RCS 05-279

EGLIN AIR FORCE BASE
Florida

FINAL
ENVIRONMENTAL ASSESSMENT

FOR CONSTRUCTION OF A PRECISION MEASUREMENT EQUIPMENT LABORATORY FACILITY ON EGLIN AIR FORCE BASE, FL

OCTOBER 2006

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FINDING OF NO SIGNIFICANT IMPACT
FOR

CONSTRUCTION OF A PRECISION MEASUREMENT EQUIPMENT LABORATORY (PMEL) FACILITY, EGLIN AIR FORCE BASE, FLORIDA

RCS 05-279

This finding, and the analysis upon which it is based, was prepared pursuant to the President's Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and its implementing regulations as promulgated at 40 Code of Federal Regulations (CFR) Part 1500 (40 CFR 1500-1508) plus:

- US Air Force *Environmental Impact Analysis Process* as promulgated at 32 CFR Part 989.

The Department of the Air Force has conducted an Environmental Assessment (EA) of the potential environmental consequences associated with the Construction of a Precision Measurement Equipment Laboratory (PMEL) Facility, Eglin Air Force Base, Florida. That October 2006 EA is hereby incorporated by reference into this finding.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action (Preferred Alternative)

The Proposed Action is to construct a 28,330-square-foot PMEL facility, a parking lot, and associated infrastructure to the east of Building 613, located off Eighth Street (Figure 2-1 in the attached EA). The Air Force would construct the facility with a reinforced concrete foundation, split ribbed concrete masonry base, metal ribbed wall panels, steel frame, and standing seam metal roof. The facility would include a screen room within calibration/repair, acoustic room, air lock, offices, mechanical room, receiving/storage, bench stock, building support areas, fire sprinkler system and an energy management control and mechanical system that provides critical temperature and humidity control.

The proposed site consists of existing impervious surfaces, as well as graveled and grassed areas. The Proponent has not yet decided the exact location of the proposed project within the Proposed Action footprint. The site would also feature a stormwater discharge system (retention pond or a series of swales) to temporarily store stormwater runoff (on-site). The Proponent has not determined the size, type, and location of the stormwater discharge system. However, it is likely that the stormwater discharge system would be located adjacent to the Proposed Action site.

Alternative 1

Under Alternative 1 Eglin AFB would construct a 28,330-square-foot PMEL facility, parking lot, associated infrastructure, and stormwater discharge system on the south side of Nomad Way (Figure 2-2 in the attached EA). The site consists primarily of a forested area. The Air Force

would remove approximately 1.5 acres of forested land to accommodate the building and associated structures. The building specifications would be the same as stated in the Proposed Action.

No Action Alternative

Under the No Action Alternative Eglin AFB would not construct the PMEL Facility. However, the current facility is out of compliance per Technical Order 00-20-14, *PMEL Facility Operational Requirements,* and Air Force Manual (AFMAN) 32-1094, *Criteria for Air Force PMEL Design and Construction.* If Eglin AFB does not construct the new facility, Air Force Metrology and Calibration (AFMETCAL) could withhold Eglin's PMEL facility lab certification for being out of compliance. As a result, Eglin's PMEL facility could be shut down and therefore would no longer be able to support Regional PMEL inventories for the Department of Defense (DoD) and other customers. Not constructing a new facility could also impact multiple missions in multiple armed Services if the current facility is shut down, as all Test, Measurement, and Diagnostic Equipment (TMDE) customers supported by the Eglin PMEL would be required to ship items long distances to an alternate facility/location for calibration and/or maintenance in accordance with Air Force Instruction (AFI) 21-101, *Maintenance Management of Aircraft.* This would necessitate increased shipping costs to support over 22,000 items currently supported and would result in delays and impacts to the critical missions the Eglin PMEL supports, including Wing combat readiness and sustainability.

Environmental Impacts

Analysis was conducted to determine the potential impacts to the human and natural environment resulting from the Proposed Action, Alternative 1, and the No Action Alternative. No significant impacts to resources have been identified. A detailed discussion of issues analyzed and management strategies used to reduce potential impacts is given in the Construction of a PMEL Facility EA, Chapter 4: Environmental Consequences, and Chapter 5: Plans, Permits, and Management Actions.

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 construction of a PMEL facility on Eglin AFB, Florida at the Proposed Action (Preferred Alternative) site 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 NEPA, the President's CEQ, and 32 CFR Part 989.

DENNIS D. YATES, Colonel, USAF
Commander, 96th Civil Engineer Group

27 Oct 06
Date

RCS 05-279

FINAL
ENVIRONMENTAL ASSESSMENT

FOR CONSTRUCTION OF A PRECISION MEASUREMENT EQUIPMENT LABORATORY FACILITY ON EGLIN AIR FORCE BASE, FL

Submitted to:

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

OCTOBER 2006

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LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

µg/m^3	Micrograms per Cubic Meter
46 MXS/MXMD	46 Maintenance Squadron; Test, Measurement and Diagnostic Equipment Flight
796 CES/CEOP	796th Civil Engineer Squadron, Civil Engineer Programs Flight
96 CEG/CEVC	96th Civil Engineer Group, Environmental Compliance Branch
96 CEG/CEVCE	96th Civil Engineer Group, Environmental Engineering Section
96 CEG/CEVR	96th Civil Engineer Group, Environmental Restoration Branch
96 CEG/CEVSN	96th Civil Engineer Group, Natural Resources Section
96 CEG/CEVSP	96th Civil Engineer Group, Environmental Analysis Section
96 CEG/CEVH	96th Civil Engineer Group, Cultural Resources Branch
AAC	Air Armament Center
ACAM	Air Conformity Applicability Model
ACC	Air Combat Command
AF	Air Force
AFB	Air Force Base
AFI	Air Force Instruction
AFMAN	Air Force Manual
AFMC	Air Force Material Command
AFMETCAL	Air Force Metrology and Calibration
AFSOC	Air Force Special Operations Command
BMP	Best Management Practice
BRAC	Base Realignment and Closure
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
DTRA	Defense Threat Reduction Agency
EA	Environmental Assessment
EO	Executive Order
EOD	Explosive Ordnance Disposal
EPCRA	Emergency Planning and Community Right-to-Know
ERP	Environmental Restoration Program
ETS	Emission Tracking System
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FS	Florida Statutes
FY	Fiscal Year
GIS	Geographic Information System
HAP	Hazardous Air Pollutant
IWR	Impaired Waters Rule
JSF	Joint Strike Fighter
mg/m^3	Milligram per Cubic Meter
NAAQS	National Ambient Air Quality Standards
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NFA	No Further Action

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS CONT'D

NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NWS	National Weather Service
O_3	Ozone
OSHA	Occupational Safety and Health Administration
Pb	Lead
PM_{10}	Particulate Matter with a Diameter Less Than or Equal to 10 Microns
$PM_{2.5}$	Particulate Matter with a Diameter Less Than or Equal to 2.5 Microns
PMEL	Precision Measurement Equipment Laboratory
POL	Petroleum, Oil, and Lubricant
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
ROI	Region of Influence
SARA	Superfund Amendments and Reauthorization Act of 1986
SER	Significant Emissions Rate
SIP	State Implementation Plan
SLOSH	Sea, Lake, and Overland Surges from Hurricanes
SO_2	Sulfur Dioxide
SS	Spill Site
SWPPP	Stormwater Pollution Prevention Plan
TMDE	Test, Measurement, and Diagnostic Equipment
TSP	Total Suspended Particulate
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds

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1. PURPOSE AND NEED FOR ACTION

1.1 PROPOSED ACTION

The Air Force proposed to build a new 28,330-square-foot Precision Measurement Equipment Laboratory (PMEL) Facility at Eglin Air Force Base (AFB) (Figure 1-1 and 1-2). The facility would include a screen room within calibration/repair, acoustic room, air lock, offices, mechanical room, receiving/storage, bench stock, building support areas, fire sprinkler system and energy management control and mechanical system that provides critical temperature and humidity control. The project would also include parking.

1.2 BACKGROUND

The 46th Maintenance Squadron; Test, Measurement, and Diagnostic Equipment (TMDE) Flight (46 MXS/MXMD) is Northwest Florida's Regional PMEL with unique capabilities supporting over 22,000 pieces of TMDE. The Eglin PMEL sustains the largest inventory of any non-depot PMEL in the Air Force, supporting 400 work centers from multiple Services and major commands throughout the Florida Panhandle. This is the only facility in the region currently supporting all varieties of homeland and other defense mission requirements. These missions include aircraft instrumentation, calibrations affecting performance of precision guided weapons, alignment of weapons systems on aircraft, accurate navigational aids, altitude measurements, gauges for underwater explosive disposal operations, gauging for bores on weapons to ensure operability, satellite tracking, along with lateral support. The Eglin Regional PMEL directly supports Air Force Material Command (AFMC), Air Fore Special Operations Command (AFSOC), Air Combat Command (ACC), Air Force Space Command, Air Education and Training Command, Air Force Reserves, Air National Guard, Navy Explosive Ordnance Disposal (EOD), Army 6th Ranger Battalion, U.S. Coast Guard, and Air Force Research Labs.

1.3 NEED FOR THE PROPOSED ACTION

The Department of Defense (DoD) has a need for a new Regional PMEL facility to replace the current facility on Eglin AFB due to inadequate sizing and location. The requirement is for a new, appropriately sited, adequately sized and configured facility to provide field level maintenance and calibration of test, measurement, and diagnostic equipment in support of national defense and security customers throughout the region in accordance with national standards set by the National Institute of Standards and Technology. The existing PMEL facility is located in building 78, a 14,564 square foot facility constructed in 1978 adjacent to the flight line. This facility is severely undersized for the current PMEL inventory of over 22,000 equipment items being supported and does not meet the requirements in Air Force Manual (AFMAN) 32-1094, *Criteria for Air Force PMEL Design and Construction*.

Figure 1-1. Geographic Region of the Project Site for the PMEL Facility

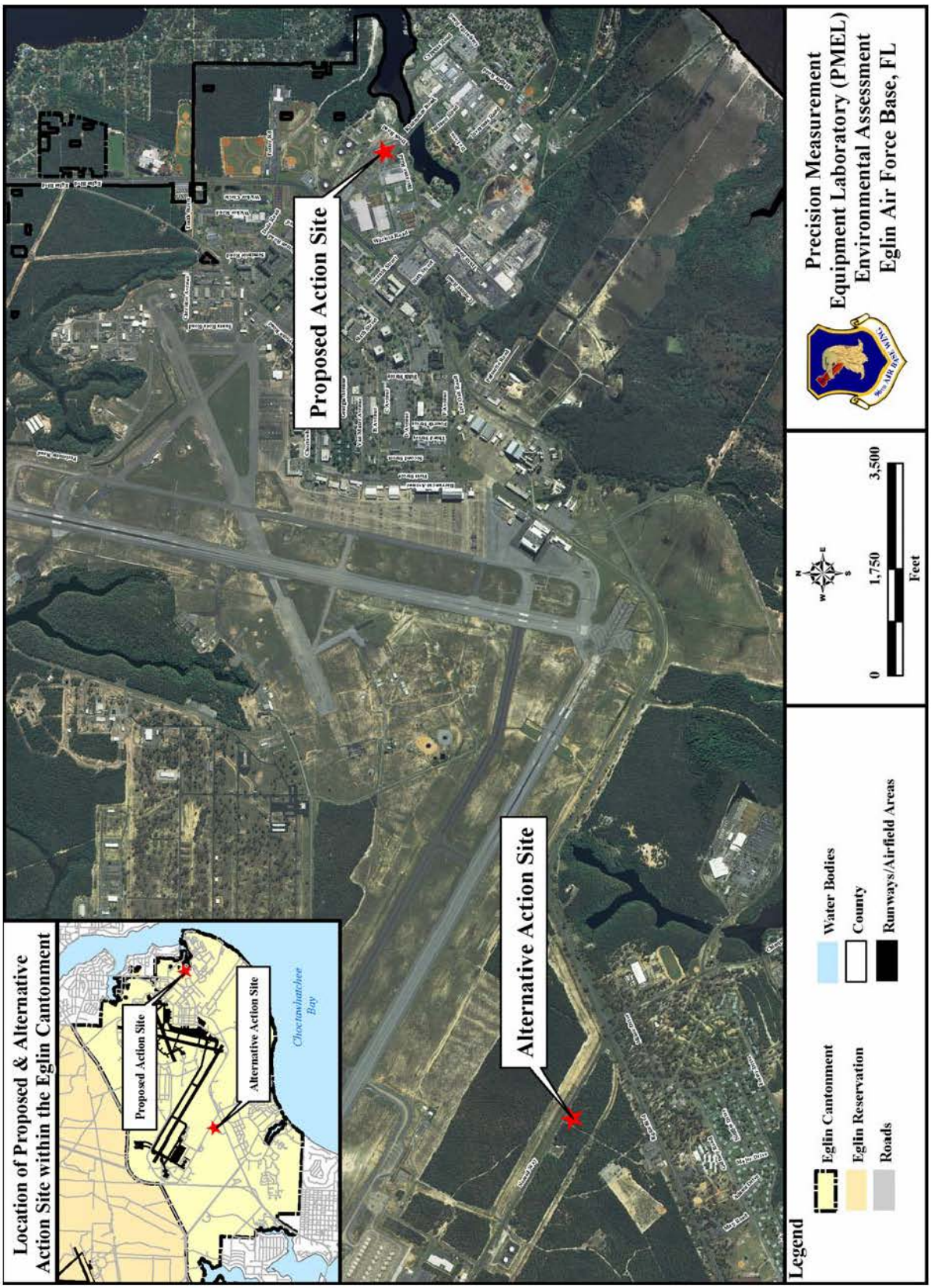

Figure 1-2. Location of Proposed and Alternative Sites on Eglin AFB

The last five Air Force Metrology and Calibration (AFMETCAL) audits have identified the inadequate size of the facility. In November 2004, the AFMETCAL inspection team withheld Eglin's PMEL laboratory certification due to the fifth repeat write-up for inadequate space for inventory supported. Various inspections (AFMETCAL, Air Force Audit Agency, and Wing Safety) have also cited that crowded working conditions increase the potential for inaccurate measurements and pose an increased safety risk to personnel. In addition, the current location of the PMEL facility is improperly located adjacent to the flight line and is deficient due to vibrations experienced during aircraft operations. PMEL staff must coordinate precision measurements with operations control to ensure engine run-ups do not interfere with PMEL calibrations in support of the mission. The shortage of space and inappropriate siting of the current facility is adversely impacting the mission and creating a safety hazard.

The 2005 Base Realignment and Closure (BRAC) recommendations include the realignment of the Joint Strike Fighter (JSF) Integrated Training Center (ITC) and the 7th Special Forces Group Airborne (7SFG[A]) to Eglin AFB. Additionally the Air Force proposed the transfer of the 33rd Fighter Wing and 46th Test Wing air operations. Because of these actions, the inventory of TMDE items will fluctuate over the next 5-10 years between 18,000-24,000 items with an estimated end result of approximately 20,000 items. However, using a worst-case estimate of approximately 18,000 items, the current facility would remain inadequate to safely and effectively accommodate all of the equipment.

1.3.1 Objective of the Proposed Action

The objective of the Proposed Action is to construct a new 28,330-square-foot PMEL facility to replace the current facility, which is inadequately sized and improperly sited. In addition to the proposed facility, the project would include the construction of a parking area and a stormwater discharge feature.

1.4 RELATED ENVIRONMENTAL DOCUMENTS

There are no related environmental documents at this time.

1.5 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

This document was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) 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 Environmental Management Division, Stewardship Branch, and Environmental Analysis Section (96 CEG/CEVSP). The 96 CEG/CEVSP reviewed the AF Form 813 and determined that the Environmental Impact Analysis Process Working Group should address the Proposed Action.

1.5.1 Issues Eliminated from Detailed Analysis

Based on the scope of the Proposed Action, Alternative 1, and the No Action Alternative, as well as preliminary analyses, Eglin AFB eliminated the following issues from further analysis.

Utilities

Issues associated with utility infrastructure relate to the ability of the surrounding areas to accommodate the Proposed Action. Electric, gas, wastewater, and drinking water utilities for the newly constructed PMEL facility would tie into existing utility lines. Disposal of wastewater generated would be through connections to existing sanitary sewer utilities. The Air Force implemented appropriate coordination and planning procedures to minimize potential conflicts between utility providers. PMEL personnel comply with applicable regulations at all times and hazardous wastes are returned to the Issue Point for disposal (further detailed in Section 3.2.2). As a result, no chemicals or other hazardous wastes would be introduced into the sanitary sewer. The Proposed Action would not adversely impact existing electric, drinking water, and sanitary sewer or gas service, and is therefore eliminated as a potential issue.

Environmental Justice and Child Safety

The Executive Order (EO) on environmental justice and an accompanying memorandum ensure 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. Preliminary analysis showed that no environmental justice concern areas, including low-income and/or minority populations, were adjacent to the proposed site for the PMEL facility.

The EO on 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, coordinating research priorities on children's health, and ensuring that their standards take into account special risks to children. The proposed site is located 0.75 miles south of Lewis Middle School, and the Alternative 1 site is located 0.4 miles north of Cherokee Elementary School. Additionally, the construction site would be fenced, preventing unauthorized access. Therefore, Eglin AFB does not expect any impacts to children. Furthermore, because the proposed activities would take place on Eglin Main Base, Eglin AFB does not anticipate any potential impacts to the public, including low-income or minority populations or children.

Cultural Resources

Eglin AFB eliminated cultural resources as an issue. Eglin AFB's Cultural Resources Branch (96 CEG/CEVH) has not identified any archaeological sites at either the proposed or the alternative sites. If any advertent discovery of cultural resources during construction occurs, work in the area would cease and the contractor would report the discovery immediately to 96 CEG/CEVH. Because 96 CEG/CEVH has not identified any cultural resources at the proposed site, and since subsequent implementation of the aforementioned requirements would occur, Eglin AFB does not expect any impacts to cultural resources.

