat any animal up to about the size of a squirrel. The eastern indigo snake is strongly associated with gopher tortoise burrows, using abandoned burrows in winter and spring for egg laying, shedding, and protection from dehydration and temperature extremes. During warmer months the snake will greatly expand its home range, frequenting streams, swamps and occasionally flatwoods. This species decline is attributed to habitat loss and fragmentation plus over collection for the pet trade. Management and recovery of the eastern indigo snake is closely linked to the gopher tortoise.

Flatwoods Salamander

The federally listed (threatened) Flatwoods salamander is a small amphibian, rarely exceeding 13 centimeters in length. Optimum habitat for the Flatwoods salamander is an open, mesic (moderately wet) woodland of longleaf pine/slash pine flatwoods maintained by frequent fire. These salamanders exist as isolated populations scattered across the remaining longleaf pine/slash pine flatwoods. Pine flatwoods typically consist of flat open woodlands lying between upland Sandhill communities and downslope wetlands. Adults migrate between isolated wetland breeding sites and their normal flatwoods habitat where they live in underground burrows. Flatwoods salamanders require a moist environment in order to maintain moist skin for respiration and osmoregulation; i.e., to control the water and salt content in their bodies. Therefore they are not suited to life in the Sandhill ecology.

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4. ENVIRONMENTAL CONSEQUENCES

This chapter analyzes the potential impacts of the Proposed Action and the No Action Alternative in relation to the issues and resources identified in previous chapters. Issues addressed include the following.

- Water resources
- Soils
- Air quality
- Utility infrastructure
- Hazardous materials
- Solid waste
- Biological resources

4.1 WATER RESOURCES

The water resources include surface waters, stormwater, and wetlands as described in Chapter 3. There are no floodplain areas within or adjacent to the project and, therefore, this analysis does not address floodplains. The analysis indicates that, through the implementation of BMPs as well as the required stormwater and erosion control measures, there would be no adverse impacts to surface waters. As described in the analysis, the ORA would meet federal and state regulations for increased stormwater management. The Proposed Action would not have any direct impacts on wetlands, as wetland dredge-and-fill activities would not occur. By adhering to permitting requirements and incorporating storm water BMPs, erosion runoff would not be a secondary impact to the wetland area.

4.1.1 Surface Waters

The construction of the proposed parking area and access roads, combined with the daily usage, may potentially increase pollutants such as hydrocarbons (i.e., oils, fuels) from vehicles. The introduction of such pollutants into surface waters has the potential to adversely impact water quality. A tributary of Tom's Creek is located 1,340 feet south of the proposed construction area (Figure 3-1). The land between this tributary of Tom's Creek and the southern extent of the project is undeveloped, forested land that would remain intact upon execution of the Proposed Action.

Proposed Action

The proposed construction activities would not cross any surface waters. The increased rate and volume of stormwater runoff could potentially increase the amount of sediment and pollutant runoff during construction activities. In addition, polluted stormwater runoff would increase from everyday usage once the land-disturbing activities have been completed. Table 4-1 provides the amount of land disturbance under the Proposed Action.

Table 4-1. Total Land Disturbance from the Okaloosa Regional Airport Expansion

Construction Activity	Area of Land Disturbance	
Land-clearing activities	993,168 square feet	22.8 acres
Proposed/expanded stormwater ponds	574,992 square feet	13.2 acres
TOTAL	**1,568,160 square feet**	**36.0 acres**

Note: 43,560 square feet = 1 acre

The extensive vegetative cover adjacent to Tom's Creek and the area of land disturbance is expected to capture sediment during runoff events and minimize potential impacts (FDEP, 2002). The ORA would implement specific mitigations to offset or minimize adverse impacts to surface waters as part of permitting requirements. Stormwater management and erosion controls are discussed in Section 4.1.2.

The Proposed Action calls for the construction of two aboveground storage tanks located at the southern extent of the project site (see Section 3.5). The ORA would construct a 50,000-gallon tank to store vehicle fuel and an 80,000-gallon tank to store aviation fuel. The ORA would construct these tanks on a 0.52-acre concrete slab with adequate secondary containment, in accordance with 40 CFR 112.7, to prevent a fuel spill from leaving the fuel farm (tank) area. A new transmission line would supply vehicle fuel to the proposed fuel island area. The transmission line will be located underground and will be double walled piping. Once these tanks are operational, the ORA would remove the two existing 20,000-gallon aviation fuel tanks and the existing 3,000-gallon vehicle fuel tank. Removal and/or closures of fuel tanks at the existing fuel farm would be accomplished in accordance with federal, state, and Air Force regulations to ensure all proper applicable requirements are met. The ORA would utilize approved construction BMPs, and no adverse impacts to Tom's Creek would result under the Proposed Action. Prior to construction, Eglin requires the proponent to coordinate with 96 CEG/CEVCE.

No Action Alternative

Under the No Action Alternative, construction of the proposed airport expansion would not occur. Thus, no impacts to Tom's Creek would result under this alternative.

4.1.2 Stormwater

The stormwater analysis utilized the *Florida Stormwater, Erosion, and Sedimentation Control Inspector's Manual* and the *Florida Development Manual* to determine the increase in stormwater runoff and the approved stormwater and erosion control measures to address this increase.

Proposed Action

The addition of new impervious surfaces such as concrete and asphalt would promote stormwater runoff. Without proper mitigation, an increase in the rate and volume of stormwater runoff can potentially lead to water quality degradation. To address these potential impacts, the Proposed Action includes an expansion of the existing stormwater pond and the construction of a new stormwater pond. These constructed/expanded ponds total 13.2 acres (Table 4-2). Table 4-2 below presents the amount of impervious surface added under the proposed expansion project.

Table 4-2. New Impervious Surface from the Okaloosa Regional Airport Expansion

Construction Activity	New Impervious Surface	
Proposed rental car circulation and parking area	365,908 square feet	8.4 acres
Proposed access roads	95,832 square feet	2.2 acres
Proposed fuel farm (tank) area	22,651 square feet	0.52 acre
TOTAL	**484,387 square feet**	**11.12 acres**

Note: 43,560 square feet = 1 acre

To comply with FDEP mandates, the Proposed Action would involve the expansion of the existing stormwater pond (south of SR 85) and the construction of a new stormwater pond to provide on-site treatment of stormwater (see Table 4-2). A certified professional engineer would ensure that the final construction design would incorporate the volumetric storage capacity to comply with all state and federal regulations. The ORA would construct these ponds in the locations most suitable to retain the first 1 inch of runoff. Proper stormwater management and erosion control measures would minimize the potential for erosion and adverse water quality impacts (FDEP, 2002). Stormwater controls that the FDOT and FDEP approved for use have been proven to return the peak discharge to a rate similar to that of the previously undeveloped area (FDM, 1991). In accordance with FDOT design and construction methodologies, the proposed road improvements would incorporate a slope sufficient enough to direct potential runoff into designed stormwater conveyances and into the proposed detention ponds and away from wetlands and other surface waters (FDM, 1991). The ORA would design drainage infrastructure in such a manner that the natural hydrologic conditions are not severely altered.

Applicable permitting requirements would be satisfied in accordance with 62-25 FAC and 62-621 FAC (NPDES). The proponent and its contractor shall adhere to all applicable regulatory requirements, which would serve to either offset or minimize any potential impacts associated with the Proposed Action. The Proposed Action would require the ORA to submit a notice of intent to use the generic permit for stormwater discharge prior to project initiation (62-25 FAC) and to obtain coverage under the generic permit for stormwater discharge from construction activities that disturb one or more acres of land (FAC 62-621). The Proposed Action would also require the ORA to incorporate a comprehensive stormwater, erosion, and sedimentation control plan and a SWPPP into the final design plan. Through the use of these approved stormwater and erosion control measures, no adverse impacts from stormwater would result under the Proposed Action. Prior to construction, Eglin requires the proponent to coordinate with the 96 CEG/CEVCE.

No Action Alternative

Under the No Action Alternative, the proposed airport expansion would not be constructed. Thus, no increase in the volume and rate of stormwater would result under this alternative.

4.1.3 Wetlands

Wetlands data were compiled using a combination of Eglin sources and National Wetlands Inventory (NWI) data maintained by U.S. Fish and Wildlife Service (USFWS). The activities discussed under the Proposed Action would not take place in wetlands.

Proposed Action

The proposed airport expansion would not result in any dredge and fill activities in wetlands. The closest wetlands resources are located 1,340 feet south of the southern extent of the project (Figure 3-1). These wetlands are associated with an intermittent tributary of Tom's Creek so its size fluctuates during different times of the year (Tiner, 1999). The land between these wetlands and project site is undeveloped, forested land. Minimizing ground disturbance during construction and vegetation clearance and providing erosion minimization measures (BMPs) will protect the water quality of the adjacent creek through minimizing the transport of sediments. Implementation of erosion control measures such as the use of construction silt screens and post construction vegetation planting will occur per stormwater permit requirements . The Air Force does not anticipate the degradation of water quality due to the implementation of a stormwater, erosion and sedimentation control plan, a SWPPP and construction BMPs as required by FDEP implemented regulations and NPDES requirements. As such, no adverse impacts would result under the Proposed Action.

No Action Alternative

Under the No Action Alternative, the ORA would not construct the proposed road improvements. Thus, no adverse impacts to wetlands resources would result under this alternative.

4.2 SOILS AND EROSION

The soils within the affected environment are flat and sandy, with light vegetative cover or previously developed with impervious surfaces. Land disturbance and the creation of additional impervious surfaces could increase the potential for erosion. However, analysis of the Proposed Action in this section determines that the amount of erosion from project activities is negligible, since the ORA would implement erosion control measures as part of NPDES permitting requirements.

4.2.1 Proposed Action

The ORA proposes to develop 11 acres of additional paved areas, 23,300 square feet of new structures, and 8.5 additional acres of stormwater ponds on the project site. These new detention ponds would accommodate runoff from impervious surfaces associated with the new development. The ORA would also add lighting, utilities and fencing to expand utilities and security. The ORA would also establish two new access points: one located on SR 85 for deliveries and another that would connect to the terminal loop road associated with airport customer car rentals. The ORA would construct a security fence along SR 85. The Proposed Action would bring the total impervious area to approximately 12 acres.

The surrounding areas consist of forest and grass covered areas, as well as some cleared land and already existing impervious surface. The soils within the Proposed Action area have relatively limited erodibility, and the natural terrain is generally flat in most places (0 to 5 percent slopes). Minimizing ground disturbance during construction and vegetation clearance and providing erosion minimization measures (BMPs) can prevent the transport of sediments. As such, erosion

control measures would be practiced in appropriate situations. Such erosion control measures include the use of construction silt screens and post construction vegetation planting. A stormwater, erosion and sedimentation control plan, a SWPPP, and construction BMPs would be incorporated into the construction process as required by FDEP implemented regulations and NPDES requirements.

4.2.2 No Action Alternative

Under the No Action Alternative, the lease would not be expanded to include additional area for the improvements listed under the Proposed Action. This alternative would not affect the soils within the intersection and project area.

4.3 AIR QUALITY

This section discusses the potential impacts to air quality as a result of the Proposed Action and No Action Alternative. For the analysis of the Proposed Action, a threshold on an individual pollutant-by-pollutant basis has been established. The air quality analysis found that impacts from the Proposed Action on air quality are minimal.

In order to evaluate the air emissions and their impact to the overall ROI, the emissions associated with construction activities were compared to the total emissions on a pollutant-by-pollutant basis for the ROI's 1999 NEI data. Potential impacts to air quality are then identified as the total emissions of any pollutant that equals 10 percent or more of the ROI's emissions for that specific pollutant. The 10 percent criteria approach is used in the General Conformity Rule as an indicator for impact analysis for nonattainment and maintenance areas. Although the entire state of Florida is attainment, the General Conformity Rule's impact analysis was utilized to provide a consistent approach to evaluating the impact of construction and aircraft emissions. To provide a more conservative evaluation, the impacts screening in this analysis used a more restrictive criterion than required in the General Conformity Rule. Rather than comparing emissions from construction activities to regional inventories (as required in the General Conformity Rule), emissions were compared to the individual county (Okaloosa) potentially impacted, which is a smaller area.

Analyses utilized a DoD-developed model, the Air Conformity Applicability Model (ACAM), which the U. S. Air Force uses for conformity evaluations, to provide a level of consistency with respect to emissions factors and calculations. Air emissions estimated using ACAM was compared to the established 10 percent criterion for Okaloosa County as represented in the USEPA 1999 NEI (USEPA, 1999). The air analysis focused on emissions from construction activities, the main environmental issue under the Proposed Action.

4.3.1 Proposed Action

Fugitive dust, nitrogen oxides (NO_x), and CO constitute the majority of the emissions from construction activities and the project overall. A construction operation incorporates grading operations, construction worker trips, stationary equipment (e.g., generators and saws), mobile equipment, and acres paved. Approximately 89 percent of the total PM_{10} emissions for the project are associated with grading activities during the early stages of the construction phase.

$PM_{10,}$ CO, and NO_x are the primary pollutants of concern, constituting 99 percent of overall project emissions. A majority of the CO emissions are associated with stationary equipment (e.g., saws and generators), while the NO_x emissions are primarily associated with mobile sources.

Analyses evaluated air emissions against each individual pollutant as represented in the 1999 NEI for Okaloosa County. If the construction activities exceeded 10 percent or the annual emissions on a corresponding pollutant by pollutant basis, then air quality would be impacted. Since, the 10 percent criterion was not exceeded then it was assumed that it would not be exceeded on an annual basis. Table 4-3 provides project emissions overall while Table 4-4 provides a breakdown by construction activity.

Eglin anticipates that the proposed installation of an 80,000 gallon aviation fuel tank to replace two 20,000 gallon aviation fuel tanks will trigger 40 CFR Part 60 Subpart Kb requirements at the ORA. Subpart Kb requirements for the proposed Rental Car Facility would only include monitoring and recordkeeping provisions of the rule. Additionally, by definition the increased fuel storage for the rental cars will not be regulated by Subpart Kb.

Table 4-3. Proposed Action Estimated Construction Emissions

Year	Annual Project Emissions (Tons/ Yr)				
	CO	**NO_x**	**SO_2**	**VOCs**	**PM_{10}**
2006	15	13	1	2	247
Okaloosa County	**151,985**	**8,787**	**668**	**20,186**	**16,657**
Percentage of County Emissions	***0.010%***	***0.143%***	***0.201%***	***0.008%***	***1.482%***

VOCs = Volatile Organic Compounds

Table 4-4. Proposed Action Estimated Construction Emissions by Construction Activity

Source Category		Emissions Tons/ Yr				
		CO	**NO_x**	**SO_2**	**VOCs**	**PM_{10}**
2006	Grading Equipment	2.23	8.38	0.85	0.89	0.69
	Grading Operations	0.00	0.00	0.00	0.00	245.84
	Acres Paved	0.00	0.00	0.00	0.02	0.00
	Mobile Equipment	1.64	3.90	0.48	0.36	0.31
	Stationary Equipment	11.09	0.29	0.01	0.42	0.01
	Workers Trips	0.18	0.01	0.00	0.01	0.00
	Totals	**15**	**13**	**1**	**2**	**247**

4.3.2 No Action Alternative

The No Action Alternative would involve no construction activities and, therefore, would not increase air emissions above the established 10 percent criterion.

4.4 BIRD AIRCRAFT STRIKE HAZARD (BASH)

This section describes the potential increase to BASH from the construction of the stormwater management ponds required as part of the Proposed Action. The FAA recommendations for facility design to minimize the potential of attracting wildlife to an airfield operational area were examined along with the proposed plans for stormwater management in the expansion project.

4.4.1 Proposed Action

The specific stormwater management detention pond system has not been designed at the time of this assessment. However, the contractor has stated that the stormwater pond design will meet the recommendations of the FAA Advisory Circular 150/5200-33A to include:

- A detention pond system that would allow a maximum 48-hour detention period.
- A detention pond system that would be completely dry between storms.
- Non-seed bearing grass to minimize the attraction to birds for foraging (LPA Group, 2005a).

The FAA would review the stormwater management plan design as part of the overall facility design (LPA Group 2005a). The FAA review would ensure that the detention pond design meets their recommendations and would minimize any unnecessary wildlife attractant concerns. The Air Force has determined that if FAA guidelines (FAA Advisory Circular 150/5200-33A) are met for the stormwater management system design, they do not anticipate any adverse impacts on safety or aircraft damage associated with the Proposed Action.

4.4.2 No Action Alternative

The No Action Alternative would not include the construction of any stormwater facilities, ponds or increase the potential for standing water. Therefore the Air Force does not anticipate that the No Action Alternative would increase BASH concerns at the proposed site.

4.5 UTILITY INFRASTRUCTURE

This section describes the potential impacts associated with utility infrastructure, which include electricity, wastewater treatment, potable water supply, and natural gas serving the ORA. This section also addresses the potential for disruption of utility service and analyzes the potential for utility usage at ORA to exceed the design or permit capacity of the respective utility system. Analysis focuses on assessing increased utilization, identifying potential problems related to connecting to existing utilities, and identifying coordinating and procedural requirements associated with establishing new utility infrastructure. Based on the following analysis, the Air Force does not anticipate any adverse impacts to local utilities.

4.5.1 Electricity

Proposed Action

The Proposed Action includes the construction of several structures associated with the ORA expansion. A newly constructed electrical duct bank would provide electricity to the proposed buildings. The proposed car wash is the structure that would require the largest amount of electricity in the Proposed Action because it contains motorized equipment as compared to the fueling areas and office areas. The car wash would have a control panel containing a through-the-door main breaker, all electrical motor starting equipment, relays, and a wash control 24-volt transformer (LPA Group, 2005). The car wash facility, which is proposed to be a N/S Corporation 5-Brush system, would require a power usage between 0.5 and 3.4 amps maximum for the wash cycle, which is a minimal amount of energy (N/S Corp., 2005). The Proposed Action would result in a minor, localized increase in electricity consumption at the proposed work site. The implementation of the Proposed Action would not result in a considerable burden to Gulf Power's infrastructure. The Air Force does not anticipate disruption of utility service and they expect no adverse impacts associated with electrical utilities as a result of the Proposed Action.

No Action Alternative

Under the No Action Alternative, the ORA would not complete the proposed airport expansion. Thus, no impacts to the existing electrical infrastructure would result under this alternative.

4.5.2 Wastewater Treatment

Proposed Action

The primary generation of wastewater from the Proposed Action would be at the rental car wash facility, with the effluent of wastewater flowing into the Eglin AFB Plew Heights Treatment Facility after removal of petroleum, oils, and lubricants by the oil water separator (OWS). The car wash facility would have a built-in recycling system that would reclaim 85 percent of the water used in the vehicle washing. Therefore, only 15 percent of the water the ORA utilizes in the operations of the car wash facility would be processed at the Eglin AFB wastewater treatment system.

The car wash manufacturer specified that the approximate water demand per car wash is 20 gallons per wash (GPW) with 60 pounds per square inch (LPA Group, 2005). Assuming a worst case scenario of 800 cars being washed per day with 85 percent of the wash water recycled, the estimated MGD of wastewater transmitted to the Plew Heights Treatment Facility was calculated as follows:

$$\text{Total MGD} = 20 \text{ GPW } [0.15(800)] / 10^6 = 0.002 \text{ MGD}$$

Under a conservative scenario, the Proposed Action would contribute 0.002 MGD wastewater from the car wash to the Plew Heights facility which receives an annual average of 0.657 MGD and is operating at 44 percent capacity. (Brown, 2004). Therefore, under this conservative scenario there would be a 0.4 percent increase in daily flow. The implementation of the

Proposed Action would not result in a considerable burden on the Plew Heights Treatment Facility. The ORA would be required to obtain a waste water extension permit (62-604 FAC). The Air Force does not anticipate disruption of utility service and they do not anticipate any adverse impacts associated with wastewater as a result of the Proposed Action.

No Action Alternative

Under the No Action Alternative, the ORA would not complete the proposed airport expansion. Thus, no impacts to the existing wastewater infrastructure would result under this alternative.

4.5.3 Potable Water

Proposed Action

The Proposed Action would result in a minor increase in potable water usage from the OCWS water supply system. The primary usage of water in the Proposed Action would be at the car wash facility. The recycling and reclamation system that would be in operation at the car wash would conserve 85 percent of the water used in the facility to be re-used for washing operations. The estimate for wastewater daily flow from the car wash facility calculated above, 0.002 MGD, would be the same for the daily water requirement to operate the car wash under the same conservative scenario. Under the conservative scenario, the Proposed Action would require 0.002 MGD water from the OCWS which supplies an annual average of 4.5 MGD and is operating at 40 percent capacity (Crews, 2004). Consequently, there would be an increase of 0.04 percent on the water supply demand from the OCWS and the implementation of the Proposed Action would not result in a considerable burden on the OCWS. ORA would be required to obtain a drinking water extension permit (62-555 FAC). The Air Force does not anticipate disruption of utility service and they do not anticipate any adverse impacts associated with potable water as a result of the Proposed Action.

No Action Alternative

Under the No Action Alternative, the ORA would not complete the proposed airport expansion. Thus, no impacts to the existing potable water infrastructure would result under this alternative.

4.5.4 Natural Gas

Proposed Action

Okaloosa County Gas District services the entire county, encompassing the existing ORA complex. There is an existing gas utility line which services the ORA. The proposed buildings and rental car facility operations would not utilize any natural gas and therefore would not increase the quantity of natural gas utilized by the ORA. The Air Force does not anticipate that the Proposed Action would impact natural gas usage for the Okaloosa County Gas District or cause a disruption of utility service.

No Action Alternative

Under the No Action Alternative, the ORA would not complete the proposed airport expansion. Thus, no impacts to the existing natural gas infrastructure would result under this alternative.

4.6 HAZARDOUS WASTE AND HAZARDOUS MATERIALS

The transport, storage, use, and disposal of hazardous materials and waste associated with the Proposed Action present a safety/health issue to airport personnel and the public. Potential impacts are defined as the degree to which actions requiring the use, storage, and/or transport of hazardous materials and actions resulting in the generation, storage, transport, and disposal of hazardous wastes increase or decrease safety/health risks to airport personnel and the public. The hazardous materials to be transported, stored, and used on-site for the Proposed Action consist of aviation fuel, vehicle fuel, and vehicle maintenance fluids and wastes.

An evaluation of the Proposed Action indicates that no impacts to ERP sites or from storage and uses of hazardous materials would occur, as the ORA would be required to meet all federal, state, and local requirements associated with the storage and use of hazardous materials. The storage, transport, and handling of hazardous material would be coordinated with 96 CEG/CEVCE, and these materials would be disposed of appropriately according to state and AAC Plan 32-5, *Hazardous Waste Management Plan*. AAC Plan 32-9 *Hazardous Materials Management* describes how Eglin AFB complies with federal, state, Air Force, and DoD laws/instructions. The ORA would follow this plan while operating on Eglin AFB.

4.6.1 ERP Sites

Proposed Action

There are no ERP sites located on the subject property, although an ERP site is located within one mile at the ORA (ST-99). This ERP site is not likely to cause, or contribute to, a release of any hazardous substance or any petroleum product on the subject property because clean-up was accomplished in 1994 with FDEP issuing a decision of no further remedial action required at this site. Additionally, the Air Force does not anticipate impacts to the ERP site from construction and ongoing activities associated with the Proposed Action.

No Action Alternative

Under the No Action Alternative, the Air Force would not expand the current lease to include additional area for the improvements listed under the Proposed Action; therefore, no impacts to hazardous materials and waste would occur.

4.6.2 Hazardous Materials and Waste Management

Proposed Action

The Proposed Action would require 50,000-gallon storage capacity for vehicle fuel and 80,000-gallon storage capacity for aviation fuel. The ORA would store all fuel in aboveground storage tanks placed in containment areas. Containment areas would consist of poured concrete with chain link fence above the containment walls to ensure all applicable requirements are met.

The project would also include the dismantlement and removal of the existing fuel farm at the ORA. The ORA would remove and dispose of the existing 3,000-gallon vehicle fuel tank and the two existing 20,000-gallon aviation fuel tanks. Removal and/or closures of fuel tanks at the

existing fuel farm would be done in accordance with federal, state, and Air Force regulations to ensure all proper applicable requirements are met.

The proposed car wash facility would have an OWS associated with a water recovery system. The water recovery system of the proposed car wash model (N/S Corporation 5-Brush System) is built to reclaim approximately 85 percent of the water by cleaning through filtration, sedimentation, polishing, and particle acceleration. The water from the vehicle wash would flow by gravity from the vehicle wash to the OWS. The ORA would implement and manage the OWS required for the car wash facility to ensure that the oil and petroleum wastes are properly disposed of. All OWSs at Eglin discharge to the sanitary sewer, making them exempt from effluent discharge standards the NPDES identifies under the federal CWA and by Rule 62-761.300 FAC.

Potential impacts related to storage and uses of hazardous materials are associated with the potential for petroleum, oil, and lubricant (POL) spills to occur and contaminate soils and surface/groundwater. All handling of fuels would be in accordance with applicable federal, state, and Air Force regulations, which include AFI 23-201, Fuels Management. Should a POL spill occur during operations of the facilities, the presence of spill response equipment would ensure quick response by on-site personnel. Eglin AFB responds to fuel spills at the ORA to provide containment, clean-up and remediation as stipulated in the Base Emergency Response Plan and the Spill Prevention and Response Plan. The 96 CEG/CEV provides direction to the ORA for the clean-up and remediation process. The ORA would follow management requirements stated in AAC Plan 32-5 and 32-9 as well as applicable federal and state management requirements. With these management requirements in place, the Air Force does not anticipate potential impacts related to vehicle use, maintenance, and POL spills or tank removals and closures associated with the Proposed Action.

State of Florida and Air Force regulations have been implemented to ensure that all hazardous waste is properly handled to reduce the potential risks to the population. Any hazardous wastes or by-products created from daily operations of the facilities would be properly identified, separated, labeled, stored, and discarded in accordance with applicable federal, state, and Air Force regulations. Therefore, the Air Force does not anticipate significant impacts from hazardous waste associated with the Proposed Action.

No Action Alternative

Under the No Action Alternative, the Air Force would not expand the current lease to include additional area for the improvements listed under the Proposed Action; therefore, no impacts to hazardous materials and waste would occur.

4.7 SOLID WASTE

This section discusses potential impacts from solid waste generation, which includes land clearing and C&D debris created from the proposed project. Analysis focuses on assessing the ability of existing landfill capacity to accommodate increased utilization. The analysis indicates the Proposed Action would not adversely impact the capacity of local landfills to handle solid waste, as the waste increase to the landfills from the project activities would be 1 percent or less.

4.7.1 Proposed Action

The Air Force does not expect the amount of land clearing and C&D debris from activities associated with the Proposed Action to create constraints on area landfills or result in an increase in disposal fees. The increase to Okaloosa County landfills would be minimal, with an estimated increase of approximately 600 tons of vegetative waste which would increase the annual amount of waste land-filled by one percent. Coordination with the local county and private landfill operators prior to demolition or construction would aid in equal distribution of debris and reduce any unanticipated impacts associated with the disposal. If the amount of waste sent to the landfill is of concern, the vegetative waste may be minimized by chipping the trees and stumps, which would decrease the volume of waste by 40 to 60 percent (Gartman, 2005).

Land Clearing Debris

This project proposes the clearing of approximately 20 acres of trees, stumps, and vegetation within the Proposed Action site. The estimated amount of waste generated in this process is approximately 600 tons of vegetative waste based on interviews with forestry and land clearing personnel (Gartman, 2005). To determine the maximum potential impact analysis, it is assumed that all vegetative waste would be taken to a C&D landfill instead of being chipped or converted to fuel. Land clearing debris would increase the usage of C&D landfills in Okaloosa County by 0.8 percent.

Construction and Demolition Debris

The Proposed Action includes the construction of roads, parking areas, and buildings. Various types of road-related and construction wastes would be generated. Types of waste that may be removed from the project site include primarily asphalt and concrete.

The impact of Hurricane Ivan on C&D debris capacity at the local C&D landfills was studied to analyze how much increase in the amounts of C&D debris to the countywide landfills would result in the landfills exceeding their capacities. While Hurricane Ivan debris did have an effect on the landfill capacity, the lifespan of the landfills were not shortened and expansion was not an issue (U.S. Air Force, 2005b). None of the area landfills directly attributed the rising costs of disposal fees to additional debris from Hurricane Ivan. Disposal fees for Okaloosa County landfills have increased, mainly due to rising fuel prices, wages, and potential new regulations from FDEP (U.S. Air Force, 2005b). Therefore, the Air Force does not expect that C&D debris from the Proposed Action, which would be considerably less than that created by Hurricane Ivan, would detrimentally impact the capacity of landfills or increase disposal fees.

4.7.2 No Action Alternative

Under the No Action Alternative, the ORA would not generate any additional wastes from land clearing or road C&D; thus, no impacts to the county landfills would occur.

4.8 BIOLOGICAL RESOURCES

4.8.1 Proposed Action

The project site will require some clearing of vegetation and, consequently, removal of habitat for the construction of parking areas, traffic circulation areas, fence installation, and stormwater detention ponds. The predominant habitat type in the area of the project site is the Sandhills community. The area to be cleared is relatively small compared to the vast extent of the Sandhills Ecological Association on Eglin AFB. Therefore, the impacts from site clearing will be insignificant.

There are no active RCW sites in the vicinity of the project area. While there are three inactive sites, they have become unsuitable for RCW use because of the overgrown understory, lack of forage habitat and cavity enlargement by other species. Therefore, the project will have no impact on the endangered RCW.

Potential impacts to gopher tortoises include burrow collapse or destruction and incidental take of individual tortoises during demolition and construction activities. However, prior to any land disturbing activities, Eglin's Natural Resources Branch will conduct a survey of the project area to determine whether any gopher tortoises are present. This is a standard pre-construction practice at Eglin AFB. If any gopher tortoises are found, they will be relocated to another Eglin site outside the project area in accordance with state permit #WR05399. Eglin's Natural Resources Branch routinely captures and relocates gopher tortoises within their forestry and land development activities.

While the gopher tortoise is not federally listed, it is considered a keystone species. A keystone species is a species whose presence is ecologically significant to the survival of other species within its environment. Over 300 animals utilize the tortoise burrows, including the federally listed eastern indigo snake. The 96th Civil Engineer Group, Environmental Management Division, Stewardship Branch, Natural Resources Section (96 CEG/CEVSN) personnel are required to conduct a field survey prior to the initiation of construction activities to determine the presence of any protected species.

The federally listed (threatened) eastern indigo snake is strongly associated with gopher tortoise burrows, using abandoned burrows in winter and spring for egg laying, shedding, and protection from dehydration and temperature extremes. If tortoise burrows are found on the construction site during the pre-construction survey, any tortoises present will be relocated. At the same time, any gopher tortoise commensals (other species utilizing tortoise burrows) encountered in the capture operation may likewise be live-captured, relocated, and released. Gopher tortoise burrows will be inspected with burrow cameras prior to trapping operations to ensure that no indigo snakes are present or will be potentially impacted. Eglin's state permit includes provisions for relocating burrow commensals if necessary. Eglin also holds a USFWS permit for relocation of the threatened eastern indigo snake. The developer will be directed not to disturb gopher tortoise burrows outside the construction footprint.

In addition to their possible presence in tortoise burrows, there is also a potential to encounter the eastern indigo snake moving through the construction site. Providing project personnel with a description of the eastern indigo snake, its habits and protection under Federal law, and giving

them instructions not to injure, harm, or kill this species would minimize any potential impacts to this species. Should an indigo snake be sighted, project personnel would be directed to cease any activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming their activities. Because the indigo snake utilizes abandoned gopher tortoise burrows for habitat, Eglin has developed these standard practices in coordination with the USFWS for forestry and other land disturbing activities as part of the indigo snake recovery plan. Eglin has made a "No Effect" determination for the eastern indigo snake and does not anticipate any adverse impacts to the species provided the developer implements the management requirements identified above.

There are no pine flatwoods interspersed with the sandhill habitat at the proposed airport expansion site and the Sandhill community does not contain the level of moisture required for Flatwoods salamander habitat. Therefore, the Proposed Action will not impact the threatened Flatwoods salamander.

4.8.2 No Action

Under the No Action Alternative, the Air Force would not expand the current lease to include additional area for the improvements listed under the Proposed Action; therefore, no impacts to biological resources would occur.

4.9 CUMULATIVE IMPACTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

4.9.1 Cumulative Impacts

According to CEQ regulations, cumulative impact analysis in an environmental assessment 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) (CFR, 1978).

Definition of Cumulative Effects

Cumulative effects may occur when there is a relationship between a Proposed Action and other actions expected to occur in a similar location or during a similar time period. This relationship may or may not be obvious. Actions overlapping with or in close proximity to the Proposed Action can reasonably be expected to have more potential for cumulative effects on "shared resources" than actions that may be geographically separated. Similarly, actions that coincide would tend to offer a higher potential for cumulative effects.

Past and Present Actions Relevant to the Proposed Action and Alternative

No other actions, either past or present, in or near the proposed site, were found to be relevant to the Proposed Action (e.g., large developments or construction projects).

Reasonably Foreseeable Future Actions

Currently, FDOT plans to construct a flyover over SR 85 at the SR 123 intersection, which is located in the vicinity of the ORA expansion for the rental car facility. The project would also widen SR 85, which fronts the ORA, to six lanes over the course of the project. As part of this traffic flow improvement project, a frontage road is proposed that would parallel SR 85 to connect to the ORA entrance and exit. The Proposed Action for the ORA expansion includes construction of a separate entrance for trucks and service vehicles to access the rental car facility.

4.9.2 Analysis of Cumulative Impacts

Soils/Erosion

Implementation of erosion control measures associated with permit requirements would minimize the potential for soil erosion for the Proposed Action and also for reasonably foreseeable activities. As a result, the Air Force does not anticipate adverse cumulative impacts to occur to resources due to soil erosion.