Socioeconomic Issues

Socioeconomics addresses the potential for positive and negative impacts to occur in the local economy. The local economy would experience a temporary positive impact during the design and the construction phase of the project because it would provide jobs in that industry. However, this impact would be small and therefore is considered negligible. Eglin AFB does not expect any negative impacts on employment, housing, and base and county services. In accordance with EO 13101, the construction team should use Affirmative Procurement, (buying products containing recycled materials) if economical and practical.

Non-Hazardous Materials/Solid Waste

Construction activities would potentially generate large amounts of solid waste such as construction debris, land-clearing debris, and soil. The proponent would segregate these waste streams at generation for recycling or disposal at a secure, permitted facility in accordance with Air Armament Center Plan 32-7, Solid Waste Management. As a result, Eglin AFB does not anticipate any adverse environmental impacts and warrants no further analysis.

Land Use

Land use would be compatible with the existing land-use patterns associated with the Eglin Land Use Plan component of the Eglin General Plan (U.S. Air Force, 2001). Additionally, the Proposed Action Site is compatible with the Eglin AFB Future Land Use as verified in the Base General Plan Future Land Use Map (Figure 4-21 in the Plan). (Santee, 2006).

1.5.2 Issues Studied in Detail

Preliminary analysis based on the scope of the Proposed Action, Alternative 1, and the No Action Alternative identified the following potential environmental issues warranting detailed analysis.

Biological Resources

The proposed site consists of a combination of paved, graveled, and grassed areas. The 96 Civil Engineer Group, Environmental Management Division, Stewardship Branch, Natural Resources Section (96 CEG/CEVSN) has not identified any sensitive species or habitats at this site. Therefore, Eglin AFB does not expect any adverse impacts to biological resources.

The alternative project site consists primarily of a forested area. The 96 CEG/CEVSN has not identified any sensitive species or habitats at the alternative site. The alternative project site is dominated by longleaf pine (*Pinus palustris*) and scrub oak (*Quercus hemisphaerica*) species. Eglin AFB would retain natural vegetation surrounding the alternative site to the greatest extent possible. Current data does not indicate any threatened and endangered species in the area and, as such, a Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) would not be required. This document presents an analysis of regional species and habitats of concern, as well as environmental regulations governing these Proposed Actions.

Hazardous Materials/Wastes

This Environmental Assessment (EA) identifies Environmental Restoration Program (ERP) sites in close proximity to the proposed areas of construction. Exact site selection and design for the PMEL facility would consider ERP sites and avoid disturbing the ground within the sites. Analysis focuses on identifying potential impacts to ERP sites and requirements associated with construction activities near these sites.

The PMEL facility uses hazardous materials in the form of lubricants, solvents, adhesives, and compressed gases. 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. PMEL personnel would properly identify, separate, label, store, and discard all hazardous wastes in accordance with applicable federal, state and Air Force regulations.

Soils/Erosion

Eglin AFB identifies areas that construction would likely impact soils through erosion based on parameters such as soil type and extent and proximity of vegetative cover to the affected area. Analysis identifies erosion-prone soils at the proposed work site and determines the likelihood of soil loss. Eglin AFB would incorporate a Stormwater, Erosion and Sedimentation Control Plan, a Stormwater Pollution Prevention Plan (SWPPP), and construction Best Management Practices (BMPs) into the construction process as Florida Department of Environmental Protection (FDEP) implemented regulations require.

Water Resources

This EA addresses the potential for impacts to water resources. Analysis focuses on surface water, wetlands, and floodplains. This section addresses the potential impacts to these water resources. The increase in impervious surfaces under the Proposed Action and clearing of land under Alternative 1 creates the potential for an increase in the rate and volume of stormwater runoff. This EA also addresses management requirements, including permitting and stormwater control methods, as well as BMPs.

Air Quality

Eglin AFB conducted a preliminary analysis of project-generated air emissions and determined that the pollutant emissions associated with the Proposed Action would not exceed the 10 percent threshold of Okaloosa County pollutants emissions. The PMEL facility would utilize two boilers. As a result, a revision to Eglin AFB's Title V air operations permit would be required. The estimated total emissions for construction activities associated with the Proposed Action would be less than the 10 percent criteria established. Therefore, Eglin AFB does not anticipate any significant impacts to air quality.

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, no consultations with regulatory agencies for cultural resources or threatened or endangered species would be required for construction of the PMEL facility. If the proponent or its contractors discover any cultural artifacts during construction activities, coordination with 96 CEG/CEVH is required. Chapter 5 discusses additional management actions required to reduce any potential impacts to resource areas. Additionally, the Proponent will be responsible for obtaining the following permits.

Eglin AFB is currently operating under a Title V air operation permit. This permit regulates all stationary air emission sources on the Eglin Military Complex. Eglin AFB must revise their Title V permit to include all boilers and emergency generators installed at the PMEL facility.

The Proposed Action would require the proponent 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 proponent must ensure that a Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction be submitted prior to project initiation.

The construction area is larger than one acre; therefore, the Proposed Action would require coverage under the Generic Permit for Stormwater Discharge from Construction Activities that Disturb One or More Acres of Land (Rule 62-621, FAC). Coordination with the 96th Civil Engineer Group, Environmental Management Division, Environmental Compliance Branch, Environmental Engineering Section (96 CEG/CEVCE) is required to obtain stormwater permits and any necessary utility extension permits. The proponent must coordinate with 96 CEG/CEVCE to obtain all necessary permits. In accordance with 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 the site would include a retention pond or series of swales to contain runoff. A Florida registered Professional Engineer would design the proposed retention feature to meet FDEP regulations.

This construction project requires consistency with Florida's Coastal Zone Management Act (CZMA). FDEP will review a U.S. Air Force submitted negative determination (Appendix B).

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.

Appendix A Air Quality Appendix.

Appendix B Federal Agency Coastal Zone Management Act Consistency Determination.

Appendix C Hazardous Materials Supplemental Information.

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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, Alternative 1, and a No Action Alternative. Section 2.3 summarizes the issues and potential impacts associated with the Proposed Action, Alternative 1, and the No Action Alternative.

2.1 PROPOSED ACTION (PREFERRED ALTERNATIVE)

The Proposed Action is to construct a 28,330-square-foot PMEL facility, a parking lot, and associated infrastructure to the east of Building 613, located off Eighth Street (Figure 2-1). Eglin AFB would construct the facility with a reinforced concrete foundation, split ribbed concrete masonry base, metal ribbed wall panels, steel frame, and standing seam metal roof. The facility would include a screen room within calibration/repair, acoustic room, air lock, offices, mechanical room, receiving/storage, bench stock, building support areas, fire sprinkler system and energy management control and mechanical system that provides critical temperature and humidity control.

The proposed site consists of existing impervious surfaces, as well as graveled and grassed areas. The Proponent has not yet decided the exact location of the proposed project within the Proposed Action footprint. The site would also feature a stormwater discharge system (retention pond or a series of swales) to temporarily store stormwater runoff (on-site). The Proponent has not determined the size, type, and location of the stormwater discharge system. Therefore, the location of the system is not included in the Proposed Action footprint shown in Figure 2-1. However, it is likely that the stormwater discharge system would be located adjacent to the Proposed Action site.

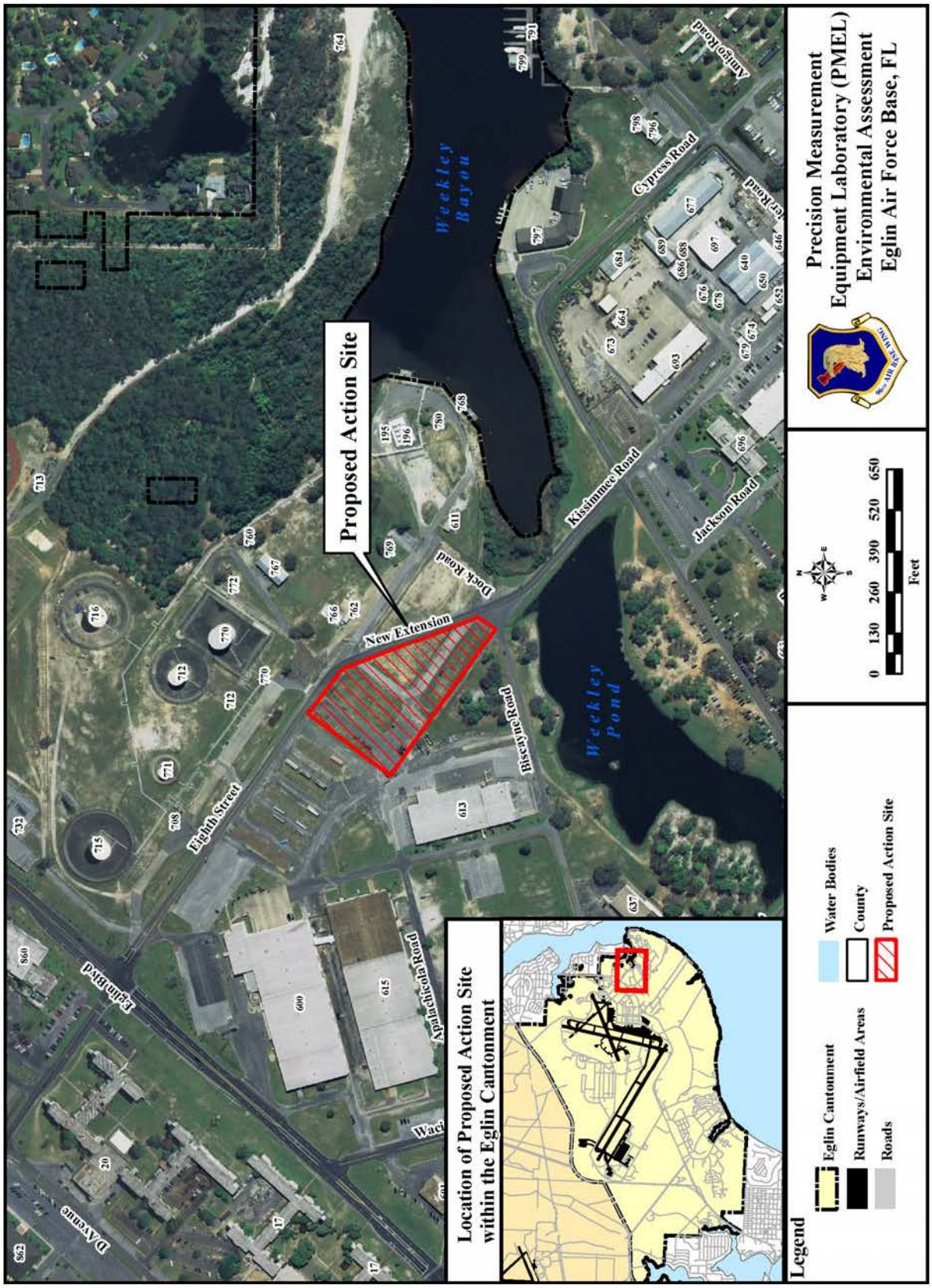

Figure 2-1. Location of the Proposed Action Site

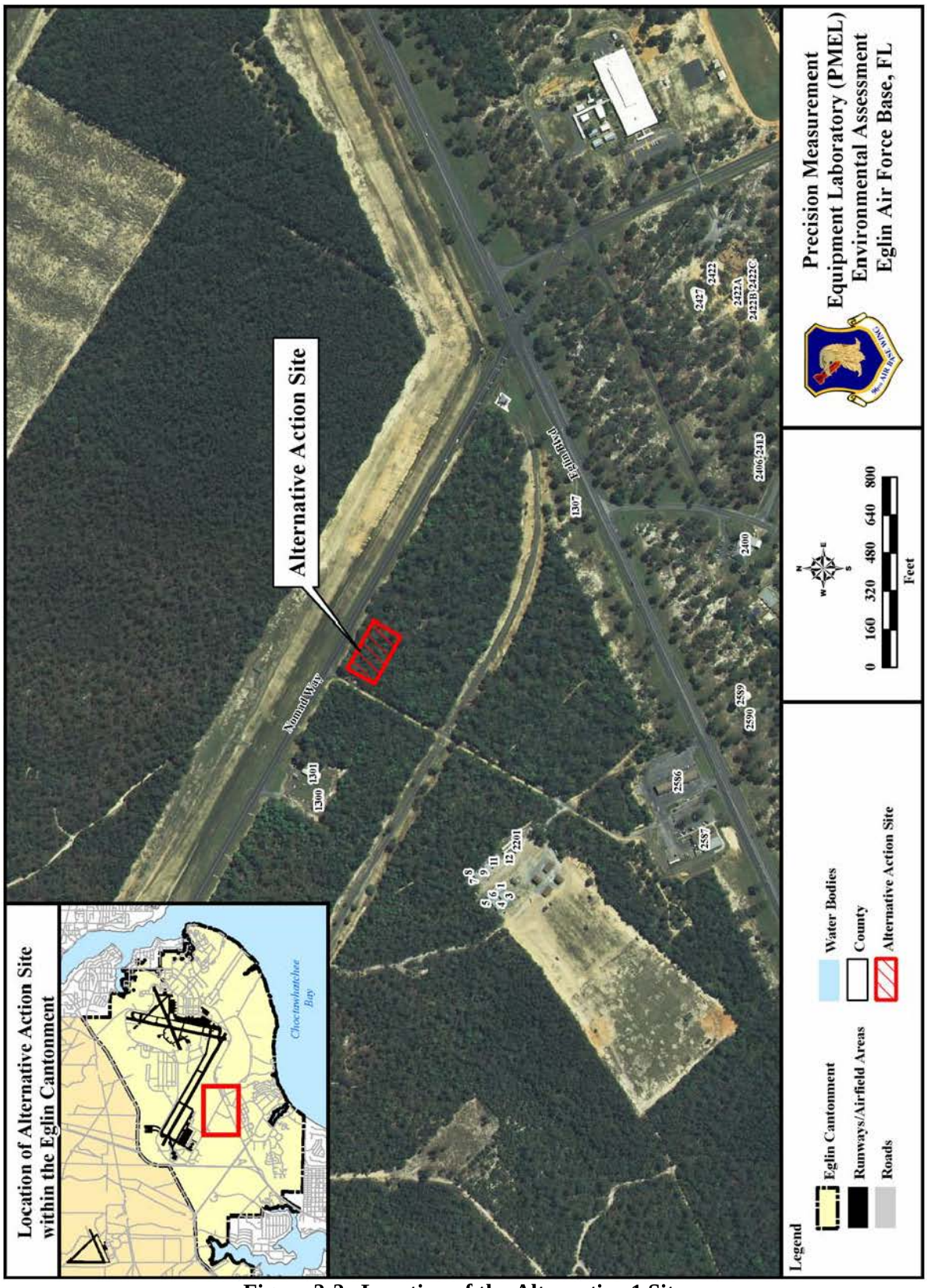

Figure 2-2. Location of the Alternative 1 Site

2.2 ALTERNATIVES

2.2.1 Alternative 1

Under Alternative 1 Eglin AFB would construct a 28,330-square-foot PMEL facility, parking lot, associated infrastructure, and stormwater discharge system on the south side of Nomad Way (Figure 2-2 above). The site consists primarily of a forested area. Eglin AFB would remove approximately 1.5 acres of forested land to accommodate the building and associated structures. The building specifications would be the same as the Proposed Action states.

2.2.2 No Action Alternative

Under the No Action Alternative Eglin AFB would not construct the PMEL Facility. However, the current facility is out of compliance per Technical Order 00-20-14, *PMEL Facility Operational Requirements,* and AFMAN 32-1094, *Criteria for Air Force PMEL Design and Construction*. If Eglin AFB does not construct the new facility, AFMETCAL could withhold Eglin's PMEL facility lab certification for being out of compliance. As a result, Eglin's PMEL facility could be shut down and therefore would no longer be able to support Regional PMEL inventories for the DoD and other customers. Not constructing a new facility could also impact multiple missions in multiple armed Services if the current facility is shut down, as all TMDE customers supported by the Eglin PMEL would be required to ship items long distances to an alternate facility/location for calibration and/or maintenance in accordance with Air Force Instruction (AFI) 21-101, *Maintenance Management of Aircraft*. This would necessitate increased shipping costs to support over 22,000 items currently supported and would result in delays and impacts to the critical missions the Eglin PMEL supports, including Wing combat readiness and sustainability.

2.3 COMPARISON OF ALTERNATIVES

Table 2-1 summarizes the issues and potential impacts associated with the alternatives.

Table 2-1. Summary of Issues, Proposed Action and Alternatives, and Potential Impacts

Issue	Proposed Action	Alternative 1	No Action
Biological Resources	There would be no significant impacts. No critical habitat or threatened and endangered species are present at the site.	There would be no significant impacts. No critical habitat or threatened and endangered species are present at the site.	No impacts would occur. However, if the PMEL facility is not constructed it will remain out of compliance causing delays and impacts to critical DoD missions.
Hazardous Materials/ Waste	The Proposed Action would not result in any significant impacts. All hazardous materials and wastes would be handled and disposed of in accordance with Eglin AFB, state, and federal policies and regulations.	Impacts under Alternative 1 would be the same as under the Proposed Action. There are no ERP sites located in the vicinity of the Alternative 1 site. Therefore, no impacts would occur.	No impacts would occur. However, if Eglin AFB does not construct the PMEL facility it will remain out of compliance causing delays and impacts to critical DoD missions.

Table 2-1. Summary of Issues, Proposed Action and Alternatives, and Potential Impacts Cont'd

Issue	Proposed Action	Alternative 1	No Action
Hazardous Materials/ Waste (*cont'd*)	An ERP site is located adjacent to the Proposed Action site. Exact site selection and design for the PMEL facility would take into consideration ERP sites and would avoid disturbing the ground within this site. Therefore, Eglin AFB does not anticipate any impacts to ERP sites		
Soils/Erosion	The Proposed Action would not increase soil erosion at the proposed site. BMPs would help avoid or reduce any adverse impacts to soils.	Impacts under Alternative 1 would be the same as under the Proposed Action.	No impacts would occur. However, if the PMEL facility is not constructed it will remain out of compliance causing delays and impacts to critical DoD missions.
Water Resources	The Proposed Action would not adversely impact water resources. Eglin AFB does not expect any impacts to the water supply. The construction of an on-site stormwater treatment area would help avoid or reduce any impacts to water resources.	Impacts under Alternative 1 would be the same as under the Proposed Action.	No impacts would occur. However, if the PMEL facility is not constructed it will remain out of compliance causing delays and impacts to critical DoD missions.
Air Quality	Modeling performed in this EA (Air Conformity Applicability Model [ACAM]) suggests emission limits would not be exceeded as a result of this project. As such, Eglin AFB does not anticipate any adverse impacts.	Impacts under Alternative 1 would be the same as under the Proposed Action.	No impacts would occur. However, if the PMEL facility is not constructed it will remain out of compliance causing delays and impacts to critical DoD missions.