Air Quality

Emissions associated with the reasonably foreseeable activities would increase air pollutant emissions; however, the Air Force does not anticipate that, cumulatively, these actions would adversely affect air quality based on the established threshold criterion. Construction activities would be short-term and temporary. Therefore, the Air Force does not expect adverse cumulative impacts to occur with implementation of the Proposed Action.

Water Resources

Northwest Florida is a rapidly developing area. New development would place increased demands on the local water supply and promote stormwater runoff leading to water quality degradation. Site design plans, safety plans, BMPs, and permits for new developments would need to address these potential problems so that water resources were protected. The Air Force has not identified any adverse impacts on water quality in available analyses of the foreseeable future actions. As a result, the Air Force does not expect adverse cumulative impacts associated with water quality to occur.

Utility Infrastructure

The Air Force has not identified any adverse impacts associated with the Proposed Action on local utility services. The foreseeable future actions, particularly the proposed improvements to the SR 85 and SR 123 interchange, will not have any impacts on utility service. Therefore, the Air Force does not anticipate any negative cumulative impacts to occur with the utility infrastructure, utility service to local communities, or increase in fees due to the Proposed Action or foreseeable future actions.

Bird Aircraft Strike Hazard (BASH)

The Air Force has determined that if FAA guidelines are met for the stormwater management system design, there should not be any adverse impacts on safety or aircraft damage associated

with the Proposed Action. The FDOT proposal to construct a flyover at the SR 185 and SR 123 interchange near the airport would require the construction of several new stormwater ponds in the area. The accumulation of several new ponds in the area with the upcoming project might pose an additional risk for BASH. The Air Force is currently evaluating the risk associated with the proposed flyover in a separate environmental assessment for the FDOT flyover which is to occur on Eglin property.

Hazardous Materials

The Air Force has not identified any adverse impacts associated with hazardous waste with respect to the implementation of the Proposed Action nor have been identified in available analyses of the foreseeable future actions. Therefore, the Air Force does not expect any negative cumulative impacts to occur.

Solid Waste

The Air Force has not identified any adverse impacts associated with solid waste with respect to the implementation of the Proposed Action. A slight beneficial impact to local landfill operators may occur from increased revenues during the project. However, this benefit would expire once the developer completes the project. The Air Force does not expect the Proposed Action to contribute to any cumulative impacts associated with solid waste.

Safety

The actions identified as potential future actions should, with the Proposed Action, cumulatively improve traffic safety within the region by providing a safer and more efficient intersection and access to and from the regional airport. The proposed design changes would accommodate a greater number of vehicles thereby meeting future traffic needs; thus, there would be positive cumulative safety benefits.

Biological Resources

The Air Force has not identified any adverse impacts associated with biological resources with respect to the implementation of the Proposed Action nor have been identified in available analyses of the foreseeable future actions. Therefore, the Air Force does not expect any negative cumulative impacts to occur.

4.9.3 Irreversible and Irretrievable Commitment of Resources

NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitment of resources that would be involved in the implementation of the Proposed Action. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site).

Natural Resources

Development of the proposed site may result in an irreversible and/or irretrievable commitment of natural resources, as the undeveloped nature of some of the proposed areas would be altered. However, although difficult, these areas could be returned to their existing state if the proposed construction was removed and the areas were allowed to revert back to their present state. The Air Force has not identified any sensitive species or cultural resources at this site; therefore, no irreversible and/or irretrievable commitment of these resources is associated with the implementation of the Proposed Action.

Most environmental consequences are short-term and temporary (e.g., air emissions from construction) or longer lasting but negligible (e.g., air emissions from commuting activities, utility increases). Construction activities would require consumption of limited amounts of materials typically associated with construction (e.g., concrete). The Air Force does not expect the amount of these materials used to significantly decrease the availability of the resources. Small amounts of nonrenewable resources would be used; however, these amounts are not considered to be appreciable and are not expected to affect the availability of these resources.

Commitments to the Project

The analysis of the irreversible and irretrievable commitment of resources has also been interpreted to mean that NEPA planning should be conducted such that the proponent does not commit resources towards a project prior to completion of the required environmental process. From this perspective the Air Force has made no such commitment. No irretrievable or irreversible commitment of resources would occur under the No Action Alternative.

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5. PLANS, PERMITS, AND MANAGEMENT ACTIONS

The following is a list of plans, permits, and management actions associated with the Proposed Action. The environmental impact analysis process for this EA identified the need for these requirements which were developed through cooperation between the proponent and interested parties involved in the Proposed Action. These requirements are, therefore, to be considered as part of the Proposed Action and would be implemented through the Proposed Action's initiation. The proponent is responsible for adherence to and coordination with the listed entities to complete the plans, permits, and management actions.

PLANS

- Site Design Plan
- SWPPP
- Stormwater, Erosion, and Sedimentation Control Plan
- SPCC Plan

PERMITS

- Storm Water Facility Design and Construction Permit
- Phase II NPDES Permit for Storm Water Discharge from Construction Activities that Disturb One or More Acres of Land (NPDES permit)
- Base Civil Engineering Work Clearance Request, AF Form 103, 19940801 (*EF-V3*)
- Utility Extension Permits for Waste Water and Drinking Water Systems
- Comply with Eglin's Title V permit and all applicable requirements
- CZMA Consistency Determination

MANAGEMENT ACTIONS

Soil/Erosion

- Where applicable, rough grade slopes or use terrace slopes to reduce erosion.
- Inspection and maintenance of BMPs are required under the stormwater construction general permit.

Water Resources

- Permits and site plan designs would include site-specific management requirements for erosion and sediment control.

- Entrenched silt fencing and staked hay bales would be installed and maintained along the perimeter of demolition debris stockpile areas.
- Demolition debris stockpiles would be removed in a timely manner.
- Waste receptacles, including dumpsters, would be covered to prevent rainwater from entering.
- Drinking water and wastewater collection/transmission lines would be properly abandoned during demolition of existing facilities.
- The aforementioned BMPs would be inspected and maintained to ensure effectiveness.

Air Quality

- Reasonable precautions would be taken to minimize fugitive particulate emissions during ground-disturbing/construction activities in accordance with Rule 62-296, FAC.

Bird Aircraft Strike Hazard (BASH)

The FAA recommends safety standards and practices in the FAA Advisory Circular 150/5200-33A to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports. For new stormwater management facilities, the FAA recommends the following:

- On-airport stormwater detention ponds should be designed, engineered, constructed and maintained for a maximum 48-hour detention period for the storm and remain completely dry between storms.
- Utilize steep-sided, narrow, linearly shaped water detention basins.
- All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated.

Cultural Resources

- Although there are no known eligible resources within the proposed project footprint, inadvertent discovery of cultural resources would be immediately reported to Eglin's Cultural Resources Branch (96 CEG/CEVH).

Safety

- Federal requirements that govern construction activities include, but are not limited to:
    - OSHA: U.S. Department of Labor, Occupational Safety and Health Administration regulations including, but not limited to:
        - Construction Title 29, Part 1910, Section 12 of the Code of Federal Regulations.
- Safety for workers would be strengthened by proper traffic control measures in work zones. The state of Florida recommends several different strategies for increasing safety in roadway work zones (FDOT, 2003). Among these are:
    - Increase usage of law enforcement to enforce traffic restrictions in work zones.

- Emphasize training among work zone traffic control personnel.
- Improve methods to reduce duration of work zone activities.
- Improve public awareness and education during National Work Zone Awareness week.

Socioeconomics

- In accordance with EO 13101, affirmative procurement (buying products containing recycled materials) should be used if economical and practical.

Biological Resources

- Prior to any site clearing or earth moving, personnel from Eglin's Natural Resources Branch will survey the site for gopher tortoise burrows, examine the burrows with a burrow camera, and relocate any tortoises and eastern indigo snakes present.

- The "No Effect" determination for the indigo snake is based upon the following actions being taken:
  - Gopher tortoise burrows outside the construction footprint must not be disturbed.
  - Project personnel must be provided with a description of the eastern indigo snake, its habits and protection under Federal law, and be instructed not to injure, harm, or kill this species. If an indigo snake is sighted, project personnel must cease any activities and allow the eastern indigo snake to move away from the site on its own before resuming their activities.

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APPENDIX A

AIR QUALITY

AIR QUALITY

This appendix presents an overview of the Clean Air Act (CAA) and the State of Florida air quality program. The appendix also discusses emission factor development and calculations including assumptions employed in the air quality analyses.

Air Quality Program Overview

National Ambient Air Quality Standards:

In order to protect public health and welfare, the USEPA has developed numerical concentration-based standards or National Ambient Air Quality Standards (NAAQS) for six "criteria" pollutants (based on health related criteria) under the provisions of the Clean Air Act Amendments of 1970. There are two kinds of NAAQS: Primary and Secondary standards. Primary standards prescribe the maximum permissible concentration in the ambient air to protect public health including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards prescribe the maximum concentration or level of air quality required to protect public welfare including protection against decreased visibility, damage to animals, crops, vegetation, and buildings *(40 CFR Part 51).*

The CAA gives states the authority to establish air quality rules and regulations. These rules and regulations must be equivalent to, or more stringent than, the Federal program. The Division of Air Resource Management within the FDEP administers the state's air pollution control program under authority of the Florida Air and Water Pollution Control Act and the Environmental Protection Act.

Florida has adopted the NAAQS except for sulfur dioxide ($SO_{2)}$. USEPA has set the annual and 24-hour standards for SO_2 at 0.03 parts per million (ppm) (80 micrograms per cubic meter [$\mu g/m^3$]) and 0.14 ppm (365 $\mu g/m^3$) respectively. Florida has adopted the more stringent annual and 24-hour standards of 0.02 ppm (60 $\mu g/m^3$) and 0.1 ppm (260 $\mu g/m^3$) respectively. In addition, Florida has adopted the national secondary standard of 0.50 ppm (1300 $\mu g/m^3$). Federal and State of Florida ambient air quality standards are presented in Table A-1 *(FAC).* The one-hour ozone standard is revoked effective June 15, 2005 for all areas in Florida.

Based on measured ambient air pollutant concentrations, the USEPA designates areas of the U.S. as having air quality better than (attainment) or worse than (nonattainment) the NAAQS, and unclassifiable. Those that cannot be classified on the basis of available information as meeting or not meeting the NAAQS for a particular pollutant are "unclassifiable" and are treated as attainment until proven otherwise. Some attainment areas can be further classified as "maintenance" areas. Maintenance areas are those areas previously classified as nonattainment and have successfully reduced air pollutant concentrations below the standard. Maintenance areas are under special maintenance plans and must operate under some of the nonattainment area plans to ensure compliance with the NAAQS. All areas of Florida are in compliance with the NAAQS.

Each state is required to develop a state implementation plan (SIP) that sets forth how CAA provisions will be imposed within the state. The SIP is the primary means for the

implementation, maintenance, and enforcement of the measures needed to attain and maintain the NAAQS within each state and includes control measures, emissions limitations, and other provisions required to attain and maintain the ambient air quality standards. The purpose of the SIP is twofold. First, it must provide a control strategy that will result in the attainment and maintenance of the NAAQS. Second, it must demonstrate that progress is being made in attaining the standards in each nonattainment area.

Table A-1. National and State Ambient Air Quality Standards

Criteria Pollutant	Averaging Time	Federal Primary NAAQS[1,2,3]	Federal Secondary NAAQS[1,2,4]	*Florida Standards*
Carbon Monoxide (CO)	8-hour 1-hour	9 ppm[5] (10 mg/m^3)[6] 35 ppm (40 mg/m^3)	No standard No standard	9 ppm (10 $\mu g/m^3$)[7] 35 ppm (40 $\mu g/m^3$)
Lead (Pb)	Quarterly	1.5 $\mu g/m^3$	1.5 $\mu g/m^3$	1.5 $\mu g/m^3$
Nitrogen Dioxide (NO_2)	Annual	0.053 ppm (100 $\mu g/m^3$)	0.053 ppm (100 $\mu g/m^3$)	0.053 ppm (100 $\mu g/m^3$)
Ozone (O_3)	1-hour[8] 8-hour[9]	0.12 ppm (235 $\mu g/m^3$) 0.08 ppm (157 $\mu g/m^3$)	0.12 ppm (235 $\mu g/m^3$) 0.08 ppm (157 $\mu g/m^3$)	0.12 ppm (235 $\mu g/m^3$) 0.08 ppm (157 $\mu g/m^3$)
Particulate Matter ≤10 Micrometers (PM_{10})	Annual 24-hour[10]	50 $\mu g/m^3$ 150 $\mu g/m^3$	50 $\mu g/m^3$ 150 $\mu g/m^3$	50 $\mu g/m^3$ 150 $\mu g/m^3$
Particulate Matter ≤2.5 Micrometers ($PM_{2.5}$)	Annual 24-hour[11]	15 $\mu g/m^3$ 65 $\mu g/m^3$	15 $\mu g/m^3$ 65 $\mu g/m^3$	15 $\mu g/m^3$ 65 $\mu g/m^3$
Sulfur Dioxide (SO_2)	Annual 24-hour 3-hour	0.03 ppm (80 $\mu g/m^3$) 0.14 ppm (365 $\mu g/m^3$) No standard	No standard No standard 0.50 ppm (1300 $\mu g/m^3$)	0.02 ppm (60 $\mu g/m^3$) 0.10 ppm (260 $\mu g/m^3$) 0.50 ppm (1300 $\mu g/m^3$)

Source: FDEP, 2000.

1. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year.
2. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury; ppm refers to parts per million by volume.
3. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
4. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
5. ppm = parts per million
6. mg/m^3 = milligrams per cubic meter
7. $\mu g/m^3$ = micrograms per cubic meter
8. The ozone one-hour standard still applies to areas that were designated nonattainment when the ozone eight-hour standard was adopted in July 1997. The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than 1 averaged over a three-year period.
9. The 8-hour ozone standard is attained when the 3-year average of the annual fourth-highest daily maximum 8-hour average is not greater than 0.08 ppm.
10. The PM_{10} 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
11. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

In attainment areas, major new or modified stationary sources of air emissions on and in the area are subject to Prevention of Significant Deterioration (PSD) review to ensure that these sources

are constructed without causing significant adverse deterioration of the clean air in the area. A major new source is defined as one that has the potential to emit any pollutant regulated under the CAA in amounts equal to or exceeding specific major source thresholds: 100 or 250 tons/year based on the source's industrial category. A major modification is a physical change or change in the method of operation at an existing major source that causes a significant "net emissions increase" at that source of any regulated pollutant. Table A-2 provides a tabular listing of the PSD significant emissions rate (SER) thresholds for selected criteria pollutants *(USEPA Draft New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Permitting)*. (PSD SER and increment thresholds have been established for PM_{10}, but not for $PM_{2.5}$.). It should be noted that mobile source emissions as well as those associated with construction activities are excluded from the PSD applicability process.

Table A-2. Criteria Pollutant Significant Emissions Rate Increases Under PSD Regulations

Pollutant	Significant Emissions Rate (tons/year)
PM_{10}	15
Total Suspended Particulate (TSP)	25
SO_2	40
NO_x	40
Ozone (VOCs)	40
CO	100

Source: Title 40 CFR Part 51.

The goal of the PSD program is to: 1) ensure economic growth while preserving existing air quality, 2) protect public health and welfare from adverse effects which might occur even at pollutant levels better than the NAAQS, and 3) preserve, protect, and enhance the air quality in areas of special natural recreational, scenic, or historic value, such as national parks and wilderness areas. Sources subject to PSD review are required by the CAA to obtain a permit before commencing construction. The permit process requires an extensive review of all other major sources within a 50-kilometer radius and all Class I areas within a 100-kilometer radius of the facility. Emissions from any new or modified source must be controlled using Best Available Control Technology. The air quality, in combination with other PSD sources in the area, must not exceed the maximum allowable incremental increase identified in Table A-3. National parks and wilderness areas are designated as Class I areas, where any appreciable deterioration in air quality is considered significant. Class II areas are those where moderate, well-controlled industrial growth could be permitted. Class III areas allow for greater industrial development.

Table A-3. Federal Allowable Pollutant Concentration Increases Under PSD Regulations

Pollutant	Averaging Time	Maximum Allowable Concentration ($\mu g/m^3$)		
		Class I	Class II	Class III
PM_{10}	Annual	4	17	34
	24-hour	8	30	60
SO_2	Annual	2	20	40
	24-hour	5	91	182
	3-hour	25	512	700
NO_2	Annual	2.5	25	50

Source: Title 40 CFR Part 51.
$\mu g/m^3$ = Micrograms per cubic meter

Florida has a statewide air quality-monitoring network that is operated by both state and local environmental programs (FDEP, 2003). The air quality is monitored for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter and sulfur dioxide. The monitors tend to be concentrated in areas with the largest population densities and not all pollutants are monitored in those areas. The air quality monitoring network is used to identify areas where the ambient air quality standards are being violated and plans are needed to reduce pollutant concentration levels to be in attainment with the standards, also included are areas where the ambient standards are being met but plans are necessary to ensure maintenance of acceptable levels of air quality in the face of anticipated population or industrial growth.

The end-result of this attainment/maintenance analysis is the development of local and statewide strategies for controlling emissions of criteria air pollutants from stationary and mobile sources. The first step in this process is the annual compilation of the ambient air monitoring results, and the second step is the analysis of the monitoring data for general air quality exceedances of the NAAQS as well as pollutant trends.