2.4 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

Eglin AFB considered several other alternatives to the Proposed Action. They eliminated maintaining the current PMEL facility at status quo conditions from further analysis due to the current inadequate size and location of the facility, which adversely effects traceable measurements. Eglin AFB also eliminated expanding the existing facility due to the physical constraints of the current site. Additionally, this would not resolve the issue of inadequate siting. Eglin AFB also eliminated the use of another existing facility from further analysis because no other available facilities meet mission requirements, and upgrades to bring other facilities into Air Force certification standards would not be cost effective.

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3. AFFECTED ENVIRONMENT

This chapter describes the natural and anthropogenic environment of Eglin AFB and its adjacent communities that the proponent has the potential to impact by the construction of a PMEL facility as detailed in Chapter 2. Resource areas addressed are biological resources, hazardous wastes/materials, soils, water resources, and air quality.

3.1 BIOLOGICAL RESOURCES

This section provides background information on biological resources that the Proposed Action may affect. Eglin biological resources include major ecological associations, wildlife, and threatened and endangered species. Emphasis is placed on threatened and endangered species that occur adjacent to the Proposed and Alternative Action sites that the proposed project may indirectly affect.

3.1.1 Ecological Associations

Eglin applies a classification system of ecological associations to all its lands based on floral, faunal, and geophysical characteristics. Eglin's *Integrated Natural Resources Management Plan*, *2002-2006* (U.S. Air Force, 2002) and the *Environmental Baseline Study Resource Appendices* (U.S. Air Force, 2003) describe these ecological associations. The following seven ecological associations occur throughout the Eglin Land Test and Training Range: Sandhills, Flatwoods, Wetland/Riparian, Open Grassland/Shrubland, Barrier Island, Landscaped and Urban Areas, and Invasive Exotic/Non-native Plants.

Existing Conditions

Of Eglin's seven major ecological associations, only the Landscaped and Urban Areas occurs within the proposed site and only the Sandhills occurs within the alternative site. Figures 3-1 and 3-2 show the ecological associations within and surrounding the proposed and alternative sites, respectively.

Sandhills

The Sandhills is the largest ecological association on Eglin AFB, covering 78 percent of the reservation. The Sandhills vegetative community represents the majority of this association, and includes the Sand Pine ecosystem, which covers three percent of the reservation, and the Pine/Mixed Hardwood ecosystem, which covers approximately 10,000 acres of the reservation. The Sandhills association contains the oldest natural sand pine on the Eglin reservation. The Sand Pine ecosystem is the result of the encroachment of sand pine into other forest ecosystems.

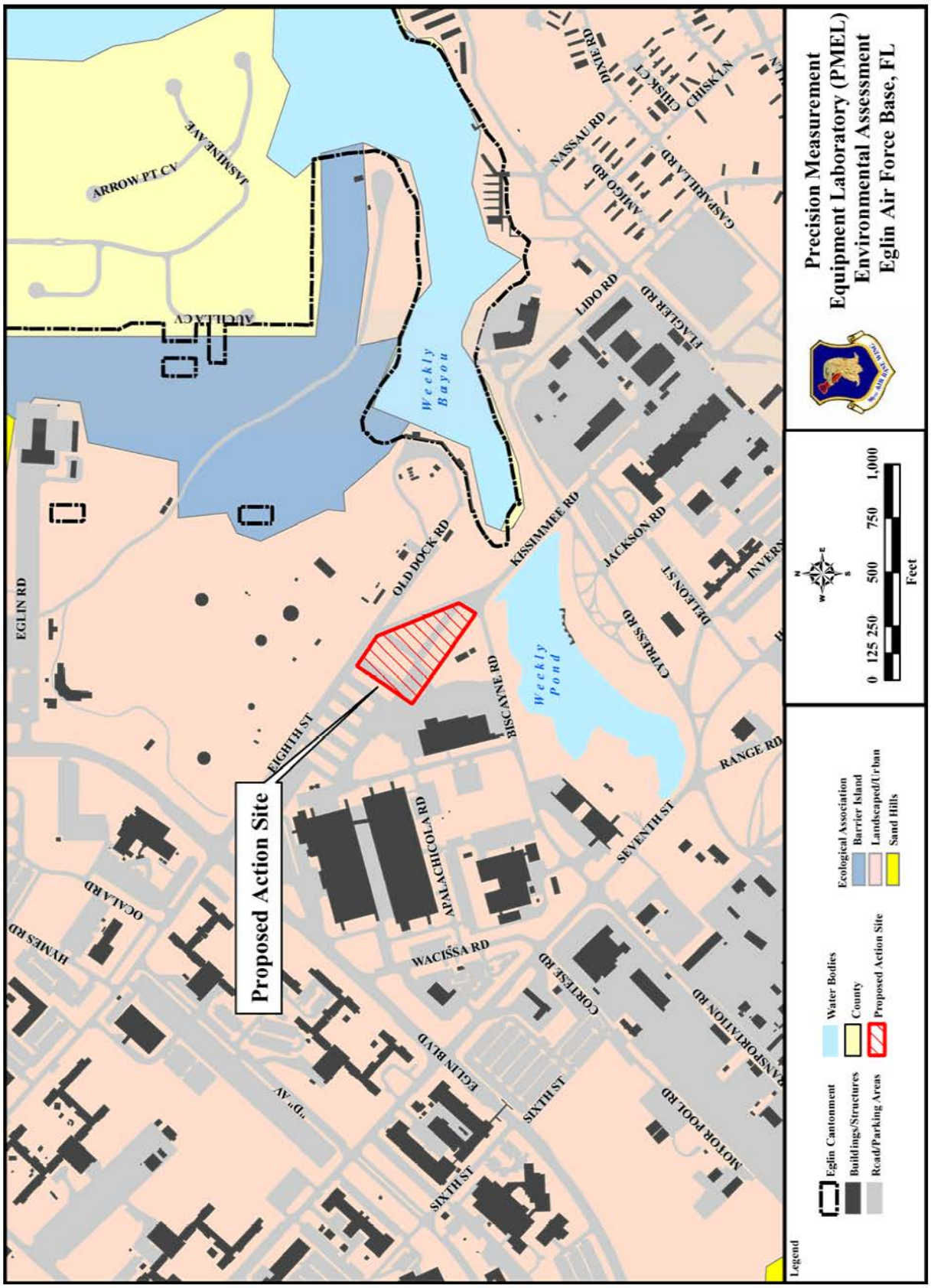

Figure 3-1. Biological Resources Located Within and Surrounding the Proposed Action Site

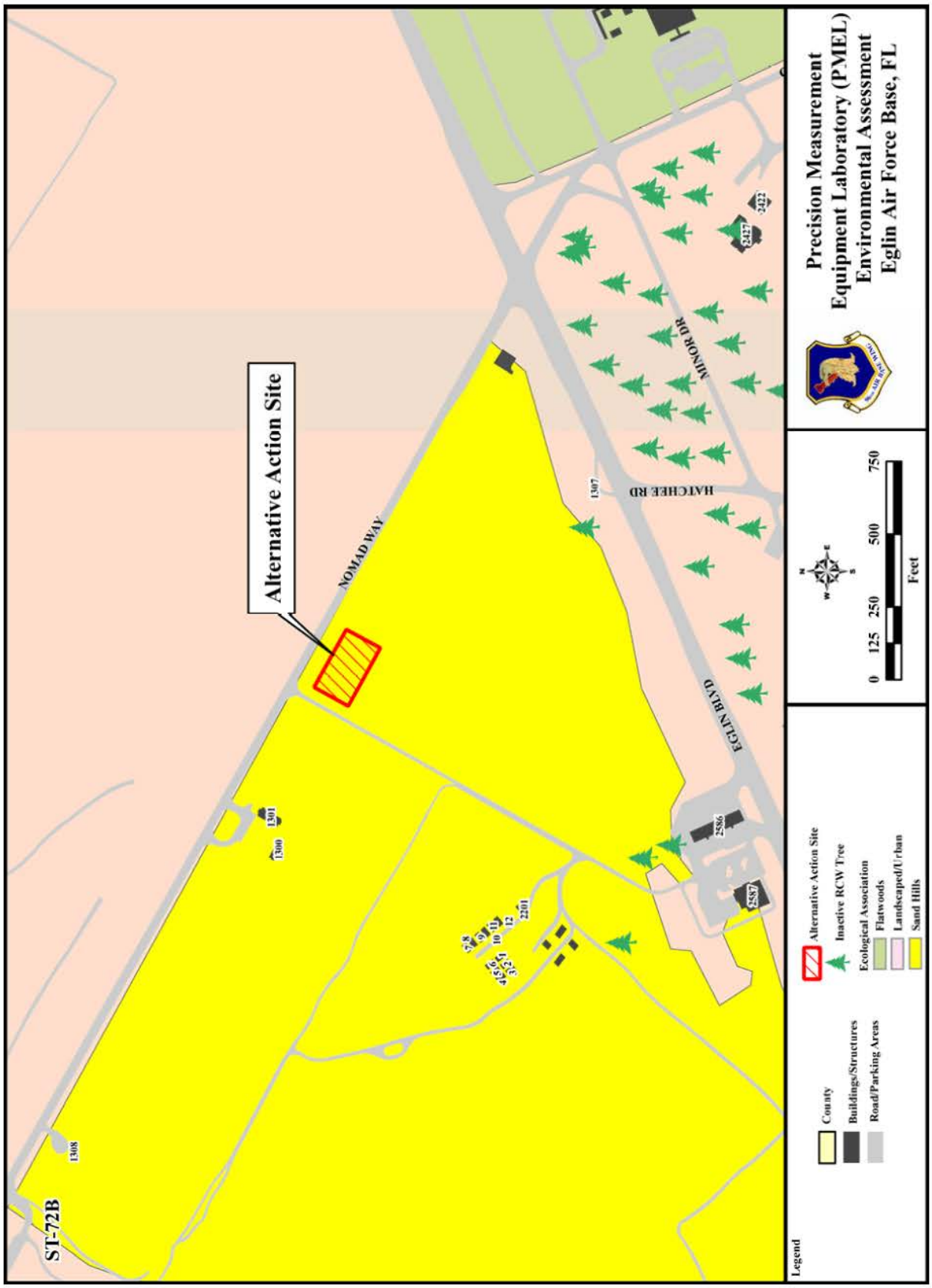

Figure 3-2. Biological Resources Located Within and Surrounding the Alternative 1 Site

The Sandhills ecological association varies from predominantly natural to substantially modified. The association is characterized by rolling sandhill ridges dissected by streams. Slopes break sharply next to streams but are gradual next to wet, depressional areas. Numerous steepheads are found throughout the association. The underlying geology is variable. Most of the association is between 20 and 295 feet above sea level.

The Sandhills ecological association provides habitat for a wide variety of bird species. Raptors found in the Sandhills ecological association include the screech owl, red-shouldered hawk, and great horned owl, which nest and hunt rodents in these woodlands. Game birds include wild turkey, wood ducks, mourning dove, ground dove, and northern bobwhite. Other indigenous bird species include red-cockaded woodpecker (RCW) (a federally listed endangered species), red-bellied woodpecker, rufous-sided towhee, loggerhead shrike, yellow-rumped warbler, and vireos, among others.

High-quality Sandhills plant communities can provide important habitat for neotropical migrants, which are birds that winter in South and Central America and come to temperate regions, such as the continental United States, to breed in the summer. Neotropical migrants occurring on Eglin include the ruby-throated hummingbird, summer tanager, common yellowthroat, blue grosbeak, and great crested flycatcher.

A variety of mammals are found in the Sandhills ecological association including the white-tailed deer, fox squirrel, gray squirrel, flying squirrel, armadillo, feral pig, and raccoon. Characteristic predators in this association include the gray fox and bobcat. Occasionally the Florida black bear, a state-listed threatened species, is found here.

Reptile species of this association include the eastern fence lizard, broadhead skink, gopher tortoise, box turtle, eastern diamondback rattlesnake, cottonmouth (near sandhill upland lakes and marshes), gray rat snake, coral snake, six-lined racerunner, and eastern coachwhip. The barking treefrog and central newt are representative amphibians found in this association.

3.1.2 Threatened and Endangered Species

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 future throughout all or a significant portion of its range due to factors such as loss of habitat and anthropogenic effects. A candidate species is one for which the USFWS has on file sufficient information on biological vulnerability to warrant a listing, but the listing is precluded at the present time. Once legally protected, it is a federal offense to "take" (import, export, kill, harm, harass, possess, or remove) protected animals from the wild without a permit. Federal candidate species should be given consideration during planning of projects, but have no protection under the Endangered Species Act (ESA). Similar regulations are in place for state-listed species (endangered, threatened, or species of special concern). While these state regulations do not apply on federal lands, Eglin will protect state species in accordance with management requirements addressed in Eglin's Integrated Natural Resources Management Plan.

Under the ESA of 1973, federal agencies must ensure that their actions (including permitting) do not jeopardize the continued existence of any endangered or threatened species or destroy or

adversely modify the habitat of such species without a permit and must set up a conservation program. A Section 7 consultation with USFWS would be required if there is a potential to affect any federally listed species. If the Proposed Action were likely to adversely affect a federally protected species, USFWS would determine whether jeopardy or no jeopardy to the species population exists. As a result, Air Force projects that may affect, either directly or indirectly, federally protected species, species proposed for federal listing or critical habitat for protected species are subject to Sections 7 and 10 of the ESA prior to the irreversible or irretrievable commitment of resources (U.S. Air Force, 2003). Eglin AFB developed an overall goal within the Integrated Natural Resources Management Plan to continue to protect and maintain populations of native threatened and endangered plant and animal species within the guidelines of ecosystem management (U.S. Air Force, 2002).

Existing Conditions

Eglin AFB has not identified any sensitive species or habitats at the proposed or alternative sites. There are no active RCW sites in the vicinity of the proposed or alternative sites, as a survey of mapped and recorded active sites indicates. However, there are inactive RCW trees located approximately 800 feet southeast of the alternative site (Figure 3-2). Eglin AFB does not anticipate the inactive trees to be valuable habitat since the habitat has been deemed unsuitable for the RCW due to insufficient forage habitat. Inactive RCW habitat may also contain other species of concern such as the eastern indigo snake, gopher frog, and the gopher tortoise. However, there is no federal documentation of these or other threatened and endangered species occurring at these sites. The 96 CEG/CEVSN biologists would be responsible for conducting a field survey prior to the initiation of construction activities to determine the presence of any protected species. Trained Air Force biologists, knowledgeable about the local wildlife and habitat requirements, would employ various methods for surveying the area. These specialists would spend time on site, and evaluate the habitat and its potential to support any federally listed threatened or endangered species to determine what level of consultation would be necessary with the USFWS.

3.2 HAZARDOUS MATERIALS/WASTE

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 AFI 32-7042. The hazardous materials to be transported, stored, and used on site for the proposed action consist of lubricants, solvents, adhesives, and compressed gases.

Under federal law, the transportation of hazardous materials is regulated in accordance with the Hazardous Materials Transportation Act, 49 United States Code (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.

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 U.S.C. 1001 et seq.) as part of the Superfund Amendments and Reauthorization Act (SARA) Title III (10 U.S.C. Sections 2701 et seq.). Management of hazardous materials in the workplace is regulated under Occupational Safety and Health Administration (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 that implements 49 CFR 178 under Florida statute annotated Title 29 Section 403.721.

The Air Armament Center (AAC) Plan 32-9, Hazardous Materials Management, describes how Eglin complies with federal, state, Air Force, and 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 DoD regulations, this section addresses the following items that are relevant to this assessment.

- *Environmental Restoration Program 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 the 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.

3.2.1 Environmental Restoration Program Sites

Eglin AFB 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 processes under the Comprehensive Environmental Response, Compensation, and Liability Act and Resource Conservation and Recovery Act, as well as state environmental compliance programs, primarily those found in FAC 62-770, Petroleum Contamination Site Cleanup Criteria. Digging activities are coordinated with the Environmental Restoration Branch,

96 CEG/CEVR. The Eglin AFB Environmental Restoration Program Management Action Plan (CH2M Hill, 2003) addresses the plans to manage ERP sites on the base.

Table 3-1 summarizes ERP sites adjacent to the Proposed Action site and Figure 3-3 shows these ERP locations. There are no ERP sites adjacent to the Alternative 1 site. The closest ERP site is approximately 1,250 feet south of the Alternative 1 site (Figure 3-4).

Table 3-1. Environmental Restoration Program Sites Located Near the Proposed Action Site

Site Designation (Site Name)	General Location	Site Description	Site Status
SS-36 (POL Tank Farm)	Northeastern side of the intersection of Eighth Street and Eglin Boulevard	Approximately 4,000 gallons of JP-4 petroleum product discharged from an underground product pipe. Eglin AFB found petroleum constituents in soils and groundwater. The base's monitoring program detected dissolved and free products in groundwater.	Long-term monitoring until September 2010
SS-105 (Eglin Pipeline Spill Site, Pit 1)	Between Weekly Pond and Boggy Bayou	Eglin AFB discovered petroleum contaminants in soils surrounding part of an abandoned jet fuel pipeline.	NFA

Source: CH2M Hill, 2003
NFA = no further action SS = spill site POL = Petroleum, Oil, and Lubricants

3.2.2 Hazardous Materials/Waste Management

Unless otherwise exempted by CERCLA regulations, the U.S. Environmental Protection Agency (USEPA) administers RCRA Subtitle C (40 CFR 260–270) regulations, which are applicable to the management of hazardous wastes. Hazardous waste must be handled, stored, transported, disposed of, or recycled in accordance with these regulations. Eglin AFB would consider Impacts to hazardous materials and waste management 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 used at Eglin includes jet fuels, diesel fuel, and unleaded gasoline, followed by solvents, compressed gases, other petroleum products, paints and thinners, and many others. Hazardous materials are primarily obtained through the pharmacy system and utilized by the Air Force, as well as tenants such as the Army, Navy, Space Command, and base contractors.

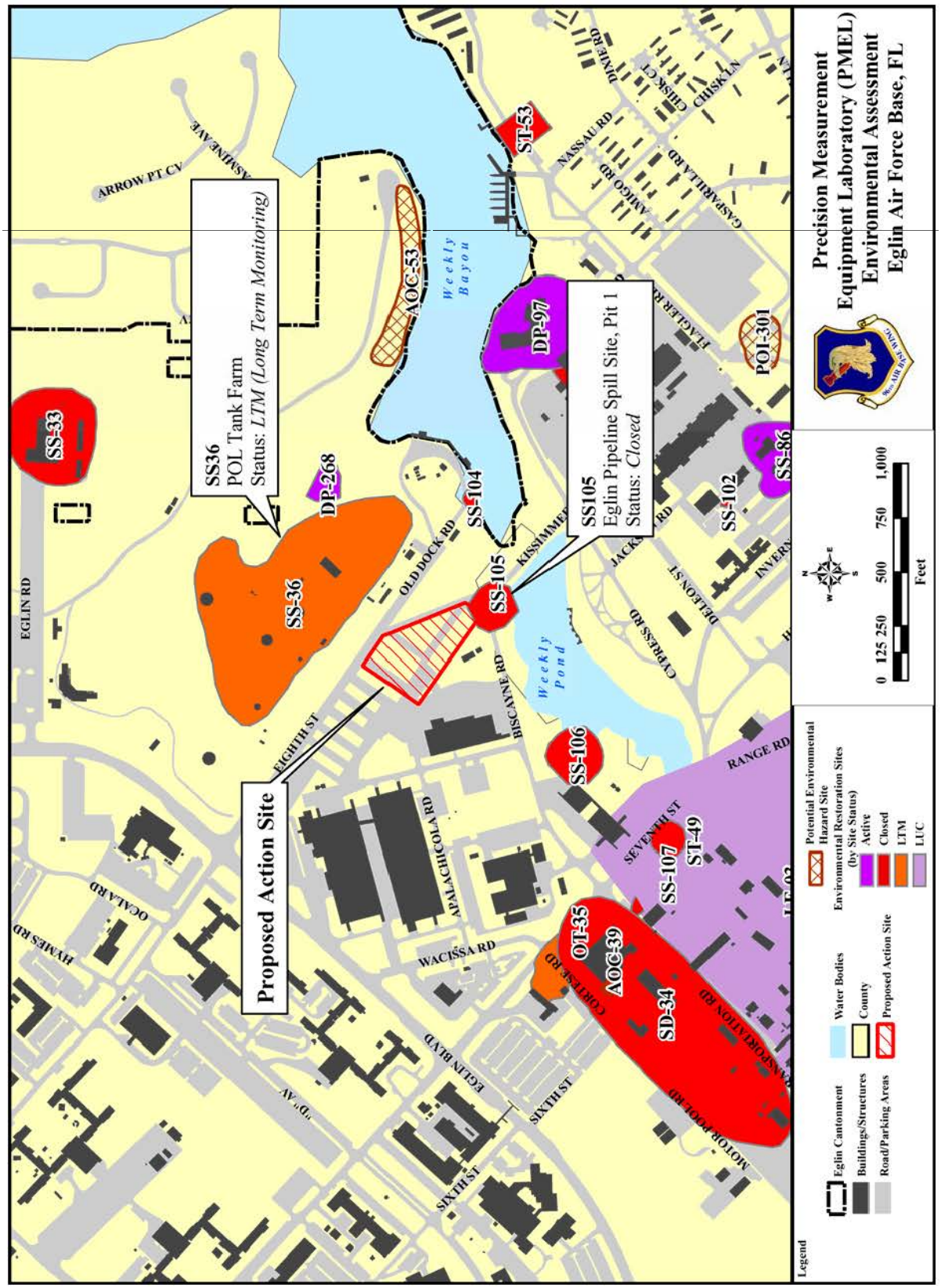

Figure 3-3. ERP Sites Located Near the Proposed Action Site

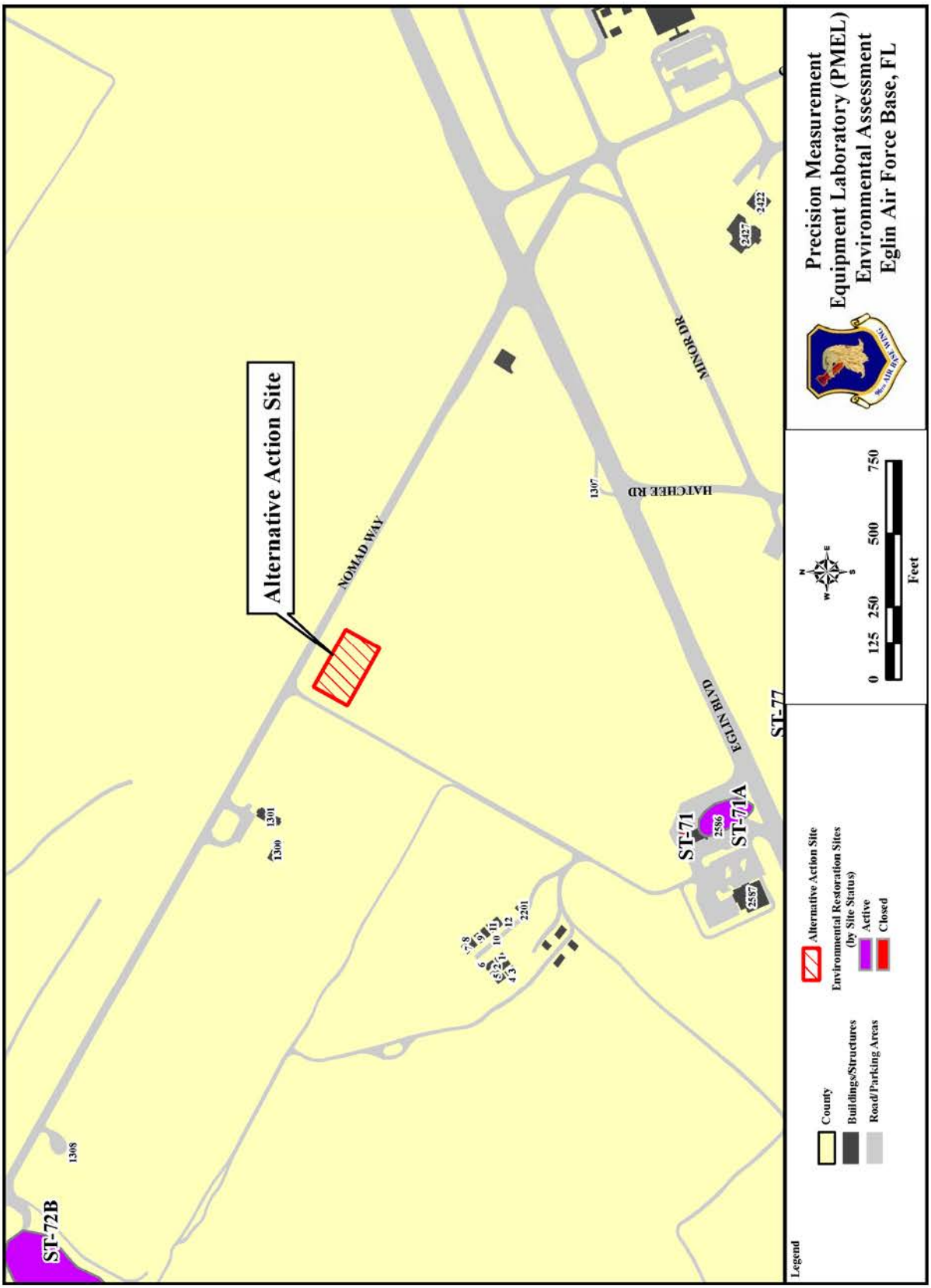

Figure 3-4. ERP Sites Located Near the Alternative 1 Site

The 96th Civil Engineer Group, Environmental 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 to support the ongoing mission at Eglin 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.

AAC Plan 32-9, Hazardous Materials Management, describes how Eglin complies with federal, state, Air Force and DoD laws and instructions. All Eglin AFB organizations and tenants are required to follow this plan. Currently there are no permanent hazardous materials storage areas located on the proposed sites.

The PMEL facility currently utilizes various types of hazardous materials in the form of lubricants, solvents, adhesives, and compressed gases. Personnel obtain hazardous materials for use at the PMEL facility from the Base Hazardous Materials Pharmacy. PMEL personnel then issue these materials to one of four hazardous material kits located throughout the lab. These kits are stored in accordance with AFI 32-7086 and 46 MXS OI 32-101, inventoried weekly and taken to the Issue Point monthly for weighing and refilling. Hazardous materials and waste are contained and disposed of in accordance with AFI 32-7086. Most hazardous materials the PMEL uses are consumed during use. Hazardous materials not consumed during use are collected and turned in to the Issue Point for disposal (in accordance with 46 MXS OI 32-101 paragraph 6.5 and 6.7). Personnel accomplish any clean up of spilled materials with accountable rags, which they turn in for cleaning through the base rag control program. Additionally, temperature baths sit in a secondary containment pan in case of a leak to prevent hazardous materials from entering the sanitary sewer.

3.3 SOILS/EROSION

This section discusses soil types within the project areas at the Proposed Action and Alternative 1 sites. Depending on their properties and the topography in which they occur, soils have varying degrees of susceptibility to erosion.

Aerial imagery and a site visit confirm that the affected environment at the Proposed Action site is cleared of timber and characterized by paved, graveled, and grassed areas. The Alternative 1 site is primarily timbered and would require clearing.

Drainage capacity, erodibility, composition, and the topography at the proposed and alternative locations define soil resources. Soils occurring at the Proposed Action and Alternative 1 sites are typical of the types of soil that occur over much of Eglin AFB (Figures 3-5 and 3-6). The primary soil association is Lakeland-Troup (Overing and Watts, 1989; Overing et al., 1980). 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. Within the Lakeland-Troup association, there are Foxworth and Lakeland sands. The following paragraphs contain general descriptions of these types. The Proposed Action site consists of 100

percent Foxworth sand with 0 to 5 percent slopes, while the Alternative 1 site consists of 100 percent Lakeland sand with 0 to 5 percent slopes.

Foxworth sands. The term moderately well drained typically characterizes slopes of 0 to 5 percent. Foxworth sands are generally located on nearly level to gently sloping hillsides and are located in upland areas in flatwoods. This soil has a surface layer of grayish brown sand about 7 inches thick. The subsurface layer is a yellowish-brown to light grey sand that reaches to a depth of more than 80 inches. Foxworth sands contain a relatively high water table that fluctuates between 40 and 72 inches (Overing and Watts, 1989).

Lakeland sands. Slopes of 0 to 5 percent are nearly level to gently sloping soils and often excessively drained. 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 4 inches thick. Slopes of 5 to 12 percent 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., 1980).

In general, the soils listed in Table 3-2 are slightly susceptible to water and wind erosion under natural conditions, though nearly all of the sandy soils would be highly susceptible to wind and water erosion if construction requires clearing of vegetation.

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 either the Proposed Action or Alternative 1 locations.

Soil slopes generally are 5 percent or less throughout the project area. As a result, Eglin AFB does not expect that erosion would be a major concern.

Table 3-2 provides the soil characteristics and percent composition at the Proposed Action and Alternative 1 locations. Table 3-2 also displays soil types and basic erodibility characteristics for the proposed sites. Erosion can result from wind, water runoff, rain, and lack of vegetation. These can and do occur under normal circumstances without direct disturbance to soils. Direct disturbance would occur when construction, the movement of heavy equipment, explosions, and other direct-impact soil activities move the soil. A lack of adequate vegetation cover, higher-than-normal amounts of wind and rain, and other direct disturbance can exacerbate rates of erosion.

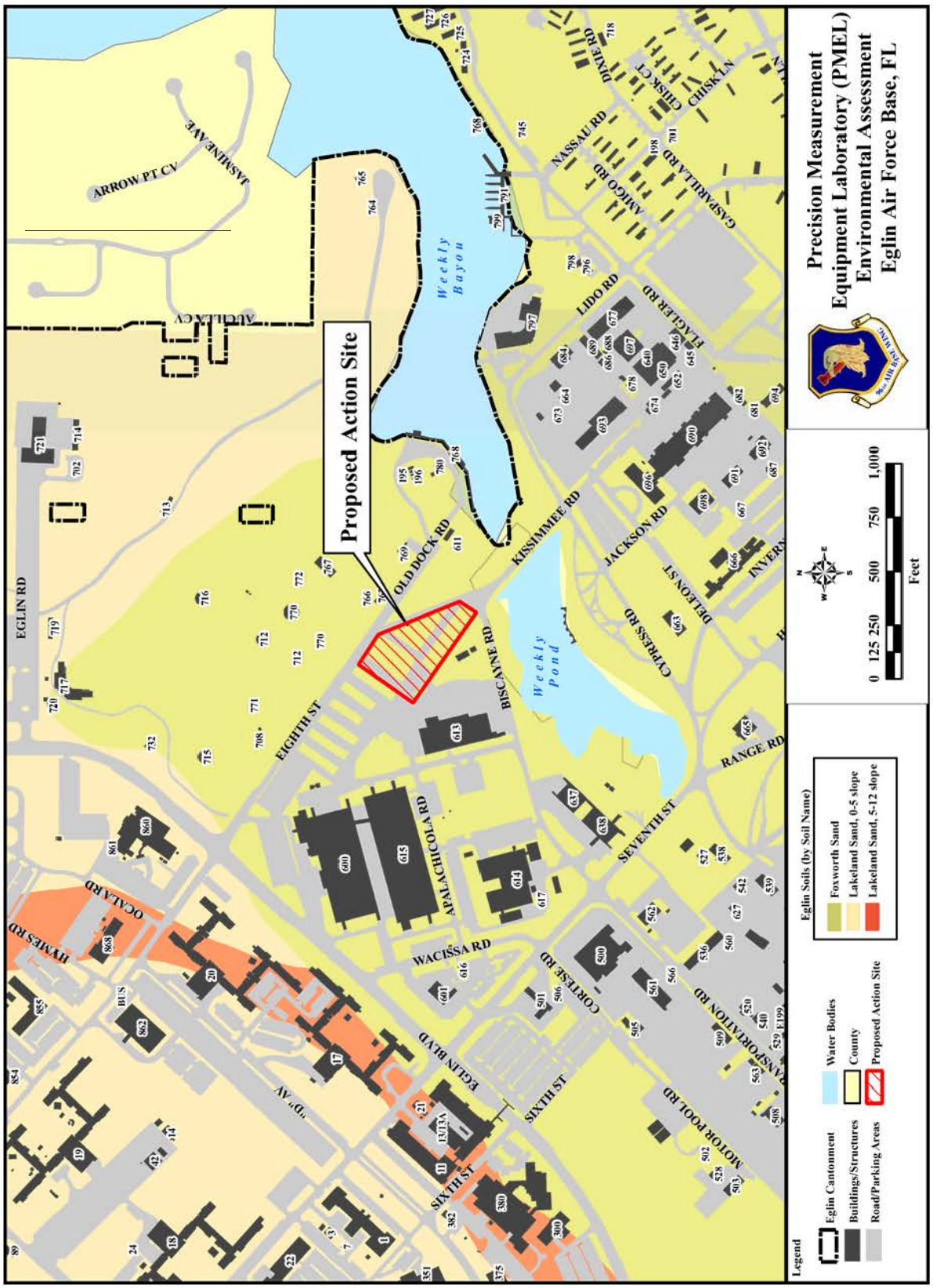

Figure 3-5. Soil Types Located Near the Proposed Action Site

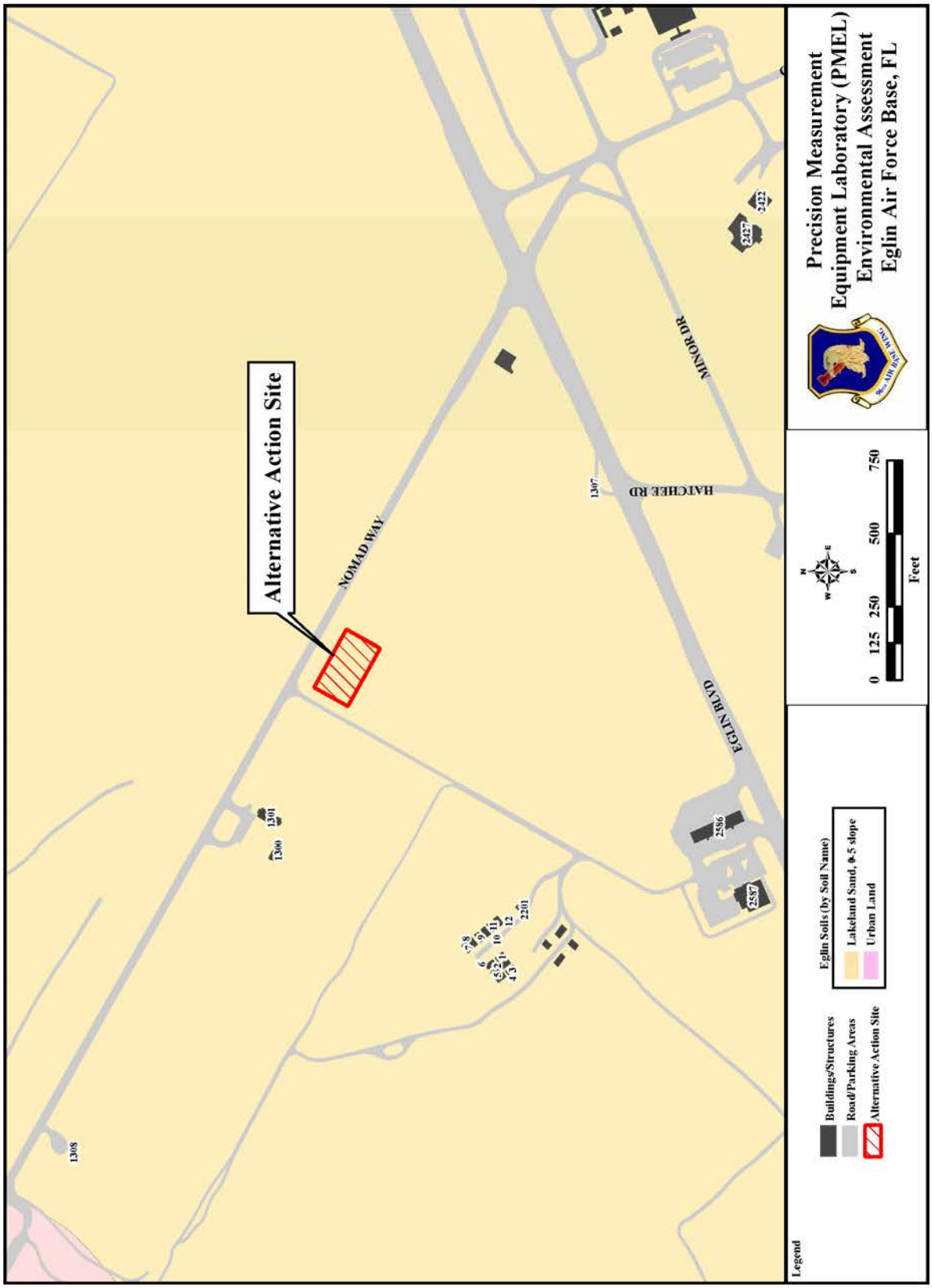

Figure 3-6. Soil Types Located Near the Alternative 1 Site

Table 3-2. Soil Types and Erodibility at the Proposed Action and Alternative 1 Sites

Soil Type	Slopes	Approximate % Coverage In Respective Area	Location of Soil Type	Erodibility	
				From Water	From Wind
Foxworth sand	0 to 5 %	100	Proposed Action Site	Slight	Slight
Lakeland sand	0 to 5 %	100	Alternative 1 Site	Slight	Slight

Source: Overing and Watts, 1989; Overing et al., 1980

3.4 WATER RESOURCES

This section describes the qualitative and quantitative characteristics of water resources in or adjacent to the Proposed Action and Alternative 1 sites at Eglin AFB. These resources include surface waters, wetlands, and floodplains.