The FDEP Northwest District operates monitors in several northwest counties, including Bay, Escambia, Holmes, Leon, Santa Rosa and Wakulla counties. Over the years of record there have been exceedances (pollutant concentration greater than the numerical standard) of a NAAQS. However, there has not been a violation (occurrence of more exceedances of the standard than is allowed within a specified time period) of an ambient standard (FEDP, 2003). Currently, the state of Florida is attainment for all criteria pollutants.

Regulatory Comparisons

In order to evaluate the air emissions and their impact to the overall region of influence (ROI). The emissions associated with the construction activities were compared to the total emissions on a pollutant-by-pollutant basis for the ROI's 1999 NEI data. Potential impacts to air quality are then identified as the total emissions of any pollutant that equals 10 percent or more of the ROI's emissions for that specific pollutant. The 10 percent criteria approach is used in the General Conformity Rule as an indicator for impact analysis for non-attainment and maintenance areas and although the entire state of Florida is attainment, the General Conformity Rule's impact analysis was utilized to provide a consistent approach to evaluating the impact of construction emissions.

To provide a conservative evaluation, the impacts screening in this analysis, used a more restrictive criteria than required in the General Conformity Rule. Rather than comparing emissions from construction activities to regional inventories (as required in the General Conformity Rule), emissions were compared to the individual counties potentially impacted, which are a smaller area.

Project Calculations:

Construction Emissions:

Construction emissions calculations were completed using the calculation methodologies described in the U.S. Air Force Air Conformity Applicability Model (ACAM). As previously

indicated, a conformity determination is not required since Okaloosa County is designated "attainment", the ACAM was used to provide a level of consistency with respect to emissions factors and calculations.

The ACAM evaluates the individual emissions from different sources associated with the construction phases. These sources include grading activities, asphalt paving, construction worker trips, stationary equipment (e.g. saws and generators), and mobile equipment emissions *(USAF ACAM Technical Document).* Phase I construction incorporates those activities associated with grading activities while Phase II construction includes the actual construction activities.

Certain assumptions were made to develop the air quality analysis. It was assumed that an area twenty-five percent greater than the size of the planned expansion would be disturbed through grading activities. This value was utilized to ensure that a conservative approach was used to calculate emissions. Based on these assumptions, the construction emissions were calculated using the calculation methodology expressed below.

Grading Activities:

Grading activities are divided into grading equipment emissions and grading operation emissions. Grading equipment calculations are combustive emissions from equipment engines and are ascertained in the following manner:

VOCs = .22 (lbs/acre/day) * Acres * DPY_1 / 2000
NO_x = 2.07 (lbs/acre/day) * Acres * DPY_1 / 2000
PM_{10} = .17 (lbs/acre/day) * Acres * DPY_1 / 2000
CO = .55 (lbs/acre/day) * Acres * DPY_1 / 2000
SO_2 = .21 (lbs/acre/day) * Acres * DPY_1 / 2000

Where Acres = number of gross acres to be graded during Phase I construction.
DPY_1 = number of days per year during Phase I construction which are used for grading
2000 = conversion factor from pounds to tons

All emissions are represented as tons per year.

Grading operations are calculated using a similar equation from the Sacramento Air Quality Management District and the South Coast Air Quality Management Districts *(Air Quality Thresholds of Significance and CEQA Air Quality Handbook)*. These calculations include grading and truck hauling emissions.

PM_{10} (tons/yr) =60.7 (lbs/acre/day) * Acres * DPY_1 / 2000

Where Acres = number of gross acres to be graded during Phase I construction.
DPY_1 = number of days per year during Phase I construction which are used for grading
2000 = conversion factor from pounds to tons

Calculations used in the EA assumed that there were no controls used to reduce fugitive emissions. Also, it was assumed that construction activities would occur within 360 days and grading activities would represent 50 percent of that total. Therefore, 180 days was the duration established for grading operations. Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District *(Air Quality Thresholds of Significance and CEQA Air Quality Handbook)*.

Asphalt Paving:

VOC emissions are released during asphalt paving and are calculated using the following methodology:

VOC_{PT} (tons/yr) = (2.62 lbs/acre) * Acres Paved / 2000

Acres Paved = total number of acres to be paved at the site during the year.
2000 = conversion factor from pounds to tons

It was assumed that a minimum of 11 acres would be paved with asphalt. The specific emissions factors used in the calculations were available through Sacramento Air Quality Management and the South Coast Air Quality Management Districts *(Air Quality Thresholds of Significance and CEQA Air Quality Handbook)*.

Construction Worker Trips:

Construction worker trips during the construction phases of the project are calculated and represent a function of the square feet of construction.

Trips (trips/day) = .42 (trip/unit/day) * Area of construction
Total daily trips are then applied to the following factors depending on the corresponding years.
Year 2005 through 2009:

VOC_E = .016 * Trips
NOx_E = .015 * Trips
$PM10_E$ = .0022 * Trips
CO_E = .262 * Trips
Year 2010 and beyond:
VOC_E = .012 * Trips
NOx_E = .013 * Trips
$PM10_E$ = .0022 * Trips
CO_E = .262 * Trips

To convert from pounds per day to tons per year:

VOC (tons/yr) = VOC_E * DPY_{II}/2000
No_x (tons/yr) = NOx_E * DPY_{II}/2000
PM_{10}(tons/yr) = $PM10_E$ * DPY_{II}/2000
CO (tons/yr) = CO_E * DPY_{II}/2000

Where: Construction = total square footage to be constructed in the given year of construction.
2000 = conversion factor from pounds to tons
DPY_{II} = number of days per year during Phase II construction activities.
Subscript E = Emission in lb/day

Stationary Equipment:

Emissions from stationary equipment occur when gasoline powered equipment (e.g. saws, generators, etc.) is used at the construction site.

VOC = .198 * (GRSQFT) * DPY_{II}/ 2000
NO_x = .137 * (GRSQFT) * DPY_{II}/ 2000
PM_{10} = .004 * (GRSQFT) * DPY_{II}/ 2000
CO = 5.29 * (GRSQFT) * DPY_{II}/ 2000
SO_2 = .007 * (GRSQFT) * DPY_{II}/ 2000

Where GRSQF = Gross square feet of the area of construction impacted during phase II
DPY_{II} = number of days per year during Phase II construction
2000 = conversion factor from pounds to tons

Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District *(Air Quality Thresholds of Significance and CEQA Air Quality Handbook).*

Mobile Equipment:

Mobile equipment emissions include pollutant releases associated with forklifts, dump trucks, etc. used during Phase II construction.

VOC = .17 * (GRSQFT) * DPY_{II}/ 2000
NO_x = 1.86 * (GRSQFT) * DPY_{II}/ 2000
PM_{10} = .15 * (GRSQFT) * DPY_{II}/ 2000
CO = .78 * (GRSQFT) * DPY_{II}/ 2000
SO_2 = .23 * (GRSQFT) * DPY_{II}/ 2000

Where: GRSQF = Gross square feet of the area to be constructed during Phase II
DPY_{II} = number of days per year during Phase II construction
2000 = conversion factor from pounds to tons
Emissions factors were derived from the Sacramento Air Quality Management District and the South Coast Air Quality Management District *(Air Quality Thresholds of Significance and CEQA Air Quality Handbook).*

National Emissions Inventory

The National Emissions Inventory (NEI) is operated under USEPA's Emission Factor and Inventory Group, which prepares the national database of air emissions information with input from numerous State and local air agencies, from tribes, as well as from industry. The database

contains information on stationary and mobile sources that emit criteria air pollutants and hazardous air pollutants (HAPs). The database includes estimates of annual emissions, by source, of air pollutants in each area of the country, on an annual basis. The NEI includes emission estimates for all 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. Emission estimates for individual point or major sources (facilities), as well as county level estimates for area, mobile and other sources, are available currently for years 1996 and 1999 for criteria pollutants, and HAPs.

Criteria air pollutants are those for which USEPA has set health-based standards. Four of the six criteria pollutants are included in the NEI database:

Carbon Monoxide (CO)
Nitrogen Oxides (NO_x)
Sulfur Dioxide (SO_2)
Particulate Matter (PM_{10} and $PM_{2.5}$)

The NEI also includes emissions of volatile organic compounds (VOCs), which are ozone precursors, emitted from motor vehicle fuel distribution and chemical manufacturing, as well as other solvent uses. VOCs react with nitrogen oxides in the atmosphere to form ozone. The NEI database defines three classes of criteria air pollutant sources:

- Point sources - stationary sources of emissions, such as an electric power plant, that can be identified by name and location. A "major" source emits a threshold amount (or more) of at least one criteria pollutant, and must be inventoried and reported. Many states also inventory and report stationary sources that emit amounts below the thresholds for each pollutant.
- Area sources - small point sources such as a home or office building, or a diffuse stationary source, such as wildfires or agricultural tilling. These sources do not individually produce sufficient emissions to qualify as point sources. Dry cleaners are one example, i.e., a single dry cleaner within an inventory area typically will not qualify as a point source, but collectively the emissions from all of the dry cleaning facilities in the inventory area may be significant and therefore must be included in the inventory.
- Mobile sources - any kind of vehicle or equipment with a gasoline or diesel engine; airplane; or ship.

The main sources of criteria pollutant emissions data for the NEI are:

- For electric generating units - USEPA's Emission Tracking System / Continuous Emissions Monitoring Data (ETS/CEM) and Department of Energy fuel use data.
- For other large stationary sources - state data and older inventories where state data was not submitted.
- For on-road mobile sources - the Federal Highway Administration's (FHWA's) estimate of vehicle miles traveled and emission factors from USEPA's MOBILE Model.
- For non-road mobile sources - USEPA's NONROAD Model.

- For stationary area sources - state data, USEPA-developed estimates for some sources, and older inventories where state or USEPA data was not submitted.
- State and local environmental agencies supply most of the point source data. USEPA's Clean Air Market program supplies emissions data for electric power plants.

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APPENDIX B

FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

Introduction

This document provides the State of Florida with the U.S. Air Force's Consistency Determination under CZMA Section 307 and 15 C.F.R. Part 930 sub-part C. The information in this Consistency Determination is provided pursuant to 15 C.F.R. Section 930.39 and Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456, as amended, and its implementing regulations at 15 C.F.R. Part 930.

This federal consistency determination addresses the proposed activities described within the ORA Expansion on Eglin Air Force Base (AFB), FL Environmental Assessment (EA).

Proposed Federal Agency Action

The Proposed Action involves utilizing 26 acres of an Air Force lease expansion and 10 acres of the existing lease area, a total of 36 acres, to construct a rental car facility. The proposed 36-acre site would be developed to provide parking areas for five separate rental car agencies totaling 800 parking spots; two new access points for the rental car parking location (one access point located on SR 85 for deliveries, and a second connecting to the terminal loop road for ready/return operations); a truck inspection area; an office/maintenance bay, car wash and fueling area; and an electrical duct extension along the proposed access road to provide power and other services to future rental car facilities. The Proposed Action also includes installation of a security fence along SR 85 outside of the 36-acre project area. Finally, the project includes expanded stormwater management facilities to accommodate runoff from impervious surfaces associated with the new roadway and parking development. Figure 2-1 of the EA illustrates the Proposed Action; Table 2-1 of the EA summarizes the facilities that would be constructed in the expansion area.

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.

Pursuant to 15 C.F.R. § 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 C.F.R. § 930.41(b). Florida's concurrence will be presumed if Eglin AFB does not receive its response on the 60th day from receipt of this determination.

Table B-1. Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope
Chapter 161 *Beach and Shore Preservation*	The proposed project would not adversely affect beach and shore management, specifically as it pertains to: -The Coastal Construction Permit Program. -The Coastal Construction Control Line (CCCL) Permit Program. -The Coastal Zone Protection Program. All land activities would occur on federal property.	Authorizes the Bureau of Beaches and Coastal Systems within FDEP to regulate construction on or seaward of the states' beaches.
Chapter 163, Part II *Growth Policy; County and Municipal Planning; Land Development Regulation*	The Proposed Action would not affect local government comprehensive 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*	The Proposed Action would not have a negative affect on state plans for water use, land development or transportation.	Details state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation.
Chapter 252 *Emergency Management*	The Proposed Action would not increase the state's vulnerability to natural disasters. The Proposed Action would not impact emergency response and evacuation procedures.	Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters.
Chapter 253 *State Lands*	The Proposed Action is on Federal property and will not affect state lands or their acquisitions.	Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands.
Chapter 258 *State Parks and Preserves*	The Proposed Action would not affect state parks, recreational areas and aquatic preserves. Construction would not occur within any aquatic preserves.	Addresses administration and management of state parks and preserves (Chapter 258).
Chapter 259 *Land Acquisition for Conservation or Recreation*		Authorizes acquisition of environmentally endangered lands and outdoor recreation lands (Chapter 259).
Chapter 260 *Recreational Trails System*		Authorizes acquisition of land to create a recreational trails system and to facilitate management of the system (Chapter 260).
Chapter 375 *Multipurpose Outdoor*	Tourism and outdoor recreation would not be affected.	Develops comprehensive multipurpose outdoor

Table B-1. Florida Coastal Management Program Consistency Review Cont'd

Statute	Consistency	Scope
Recreation; Land Acquisition, Management, and Conservation	Opportunities for recreation on state lands would not be affected.	recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs (Chapter 375).
Chapter 267 *Historical Resources*	No significant cultural resources including archaeological sites or historic structures are located in the vicinity of the Proposed Action. Should archaeological sites be inadvertently discovered from ground-disturbing activities, the Cultural Resources Branch (96 CEG/CEVH) would be notified immediately and further ground-disturbing activities would cease in that area.	Addresses management and preservation of the state's archaeological and historical resources.
Chapter 288 *Commercial Development and Capital Improvements*	The Proposed Action would occur on federal property. The Proposed Action will have a positive affect on future business opportunities on state lands, and/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*	The Proposed Action would not have an impact on transportation.	Addresses the state's policy concerning transportation administration (Chapter 334).
Chapter 339 *Transportation Finance and Planning*	The Proposed Action would have no effect on the finance and planning needs of the state's transportation system.	Addresses the finance and planning needs of the state's transportation system (Chapter 339).
Chapter 370 *Saltwater Fisheries*	The Proposed Action would not affect saltwater fisheries.	Addresses management and protection of the state's saltwater fisheries.
Chapter 372 *Wildlife*	There are three inactive Red-cockaded Woodpecker (RCW) trees near the action area; they have not been active for over 10 years. The under story is overgrown and does not provide acceptable habitat for RCW's. Only one tree is within the leased area, while the two remaining trees are on the outside eastern border of the area. These trees are located within the Eglin Main Base and have been deemed not suitable for future colonization by the USFWS. A field survey for gopher tortoise will be conducted prior to the beginning of the Proposed Action	Addresses the management of the wildlife resources of the state.
Chapter 373 *Water Resources*	Applicable permitting requirements will be satisfied in accordance with 62-25 Florida Administrative Code (FAC) and National Pollutant Discharge Elimination System (NPDES). The proposed Action will adhere to all applicable regulatory requirements, which would serve to either offset or minimize any potential impacts	Addresses the state's policy concerning water resources.

Table B-1. Florida Coastal Management Program Consistency Review Cont'd

Statute	Consistency	Scope
	associated with the action. A notice of intent will be submitted to use the generic permit for stormwater discharge under the NPDES program prior to project initiation according to Section 403.0885, Florida Statutes (FS). The Proposed Action would also require coverage under the generic permit for stormwater discharge from construction activities that disturb one or more acres of land (FAC 62-621). A comprehensive stormwater, erosion, and sedimentation control plan and a stormwater pollution prevention plan (SWPPP) into the final design plan will be implemented. With implementation of these approved stormwater and erosion control measures, no adverse impacts from stormwater would result under the Proposed Action. Prior to construction, the Proposed Action will be coordinated with the Eglin Environmental Engineering Section (96 CEG/CEVCE).	
Chapter 376 *Pollutant Discharge Prevention and Removal*	The Proposed Action does include the transfer and storage of hazardous material. The hazardous materials to be transported, stored, and used on-site for the Proposed Action consist of aviation fuel, vehicle fuel, and vehicle maintenance fluids and wastes. The Proposed Action indicates that no impacts to Environmental Restoration Program sites or from storage and uses of hazardous materials would occur, as the Okaloosa Regional Airport (ORA) would be required to meet all federal, state, and local requirements associated with the storage and use of hazardous materials. The storage, transport, and handling of hazardous material will be coordinated with 96 CEG/CEVCE, and these materials would be disposed of appropriately according to state and Air Armament Center (AAC) Plan 32-5, *Hazardous Waste Management Plan*. AAC Plan 32-9 *Hazardous Materials Management* describes how Eglin AFB complies with federal, state, Air Force, and DoD laws/instructions. The ORA would follow this plan while operating on Eglin AFB.	Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges.
Chapter 377 *Energy Resources*	The Proposed Action would not affect energy resource production of the state, including oil and gas, and the transportation of oil and gas.	Addresses regulation, planning, and development of energy resources of the state.