3.4.1 Surface Water

Surface water is any water that lies above groundwater, such as ponds 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). Weekly Bayou and Weekly Pond are the only surface waters near the Proposed Action site and are located approximately 350 feet southeast and 150 feet south, respectively, of the site (Figure 3-7). Based on topography, stormwater runoff drains into Weekly Bayou and Weekly Pond (FDEP, 2005). No surface waters lie adjacent to the Alternative 1 site. The closest surface water resource is Upper Memorial Lake located approximately 3,200 feet east of the site (Figure 3-8).

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. The FDEP submits waters that are determined to be impaired using the methodology in the IWR and adopted by secretarial order to the U.S. Environmental Protection Agency (USEPA) for approval as Florida's 303(d) list. FDEP submits updates to Florida's 303(d) List of Impaired Surface Waters to USEPA every 2 years. The 2006 Integrated Water Quality Assessment for Florida: 2006 305(b) Report and 303(d) List Update (FDEP, 2006) satisfies the listing and reporting requirements of Sections 303(d) and 305(b) of the CWA. The FDEP divides river basins across Florida into groups, which they address according to an established rotation schedule. The eastern portion of Eglin AFB drains to the Choctawhatchee-St. Andrews Bay Basin (Group 3) (FDEP, 2006a) via Boggy Bayou. Weekly Bayou is a smaller surface water that drains into Boggy Bayou. Weekly Bayou is not on Florida's 303(d) List of Impaired Surface Waters but Boggy Bayou is because dissolved oxygen levels were a Parameter of Concern on the 1998 303(d) List (FDEP, 2006b). However, this bayou has been proposed for delisting (FDEP, 2006c). Boggy Bayou has been identified as Potentially Impaired for the Biology Listed Parameter and as Verified Impaired for the Bacteria Listed Parameter (FDEP, 2006a).

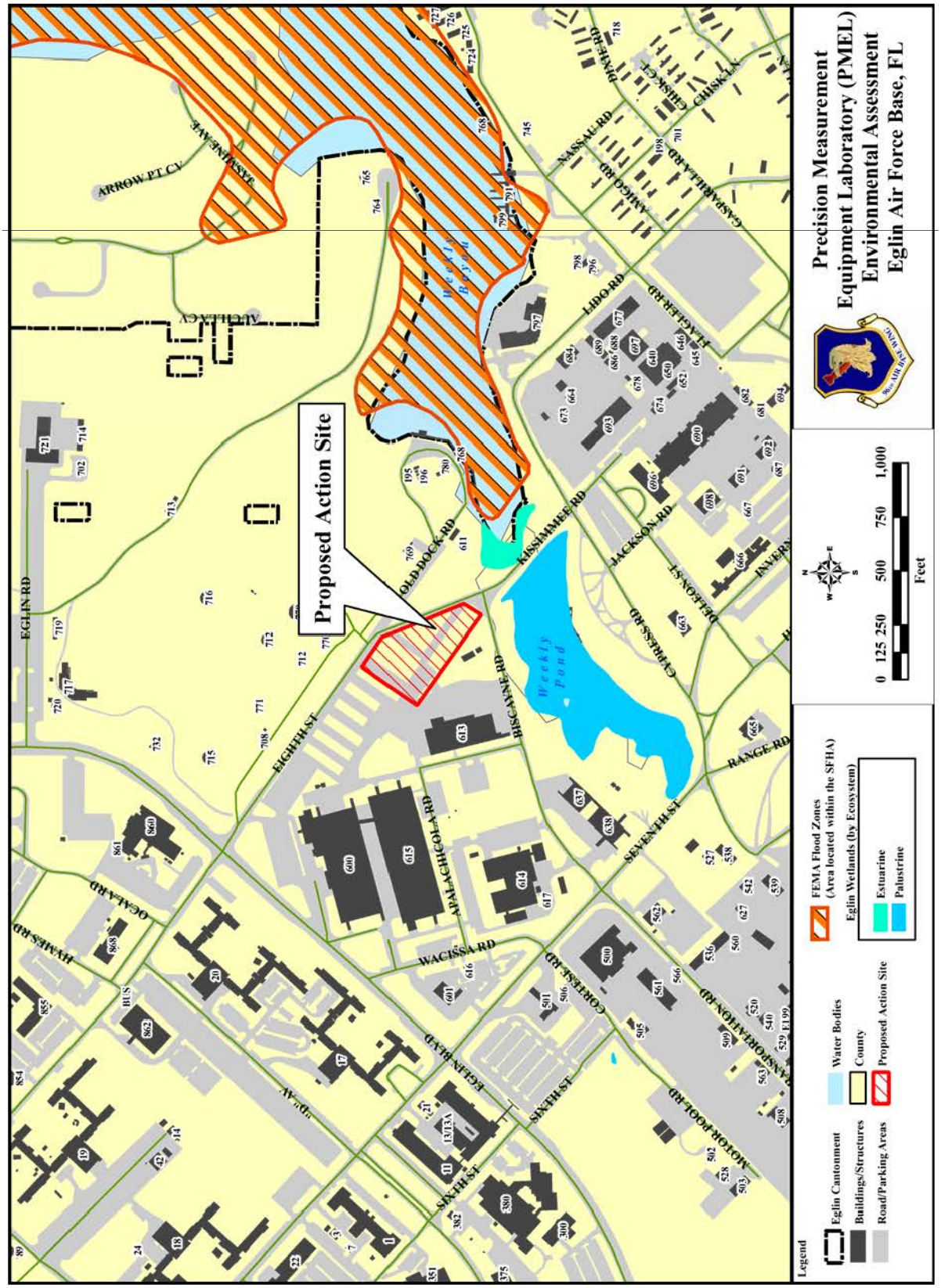

Figure 3-7. Wetlands, Streams, and Floodplains Located Near the Proposed Action Site

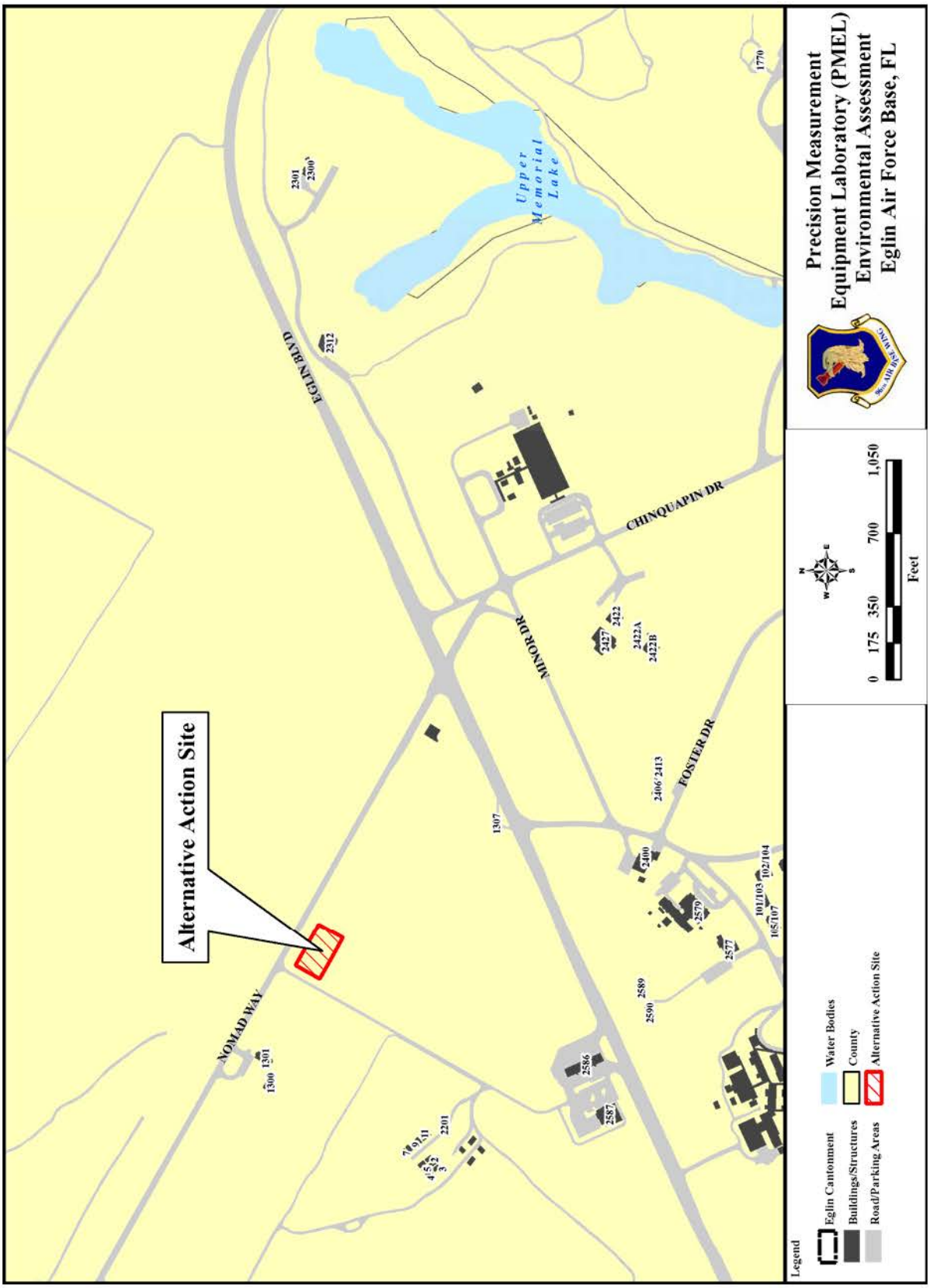

Figure 3-8. Wetlands, Streams, and Floodplains Located Near the Alternative 1 Site

Water quality within the Alternative 1 site is generally good, and no waters listed as impaired on the 1998 303(d) list fall within this project area (FDEP, 2006b).

Stormwater

Any addition of impermeable surfaces (i.e., concrete, asphalt) would result in an increase in stormwater runoff. The effects vary based on the amount of new impervious surface area, topography, rainfall, soil characteristics, and other site conditions. The rate and volume of stormwater runoff has the potential to impact the quality and utility of water resources (FDEP, 2002). Regulations under Rule 62-25 of the FAC and the National Pollutant Discharge Elimination System (NPDES) require permitting for new stormwater discharges. Rule 62-621 of the FAC requires coverage under the generic permit for stormwater discharge from construction activities that disturb one or more acres of land. Section 403.0885 Florida Statutes (FS) requires a notice of intent to use the generic permit for stormwater discharge under the NPDES program. A comprehensive stormwater, erosion, and sedimentation control plan and a SWPPP are also required.

3.4.2 Wetlands

Wetlands are areas of transition between terrestrial and aquatic systems where the water table is usually at or near the surface or where shallow water covers the land (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* describe 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). One of the most important factors in establishing and maintaining wetland processes is wetland hydrology (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" (USACE, 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 (USACE, 1987). There are two wetland areas in close proximity to the Proposed Action site (Figure 3-7). One wetland area is located approximately 175 feet away and is about 0.79 acres in size. This wetland area is associated with Weekly Bayou and classified as estuarine. The other wetland area is approximately 150 feet away, associated with Weekly Pond, and is classified as palustrine. There are no wetland areas in close proximity to the Alternative 1 site.

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 330) and Section 10 of the Rivers and Harbors Act (30 CFR 329). USEPA assists USACE (in an administrative capacity) in the protection of wetlands (40 CFR 225.1 to 233.71). The state of Florida regulates wetlands under the Wetlands/Environmental Resource Permit program under Part IV, Florida

Statutes Section 373. Furthermore, EO 11990, Protection of Wetlands, offers additional protection to these resources. In addition, the USFWS and the National Marine Fisheries Service have important advisory roles. The FDEP's Chapter 62-312, Dredge and Fill Program, affords regulatory protection to wetland resources at the state level. This agency issues a Section 401 certification under the authority of the CWA (40 CFR 230.10[b]).

3.4.3 Floodplains

Floodplains are lowland areas adjacent to surface water bodies (i.e., lakes, wetlands, and rivers), which flooding events periodically cover with water. Floodplains are biologically unique and highly diverse ecosystems providing a rich diversity of aquatic and terrestrial species, acting as a functional part of natural systems (Mitsch, 2000). Vegetation and soils act as water filters, intercepting surface water runoff before it reaches lakes, streams, or rivers, and stores floodwaters during flood events. This filtration process aids in the removal of excess nutrients, pollutants, and sediments from the water and helps reduce the need for costly cleanups and sediment removal. The Proposed Action site is located approximately 410 feet from the nearest floodplain (Figure 3-7). However, this site does lie within the Category 4 and 5 hurricane SLOSH (Sea, Lake, and Overland Surges from Hurricanes) surge zones. SLOSH is a computerized model developed by the Federal Emergency Management Agency (FEMA), USACE, and the National Weather Service (NWS) to estimate the threat of storm surge from hurricanes of various strengths (FEMA, 2006). The Alternative 1 site is not located within close proximity of any floodplain.

Floodplains Regulations

Federal agencies must evaluate any actions considered to determine whether they would occur within a floodplain. Agencies must consider those areas with a one percent chance of floodwater inundation in a given year (also known as a 100-year floodplain). EO 11988 Floodplain Management requires federal agencies to avoid adverse impacts associated with the occupancy and modification of floodplains and to avoid floodplain development whenever possible. Parts of the floodplain that are also wetlands receive further protection under USACE's Section 404 Permit Program.

3.4.4 Coastal Zone Management Act (CZMA)

The State defines the landward boundaries of the State of Florida, in accordance with Section 306(d)(2)(A) of the CZMA, as the entire state of Florida. Federal agency activities potentially impacting the coastal zone are required to be consistent, to the maximum extent practicable, with approved state Coastal Zone Management Programs. Federal agencies make determinations as to whether their actions are consistent with approved state plans. Eglin AFB submits consistency determinations to the state for review and concurrence. All relevant state agencies must review the Proposed Action and issue a consistency determination. The Florida Coastal Management Program is composed of 23 Florida statutes, which 11 state agencies and 4 of the 5 water management districts administer.

Any components of the Proposed Action or Alternative 1 that take place within the jurisdictional concerns of the State would require a consistency determination with respect to Florida's Coastal Management Plan (Appendix B).

3.5 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. Appendix A provides a review of air quality and associated methodologies used for emissions calculations.

3.5.1 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 Okaloosa County. This ROI has been chosen since the proposed activities will occur specifically in this county.

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, 1996). Appendix A provides details of the NAAQS and the State of Florida air quality requirements.

Based on measured ambient air pollutant concentrations, the USEPA designates whether areas of the United States 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, based on available information, as meeting or not meeting the NAAQS for a particular pollutant are "unclassifiable" and are treated as attainment until proven otherwise.

3.5.2 Existing Conditions

Regional Air Quality

The FDEP operates air quality monitors in various counties throughout the state including nearby Santa Rosa County (FDEP, 2004). 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 were designated as Class I, II or III. National parks and wilderness areas are designated by Congress 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).

There are three designated PSD Class I areas in the state: Chassahowitzka National Wildlife Refuge Wilderness Area, Everglades National Park, and St. Marks Wilderness Area. However, none of these areas are near the proposed action (FAC, 1996a). Appendix A provides details regarding PSD air quality evaluations.

Baseline Emissions

An air emissions inventory qualitatively and quantitatively describes the amount of emissions from a facility or within an area. Emissions inventories are designed to 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 establishes 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 stationary sources and 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, Table 3-3 presents the USEPA's 2002 National Emissions Inventory (NEI) data for Okaloosa County. The county data includes 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). For the analysis of the Proposed Action and Alternatives, a threshold of individual pollutant emissions not exceeding 10 percent of the total ROI emissions for each pollutant has been selected (Shipley Associates, 1995). Emissions associated with construction, munitions usage and mobile source activities are the main issues the Proposed Action and alternatives generate and will be the focus of the air analysis in Chapter 4.

Table 3-3. Baseline Emissions Inventory for Okaloosa County

Okaloosa County Emissions (Tons/Year)					
Source Type	**NO_x**	**CO**	**PM_{10}**	**VOC**	**SO_2**
Point Source	49	28	8	79	12
Non-Road	1,099	16,150	162	1,897	109
On-Road	5,703	45,228	153	3,829	3,829
Area source	281	1,867	4,266	4,527	4,527
Totals	***7,132***	***63,273***	***4,589***	***10,332***	***8,477***

Source: USEPA, 2002 NEI

NO_x = Nitrogen Oxides; CO = Carbon Monoxide; PM_{10} = Particulate Matter with a Diameter Less Than or Equal to 10 Microns; VOC = Volatile Organic Compounds; SO_2 = Sulfur Dioxide

4. ENVIRONMENTAL CONSEQUENCES

This chapter details the potential impacts of the Proposed Action, Alternative 1, and the No Action Alternative in relation to the issues and resources identified in previous chapters of this document.

Issues include:

- Biological Resources
- Hazardous Materials/Waste
- Soils/Erosion
- Water Quality
- Air Quality

4.1 BIOLOGICAL RESOURCES

4.1.1 Proposed Action (Preferred Alternative)

Implementing the Proposed Action would not significantly affect biological resources. There would be minimal effects to wildlife and vegetation as the construction of the PMEL facility would occur in an area that consists of paved, graveled and grassy areas. The 96 CEG/CEVSN has not identified any sensitive species or habitats at this site. As a result, Eglin AFB does not anticipate any significant impacts from the implementation of the Proposed Action.

4.1.2 Alternative 1

Implementing Alternative 1 would not significantly affect biological resources. There would be minimal effects to wildlife and vegetation as the construction of the PMEL facility and associated facilities would occur primarily in a wooded area consisting of longleaf pine (*Pinus palustris*) and scrub oak (*Quercus hemisphaerica*) species. Effort would be made to preserve surrounding natural vegetation to the greatest extent possible. No threatened or endangered species are known to occur at the alternative site; however, 96 CEG/CEVSN biologists would be responsible for conducting a field survey prior to the initiation of construction activities to determine the presence of any protected species. Trained Air Force biologists, knowledgeable about the local wildlife and habitat requirements, would employ various methods for surveying the area. These specialists would spend time on site and evaluate the habitat and its potential to support any federally listed, threatened or endangered species to determine what level of consultation would be necessary with the USFWS. As a result, Eglin AFB does not anticipate any significant impacts from the implementation of Alternative 1.

4.1.3 No Action Alternative

Under the No Action Alternative, Eglin AFB would not construct the proposed PMEL facility. As a result, there would be no impacts to biological resources, including sensitive species or

habitats. However, if Eglin AFB does not construct the PMEL facility it will remain out of compliance, AFMETCAL could withhold Eglin's PMEL facility lab certification, and the facility could potentially be shut down causing delays and impacts to critical DoD missions. It would be necessary to ship all TMDE items to an alternate facility requiring 14-30 days shipping and turn time at the performing PMEL. This would also increase shipping costs to support the 22,000 items currently supported at the Eglin PMEL.

4.2 HAZARDOUS MATERIALS/WASTE

The transport, storage, use, and disposal of hazardous materials and waste associated with the Proposed Action present a safety/health issue to military personnel and/or 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 military personnel and the public. The hazardous materials to be transported, stored, and used on site for the Proposed Action include lubricants, solvents, adhesives, and compressed gases.

PMEL personnel would coordinate the storage, transport, and handling of hazardous material with the 96 CEG/CEVCE, and would dispose of these materials 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.

4.2.1 Proposed Action (Preferred Alternative)

The Proposed Action would not significantly impact ERP sites. Potential impacts to ERP sites are associated with ground-disturbing activities that could affect the integrity of an ERP site (e.g., disturbing the soils). To avoid potential impacts from ERP sites (Figure 3-3), the proponent must coordinate with 96 CEG/CEVR concerning any digging during construction activities. Exact site selection and design plans for the proposed PMEL facility would ensure that ground-disturbing activities do not disturb adjacent ERP sites. The proponent must coordinate with 96 CEG/CEVR to conduct appropriate surveys of the proposed site prior to any construction activities. The proponent must contact 96 CEG/CEVR if personnel detect unusual soil coloration and/or odors during construction activities. Since the 46 MXS would avoid any ERP sites near the proposed site, Eglin AFB does not anticipate any adverse impacts from the adjacent location of an inactive ERP site.

Currently the PMEL facility utilizes various types of hazardous materials in the form of lubricants, solvents, adhesives, and compressed gases. Although the new PMEL facility would use various chemicals and hazardous materials, Eglin AFB does not anticipate any significant increases in the use of these materials. Appendix C provides a list of all authorized hazardous materials and quantities used during Fiscal Year (FY) 2005. Additionally, spills and safety hazards would be less likely to occur in the new, larger and more accommodating facility than in the crowded, potentially unsafe conditions present in the current PMEL facility. PMEL personnel would continue to obtain and handle hazardous materials/wastes in accordance with AFI 32-7086 and 46 MXS OI 32-101 as discussed in Section 3.2.2. Additionally, PMEL

personnel would obtain, transport, store, handle, use, and dispose of all hazardous materials and wastes in accordance with all other applicable Eglin AFB, state, and federal regulations and guidelines. As a result, Eglin AFB does not expect any significant impacts to the environment.

4.2.2 Alternative 1

Eglin AFB does not expect any significant impacts associated with hazardous waste or materials management under Alternative 1. PMEL personnel would use the same transportation, handling, use, and disposal practices as in the Proposed Action. Additionally, Alternative 1 would not significantly impact ERP sites since there are none located adjacent to the Alternative 1 site.

4.2.3 No Action Alternative

No impacts would occur under the No Action Alternative. Eglin AFB would not construct the PMEL facility; however, if Eglin AFB does not construct the PMEL facility it will remain out of compliance, AFMETCAL could withhold Eglin's PMEL facility lab certification, and the facility could potentially be shut down causing delays and impacts to critical DoD missions. It would be necessary to ship all TMDE items to an alternate facility requiring 14-30 days shipping and turn time at the performing PMEL. This would also increase shipping costs to support the 22,000 items currently supported at the Eglin PMEL.

4.3 SOILS/EROSION

This section discusses impacts to the environment from soil erosion that could potentially arise from activities associated with constructing the PMEL facility. The key issue of concern with many construction projects is the potential for the transport of soils through erosion that stormwater runoff from increased impervious surface areas causes (i.e., roads, buildings, and compacted soil). Generally soils within the affected environment are flat and sandy, with moderate-to-heavy vegetative cover—characteristics not conducive to a highly erosive situation. However, land disturbance and the creation of impervious surfaces can magnify the potential for erosion. Subsequent sections address the potential for surface runoff to impact water bodies.

4.3.1 Proposed Action (Preferred Alternative)

The Proposed Action would not significantly impact soils. Facility construction at the Proposed Action site has little potential to affect soils and create conditions that could result in serious erosion episodes. The soils within the Proposed Action area have relatively limited erodibility, and the natural terrain is generally flat in most places. When vegetation is cleared, rainfall events can cause water to move across non-vegetated surfaces and transport soils into local water bodies. Prevention through minimizing ground disturbance during construction and vegetation clearance and providing erosion minimization measures, such as Best Management Practices (BMPs), can prevent the transport of sediments. Required permits such as NPDES consider the effects that ground discharge has on maintaining clean water. Utilization of these BMPs is one of the primary methods of preventing discharge of sediments into water sources.

BMPs can consist of using one or more of the following measures to slow erosion: 1) hay bales, 2) silt fences, and 3) vegetation buffers. Unless a proposed activity is relocated because of

possible heavy impacts to soil erosion, the previously mentioned erosion control practices are best for slowing or halting erosion. Construction sites normally incorporate silt fences and hay bales to slow soil creep into local waterways, creeks, and ponds. Vegetation can help slow eolian (wind-blown) erosion.

The FDEP would also require the construction of a stormwater discharge feature to provide on-site treatment of stormwater. This would consist of either a retention pond or a series of swales to contain any runoff. This stormwater discharge system would most likely be located adjacent to the Proposed Action location. Eglin AFB would incorporate a Stormwater, Erosion and Sedimentation Control Plan, a SWPPP, and construction BMPs into the construction process as FDEP implemented regulations require. Eglin AFB does not anticipate any adverse impacts to soils based on the soil characteristics at the site and the implementation of the BMPs identified in Chapter 5.

4.3.2 Alternative 1

Alternative 1 would not significantly impact soils. Facility construction at the Alternative 1 site has little potential to affect soils and create conditions that could result in serious erosion episodes. Soils and terrain at the alternative construction site are not naturally associated with erosion. However, land clearing and construction would modify the terrain such that BMPs would be required to minimize potential adverse impacts from loss of soil during large storm events. Alternative 1 would include the construction of a stormwater discharge feature (retention pond or series of swales), which would provide a new volume of on-site storage as stormwater passes through the soil (percolation) and/or is lost through evaporation.

Eglin AFB would incorporate a Stormwater, Erosion and Sedimentation Control Plan, a SWPPP, and construction BMPs (identified in Chapter 5) into the construction process as FDEP implemented regulations require. Eglin AFB does not anticipate any adverse impacts to soils based on the soil characteristics at the site and the implementation of the BMPs identified in Chapter 5.

4.3.3 No Action Alternative

No impacts to soils would occur under the No Action Alternative. Eglin AFB would not construct the PMEL facility; therefore, there would be no changes to soils and no increase in soil erosion compared with current trends. However, if Eglin AFB does not construct the PMEL facility it would remain out of compliance, AFMETCAL could withhold Eglin's PMEL facility lab certification, and the facility could potentially be shut down causing delays and impacts to critical DoD missions. It would be necessary to ship all TMDE items to an alternate facility requiring 14-30 days shipping and turn time at the performing PMEL. This would also increase shipping costs to support the 22,000 items currently supported at the Eglin PMEL.

4.4 WATER RESOURCES

This section discusses the potential direct, indirect (secondary), and cumulative impacts to water resources in or adjacent to the Proposed Action and Alternative 1 sites described in Section 3.3, Water Resources. These resources include surface waters, wetlands, and floodplains.

For any landscaping, a State of Florida Permit Application to Construct, Repair, or Abandon a Well would be required. The application would be submitted to 96 CEG/CEVCE, Teresa Jordan, 882-7655 for review, approval, and execution. Once the well is in place, the completion report or a copy would be submitted to the same office. The irrigation system would operate in an efficient and non-wasteful manner. Runoff from the irrigation system shall be prevented by adjusting sprinkler pressure and direction. 46 MXS/MXMD would enhance irrigation efficiency by irrigating during the night or early morning or evening hours, limiting irrigation to the lower evaportranspiration periods of 4:00 P.M. to 10:00 A.M. two days per week. 46 MXS/MXMD would consider and implement xeriscape techniques whenever possible when modifying irrigated landscape. 46 MXS/MXMD would maintain the rain-sensing override on any automatic irrigation system.

4.4.1 Surface Waters

Potential impacts associated with water quality relate to the potential for increased rate and volume of stormwater runoff; therefore, increasing amounts of sediment and pollutant runoff during and after rain events. The construction of the PMEL facility may also present the potential for increased sedimentation. The addition of new impervious surfaces may also increase the pollutants carried off-site by stormwater runoff (sheet flow) from everyday operations.

Proposed Action (Preferred Alternative)

The Proposed Action would not significantly affect surface waters. The nearest surface waters to the Proposed Action site are Weekly Bayou and Weekly Pond. Weekly Bayou is located approximately 350 feet southeast from the proposed PMEL facility and Weekly Pond is about 150 feet south, allowing sufficient distance for interception and treatment of runoff. Potential impacts associated with water resources relate to the potential for an increase in the rate and the volume of stormwater runoff, for an increase in amounts of sediment and pollutant runoff during the proposed facility construction and for increased polluted stormwater runoff from everyday operations of the PMEL facility.

To comply with state mandates the Proposed Action would involve the construction of a stormwater management system (i.e., pond, swale) to provide on-site treatment of stormwater. On-site storage of stormwater would prevent direct discharge of stormwater runoff to any surface waters, thereby reducing potentially adverse impacts to water quality (FDEP, 2002). The addition of any new stormwater infrastructure shall not adversely impact the seasonal-high water table.

In accordance with the Florida Water Conservation Act (Florida Statutes 553.14), the proposed construction of the PMEL facility would incorporate water conservation measures to the greatest extent possible. Landscaping would consist of native, drought-tolerant vegetation to reduce water use. Any plans involving irrigation would be coordinated through 96 CEG/CEVCE prior to implementation. Finally, the use of drought-resistant landscaping is encouraged. These efforts will protect the Eglin water supply by reducing consumptive uses of water withdrawn from the Floridan Aquifer (U.S. Air Force, 2001).

Applicable permitting requirements would be satisfied in accordance with Rule 62-25 of the FAC and NPDES. The proponent and its contractor would adhere to all applicable regulatory requirements, which would serve to either offset or minimize any potential impacts from construction operations. The proponent would coordinate with 96 CEG/CEVCE to submit a notice of intent to use the generic permit for stormwater discharge under the NPDES program prior to project initiation according to Section 403.0885, 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 (Rule 62-621, FAC). The proponent would incorporate a comprehensive stormwater, erosion, and sedimentation control plan and a SWPPP into the final design plan. Stormwater permits and any necessary utility extension permits would require coordination between the proponent and 96 CEG/CEVCE. The proponent would obtain all appropriate permits prior to the commencement of any ground-disturbing activities. Eglin AFB does not expect any adverse impacts to water quality from the Proposed Action, given the attainment of aforementioned permits and the implementation of site specific management actions (detailed in Chapter 5).

Alternative 1

Alternative 1 would not significantly affect water resources. The nearest surface water is Upper Memorial Lake, which is approximately 3,200 feet east of the site, so there would be no direct affects on surface waters. Potential impacts associated with water resources relate to the potential for an increase in the rate and the volume of stormwater runoff, for an increase in amounts of sediment and pollutant runoff during the proposed facility construction and for increased polluted stormwater runoff from everyday operations of the PMEL facility.

To comply with state mandates, Alternative 1 would involve the construction of a stormwater treatment area to provide on-site treatment of stormwater. The proponent shall obtain all permitting requirements in accordance with Rules 62-25 and 62-621, as described above under the Proposed Action. Eglin AFB does not expect any adverse impacts to water quality from Alternative 1, given the attainment of aforementioned permits and the implementation of site specific management actions (detailed in Chapter 5).

No Action Alternative

No impacts to surface waters would occur under the No Action Alternative. Eglin AFB would not construct the PMEL facility; therefore, there would be no change in surface water quality. However, if the Eglin AFB does not construct the PMEL facility it will remain out of compliance, AFMETCAL could withhold Eglin's PMEL facility lab certification, and the facility could potentially be shut down causing delays and impacts to critical DoD missions. It would be necessary to ship all TMDE items to an alternate facility requiring 14-30 days shipping and turn time at the performing PMEL. This would also increase shipping costs to support the 22,000 items currently supported at the Eglin PMEL.

4.4.2 Wetlands

The proposed activities remain constant between the Proposed Action and Alternative 1; however, the locations of the proposed construction sites vary, as described below. The analysis includes combined floodplain data from Eglin and National Wetlands Inventory sources.

Proposed Action (Preferred Alternative)

The Proposed Action would not significantly impact wetlands. The Proposed Action site is located about 175 feet from wetlands associated with Weekly Bayou, and approximately 150 feet from wetlands associated with Weekly Pond (Figure 3-7). Urban/developed land and grass areas surround the site south of Eighth Street. The site supports Foxworth soils series, which consists of very deep, moderately well to somewhat excessively drained, rapid to very rapid permeable soils on broad uplands and side slopes (NRCS, 2005). These soil characteristics allow for rapid infiltration (absorption into the soil) of stormwater and reduce the potential for secondary impacts to nearby wetlands. No dredge and fill activities would take place under this alternative. Strict adherence and implementation of site-specific management actions would help eliminate or reduce any secondary impacts to the resources. Chapter 5 provides a comprehensive list of the BMPs necessary to reduce secondary impacts. Through the use of such BMPs, Eglin AFB does not expect any adverse impacts to wetlands under the Proposed Action.

Alternative 1

Alternative 1 would not significantly impact wetlands since there are none located adjacent to the Alternative 1 site.

No Action Alternative

No impacts to wetlands would occur under the No Action Alternative. Eglin AFB would not construct the PMEL facility; however, if Eglin AFB does not constrict the PMEL facility it will remain out of compliance, AFMETCAL could withhold Eglin's PMEL facility lab certification, and the facility could potentially be shut down causing delays and impacts to critical DoD missions. It would be necessary to ship all TMDE items to an alternate facility requiring 14-30 days shipping and turn time at the performing PMEL. This would also increase shipping costs to support the 22,000 items currently supported at the Eglin PMEL.

4.4.3 Floodplains

The proposed activities remain constant between the Proposed Action and Alternative 1; however, the locations of the proposed construction sites vary, as described below. The analysis includes combined floodplain data from Eglin and FEMA sources.

Proposed Action (Preferred Alternative)

The Proposed Action would not significantly impact floodplains. The proposed construction site is located 410 feet from the nearest floodplains as depicted in Figure 3-7. Under this alternative no modifications or alterations to floodplain areas would take place. Strict adherence and implementation of site-specific management actions (Chapter 5) would help eliminate or reduce any secondary impacts to the resources. Using such BMPs, Eglin AFB does not expect any significant impacts to any floodplain areas under the Proposed Action.

Alternative 1

Alternative 1 would not significantly impact floodplains since there are none located adjacent to the Alternative 1 site.