Table B-1. Florida Coastal Management Program Consistency Review Cont'd

Statute	Consistency	Scope
Chapter 380 *Land and Water Management*	The proposed construction activities would not cross any surface waters. The increased rate and volume of stormwater runoff could potentially increase the amount of sediment and pollutant runoff during construction activities. In addition, polluted stormwater runoff would increase from everyday usage once the land-disturbing activities have been completed. Table 4-1 in the EA provides the amount of land disturbance under the Proposed Action. The Proposed Action will 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 the Northwest Florida Coast would not be affected. To comply with Florida Department of Environmental Protection (FDEP) mandates, the Proposed Action would involve the expansion of the existing stormwater pond (south of SR 85) and the construction of a new stormwater pond to provide on-site treatment of stormwater (see Table 4-2 of the EA).	Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.
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 efforts.	Addresses mosquito control effort in the state.
Chapter 403 *Environmental Control*	The Proposed Action would not affect ecological systems and water quality of state waters. Air quality criteria would not be exceeded and the impacts would not be significant.	Establishes public policy concerning environmental control in the state.
Chapter 582 *Soil and Water Conservation*	Soil erosion could potentially be accelerated due to ground operations, but would be controlled through best management practices (BMPs). These management practices, as well as stormwater control measures, are addressed in Chapter 4, Section 4.2.1 of the EA. The Proposed Action will implement specific mitigations to offset or minimize adverse impacts to surface waters as part of the project requirements.	Provides for the control and prevention of soil erosion.

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APPENDIX C

SUPPORTING DOCUMENTATION

U.S. Department
of Transportation

**Federal Aviation
Administration**

Advisory Circular

Subject: HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS | **Date:** July 27, 2004 | **Initiated by:** AAS-300 | **AC No:** 150/5200-33A | **Change:**

1. PURPOSE. This Advisory Circular (AC) provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. It also discusses airport development projects (including airport construction, expansion, and renovation) affecting aircraft movement near hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

2. APPLICABILITY. The Federal Aviation Administration (FAA) recommends that public-use airport operators implement the standards and practices contained in this AC. The holders of Airport Operating Certificates issued under Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports, Subpart D (Part 139), may use the standards, practices, and recommendations contained in this AC to comply with the wildlife hazard management requirements of Part 139. Airports that have received Federal grant-in-aid assistance must use these standards. The FAA also recommends the guidance in this AC for land-use planners, operators of non-certificated airports, and developers of projects, facilities, and activities on or near airports.

3. CANCELLATION. This AC cancels AC 150/5200-33, *Hazardous Wildlife Attractants on or near Airports*, dated May 1, 1997.

4. PRINCIPAL CHANGES. This AC contains the following major changes:

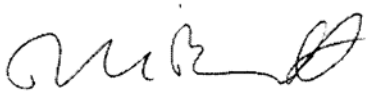
a. Reorganized outline of the AC.
b. Expanded Table 1 to include updated information from the *Special Report for the FAA, "Ranking the Hazard Level of Wildlife Species to Civil Aviation in the USA: Update #1, July 2, 2003".*
c. Removed Table 2, which outlined the distances between certain airport features and any on-airport agricultural crops, and relocated the discussion of on-airport agricultural activities to Paragraph 2-6.
d. Added text about the basis for separation distances between wildlife hazards and airport movement areas and added Figure 1 depicting the separation distances.
e. Added options for wetland mitigation for impacts from airport projects, including mitigation banking.
f. Further recognized the importance of the Wildlife Hazard Management Plan (WHMP).

5. BACKGROUND. Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies, documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem. While many species of wildlife can pose a threat to aircraft safety, they are not equally hazardous. Table 1 ranks the wildlife groups commonly involved in damaging strikes in the United States according to their relative hazard to aircraft. The ranking is based on the 47,212 records in the FAA National Wildlife Strike Database for the years 1990 through 2003. These hazard rankings, in conjunction with site-specific WHAs, will help airport operators determine the relative abundance and use patterns of wildlife species and help focus hazardous wildlife management efforts on those species most likely to cause problems at an airport.

Most public-use airports have large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. These areas can also present potential hazards to aviation if they encourage wildlife to enter an airport's approach or departure airspace or air operations area (AOA). Constructed or natural areas—such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, odor-causing rotting organic matter (putrescible waste) disposal operations, wastewater treatment plants, agricultural or aquaculture activities, surface mining, or wetlands—can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape. Even small facilities, such as fast food restaurants, taxicab staging areas, rental car facilities, aircraft viewing areas, and public parks, can produce substantial attractions for hazardous wildlife.

During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage. Hazardous wildlife attractants on and near airports can jeopardize future airport expansion, making proper community land-use planning essential. This AC provides airport operators and those parties with whom they cooperate with the guidance they need to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports.

6. MEMORANDUM OF AGREEMENT BETWEEN FEDERAL RESOURCE AGENCIES. The FAA, the U.S. Air Force, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture - Wildlife Services signed a Memorandum of Agreement (MOA) (final signature July 2003) to acknowledge their respective missions in protecting aviation from wildlife hazards. Through the MOA, the agencies established procedures necessary to coordinate their missions to address more effectively existing and future environmental conditions contributing to collisions between wildlife and aircraft (wildlife strikes) throughout the United States. These efforts are intended to minimize wildlife risks to aviation and human safety while protecting the Nation's valuable environmental resources.



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Director, Office of Airport Safety
and Standards

Table 1. Ranking of 25 species groups as to relative hazard to aircraft (1=most hazardous) based on three criteria (damage, major damage, and effect-on-flight), a composite ranking based on all three rankings, and a relative hazard score. Data were derived from the FAA National Wildlife Strike Database, January 1990–April 2003.[1]

Species group	Ranking by criteria			Composite ranking[2]	Relative hazard score[3]
	Damage[4]	Major damage[5]	Effect on flight[6]		
Deer	1	1	1	1	100
Vultures	2	2	2	2	64
Geese	3	3	6	3	55
Cormorants/pelicans	4	5	3	4	54
Cranes	7	6	4	5	47
Eagles	6	9	7	6	41
Ducks	5	8	10	7	39
Osprey	8	4	8	8	39
Turkey/pheasants	9	7	11	9	33
Herons	11	14	9	10	27
Hawks (buteos)	10	12	12	11	25
Gulls	12	11	13	12	24
Rock pigeon	13	10	14	13	23
Owls	14	13	20	14	23
H. lark/s. bunting	18	15	15	15	17
Crows/ravens	15	16	16	16	16
Coyote	16	19	5	17	14
Mourning dove	17	17	17	18	14
Shorebirds	19	21	18	19	10
Blackbirds/starling	20	22	19	20	10
American kestrel	21	18	21	21	9
Meadowlarks	22	20	22	22	7
Swallows	24	23	24	23	4
Sparrows	25	24	23	24	4
Nighthawks	23	25	25	25	1

[1] Excerpted from the *Special Report for the FAA, "Ranking the Hazard Level of Wildlife Species to Civil Aviation in the USA: Update #1, July 2, 2003".* Refer to this report for additional explanations of criteria and method of ranking.

[2] Relative rank of each species group was compared with every other group for the three variables, placing the species group with the greatest hazard rank for $\geq$ 2 of the 3 variables above the next highest ranked group, then proceeding down the list.

[3] Percentage values, from Tables 3 and 4 in Footnote 1 of the *Special Report*, for the three criteria were summed and scaled down from 100, with 100 as the score for the species group with the maximum summed values and the greatest potential hazard to aircraft.

[4] Aircraft incurred at least some damage (destroyed, substantial, minor, or unknown) from strike.

[5] Aircraft incurred damage or structural failure, which adversely affected the structure strength, performance, or flight characteristics, and which would normally require major repair or replacement of the affected component, or the damage sustained makes it inadvisable to restore aircraft to airworthy condition.

[6] Aborted takeoff, engine shutdown, precautionary landing, or other.

TABLE OF CONTENTS

SECTION 1. GENERAL SEPARATION CRITERIA FOR HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS.

1-1. INTRODUCTION. When considering proposed land uses, airport operators, local planners, and developers must take into account whether the proposed land uses, including new development projects, will increase wildlife hazards. Land-use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife strikes.

The FAA recommends the minimum separation criteria outlined below for land-use practices that attract hazardous wildlife to the vicinity of airports. Please note that FAA criteria include land uses that cause movement of hazardous wildlife onto, into, or across the airport's approach or departure airspace or air operations area (AOA). (See the discussion of the synergistic effects of surrounding land uses in Section 2-8 of this AC.)

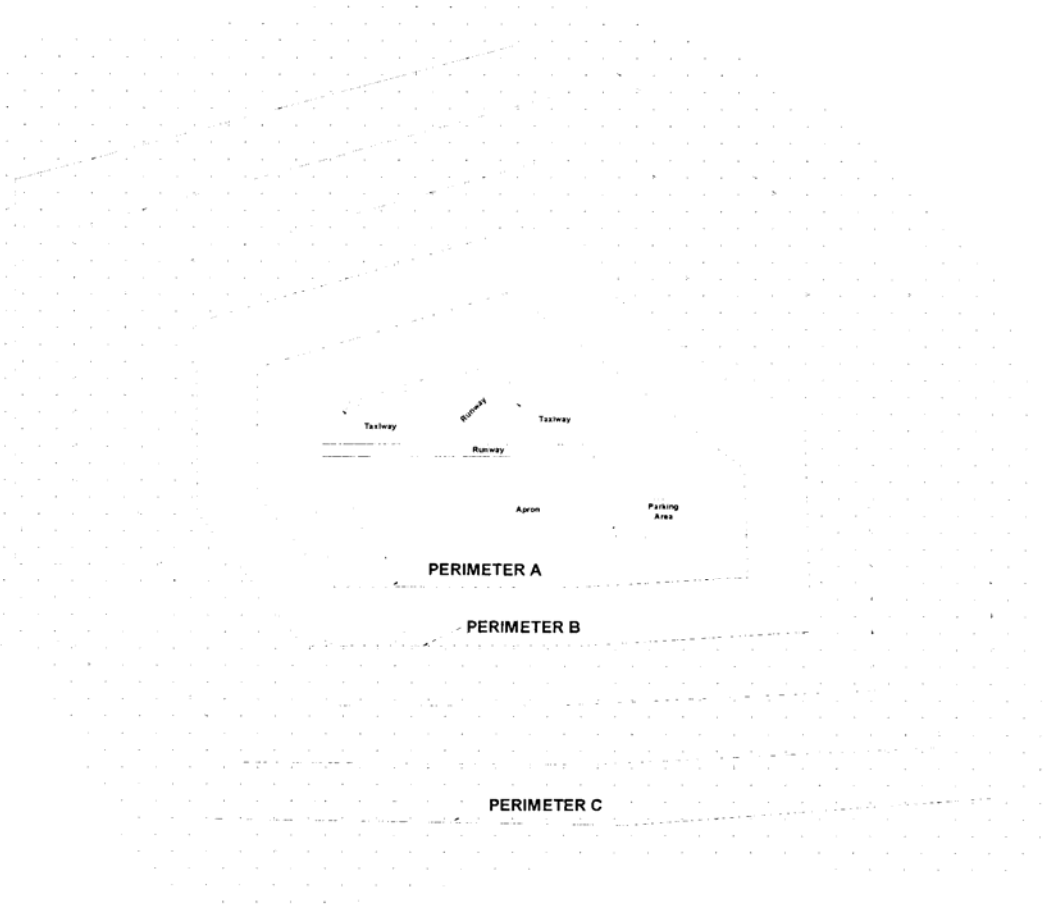
The basis for the separation criteria contained in this section can be found in existing FAA regulations. The separation distances are based on (1) flight patterns of piston-powered aircraft and turbine-powered aircraft, (2) the altitude at which most strikes happen (78 percent occur under 1,000 feet and 90 percent occur under 3,000 feet above ground level), and (3) National Transportation Safety Board (NTSB) recommendations.

1-2. AIRPORTS SERVING PISTON-POWERED AIRCRAFT. Airports that do not sell Jet-A fuel normally serve piston-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 5,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance measured from the nearest aircraft operations areas.

1-3. AIRPORTS SERVING TURBINE-POWERED AIRCRAFT. Airports selling Jet-A fuel normally serve turbine-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 10,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance from the nearest aircraft movement areas.

1-4. PROTECTION OF APPROACH, DEPARTURE, AND CIRCLING AIRSPACE. For all airports, the FAA recommends a distance of 5 statute miles between the farthest edge of the airport's AOA and the hazardous wildlife attractant if the attractant could cause hazardous wildlife movement into or across the approach or departure airspace.

Figure 1. Separation distances within which hazardous wildlife attractants should be avoided, eliminated, or mitigated.



PERIMETER A:
For airports serving piston-powered aircraft, hazardous wildlife attractants must be 5,000 feet from the nearest air operations area.

PERIMETER B:
For airports serving turbine-powered aircraft, hazardous wildlife attractants must be 10,000 feet from the nearest air operations area.

PERIMETER C:
5-mile range to protect approach, departure and circling airspace.

SECTION 2. LAND-USE PRACTICES ON OR NEAR AIRPORTS THAT POTENTIALLY ATTRACT HAZARDOUS WILDLIFE.

2-1. GENERAL. The wildlife species and the size of the populations attracted to the airport environment vary considerably, depending on several factors, including land-use practices on or near the airport. This section discusses land-use practices having the potential to attract hazardous wildlife and threaten aviation safety. In addition to the specific considerations outlined below, airport operators should refer to *Wildlife Hazard Management at Airports,* prepared by FAA and U.S. Department of Agriculture (USDA) staff. (This manual is available in English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: http://wildlife-mitigation.tc.faa.gov.). And, *Prevention and Control of Wildlife Damage,* compiled by the University of Nebraska Cooperative Extension Division. (This manual is available online in a periodically updated version at: ianrwww.unl.edu/wildlife/solutions/handbook/.)

2-2. WASTE DISPOSAL OPERATIONS. Municipal solid waste landfills (MSWLs) are known to attract large numbers of hazardous wildlife, particularly birds. Because of this, these operations, when located within the separations identified in the siting criteria in Sections 1-2 through 1-4, are considered incompatible with safe airport operations.

a. **Siting for new municipal solid waste landfills subject to AIR 21.** Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) (AIR 21) prohibits the construction or establishment of a new MSWL within 6 statute miles of certain public-use airports. Before these prohibitions apply, both the airport and the landfill must meet the very specific conditions described below. These restrictions do not apply to airports or landfills located within the state of Alaska.

   The airport must (1) have received a Federal grant(s) under 49 U.S.C. § 47101, et. seq.; (2) be under control of a public agency; (3) serve some scheduled air carrier operations conducted in aircraft with less than 60 seats; and (4) have total annual enplanements consisting of at least 51 percent of scheduled air carrier enplanements conducted in aircraft with less than 60 passenger seats.

   The proposed MSWL must (1) be within 6 miles of the airport, as measured from airport property line to MSWL property line, and (2) have started construction or establishment on or after April 5, 2001. Public Law 106-181 only limits the construction or establishment of some new MSWLs. It does not limit the expansion, either vertical or horizontal, of existing landfills.

   NOTE: Consult the most recent version of AC 150/5200-34, *Construction or Establishment of Landfills Near Public Airports,* for a more detailed discussion of these restrictions.

b. **Siting for new MSWLs not subject to AIR 21**. If an airport and MSWL do not meet the restrictions of Public Law 106-181, the FAA recommends against locating MSWLs within the separation distances identified in Sections 1-2 through 1-4. The separation distances should be measured from the closest point of the airport's AOA to the closest planned MSWL cell.

c. **Considerations for existing waste disposal facilities within the limits of separation criteria.** The FAA recommends against airport development projects that would increase the number of aircraft operations or accommodate larger or faster aircraft near MSWL operations located within the separations identified in Sections 1-2 through 1-4. In addition, in accordance with 40 CFR 258.10, owners or operators of existing MSWL units that are located within the separations listed in Sections 1-2 through 1-4 must demonstrate that the unit is designed and operated so it does not pose a bird hazard to aircraft. (See Sections 4-3(b) and 4-3(c) of this AC for a discussion of this demonstration requirement.)

d. **Enclosed trash transfer stations.** Enclosed waste-handling facilities that receive garbage behind closed doors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles generally are compatible with safe airport operations, provided they are not located on airport property or within the Runway Protection Zone (RPZ). These facilities should not handle or store putrescible waste outside or in a partially enclosed structure accessible to hazardous wildlife. Trash transfer facilities that are open on one or more sides; that store uncovered quantities of municipal solid waste outside, even if only for a short time; that use semi-trailers that leak or have trash clinging to the outside; or that do not control odors by ventilation and filtration systems (odor masking is not acceptable) do not meet the FAA's definition of fully enclosed trash transfer stations. The FAA considers these facilities incompatible with safe airport operations if they are located closer than the separation distances specified in Sections 1-2 through 1-4.

e. **Composting operations on or near airport property.** Composting operations that accept only yard waste (e.g., leaves, lawn clippings, or branches) generally do not attract hazardous wildlife. Sewage sludge, woodchips, and similar material are not municipal solid wastes and may be used as compost bulking agents. The compost, however, must never include food or other municipal solid waste. Composting operations should not be located on airport property. Off-airport property composting operations should be located no closer than the greater of the following distances: 1,200 feet from any AOA or the distance called for by airport design requirements (see AC 150/5300-13, *Airport Design*). This spacing should prevent material, personnel, or equipment from penetrating any Object Free Area (OFA), Obstacle Free Zone (OFZ), Threshold Siting Surface (TSS), or Clearway. Airport operators should monitor composting operations located in proximity to the airport to ensure that steam or thermal rise does not adversely affect air traffic. On-airport disposal of compost by-products should not be conducted for the reasons stated in 2-3f.

f. **Underwater waste discharges.** The FAA recommends against the underwater discharge of any food waste (e.g., fish processing offal) within the separations identified in Sections 1-2 through 1-4 because it could attract scavenging hazardous wildlife.

g. **Recycling centers.** Recycling centers that accept previously sorted non-food items, such as glass, newspaper, cardboard, or aluminum, are, in most cases, not attractive to hazardous wildlife and are acceptable.

h. **Construction and demolition (C&D) debris facilities.** C&D landfills do not generally attract hazardous wildlife and are acceptable if maintained in an orderly manner, admit no putrescible waste, and are not co-located with other waste disposal operations. However, C&D landfills have similar visual and operational characteristics to putrescible waste disposal sites. When co-located with putrescible waste disposal operations, C&D landfills are more likely to attract hazardous wildlife because of the similarities between these disposal facilities. Therefore, a C&D landfill co-located with another waste disposal operation should be located outside of the separations identified in Sections 1-2 through 1-4.

i. **Fly ash disposal.** The incinerated residue from resource recovery power/heat-generating facilities that are fired by municipal solid waste, coal, or wood is generally not a wildlife attractant because it no longer contains putrescible matter. Landfills accepting only fly ash are generally not considered to be wildlife attractants and are acceptable as long as they are maintained in an orderly manner, admit no putrescible waste of any kind, and are not co-located with other disposal operations that attract hazardous wildlife.