No Action Alternative

No impacts to floodplains would occur under the No Action Alternative. Eglin AFB would not construct the PMEL facility; however, if Eglin AFB does not construct the PMEL facility it will remain out of compliance, AFMETCAL could withhold Eglin's PMEL facility lab certification, and the facility could potentially be shut down causing delays and impacts to critical DoD missions. It would be necessary to ship all TMDE items to an alternate facility requiring 14-30 days shipping and turn time at the performing PMEL. This would also increase shipping costs to support the 22,000 items currently supported at the Eglin PMEL.

4.5 AIR QUALITY

This section discusses the potential impacts to air quality under the Proposed Action, Alternative Action and No Action Alternative. For the analysis of the various proposed actions, a threshold on an individual pollutant-by-pollutant basis was established.

In order to evaluate the air emissions and their impact to the overall ROI, the emissions associated with the project activities were compared to the total emissions on a pollutant-by-pollutant basis for the ROI's 2002 NEI data. Potential impacts to air quality are 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. 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 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 county (Okaloosa) the Proposed Action would potentially impact, which is a smaller area.

A DoD developed model, the Air Conformity Applicability Model (ACAM), which the U.S. Air Force uses for conformity evaluations, was utilized to provide a level of consistency with respect to emissions factors and calculations. Air emissions estimated using ACAM is compared to the established 10 percent criterion for Okaloosa County as represented in the USEPA 2002 NEI (USEPA, 2002). Emissions associated with construction activities are the main issues the proposed project generated and were the focus of the air analysis.

4.5.1 Proposed Action (Preferred Alternative)

The Proposed Action would not significantly impact air quality. Fugitive dust and CO constitute the majority of the emissions from 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 97 percent of the total PM_{10} emissions for the project are associated with grading activities during the early stages of the construction phase. $PM_{10,}$ and CO are the primary pollutants of concern, constituting 78 percent of overall project emissions. A majority of the CO emissions are associated with stationary equipment (e.g., saws and generators).

Air emissions were evaluated against each individual pollutant as represented in the 2002 NEI for Okaloosa County. If the project activities exceeded 10 percent or the annual emissions on a corresponding pollutant-by-pollutant basis, then air quality was impacted. Table 4-1 provides a tabular representation of the overall project emissions as compared to the 2002 NEI whereas Table 4-2 provides a breakdown of construction emissions by construction activity.

Table 4-1. Proposed Action Estimated Construction Emissions Compared to Okaloosa County

	Annual Project Emissions (Tons/Year)				
	CO	**NO_X**	**SO_2**	**VOC**	**PM_{10}**
Estimated Project Emissions	25	9	1	2	14
Okaloosa County	63,274	7,132	8,477	10,333	4,590
Percentage of County Emissions	***0.04%***	***0.12%***	***0.01%***	***0.02%***	***0.31%***

Table 4-2. Proposed Actions Estimated Construction Emissions by Activity

Source Category	Emissions (Tons/Year)				
	CO	**NO_X**	**SO_2**	**VOC**	**PM_{10}**
Grading Equipment	0.12	0.47	0.05	0.05	0.04
Grading Operations	0.00	0.00	0.00	0.00	13.66
Mobile Equipment	3.11	7.42	0.92	0.68	0.60
Residential Architectural Coatings	0.00	0.00	0.00	0.14	0.00
Stationary Equipment	21.10	0.54	0.03	0.79	0.02
Workers Trips	0.44	0.03	0.00	0.03	0.00
Totals (rounded)	***25***	***9***	***1***	***2***	***14***

Since, the 10 percent criterion was not exceeded it was assumed that it would not be exceeded on an annual basis. Therefore, Eglin AFB does not expect any adverse impacts to air quality with implementation of the Proposed Action.

4.5.2 Alternative 1

Alternative 1 would not significantly impact air quality. The Alternative Action is similar to the Proposed Action with the exception that the construction activities would occur on the south side of Nomad Way. This change in location does not affect total emissions and would not exceed the 10 percent criterion established as an impact threshold. Therefore, Eglin AFB does not expect any adverse impacts to air quality under Alternative 1.

4.5.3 No Action Alternative

No impacts to air quality would occur under the No Action Alternative. Eglin AFB would not construct the PMEL facility and therefore would not increase air emissions above the established

10 percent criterion. However, if Eglin AFB does not construct the PMEL facility it will remain out of compliance, AFMETCAL could withhold Eglin's PMEL facility lab certification, and the facility could potentially be shut down causing delays and impacts to critical DoD missions. It would be necessary to ship all TMDE items to an alternate facility requiring 14-30 days shipping and turn time at the performing PMEL. This would also increase shipping costs to support the 22,000 items currently supported at the Eglin PMEL.

4.6 CUMULATIVE IMPACTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

4.6.1 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. More potential exists for cumulative effects to occur on "shared resources" than on geographically separate resources for activities that overlap with or that are in close proximity to the Proposed Action. 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

Past Actions

Past actions located in the vicinity of the alternative site include the military dog training area and Base Tango. The military dog training area is approximately one acre in size and located on the south side of Nomad Way. Base Tango is a 471-acre training area located within the Eglin Main cantonment area adjacent to Highway 85 and Nomad Way. Security Forces is currently using the area for base defense training and field exercises.

Present Actions

Security Forces Complex

Eglin AFB plans to construct a new Security Forces Complex. The project would include the construction of a 45,673-square-foot facility, parking area, and supporting infrastructure off Nomad Way. Eglin AFB completed an Environmental Assessment in May 2005.

EOD Facility

Eglin AFB plans to relocate and construct a new EOD complex off Nomad Way. The 17,505-square-foot facility would also include utilities, parking and landscaping. Eglin AFB is currently conducting an Environmental Assessment for this project.

Reasonably Foreseeable Future Actions

Base Realignment and Closure (BRAC)

The DoD is now required by law to implement the 2005 Defense BRAC Commission's recommendations for reshaping the DoD's infrastructure and force structure. By statute, the DoD has until 15 September 2007 to begin closing and realigning the installations as called for in the BRAC report, with completion required by 15 September 2011. At Eglin AFB, the BRAC process and related actions will involve the following:

1. **Joint Strike Fighter (JSF) Integrated Training Center:** Consolidate all JSF initial joint training sites at Eglin AFB at an integrated training center—relocate from Luke AFB, Arizona; Marine Corps Air Station Miramar, California; Naval Air Station Oceana, Virginia; Sheppard AFB, Texas; and Naval Air Station Pensacola, Florida.
2. **Fort Bragg, North Carolina**: Relocate Army 7th Special Forces Group Airborne to Eglin AFB from Fort Bragg, North Carolina.
3. **Create an Air Integrated Weapons and Armaments Research, Development and Acquisition, Test and Evaluation Center**:
    a. Relocate Weapons and Armaments In-Service Engineering Research, Development and Acquisition, and Test and Evaluation from Hill AFB, Utah to Eglin AFB, Florida.
    b. Relocate Defense Threat Reduction Agency (DTRA) National Command Region Conventional Armament Research from Fort Belvoir, Virginia to Eglin AFB, Florida.

The above actions will be addressed in an Environmental Impact Statement that is scheduled to be completed in September 2007.

The BRAC decision to establish the JSF ITC at Eglin AFB would establish an initial joint training site for joint Air Force, Navy, and Marine Corps JSF training organizations to teach aviators and maintenance technicians how to properly operate and maintain this new weapon system. It would relocate 200 instructors to Eglin AFB. Potential impacts from this program due to changing mission and additional personnel may include; noise, air quality, munitions storage concerns, transportation, and utilities concerns, among others. A full analysis of these activities has not taken place so only a generalized analysis of cumulative impacts can occur; however, Eglin AFB has proposed the 33rd Fighter Wing area on Nomad Way as an alternative for integration of the JSF Program.

Depending on how many of these actions Eglin AFB implements, increasing traffic congestion may eventually become a concern in this area. Nomad Way is the main arterial road from Eglin Main base to the area south of the flight line which is proposed as the future location of several

already existing missions on base (EOD Facility, PMEL) and proposed new missions on base such as the JSF. Along with these additions, Eglin AFB expects the 33rd Fighter Wing to transfer out of Eglin and depart their currently occupied space in buildings along Nomad Way. However, Eglin has proposed this area for the integration of the JSF Program. Potential siting conflicts with these future projects could arise. Project siting will need to be coordinated with Eglin's Programming/Planning Office. Eglin AFB does not expect any cumulative impacts as a result of these actions but any future analysis involving other planned activities in the area should focus on potential changes in explosive transport routes, travel times, and emergency response capabilities.

Analysis of Cumulative Impacts

Environmental Restoration Program Sites

Eglin AFB has not identified any adverse impacts associated with ERP sites with respect to the implementation of the Proposed Action or Alternative 1. Environmental analyses of future projects would address any potential issues involving ERP sites. Therefore, Eglin AFB does not expect any adverse cumulative impacts.

Soils/Erosion

Past development in various locations of Eglin AFB have likely contributed to erosion and soil loss. However, the extent to which this has occurred is difficult to determine. Implementation of the Proposed Action would involve the utilization of erosion control measures to minimize the potential for erosion to adversely impact adjacent wetland areas and water quality. Eglin AFB has not identified, in available analyses of the foreseeable future actions, any adverse impacts on soils and erosion. As a result, implementation of the Proposed Action and/or foreseeable future actions would not likely contribute in any appreciable manner to erosion that has occurred in the past.

Water Resources

Increases in impervious surface from the Proposed Action or Alternative 1 would promote stormwater runoff, which has the potential to decrease water quality. Site design plans, safety plans, and permits for new developments would address potential issues involving water quality degradation and help to protect water resources on Eglin AFB.

Eglin AFB has planned several ongoing and future projects. Eglin AFB does not expect that the nature of this project would place additional, cumulative demands on water quality or quantity. Coordination between project planners and 96 CEG/CEVCE would help protect Eglin's vast water resources. It is recommended that project planners refer to the Integrated Natural Resources Management Plan and other studies conducted at Eglin when proposing future plans and proposals. Eglin AFB has not identified, in available analyses of the foreseeable future actions, any adverse impacts on water quality. The EOD or PMEL complex does not represent a change in amount of personnel or mission, however, the beddown of the JSF will bring additional personnel to Eglin. As a result of this beddown there may be additional demands on existing water supplies. As a result, Eglin AFB does not expect any cumulative impacts associated with water quality to occur.

Biological Resources

Localized loss of habitat or direct impacts to species can have a cumulative impact when viewed on a regional scale if that loss or impact is compounded by other events with the same end result. Foreseeable future projects could have the potential to cumulatively impact biological resources. However, Eglin AFB expects direct impacts to threatened or endangered species to be minimal provided applicable management actions and regulatory requirements are implemented. Eglin AFB does not anticipate any significant impacts to biological resources as a result of implementing the Proposed Action or Alternative; therefore, Eglin AFB does not expect any significant cumulative impacts to occur.

Air Quality

Emissions associated with the reasonably foreseeable activities would have a minimal impact to air quality. Eglin AFB 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. The impacts of the JSF beddown to air quality have not been fully analyzed as of this report, therefore effects of this action are an unknown factor. As a result, Eglin AFB does not expect any cumulative impacts to occur with implementation of the Proposed Action.

4.6.2 Irreversible and Irretrievable Commitment of Resources

The NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitments of resources that would be involved in the implementation of the Proposed Action or Alternative 1.

Natural Resources

Irreversible and irretrievable resource commitments relates 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 period. 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).

Development of the proposed site is not likely to result in an irreversible and/or irretrievable commitment of natural resources as this area is already partially developed. Development of the alternative site may result in an irreversible and/or irretrievable commitment of natural resources as Eglin AFB would alter the undeveloped nature of this area. However, although difficult, this area could be returned to its existing state if the proposed PMEL facility was removed and the area was allowed to revert to its present state. The 96 CEG/CEVSN 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 or Alternative 1.

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). Eglin AFB does not expect that the amount of these materials used would significantly decrease the availability of the resources. The proponent would use small amounts of nonrenewable resources; however, Eglin AFB does not consider these amounts significant and therefore do not expect any affects to 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 be conducted in such a manner as that the proponent (in this case the 46 MXS) does not commit resources towards a project prior to completion of the required environmental process. From this perspective, Eglin AFB has not made such a commitment.

No irretrievable or irreversible commitment of resources would occur under the Proposed Action, Alternative 1 or the No Action Alternative.

5. PLANS, PERMITS, AND MANAGEMENT ACTIONS

The following is a list of plans, permits, and management actions associated with the proposed project. The need for these requirements was identified by the environmental impact analysis process for this EA and was developed through cooperation between the proponent and interested parties involved in the proposed project. Therefore, Eglin AFB considers these requirements as part of the Proposed Action or Alternative 1 and they would implement them through initiation of either. 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 (96 CEG/CEVCE).
- Stormwater Pollution Prevention Plan (96 CEG/CEVCP).

PERMITS

- Stormwater facility design and construction permit (96 CEG/CEVCE).
- Generic permit for stormwater discharge from construction activities that disturb one or more acres of land (NPDES permit) (96 CEG/CEVCE).
- Base civil engineering work clearance request, AF Form 103, 19940801 (*EF-V3*) (96 CEG/CEVCE).
- Coastal zone consistency determination in accordance with Florida's CZMA (included in Appendix B).
- Revision to Title V Operation Permit Number 0910031-009-AV (96 CEG/CEVCE).

MANAGEMENT ACTIONS

Environmental Restoration Program Sites

- Coordinate with 96 CEG/CEVR prior to digging and other construction activities to avoid impacts from ERP sites.
- Conduct appropriate surveys of the construction site prior to any construction activities, to avoid impacts from ERP sites.
- Contact 96 CEG/CEVR if unusual soil coloration and/or odors are detected and if small arms debris are found in construction location.

Soil/Erosion

The proponent and its contractor shall coordinate with 96 CEG/CEVCE on the following:

- Install and maintain entrenched silt fencing and hay bales along the perimeter of the construction site prior to any ground-disturbing activities.
- Inspect silt fencing on a weekly basis and after rain events and replace the fencing, as needed.
- Construction activities would be sequenced to limit the soil exposure for long periods of time.
- Cleared areas would be vegetated or mulched when the final grade is established.
- Where applicable, reduce erosion using rough grade slopes or terrace slopes.
- Identify areas of existing vegetation that the proponent would not disturb by construction activities.

Water Resources

The implementation of the following management actions can effectively eliminate or reduce secondary impacts to water resources. The proponent would ensure that all BMPs are inspected and maintained to ensure effectiveness. The proponent and its contractor shall coordinate with 96 CEG/CEVCE for the following:

- Final stormwater design and permitting.
- Any potential discharges into Weekly Bayou from construction activities.
- Final backflow preventer design, if applicable.

In addition:

- Install and maintain entrenched silt fencing and hay bales along the perimeter of the construction site prior to any ground-disturbing activities. Inspect silt fencing on a weekly basis and after rain events and replace, as needed.
- Permits and site plan designs would include site-specific management requirements for erosion and sediment control.
- Chemicals, cements, solvents, paints, or other potential water pollutants would be stored in locations where they cannot cause runoff pollution.
- Designate "staging areas" for use of construction equipment (i.e., cement mixers) designed to contain any chemicals, solvents, or toxins from entering surface waters.
- Construction site entrance would be stabilized using Florida Department of Transportation approved stone and geotextile (filter fabric).

Air Quality

- Comply with Eglin Title V permit and all applicable requirements (96 CEG/CEVCE).
- During ground-disturbing and construction activities, the proponent must take reasonable precautions to control dust emissions and unconfined particulate matter in accordance with Chapter 62-296 FAC (Rule 62-296).. 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 within work areas to prevent particulates from becoming airborne.
  - Landscaping or planting of vegetation.
- The Air Quality Program Manager from 96 CEG/CEVCE must be notified about any new air emissions sources associated with the proposed facility such as, but not limited to, boilers (size, fuel type, etc.) and generators (horsepower, fuel type, etc.).

Cultural Resources

- Although there are no known eligible resources within the proposed project footprint, immediately report inadvertent discovery of cultural resources to 96 CEG/CEVH.

Safety

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

- U.S. Department of Labor OSHA regulations including, but not limited to Construction Title 29, Part 1910, Section 12, CFR.

Socioeconomics

- In accordance with EO 13101, use Affirmative Procurement (buying products containing recycled materials) if economical and practical (96 CEG/CEVCE).

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6. LIST OF PREPARERS

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Name/Title	Project Role	Qualifications
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Jamie McKee Environmental Scientist B.S. Marine Biology	Technical Review	20 years environmental science, 11 years NEPA
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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 U.S. Environmental Protection Agency (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 CAA 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 Florida Department of Environmental Protection (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 (1,300 $\mu g/m^3$). Table A-1 presents federal and state of Florida ambient air quality standards (FAC, 1996).

Based on measured ambient air pollutant concentrations, the USEPA designates areas of the United States as having air quality better than (attainment) or worse than (nonattainment) the NAAQS and unclassifiable. Those that cannot be classified, based on 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.

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: U.S. Air Force, 2003.

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 (degrees Celsius) and a reference pressure of 760 millimeters (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.

Each state is required to develop a state implementation plan (SIP) that sets forth how CAA provisions would 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 would 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.

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, 1990). (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.

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-mile radius and all Class I areas within a 62-mile 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-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 (Volatile Organic Compounds (VOC))	40
CO	100

Source: Title 40 CFR Part 51.

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, 2004). 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 an NAAQS. However, there has not been a violation (occurrence of more exceedances of the standard than is allowed within a specified period) of an ambient standard (FDEP, 2004). 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 2002 National Emissions Inventory (NEI) data (USEPA, 2002). 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 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 (U.S. Air Force, 2003). 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 of approximately 5 acres would be graded, which was necessary for the overall construction footprint. This would ensure that a conservative approach was used to calculate emissions. Based on these assumptions, the construction emissions were calculated using the 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:

VOC = .22 (lbs/acre/day) * Acres * DPY_1 / 2000 lbs/ton

NO_x = 2.07 (lbs/acre/day) * Acres * DPY_1 / 2000 lbs/ton

PM_{10} = .17 (lbs/acre/day) * Acres * DPY_1 / 2000 lbs/ton

CO = .55 (lbs/acre/day) * Acres * DPY_1 / 2000 lbs/ton

SO_2 = .21 (lbs/acre/day) * Acres * DPY_1 / 2000 lbs/ton

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.

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 (U.S. Air Force, 2003). These calculations include grading and truck hauling emissions.

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

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.

Calculations used in the environmental assessment assumed that there were no controls used to reduce fugitive emissions. In addition, it was assumed that construction activities would occur within 365 days and grading activities would represent 25 percent of that total. Therefore, 90 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 (U.S. Air Force, 2003).

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 lbs/ton.

Acres Paved = total number of acres to be paved at the site during the year.

It was assumed that a minimum of 15 percent of the overall area to be used for the project 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 (U.S. Air Force, 2003).

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/1000 ft^2/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

E = emissions

To convert from pounds per day to tons per year:

VOC (tons/yr) = VOC_E * DPY_{II}/2000 lbs/ton

NO_x (tons/yr) = NOx_E * DPY_{II}/2000 lbs/ton

PM_{10} (tons/yr) = $PM10_E$ * DPY_{II}/2000 lbs/ton

CO (tons/yr) = CO_E * DPY_{II}/2000 lbs/ton

Where:

Area of Construction = total square footage to be constructed in the given year of construction.

DPY_{II} = number of days per year during Phase II construction activities.

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 lbs/ton

$NOx = .137 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

$PM_{10} = .004 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

$CO = 5.29 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

$SO_2 = .007 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

Where:

GRSQF = Gross square feet of the construction area impacted during phase II.

DPY_{II} = number of days per year during Phase II construction.

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.

$VOC = .17 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

$NOx = 1.86 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

$PM_{10} = .15 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

$CO = .78 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

$SO_2 = .23 * (GRSQFT) * DPY_{II}/ 2000$ lbs/ton

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.

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 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 1999 and 2002 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 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 would 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. USEPAs Clean Air Market program supplies emissions data for electric power plants.

References:

40 CFR 51, Code of Federal Regulations, Title 40, Part 51, www.access.gpo.gov/nara/cfr/cfr-retrieve.html#page1

Florida Administrative Code (FAC), 1996. Florida Administrative Code (FAC) 62-204.240 (1)(a-b) Ambient Air Quality Standards; Florida Department of Environmental Protection. March 1996.

Florida Department of Environmental Protection, 2004. Florida's Environmental Protection, State Air Monitoring Reports, http://www.dep.state.fl.us/Air/flaqs/county/santarosa.htm; Ad Hoc Air Monitoring Report 2000 – 2004.

U.S. Air Force, 2003, U.S. Air Force Air Conformity Applicability Model Technical Documentation, Air Force Center for Environmental Excellence, May.

U. S. Environmental Protection Agency, 1990, *Draft New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Permitting,* Office of Air Quality Planning and Standards, October.

————, 2002, *2002 National Emissions Inventory Database*; Office of Air Quality Planning and Standards, Technology Transfer Network, Clearing House for Inventories and Emissions Factors, http://www.epa.gov/ttn/chief/net/2002inventory.html February.

APPENDIX B

COASTAL ZONE MANAGEMENT ACT

FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA) NEGATIVE DETERMINATION

Introduction

This document provides the State of Florida with the U.S. Air Force's Negative Determination under Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456, and 15 C.F.R. Part 930.35. The information in this Negative Determination is provided pursuant to 15 C.F.R. Section 930.35.

This negative determination addresses the Proposed Action in the Environmental Assessment to Construct a Precision Measurement Equipment Laboratory Facility on Eglin AFB, Florida.

Proposed Federal agency action:

The Proposed Action is for the construction of a new Precision Measurement Equipment Laboratory (PMEL) Facility at Eglin AFB, Florida (Figure 1). The current PMEL facility is inadequately sized to support the necessary PMEL inventory and does not meet the requirements set forth in the Air Force Manual entitled *Criteria for Air Force PMEL Design and Construction*. Furthermore, the current facility is improperly located adjacent to the flight line and is deficient due to the vibrations experienced during aircraft operations. The shortage of space and inappropriate siting of the current facility adversely impacts the mission and creates a safety hazard.

The Proposed Action is to relocate the facility off Eighth Street on Eglin's Main Base (Figure 2). The approximately 1.5-acre PMEL site will consist of a 28,330 square-foot facility, a parking lot, and associated infrastructure. Eglin will construct the facility with a reinforced concrete foundation, split ribbed concrete masonry base, metal ribbed wall panels, steel frame, and a standing seam metal roof. Because of the increase in impervious surfaces, the site will also feature a stormwater retention pond or other discharge system.

Federal Review

After review of the Florida Coastal Management Program and its enforceable policies, the U.S. Air Force has made a determination that this activity is one that will not have an effect on the state of Florida coastal zone or its resources.

Figure 1. Location of Proposed Action on Eglin AFB

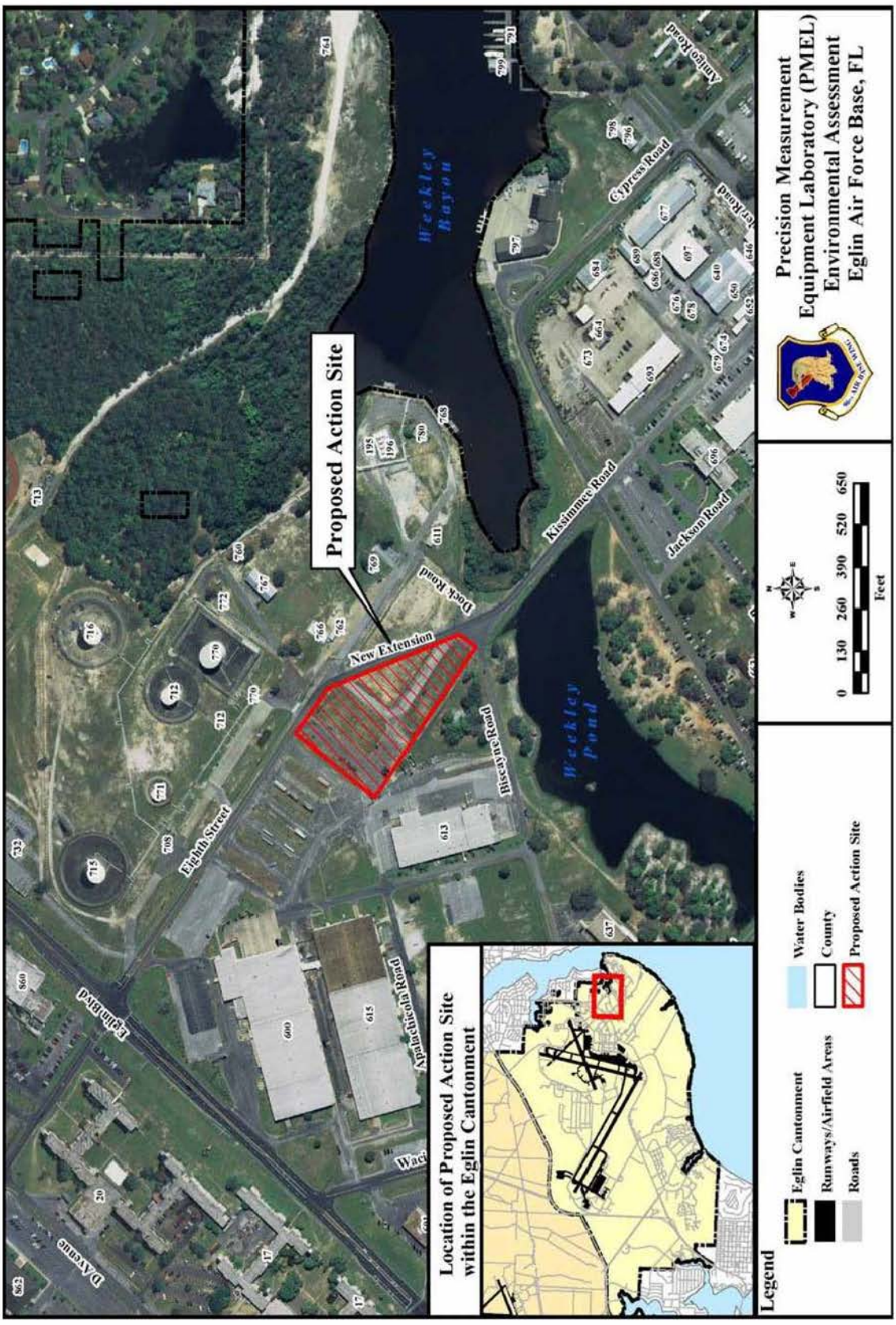

Figure 2. Proposed Location of the PMEL Facility on Eglin, AFB

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 DEP 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. Emergency response and evacuation procedures would not be impacted by the proposed action.	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*	All activities would occur on federal property, therefore there would be no impact to state or public lands.	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*	State parks, recreational areas and aquatic preserves would not be affected by the proposed action.	Addresses administration and management of state parks and preserves (Chapter 258).
Chapter 259 *Land Acquisition for Conservation or Recreation*	Tourism and outdoor recreation would not be affected.	Authorizes acquisition of environmentally endangered lands and outdoor recreation lands (Chapter 259).
Chapter 260 *Recreational Trails System*	Opportunities for recreation on state lands would not be affected.	Authorizes acquisition of land to create a recreational trails system and to facilitate management of the system (Chapter 260).
Chapter 375 *Multipurpose Outdoor Recreation; Land Acquisition, Management, and Conservation*	Opportunities for recreation on state lands would not be affected.	Develops comprehensive multipurpose outdoor 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*	The proposed action would not have an impact on historic and/or cultural resources.	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 would not have an effect on future business opportunities on state lands, or the promotion of tourism in the region.	Provides the framework for promoting and developing the general business, trade, and tourism components of the state economy.
Chapter 334 *Transportation Administration*	The proposed project 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 project 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 have an effect on saltwater fisheries.	Addresses management and protection of the state's saltwater fisheries.
Chapter 372 *Wildlife*	The proposed action would not have an effect on wildlife	Addresses the management of the wildlife resources of the state.
Chapter 373 *Water Resources*	The proposed action will likely increase the potential for impact from the increased rate and volume of stormwater runoff, due to an increase in impervious surface area. In order to limit the effects the proposed action would have on water resources, best management practices will be used to control erosion and stormwater runoff. Applicable permitting requirements will be satisfied in accordance with 62-25 Florida Administrative Code (FAC) and National Pollutant Discharge Elimination System (NPDES). Eglin AFB would submit a notice of intent 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). The proposed action would include construction of a stormwater retention pond or other stormwater discharge system in accordance with FAC 62-25.	Addresses the state's policy concerning water resources.
Chapter 376 *Pollutant Discharge Prevention and Removal*	The proposed action will not have an impact to the transfer, storage, or transportation of	Regulates transfer, storage, and transportation of pollutants, and cleanup of

	pollutants.	pollutant discharges.
Chapter 377 *Energy Resources*	Energy resource production, including oil and gas, and the transportation of oil and gas, would not be affected by the proposed action.	Addresses regulation, planning, and development of oil and gas resources of the state.
Chapter 380 *Land and Water Management*	The proposed action would 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. No changes to coastal infrastructure such as capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing or construction would occur.	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 or treatment 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 have no impact on water quality, air quality, pollution control, solid waste management, or other environmental control efforts.	Establishes public policy concerning environmental control in the state.

Penrose Robert M CTR USAF 96 CEG/CEVSN

From: Milligan, Lauren [Lauren.Milligan@dep.state.fl.us]
Sent: Wednesday, August 30, 2006 4:10 PM
To: Penrose Robert M CTR USAF 96 CEG/CEVSN
Cc: Miller Bob CIV USAF 96 CEG/CEVSNW
Subject: RE: Department of the Air Force - Negative Determination - Construction of a PMEL Facility on Eglin Air Force Base, Okaloosa County, Florida

Mr. Robert M. Penrose
Eglin AFB - 96 CEG/CEVSN
107 Highway 85 North
Niceville, FL 32578

RE: Department of the Air Force - Negative Determination - Construction of a New Precision Measurement Equipment Laboratory (PMEL) Facility on Eglin Air Force Base - Okaloosa County, Florida.
SAI # FL200608302765

Dear Bob:

The Florida State Clearinghouse is in receipt of your notice regarding the U.S. Air Force's proposal to construct a new PMEL facility, parking lot and associated infrastructure on Eglin Air Force Base. Department staff does not object to the Air Force's negative determination and agrees that the proposed action meets the requirements of 15 CFR 930.35.

Staff notes the Air Force's intention to comply with the state's stormwater management requirements in Rules 62-25 and 62-621, Florida Administrative Code.

Thank you for the opportunity to review this proposal. If you have any questions or need further assistance, please contact me at (850) 245-2170.

Sincerely,

Lauren P. Milligan, Environmental Consultant
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Blvd, Mail Station 47
Tallahassee, Florida 32399-3000
ph. (850) 245-2170
fax (850) 245-2190

From: Penrose Robert M CTR USAF 96 CEG/CEVSN [mailto:robert.penrose.ctr@eglin.af.mil]
Sent: Tuesday, August 29, 2006 9:19 AM
To: Milligan, Lauren
Cc: Miller Bob CIV USAF 96 CEG/CEVSNW
Subject: Department of the Air Force - Negative Determination - Construction of a PMEL Facility on Eglin Air Force Base, Okaloosa County, Florida

8/31/2006

Ms. Lauren P. Milligan, Environmental Consultant
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, Mail Station 47
Tallahassee, FL 32399-4700

Re: Department of the Air Force – Negative Determination – Construction of a PMEL Facility on Eglin Air Force Base, Okaloosa County, Florida

Dear Lauren:

Attached is the US Air Force's proposal to provide FDEP with details for the Construction of a Precision Measurement Equipment Laboratory (PMEL) Facility on Eglin's Main Base. We are submitting this CZMA Negative Determination under 15 C.F.R. 930.35. Please consider a five-day review period on this project and a response via e-mail.

If you require additional information or have any questions or concerns, I can be reached at (850) 883-1154.

Thank you,

Bob Penrose

Environmental Scientist, SAIC
Natural Resources Section, Eglin AFB
Office: 850-883-1154
Mobile: 888-488-5381
Fax: 850-882-5321
penrose@eglin.af.mil

8/31/2006

APPENDIX C

HAZARDOUS MATERIALS SUPPLEMENTAL INFORMATION

Summary Material Usage Report by Zone: 065A

Date Range (Friday, July 01, 2005 to Friday, June 30, 2006)

Process ID: ICO11531714--1128 - GENERAL CHEMICAL USE							
NSN	**Part Number and Name**		**MSDS**	**KG Out**	**KG Used**	**LBS USed**	**Gals Used**
3439002203827	A	LIQUID FLUX 4-OA	192555	1.801	0	0	0.00
3439007664711	A	SN63 WRP2 TIN/LEAD SOLDER	119262	4.21	0.085	0.187425	0.00
3439007664711	A	SOLDER ALLOYS CONTAINING LEAD	192308	4.65	0.075	0.165375	0.00
6505001336000	A1	AMOCO WHITE MINERAL OIL NO. 18-USP	191798	21.5	10.98	24.2109	3.20
6810002645906	A	200 PROOF ETHYL ALCOHOL	191672	12.142	6.332	13.96206	2.12
6810002645906	A2	PURE 200 PROOF ETHANOL,USP EXCIPIENT GRADE #017636	195864	2.594	0.57	1.25685	0.19
6810005964823	A	FLUORESCEIN GREEN CONCENTRATE#71-440132-00	192035	0.25	0.01	0.02205	0.00
6810008227637	A	ISOPROPYL ALCOHOL	187220	10.963	3.139	6.921495	1.05
6810008227637	A1	ISOPROPYL ALCOHOL	194562	4.312	0.829	1.827945	0.28
681000N034257	A2	MONOPLEX DOS DI-2-ETHYLHEXYL SEBACATE 3143	194207	16.548	1.67	3.68235	0.49
6830PH-NITROGEN	A	NITROGEN #44	187032	493473.798	74059.772	163301.79726	20,294.68
6830PHOLOX-4351	A	NITROGEN	189357	198.468	198.468	437.62194	54.39
6850013331841	B1	FREEZ-IT ES1050, ES1250,ES1550,ES1050C,1250C,ES1550C	192916	11.214	0.905	1.995525	0.20
6850014181704	A1	00916, ELECTRO 140 CONTACT CLEANER	181118	11.98	0.29	0.63945	0.10
7930PUNDCTR	A	UNDER-COATER	192549	39.326	3.664	8.07912	0.97
8030000812328	A	NUTS N BOLTS 240	194928	0.649	0.001	0.002205	0.00
8030009381947	A	SO SURE CORROSION PREVENTIVE COMPOUND (AEROSOL)	187857	5.035	0.48	1.0584	0.14
8030010668156	A1	F-900 TORQUE SEAL	193343	0.345	0.038	0.08379	0.01
8040001178510	A	5145(TM) RTV ADHESIVE SEALANT THIXOTROPIC NON CORROSIVE	194555	3.025	0.01	0.02205	0.00
8040P150724	A	#150724 SUPERTAK HIGH PERFORMANCE AEROSOL ADHESIVE	193596	3.445	0.175	0.385875	0.07
9150002732397	A	ROYCO 363 B	175067	30.401	3.894	8.58627	1.17
9150003787435	A1	704 DIFFUSION PUMP FLUID	191825	5.755	0.065	0.143325	0.02
9150009652408	A	GREASE	11147	1.69	0.025	0.055125	0.01
9150009652408	A1	DOW CORNING HIGH VACUUM GREASE	6459	1.42	0.01	0.02205	0.00
9150PAD220	A	PNEUMATIC LUBRICATING OIL SAE10, AD220	189860	6.494	0.016	0.03528	0.00
9150PDMDLAPCP	A	DIAMOND LAPPING COMPOUND	195316	0.184	0.006	0.01323	0.00
9150PSYL800	A	SLYTHERM 800 STABALIZED HEAT TRANSFER FLUIS#39260	191717	13.98	0	0	0.00

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