Since varying degrees of waste consumption are associated with general incineration (not resource recovery power/heat-generating facilities), the FAA considers the ash from general incinerators a regular waste disposal by-product and, therefore, a hazardous wildlife attractant if disposed of within the separation criteria outlined in Sections 1-2 through 1-4.

2-3. WATER MANAGEMENT FACILITIES. Drinking water intake and treatment facilities, stormwater and wastewater treatment facilities, associated retention and settling ponds, ponds built for recreational use, and ponds that result from mining activities often attract large numbers of potentially hazardous wildlife. To prevent wildlife hazards, land-use developers and airport operators may need to develop management plans, in compliance with local and state regulations, to support the operation of stormwater management facilities on or near all public-use airports to ensure a safe airport environment.

a. **Existing stormwater management facilities.** On-airport stormwater management facilities allow the quick removal of surface water, including discharges related to aircraft deicing, from impervious surfaces, such as pavement and terminal/hangar building roofs. Existing on-airport detention ponds collect stormwater, protect water quality, and control runoff. Because they slowly release water after storms, they create standing bodies of water that can attract hazardous wildlife. Where the airport has developed a WHMP in accordance with Part 139, the FAA requires immediate correction of any wildlife hazards arising from existing stormwater facilities located on or near airports, using appropriate wildlife hazard mitigation techniques. Airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

   Where possible, airport operators should modify stormwater detention ponds to allow a maximum 48-hour detention period for the design storm. The FAA recommends that airport operators avoid or remove retention ponds and detention ponds featuring dead storage to eliminate standing water. Detention basins should remain totally dry between rainfalls. Where constant flow of water is anticipated through the basin, or where any portion of the basin bottom may remain wet, the detention facility should include a concrete or paved pad and/or ditch/swale in the bottom to prevent vegetation that may provide nesting habitat.

   When it is not possible to drain a large detention pond completely, airport operators may use physical barriers, such as bird balls, wires grids, pillows, or netting, to deter birds and other hazardous wildlife. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office.

   The FAA recommends that airport operators encourage off-airport stormwater treatment facility operators to incorporate appropriate wildlife hazard mitigation techniques into stormwater treatment facility operating practices when their facility is located within the separation criteria specified in Sections 1-2 through 1-4.

b. **New stormwater management facilities.** The FAA strongly recommends that off-airport stormwater management systems located within the separations identified in Sections 1-2 through 1-4 be designed and operated so as not to create above-ground standing water. On-airport stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48–hour detention period for the design storm and remain completely dry between storms. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, narrow, linearly shaped water detention basins. When it is not possible to place these ponds away from an airport's AOA, airport operators should use physical barriers, such as bird balls, wires grids, pillows, or netting, to prevent access of hazardous wildlife to open water and minimize aircraft-wildlife interactions. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office. All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated. If soil conditions and other requirements allow, the FAA encourages the use of underground stormwater infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

c. **Existing wastewater treatment facilities.** The FAA strongly recommends that airport operators immediately correct any wildlife hazards arising from existing wastewater treatment facilities located on or near the airport. Where required, a WHMP developed in accordance with Part 139 will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should encourage wastewater treatment facility operators to incorporate measures, developed in consultation with a wildlife damage management biologist, to minimize hazardous wildlife attractants. Airport operators should also encourage those wastewater treatment facility operators to incorporate these mitigation techniques into their standard operating practices. In addition, airport operators should consider the existence of wastewater treatment facilities when evaluating proposed sites for new airport development projects and avoid such sites when practicable.

d. **New wastewater treatment facilities.** The FAA strongly recommends against the construction of new wastewater treatment facilities or associated settling ponds within the separations identified in Sections 1-2 through 1-4. Appendix 1 defines wastewater treatment facility as "any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes." The definition includes any pretreatment involving the reduction of the amount of pollutants or the elimination of pollutants prior to introducing such pollutants into a publicly owned treatment works (wastewater treatment facility). During the site-location analysis for wastewater treatment facilities, developers should consider the potential to attract hazardous wildlife if an airport is in the vicinity of the proposed site, and airport operators should voice their opposition to such facilities if they are in proximity to the airport.

e. **Artificial marshes.** In warmer climates, wastewater treatment facilities sometimes employ artificial marshes and use submergent and emergent aquatic vegetation as natural filters. These artificial marshes may be used by some species of flocking birds, such as blackbirds and waterfowl, for breeding or roosting activities. The FAA strongly recommends against establishing artificial marshes within the separations identified in Sections 1-2 through 1-4.

f. **Wastewater discharge and sludge disposal.** The FAA recommends against the discharge of wastewater or sludge on airport property because it may improve soil moisture and quality on unpaved areas and lead to improved turf growth that can be an attractive food source for many species of animals. Also, the turf requires more frequent mowing, which in turn may mutilate or flush insects or small animals and produce straw, both of which can attract hazardous wildlife. In addition, the improved turf may attract grazing wildlife, such as deer and geese. Problems may also occur when discharges saturate unpaved airport areas. The resultant soft, muddy conditions can severely restrict or prevent emergency vehicles from reaching accident sites in a timely manner.

2-4. WETLANDS. Wetlands provide a variety of functions and can be regulated by local, state, and Federal laws. Normally, wetlands are attractive to many types of wildlife, including many which rank high on the list of hazardous wildlife species (Table 1).

NOTE: If questions exist as to whether an area qualifies as a wetland, contact the local division of the U.S. Army Corps of Engineers, the Natural Resources Conservation Service, or a wetland consultant qualified to delineate wetlands.

a. **Existing wetlands on or near airport property.** If wetlands are located on or near airport property, airport operators should be alert to any wildlife use or habitat changes in these areas that could affect safe aircraft operations. At public-use airports, the FAA recommends immediately correcting, in cooperation with local, state, and Federal regulatory agencies, any wildlife hazards arising from existing wetlands located on or near airports. Where required, a WHMP will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

b. **New airport development.** Whenever possible, the FAA recommends locating new airports using the separations from wetlands identified in Sections 1-2 through 1-4. Where alternative sites are not practicable, or when airport operators are expanding an existing airport into or near wetlands, a wildlife damage management biologist, in consultation with the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the state wildlife management agency should evaluate the wildlife hazards and prepare a WHMP that indicates methods of minimizing the hazards.

c. **Mitigation for wetland impacts from airport projects.** Wetland mitigation may be necessary when unavoidable wetland disturbances result from new airport development projects or projects required to correct wildlife hazards from wetlands. Wetland mitigation must be designed so it does not create a wildlife hazard. The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4.

(1) Onsite mitigation of wetland functions. The FAA may consider exceptions to locating mitigation activities outside the separations identified in Sections 1-2 through 1-4 if the affected wetlands provide unique ecological functions, such as critical habitat for threatened or endangered species or ground water recharge, which cannot be replicated when moved to a different location. Using existing airport property is sometimes the only feasible way to achieve the mitigation ratios mandated in regulatory orders and/or settlement agreements with the resource agencies. Conservation easements are an additional means of providing mitigation for project impacts. Typically the airport operator continues to own the property, and an easement is created stipulating that the property will be maintained as habitat for state or Federally listed species.

Mitigation must not inhibit the airport operator's ability to effectively control hazardous wildlife on or near the mitigation site or effectively maintain other aspects of safe airport operations. Enhancing such mitigation areas to attract hazardous wildlife must be avoided. The FAA will review any onsite mitigation proposals to determine compatibility with safe airport operations. A wildlife damage management biologist should evaluate any wetland mitigation projects that are needed to protect unique wetland functions and that must be located in the separation criteria in Sections 1-2 through 1-4 before the mitigation is implemented. A WHMP should be developed to reduce the wildlife hazards.

(2) Offsite mitigation of wetland functions. The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4 unless they provide unique functions that must remain onsite (see 2-4c(1)). Agencies that regulate impacts to or around wetlands recognize that it may be necessary to split wetland functions in mitigation schemes. Therefore, regulatory agencies may, under certain circumstances, allow portions of mitigation to take place in different locations.

(3) Mitigation banking. Wetland mitigation banking is the creation or restoration of wetlands in order to provide mitigation credits that can be used to offset permitted wetland losses. Mitigation banking benefits wetland resources by providing advance replacement for permitted wetland losses; consolidating small projects into larger, better-designed and managed units; and encouraging integration of wetland mitigation projects with watershed planning. This last benefit is most helpful for airport projects, as wetland impacts mitigated outside of the separations identified in Sections 1-2 through 1-4 can still be located within the same watershed. Wetland mitigation banks meeting the separation criteria offer an ecologically sound approach to mitigation in these situations. Airport operators should work with local watershed management agencies or organizations to develop mitigation banking for wetland impacts on airport property.

2-5. DREDGE SPOIL CONTAINMENT AREAS. The FAA recommends against locating dredge spoil containment areas (also known as Confined Disposal Facilities) within the separations identified in Sections 1-2 through 1-4 if the containment area or the spoils contain material that would attract hazardous wildlife.

2-6. AGRICULTURAL ACTIVITIES. Because most, if not all, agricultural crops can attract hazardous wildlife during some phase of production, the FAA recommends against the used of airport property for agricultural production, including hay crops, within the separations identified in Sections 1-2 through 1-4. . If the airport has no financial alternative to agricultural crops to produce income necessary to maintain the viability of the airport, then the airport shall follow the crop distance guidelines listed in the table titled "Minimum Distances between Certain Airport Features and Any On-Airport Agricultural Crops" found in AC 150/5300-13, *Airport Design*, Appendix 19. The cost of wildlife control and potential accidents should be weighed against the income produced by the on-airport crops when deciding whether to allow crops on the airport.

a. **Livestock production.** Confined livestock operations (i.e., feedlots, dairy operations, hog or chicken production facilities, or egg laying operations) often attract flocking birds, such as starlings, that pose a hazard to aviation. Therefore, The FAA recommends against such facilities within the separations identified in Sections 1-2 through 1-4. Any livestock operation within these separations should have a program developed to reduce the attractiveness of the site to species that are hazardous to aviation safety. Free-ranging livestock must not be grazed on airport property because the animals may wander onto the AOA. Furthermore, livestock feed, water, and manure may attract birds.

b. **Aquaculture.** Aquaculture activities (i.e. catfish or trout production) conducted outside of fully enclosed buildings are inherently attractive to a wide variety of birds. Existing aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4 must have a program developed to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should also oppose the establishment of new aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4.

c. **Alternative uses of agricultural land.** Some airports are surrounded by vast areas of farmed land within the distances specified in Sections 1-2 through 1-4. Seasonal uses of agricultural land for activities such as hunting can create a hazardous wildlife situation. In some areas, farmers will rent their land for hunting purposes. Rice farmers, for example, flood their land during waterfowl hunting season and obtain additional revenue by renting out duck blinds. The duck hunters then use decoys and call in hundreds, if not thousands, of birds, creating a tremendous threat to aircraft safety. A wildlife damage management biologist should review, in coordination with local farmers and producers, these types of seasonal land uses and incorporate them into the WHMP.

2-7. GOLF COURSES, LANDSCAPING AND OTHER LAND-USE CONSIDERATIONS.

a. **Golf courses.** The large grassy areas and open water found on most golf courses are attractive to hazardous wildlife, particularly Canada geese and some species of gulls. These species can pose a threat to aviation safety. The FAA recommends against construction of new golf courses within the separations identified in Sections 1-2 through 1-4. Existing golf courses located within these separations must develop a program to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should ensure these golf courses are monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be immediately implemented.

b. **Landscaping and landscape maintenance.** Depending on its geographic location, landscaping can attract hazardous wildlife. The FAA recommends that airport operators

approach landscaping with caution and confine it to airport areas not associated with aircraft movements. A wildlife damage management biologist should review all landscaping plans. Airport operators should also monitor all landscaped areas on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be immediately implemented.

Turf grass areas can be highly attractive to a variety of hazardous wildlife species. Research conducted by the USDA Wildlife Services' National Wildlife Research Center has shown that no one grass management regime will deter all species of hazardous wildlife in all situations. In cooperation with wildlife damage management biologist, airport operators should develop airport turf grass management plans on a prescription basis, depending on the airport's geographic locations and the type of hazardous wildlife likely to frequent the airport

Airport operators should ensure that plant varieties attractive to hazardous wildlife are not used on the airport. Disturbed areas or areas in need of re-vegetating should not be planted with seed mixtures containing millet or any other large-seed producing grass. For airport property already planted with seed mixtures containing millet, rye grass, or other large-seed producing grasses, the FAA recommends disking, plowing, or another suitable agricultural practice to prevent plant maturation and seed head production. Plantings should follow the specific recommendations for grass management and seed and plant selection made by the State University Cooperative Extension Service, the local office of Wildlife Services, or a qualified wildlife damage management biologist. Airport operators should also consider developing and implementing a preferred/prohibited plant species list, reviewed by a wildlife damage management biologist, which has been designed for the geographic location to reduce the attractiveness to hazardous wildlife for landscaping airport property.

c. **Airports surrounded by wildlife habitat.** The FAA recommends that operators of airports surrounded by woodlands, water, or wetlands refer to Section 2.4 of this AC. Operators of such airports should provide for a WHA conducted by a wildlife damage management biologist. This WHA is the first step in preparing a WHMP, where required.

d. **Other hazardous wildlife attractants.** Other specific land uses or activities (e.g., sport or commercial fishing, shellfish harvesting, etc.), perhaps unique to certain regions of the country, have the potential to attract hazardous wildlife. Regardless of the source of the attraction, when hazardous wildlife is noted on a public-use airport, airport operators must take prompt remedial action(s) to protect aviation safety.

2-8. SYNERGISTIC EFFECTS OF SURROUNDING LAND USES. There may be circumstances where two (or more) different land uses that would not, by themselves, be considered hazardous wildlife attractants or that are located outside of the separations identified in Sections 1-2 through 1-4 that are in such an alignment with the airport as to create a wildlife corridor directly through the airport and/or surrounding airspace. An example of this situation may involve a lake located outside of the separation criteria on the east side of an airport and a large hayfield on the west side of an airport, land uses that together could create a flyway for Canada geese directly across the airspace of the airport. There are numerous examples of such situations; therefore, airport operators and the wildlife damage management biologist must consider the entire surrounding landscape and community when developing the WHMP.

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SECTION 3. PROCEDURES FOR WILDLIFE HAZARD MANAGEMENT BY OPERATORS OF PUBLIC-USE AIRPORTS.

3.1. INTRODUCTION. In recognition of the increased risk of serious aircraft damage or the loss of human life that can result from a wildlife strike, the FAA may require the development of a Wildlife Hazard Management Plan (WHMP) when specific triggering events occur on or near the airport. Part 139.337 discusses the specific events that trigger a Wildlife Hazard Assessment (WHA) and the specific issues that a WHMP must address for FAA approval and inclusion in an Airport Certification Manual.

3.2. COORDINATION WITH USDA WILDLIFE SERVICES OR OTHER QUALIFIED WILDLIFE DAMAGE MANAGEMENT BIOLOGISTS. The FAA will use the WHA conducted in accordance with Part 139 to determine if the airport needs a WHMP. Therefore, persons having the education, training, and expertise necessary to assess wildlife hazards must conduct the WHA. The airport operator may look to Wildlife Services or to qualified private consultants to conduct the WHA. When the services of a wildlife damage management biologist are required, the FAA recommends that land-use developers or airport operators contact a consultant specializing in wildlife damage management or the appropriate state director of Wildlife Services.

***NOTE**: Telephone numbers for the respective USDA Wildlife Services state offices can be obtained by contacting USDA Wildlife Services Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD, 20737-1234, Telephone (301) 734-7921, Fax (301) 734-5157 (http://www.aphis.usda.gov/ws/).*

3-3. WILDLIFE HAZARD MANAGEMENT AT AIRPORTS: A MANUAL FOR AIRPORT PERSONNEL. This manual, prepared by FAA and USDA Wildlife Services staff, contains a compilation of information to assist airport personnel in the development, implementation, and evaluation of WHMPs at airports. The manual includes specific information on the nature of wildlife strikes, legal authority, regulations, wildlife management techniques, WHAs, WHMPs, and sources of help and information. The manual is available in three languages: English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: http://wildlife-mitigation.tc.faa.gov/. This manual only provides a starting point for addressing wildlife hazard issues at airports. Hazardous wildlife management is a complex discipline and conditions vary widely across the United States. Therefore, qualified wildlife damage management biologists must direct the development of a WHMP and the implementation of management actions by airport personnel.

There are many other resources complementary to this manual for use in developing and implementing WHMPs. Several are listed in the manual's bibliography.

3-4. WILDLIFE HAZARD ASSESSMENTS, TITLE 14, CODE OF FEDERAL REGULATIONS, PART 139. Part 139.337(b) requires airport operators to conduct a Wildlife Hazard Assessment (WHA) when certain events occur on or near the airport. Part 139.337 (c) provides specific guidance as to what facts must be addressed in a WHA.

3-5. WILDLIFE HAZARD MANAGEMENT PLAN (WHMP). The FAA will consider the results of the WHA, along with the aeronautical activity at the airport and the views of the airport operator and airport users, in determining whether a formal WHMP is needed, in accordance with Part 139.337. If the FAA determines that a WHMP is needed, the airport operator must formulate and implement a WHMP, using the WHA as the basis for the plan.

The goal of an airport's Wildlife Hazard Management Plan is to minimize the risk to aviation safety, airport structures or equipment, or human health posed by populations of hazardous wildlife on and around the airport.

The WHMP must identify hazardous wildlife attractants on or near the airport and the appropriate wildlife damage management techniques to minimize the wildlife hazard. It must also prioritize the management measures.

3-6. LOCAL COORDINATION. The establishment of a Wildlife Hazards Working Group (WHWG) will facilitate the communication, cooperation, and coordination of the airport and its surrounding community necessary to ensure the effectiveness of the WHMP. The cooperation of the airport community is also necessary when new projects are considered. Whether on or off the airport, the input from all involved parties must be considered when a potentially hazardous wildlife attractant is being proposed. Airport operators should also incorporate public education activities with the local coordination efforts because some activities in the vicinity of your airport, while harmless under normal leisure conditions, can attract wildlife and present a danger to aircraft. For example, if public trails are planned near wetlands or in parks adjoining airport property, the public should know that feeding birds and other wildlife in the area may pose a risk to aircraft.

Airport operators should work with local and regional planning and zoning boards so as to be aware of proposed land-use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in Sections 1-2 through 1-4. Pay particular attention to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas. At the very least, airport operators must ensure they are on the notification list of the local planning board or equivalent review entity for all communities located within 5 miles of the airport, so they will receive notification of any proposed project and have the opportunity to review it for attractiveness to hazardous wildlife.

3-7. COORDINATION/NOTIFICATION OF AIRMEN OF WILDLIFE HAZARDS. If an existing land-use practice creates a wildlife hazard and the land-use practice or wildlife hazard cannot be immediately eliminated, airport operators must issue a Notice to Airmen (NOTAM) and encourage the land–owner or manager to take steps to control the wildlife hazard and minimize further attraction.

SECTION 4. FAA NOTIFICATION AND REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC USE AIRPORTS.

4-1. FAA REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC USE AIRPORTS.

a. The FAA discourages the development of waste disposal and other facilities, discussed in Section 2, located within the 5,000/10,000-foot criteria specified in Sections 1-2 through 1-4.

b. For projects that are located outside the 5,000/10,000-foot criteria but within 5 statute miles of the airport's AOA, the FAA may review development plans, proposed land-use changes, operational changes, or wetland mitigation plans to determine if such changes present potential wildlife hazards to aircraft operations. The FAA considers sensitive airport areas as those that lie under or next to approach or departure airspace. This brief examination should indicate if further investigation is warranted.

c. Where a wildlife damage management biologist has conducted a further study to evaluate a site's compatibility with airport operations, the FAA may use the study results to make a determination.

4-2. WASTE MANAGEMENT FACILITIES.

a. Notification of new/expanded project proposal. Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) limits the construction or establishment of new MSWL within 6 statute miles of certain public use airports, when both the airport and the landfill meet very specific conditions See Section 2-2 of this AC and AC 150/5200-34 for a more detailed discussion of these restrictions.

The Environmental Protection Agency (EPA) requires any MSWL operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, *Criteria for Municipal Solid Waste Landfills*, Section 258.10, *Airport Safety*). The EPA also requires owners or operators of new MSWL units, or lateral expansions of existing MSWL units, that are located within 10,000 feet of any airport runway end used by turbojet aircraft, or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft. (See 4-2.b below.)

When new or expanded MSWLs are being proposed near airports, MSWL operators must notify the airport operator and the FAA of the proposal as early as possible pursuant to 40 CFR 258.

b. Waste handling facilities within separations identified in Sections 1-2 through 1-4. To claim successfully that a waste-handling facility sited within the separations identified in Sections 1-2 through 1-4 does not attract hazardous wildlife and does not threaten aviation, the developer must establish convincingly that the facility will not handle putrescible material other than that as outlined in 2-2b. The FAA strongly recommends against any facility other than that as outlined in 2-2b (enclosed transfer stations). The FAA will use this information to determine if the facility will be a hazard to aviation.

c. Putrescible-Waste Facilities. In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, no such facility has been able to demonstrate an ability to reduce and sustain hazardous wildlife to levels that existed before the

putrescible-waste landfill began operating. For this reason, demonstrations of experimental wildlife control measures may not be conducted in an airport's AOA.

4-3. OTHER LAND-USE PRACTICE CHANGES. As a matter of policy, the FAA encourages operators of public use airports who become aware of proposed land use practice changes that may attract hazardous wildlife within 5 statute miles of their airports to promptly notify the FAA. The FAA also encourages proponents of such land use changes to notify the FAA as early in the planning process as possible. Advanced notice affords the FAA an opportunity (1) to evaluate the effect of a particular land-use change on aviation safety and (2) to support efforts by the airport sponsor to restrict the use of land next to or near the airport to uses that are compatible with the airport.

The airport operator, project proponent, or land-use operator may use FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, or other suitable documents similar to FAA Form 7460-1 to notify the appropriate FAA Regional Airports Division Office. Project proponents can contact the appropriate FAA Regional Airports Division Office for assistance with the notification process.

It is helpful if the notification includes a 15-minute quadrangle map of the area identifying the location of the proposed activity. The land-use operator or project proponent should also forward specific details of the proposed land-use change or operational change or expansion. In the case of solid waste landfills, the information should include the type of waste to be handled, how the waste will be processed, and final disposal methods.

a. **Airports that have received Federal grant-in-aid assistance.** Airports that have received Federal grant-in-aid assistance are required by their grant assurances to take appropriate actions to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations. The FAA recommends that airport operators to the extent practicable oppose off-airport land-use changes or practices within the separations identified in Sections 1-2 through 1-4 that may attract hazardous wildlife. Failure to do so may lead to noncompliance with applicable grant assurances. The FAA will not approve the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants without appropriate mitigating measures. Increasing the intensity of wildlife control efforts is not a substitute for eliminating or reducing a proposed wildlife hazard. Airport operators should identify hazardous wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects.

b. **Additional coordination.** If, after initial review by the FAA, questions remain about the existence of a wildlife hazard near an airport, airport operators should consult a wildlife damage management biologist. Such questions may be triggered by a history of wildlife strikes at the airport or the proximity of the airport to a wildlife refuge, body of water, or similar feature known to attract wildlife. Once identified, such questions require resolution prior to the project's implementation.

APPENDIX 1. DEFINITIONS OF TERMS USED IN THIS ADVISORY CIRCULAR.

1. GENERAL. This appendix provides definitions of terms used throughout this AC.

1. **Air operations area.** Any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

2. **Airport operator.** The operator (private or public) or sponsor of a public-use airport.

3. **Approach or departure airspace.** The airspace, within 5 statute miles of an airport, through which aircraft move during landing or takeoff.

4. **Bird balls.** High-density plastic floating balls that can be used to cover ponds and prevent birds from using the sites.

5. **Certificate holder.** The holder of an Airport Operating Certificate issued under Title 14, Code of Federal Regulations, Part 139.

6. **Construct a new MSWL.** To begin to excavate, grade land, or raise structures to prepare a municipal solid waste landfill as permitted by the appropriate regulatory or permitting agency.

7. **Detention ponds.** Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

8. **Establish a new MSWL.** When the first load of putrescible waste is received on-site for placement in a prepared municipal solid waste landfill.

9. **Fly ash.** The fine, sand-like residue resulting from the complete incineration of an organic fuel source. Fly ash typically results from the combustion of coal or waste used to operate a power generating plant.

10. **General aviation aircraft.** Any civil aviation aircraft not operating under 14 CFR Part 119, Certification: Air Carriers and Commercial Operators.

11. **Hazardous wildlife.** Species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard

12. **Municipal Solid Waste Landfill (MSWL).** A publicly or privately owned discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR § 257.2. An MSWL may receive other types wastes, such as commercial solid waste, non-hazardous sludge, small-quantity generator waste, and industrial solid waste, as defined under 40 CFR § 258.2. An MSWL can consist of either a stand alone unit or several cells that receive household waste.

13. **New MSWL.** A municipal solid waste landfill that was established or constructed after April 5, 2001.

14. **Piston-powered aircraft.** Fixed-wing aircraft powered by piston engines.

15. **Piston-use airport.** Any airport that does not sell Jet-A fuel for fixed-wing turbine-powered aircraft, and primarily serves fixed-wing, piston-powered aircraft. Incidental use of the airport by turbine-powered, fixed-wing aircraft would not affect this designation. However, such aircraft should not be based at the airport.

16. **Public agency.** A State or political subdivision of a State, a tax-supported organization, or an Indian tribe or pueblo (49 U.S.C. § 47102(15)).

17. **Public airport.** An airport used or intended to be used for public purposes that is under the control of a public agency; and of which the area used or intended to be used for landing, taking off, or surface maneuvering of aircraft is publicly owned (49 U.S.C. § 47102(16)).

18. **Putrescible waste.** Solid waste that contains organic matter capable of being decomposed by micro-organisms and of such a character and proportion as to be capable of attracting or providing food for birds (40 CFR §257.3-8).

19. **Putrescible-waste disposal operation.** Landfills, garbage dumps, underwater waste discharges, or similar facilities where activities include processing, burying, storing, or otherwise disposing of putrescible material, trash, and refuse.

20. **Retention ponds.** Storm water management ponds that hold water for several months.

21. **Runway protection zone (RPZ).** An area off the runway end to enhance the protection of people and property on the ground (see AC 150/5300-13). The dimensions of this zone vary with the airport design, aircraft, type of operation, and visibility minimum.

22. **Scheduled air carrier operation.** Any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the air carrier, commercial operator, or their representative offers in advance the departure location, departure time, and arrival location. It does not include any operation that is conducted as a supplemental operation under 14 CFR Part 119 or as a public charter operation under 14 CFR Part 380 (14 CFR § 119.3).

23. **Sewage sludge.** Any solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works. (40 CFR 257.2)

24. **Sludge.** Any solid, semi-solid, or liquid waste generated form a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. (40 CFR 257.2)

25. **Solid waste.** Any garbage, refuse, sludge, from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including, solid liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by product material as defined by the Atomic Energy Act of 1954, as amended, (68 Stat. 923). (40 CFR 257.2)

26. **Turbine-powered aircraft.** Aircraft powered by turbine engines including turbojets and turboprops but excluding turbo-shaft rotary-wing aircraft.

27. **Turbine-use airport.** Any airport that sells Jet-A fuel for fixed-wing turbine-powered aircraft.

28. **Wastewater treatment facility.** Any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes, including Publicly Owned Treatment Works (POTW), as defined by Section 212 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 95-576) and the Water Quality Act of 1987 (P.L. 100-4). This definition includes any pretreatment involving the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. (See 40 CFR Section 403.3 (o), (p), & (q)).

29. **Wildlife.** Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring thereof (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this AC, wildlife includes feral animals and domestic animals out of the control of their owners (14 CFR Part 139, Certification of Airports).

30. **Wildlife attractants.** Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the landing or departure airspace or the airport's AOA. These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

31. **Wildlife hazard.** A potential for a damaging aircraft collision with wildlife on or near an airport.

32. **Wildlife strike.** A wildlife strike is deemed to have occurred when:
    a. A pilot reports striking 1 or more birds or other wildlife;
    b. Aircraft maintenance personnel identify aircraft damage as having been caused by a wildlife strike;
    c. Personnel on the ground report seeing an aircraft strike 1 or more birds or other wildlife;
    d. Bird or other wildlife remains, whether in whole or in part, are found within 200 feet of a runway centerline, unless another reason for the animal's death is identified;
    e. The animal's presence on the airport had a significant negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, aircraft left pavement area to avoid collision with animal) (Transport Canada, Airports Group, *Wildlife Control Procedures Manual*, Technical Publication 11500E, 1994).

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR ARMAMENT CENTER (AFMC)
EGLIN AIR FORCE BASE, FLORIDA

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

27 FEB 2004

Ms. Elaine Tucker
Chairperson, Okaloosa County Board of County Commissioners
1804 Lewis Turner Blvd, Suite 100
Fort Walton Beach FL 32547

Dear Ms. Tucker

I am pleased to inform you that the Air Armament Center has granted conceptual approval to your request to lease an additional 22.6 acres at the Okaloosa Regional Airport.

During our review of the request, one area of potential mission impact surfaced. We need to insure that any non-FAA sanctioned communications equipment does not interfere with our mission. Therefore, if you plan to operate any radio equipment, other than normal VHF/UHF radios, they must be approved by the Eglin AFB Frequency Manager, Mr. Joe Giangrosso. You may contact him at 882-4416, extension 455.

The next step in the process is to contact the Eglin AFB Real Estate Officer, Ms. Lorraine Caison, (850) 882-1350, to work the details of processing the lease. She will require four hard copies of a certified survey for the project area, a digital file of the survey, and the legal description.

Should you have any questions, please contact Mr. Howard Bush at 882-5362.

Sincerely

ROBERT J. ARNOLD
Chairman

cc:
Mr. Sealy

CCT 27 Feb 04-01

STAFF SUMMARY SHEET

	TO	ACTION	SIGNATURE (Surname), GRADE AND DATE		TO	ACTION	SIGNATURE (Surname), GRADE AND DATE
1	96 CG/ CC	Coord	*Revill, GM-15, 25 Feb 04*	6	96 ABW/ CC	IDC Coord	*Hendricks, Col, 26 Feb 04*
2	AAC/SE	Coord	*Lewis, GM-15, 18 Feb 04*	7	AAC/CCI	Process	Pag, SSgt, 27 Feb 04
3	AAC/JA	Coord	*Fitch, GS-15, 24 Feb 04*	8	AAC/CD	Coord	
4	AAC/EM	EPC Coord	*Sirmans, GM-15, 25 Feb 04*	9	AAC/CV	Approve	BY (21)
5	46 TW/ CC	RDESC Coord	*Nolan, Col, 26 Feb 04*	10	46TW/CA	Sign	

SURNAME OF ACTION OFFICER AND GRADE	SYMBOL	PHONE	TYPIST'S INITIALS	SUSPENSE DATE
Bush, GS-12	46 TW/CAX	882-5362	hb	

SUBJECT: Airport Land Request — DATE: 18 Feb 04

SUMMARY

1. The letter at Tab 1 grants conceptual approval to Okaloosa County to lease an additional 22.6 acres of land at the Okaloosa Regional Airport (ORA).

2. Okaloosa County requested the land to accommodate a separate entrance for large delivery vehicles (Tab 2). The requirement is endorsed by US Transportation Security Administration. The additional land is on the east side of the airport and will increase the size of the ORA lease to 130 acres.

3. The FAA required ORA to conduct a vulnerability assessment of the new airport configuration under construction. A finding of the assessment advised a separate airport entrance for large commercial delivery vehicles, similar to the Eglin North Gate. The ORA considered numerous alternatives to meet the requirements within the existing leased area without success

4. The Encroachment Committee reviewed this requests and found no mission impact. However, if use of communications equipment, other than VHF/UHF radios is planned, the equipment must be approved by the Eglin Frequency Manager. During the review the committee was concerned about the proximity of the requested land to the Munitions Storage Area. AAC/SE addressed this concern and found that the additional acreage does not infringe on the existing Quantity/Distance safety arcs from the Munitions Storage Area (See map at Tab 3).

5. RECOMMENDATION: AAC/CV approves and the EC Chairman signs the letter at Tab 1, granting conceptual approval to Okaloosa County to lease an additional 22.6 acres of land at the ORA.

Robert J. Arnold

ROBERT J. ARNOLD, Chairman
Encroachment Committee

3. Tabs
1. Proposed Ltr
2. Request
3. Map

AF FORM 1768, SEP 84 (MS Word for Windows)
Action Officer Guide Version 2.2

APPENDIX D

INTERAGENCY AND INTERGOVERNMENTAL COORDINATION

Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

January 27, 2006

Mr. Dan Nichols, Chief
Environmental Stewardship Branch
Department of the Air Force
501 De Leon Street, Suite 101
Eglin AFB, FL 32542-5133

RE: Department of the Air Force – Draft Environmental Assessment – Okaloosa Regional Airport Expansion at Eglin Air Force Base, Okaloosa County, Florida
SAI #FL200511291688C

Dear Mr. Nichols:

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

The Florida Fish and Wildlife Conservation Commission (FWC) finds this project consistent and does not expect the proposed action to significantly impact state-listed species. FWC recommends that a gopher tortoise survey be completed before construction begins and relocation, if applicable, be performed pursuant to FWC permit # WR05399. Should the project be expected to disturb, harm, or result in capture or take of state-listed species, their nests, or eggs, the applicant should visit FWC's website (http://myfwc.com/permits/Protected-Wildlife/) for permit application requirements and contact the Wildlife Permit Coordinator in FWC's Division of Habitat and Species Conservation. Additional information on the permitting process can be found in Chapter 68A-27, *Florida Administrative Code*. For further information, please refer to the enclosed FWC letter.

As noted in the draft EA, construction of the proposed airport improvements must meet state stormwater quality treatment requirements in accordance with Rule 62-25, *Florida Administrative Code*. Please contact Mr. Cliff Street, P.E., in the Florida Department of Environmental Protection's (DEP) Northwest District Office in Pensacola at (850) 595-8300, ext. 1135, for additional information on stormwater permitting requirements. In addition, any project that disturbs one or more acres of land during construction will require a separate Phase II National Pollutant Discharge Elimination System (NPDES) permit. For NPDES permitting

Florida State Clearinghouse

requirements, the applicant is advised to contact the DEP's NPDES Stormwater Section in Tallahassee at (850) 245-7522.

Based on the information contained in the draft EA and the comments provided by our reviewing agencies, the state has determined that, at this stage, the proposed project is consistent with the Florida Coastal Management Program (FCMP). The applicant must, however, address the issues identified by FWC and DEP staff prior to project implementation. 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. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting stage.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Ms. Lori Cox at (850) 245-2187.

Sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/lec
Enclosures

cc: Mary Ann Poole, FWC

Florida State Clearinghouse

Project Information	
Project:	FL200511291688C
Comments Due:	12/30/2005
Letter Due:	01/27/2006
Description:	DEPARTMENT OF THE AIR FORCE - DRAFT ENVIRONMENTAL ASSESSMENT FOR THE OKALOOSA REGIONAL AIRPORT EXPANSION AT EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.
Keywords:	USAF - OKALOOSA REGIONAL AIRPORT EXPANSION, EGLIN AFB - OKALOOSA CO.
CFDA #:	12.200
Agency Comments:	
WEST FLORIDA RPC - WEST FLORIDA REGIONAL PLANNING COUNCIL	
No Comment	
OKALOOSA - OKALOOSA COUNTY	
No Comment	
COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS	
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	
The FWC finds this project consistent and does not expect the proposed action to significantly impact state-listed species, but recommends that a gopher tortoise survey be completed before construction begins and relocation, if applicable, be performed pursuant to FWC permit # WR05399. Should the project be expected to disturb, harm, or result in capture or take of state-listed species, their nests, or eggs, the applicant should visit FWC's website (http://myfwc.com/permits/Protected-Wildlife/) for permit application requirements and contact the Wildlife Permit Coordinator in FWC's Division of Habitat and Species Conservation. Additional information on the permitting process can be found in Chapter 68A-27, Florida Administrative Code.	
STATE - FLORIDA DEPARTMENT OF STATE	
No Comment/Consistent	
TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION	
Released Without Comment	
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	
As noted in the draft EA, construction of the proposed airport improvements must meet state stormwater quality treatment requirements in accordance with Rule 62-25, Florida Administrative Code. Please contact Mr. Cliff Street, P.E., in the DEP's Northwest District Office in Pensacola at (850) 595-8300, ext. 1135, for additional information on stormwater permitting requirements. In addition, any project that disturbs one or more acres of land during construction will require a separate Phase II National Pollutant Discharge Elimination System (NPDES) permit. For NPDES permitting requirements, the applicant is advised to contact the DEP's NPDES Stormwater Section in Tallahassee at (850) 245-7522.	
NORTHWEST FLORIDA WMD - NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT	
No Comment	

For more information please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD MS-47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

RODNEY BARRETO
Miami

SANDRA T. KAUPE
Palm Beach

H.A. "HERKY" HUFFMAN
Enterprise

DAVID K. MEEHAN
St. Petersburg

KATHY BARCO
Jacksonville

RICHARD A. CORBETT
Tampa

BRIAN S. YABLONSKI
Tallahassee

KENNETH D. HADDAD, Executive Director
VICTOR J. HELLER, Assistant Executive Director

MARY ANN POOLE, DIRECTOR
OFFICE OF POLICY AND STAKEHOLDER COORDINATION
(850)488-6661 TDD (850)488-9542
FAX (850)922-5679

January 17, 2006

RECEIVED
JAN 18 2006
OIP / OLGA

Ms. Lauren Milligan, Clearinghouse Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, Mail Station 47
Tallahassee, FL 32399-3000

Re: SAI #FL200511291688C, Department of the Air Force – Draft Environmental Assessment – Okaloosa Regional Airport Expansion, Eglin Air Force Base, Okaloosa County

Dear Ms. Milligan:

The Division of Habitat and Species Conservation, Terrestrial Habitat Conservation and Restoration Section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated agency review of the Department of the Air Force – Draft Environmental Assessment (EA) – Okaloosa Regional Airport expansion project, and provides the following comments and recommendations in accordance with the Coastal Zone Management Act/Florida Coastal Management Program and the National Environmental Policy Act (NEPA).

Project Description

The Proposed Action is to expand the existing federal land lease at the Okaloosa Regional Airport (ORA) for construction of separate rental car parking, a maintenance area, and other support infrastructure. The action additionally includes construction of a new entrance, designated for large delivery vehicles, installation of fencing, fuel storage, and expanded stormwater management facilities. The action is needed to increase homeland security measures in accordance with a recently completed vulnerability assessment. Approximately 22.6 acres of the Air Force installation and another 10 acres of the existing lease to the ORA will be directly affected by the Proposed Action.

No viable alternatives "that would reasonably meet the needs and requirements for the rental car facility and the existing airport" were documented or presented to the Mission Enhancement Committee.

620 South Meridian Street • Tallahassee • FL • 32399-1600
Visit MyFWC.com

Potentially Affected Resources

Query of the Environmental Resource Analysis (ERA) database indicated that potential habitat for the following state-listed species (Chapter 68A-27, Florida Administrative Code, Rules Relating to Endangered or Threatened Species) occurs within 1000 feet of the Proposed Action: red-cockaded woodpecker (*Picoides borealis*, Threatened), Florida black bear (*Ursus americanus floridanus*, Threatened), eastern indigo snake (*Drymarchon corais*, Threatened), gopher tortoise (*Gopherus polyphemus*, Species of Special Concern), and flatwoods salamander (*Ambystoma cingulatum,* Species of Special Concern). In addition, the project site falls within a drainage basin identified as habitat for Okaloosa darters (*Etheostoma okaloosae*, Endangered).

The Okaloosa darter is endemic to small to moderate-sized streams within the Choctawhatchee Bay system. Its current range is limited to six tributary systems in Okaloosa and Walton counties. Ninety-four percent of the drainage area of these streams is on Eglin Air Force Base (Jelks and Alam 1981). The biggest threat to Okaloosa darters is habitat degradation, through erosion and sedimentation which deteriorate water quality of streams (Hoehn 1998); however, the immediate footprint of the Proposed Action is over 1300 feet from the nearest stream. No erosion or resultant sedimentation into darter habitat is expected. Consequently, we do not expect the action to have a significant impact on Okaloosa darters or their habitat.

The draft EA noted the presence of three, inactive red-cockaded woodpecker (RCW) cavity trees, one of which occurs within the leased area and two on the eastern periphery of the Proposed Action. These trees are located in the cantonment area of the main base and were identified and recorded during initial survey efforts of the early 1990s. At initial observation, the trees had likely been inactive for years. Moreover, they contained enlarged cavities and cavity entrances. The nearest recorded cluster of active cavity trees is located several miles from the site of the Proposed Action and well outside of foraging areas (Bruce Hagedorn-personal communication). The Proposed Action is not expected to significantly impact RCWs or their habitat.

Concerns and Recommendations

We concur with and endorse the EA's plan to conduct a systematic survey for gopher tortoises within the footprint of the site affected by the Proposed Action. The survey should be completed before land clearing and construction begin. If any gopher tortoises or burrows are found, we recommend the tortoises be relocated out of the area per FWC permit #WR05399.

Should other listed species be encountered prior to or during construction or if the project is expected to disturb, harm, result in capture, or take of state listed species, their nests, or eggs, the applicant should visit http://myfwc.com/permits/Protected-Wildlife/ for information on permit application requirements, and contact the Wildlife Permit Coordinator within the Division of Habitat and Species Conservation with specific permitting questions.

Ms. Lauren Milligan
January 17, 2006
Page 3

For species listed prior to 1999: If the species is currently classified as "Endangered," permits can only be issued when the permitted activity will clearly enhance the survival potential of the species. Species that are classified as "Threatened" may have permits being issued only for scientific or conservation purposes and only upon a showing by the applicant that the permitted activity will not have a negative impact on the survival potential of the species. Species that are classified as "Species of Special Concern" may have permits being issued upon reasonable conclusion that the permitted activity will not be detrimental to the survival potential of the species. Additional information can be found in Chapter 68A-27, F.A.C.

For species listed after 1999 (which will occur in sections 68A-27.003, .004, .005, F.A.C., following the list of pre-1999 species), species-specific rules as reflected in the rule need to be followed.

Summary

The Draft Final Environmental Assessment is determined to be consistent with our authorities (Chapters 370 and 372, Florida Statutes) under the Florida Coastal Management Program. The Proposed Action, as detailed in the EA, is not expected to significantly impact state-listed species. If you or your staff would like to coordinate further on the recommendations contained in this report, please contact me at 850-488-6661, or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Mr. Billy Sermons at our office in Panama City (850-265-3677; email billy.sermons@myfwc.com).

Sincerely,

Mary Ann Poole

Mary Ann Poole, Director
Office of Policy and Stakeholder Coord.

map/bs
ENV 1-3-2
u:\traci.wallace\FL200511291688C
cc: Gail Carmody, USFWS-Panama City
Dan Nichols, Eglin AFB Stewardship Branch

Referenced Literature

Hoehn, T. 1998. Rare and Imperiled Species of Florida: A Watershed Perspective. Florida Fish and Wildlife Conservation Commission.

Jelks, H. and S. Alam. 1981. Recovery Plan for Okaloosa Darter (*Etheostorna okaloosae*). U.S. Fish and Wildlife Service.

CC

COUNTY: OKALOOSA
SCH-USAF - EIS
2005-12880

DATE: 11/28/2005
COMMENTS DUE DATE: 12/30/2005
CLEARANCE DUE DATE: 1/27/2006
SAI#: FL200511291688C

MESSAGE:

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

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation 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:

DEPARTMENT OF THE AIR FORCE - DRAFT ENVIRONMENTAL ASSESSMENT FOR THE OKALOOSA REGIONAL AIRPORT EXPANSION AT EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.

To: Florida State Clearinghouse

AGENCY CONTACT AND COORDINATOR (SCH)
3900 COMMONWEALTH BOULEVARD MS-47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

EO. 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: 12-28-05
NHPA / 4341

RECEIVED
BUREAU OF
HISTORIC PRESERVATION
2005 DEC -2 A 9:53

Barbara C. Mattick
Chief, BHP
12/28/05

RECEIVED
DEC 30 2005
OIP / OLGA

DEPARTMENT OF THE AIR FORCE
AIR FORCE MATERIEL COMMAND LAW OFFICE (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

MEMORANDUM FOR 96 CEG/CEVSP 8 February 2006
501 DeLeon St, Suite 101
Eglin AFB FL 32542-5133

FROM: AFMCLO/JAVE
4225 Logistics Ave
Wright-Patterson AFB OH 45433-5747

SUBJECT: Review of Draft Environmental Assessment (EA, RSC 05-001, Okaloosa Regional Airport Expansion, Eglin AFB FL

1. I have reviewed the draft EA concerning the Okaloosa Regional Airport Expansion at Eglin AFB. I have also reviewed the comments prepared by HQ AFMC/A7CVO and I concur with these recommendations.

2. I have added these additional comments:

   a. Section 1.5.1, page 1-5: I do not understand why an analysis for impacts to biological resources was not conducted other than a review of federal documentation. The draft EA states that 96 CEG/CEVSN personnel will conduct a field survey prior to the initiation of construction activities to determine the presence of any protected species. And if they find some, then what? This survey should be completed now and the results stated in the final EA.

   b. Section 1.6, page 1-7, line 18: Should this read "general" as opposed to "generic"?

   c. Section 1.6, page 1.7, lines 24-27: Should not the design for the proposed retention features have already been done? I believe that this design is an integral part of the process and needs to be reviewed as part of the final EA.

   d. Section 4.6.2, page 4-11, lines 14-23: It should be made clear in the EA that the Air Force will not be responsible for fuel spills at the airport and also state who will be responsible for fuel spills and how this entity is going to provide spill response.

   e. Section 4.6.2, page 4-11, lines 25-30: The EA does not state who is going to manage the hazardous waste responsibilities. This should be spelled out.

f. Section 5, page 5-1, line19: Is this meant to state a Title V permit? Or is this a NPDES permit? Please review to ensure accuracy.

g. Appendix A, page A-1, line 13: I believe this should state the Clean Air Act Amendments of 1990. Please review to ensure accuracy.

3. I do not believe that this draft EA is legally sufficient since it does not provide enough information to render a complete decision. The inputs put forward by HQ AFMC/A7CVO and the above comments should be considered and then the revised draft EA resubmitted for review.

WILLIAM L. HEGARTY, MAJOR,USAFR
Assistant Staff Judge Advocate

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APPENDIX E

PUBLIC REVIEW PROCESS

Public Notification

In compliance with the National Environmental Policy Act, Eglin Air Force Base announces the availability for public review of the Draft Environmental Assessment and Finding of No Significant Impact for RCS 05-001, the Okaloosa Regional Airport (ORA) Expansion on Eglin Air Force Base, Florida.

The Proposed Action is for the Air Force to expand the existing federal land lease at the ORA for the construction of a separate rental car parking and maintenance area. The Proposed Action involves utilizing 26 acres of a lease expansion and 10 acres of the existing lease area, a total of 36 acres, to construct a rental car facility. The proposed 36-acre site would be developed to provide parking areas for five separate rental car agencies totaling 800 parking spots; two new access points for the rental car parking location (one access point located on State Road 85 for deliveries, and the second connecting to the terminal loop road for Ready/Return operations); a truck inspection area; an office/maintenance bay, car wash and fueling area; an electrical duct extension from State Road 85; and expanded stormwater management facilities. The Proposed Action includes installation of a security fence along State Road 85.

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 ORA Expansion 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 EA and Finding of No Significant Impact may be reviewed at the Fort Walton Beach Public Library, 185 SE Miracle Strip Parkway, Fort Walton Beach, Florida; the Crestview Public Library, 1445 Commerce Drive, Crestview, Florida; and the Niceville Library, 206 Partin Drive, Niceville, Florida. Copies will be available for review from November 28, 2005 through December 5, 2005. Comments must be received by January 4, 2006.

For more information or to comment on the Proposed Action, contact: Mr. Mike Spaits, 96 CEG/CEV-PA, 501 De Leon Street, Suite 101, Eglin AFB, FL 32542-5133, or email: spaitsm@eglin.af.mil. Tel: (850) 882-2878. Fax: (850) 882-6284.

MEMO

24 January 2006

FROM: 96th CEV-PAV

TO: EMSP

SUBJECT: **PUBLIC NOTICE Environmental Assessment For "Okaloosa Regional Airport Expansion," Eglin AFB, Florida**

A public notice was published in the *Northwest Florida Daily News* on Nov. 27th, 2005 to disclose completion of the Draft EA, selection of the preferred alternative, and request comments during the 15-day pre-decisional comment period.

The 15-day comment period ended on Dec. 12th, with the comments required to this office not later than Dec. 15th, 2005.

No comments were received during this period.

//SIGNED//
Mike Spaits
Public Information Specialist