US 98 (SR 30) at the Entrance to Hurlburt Field

Environmental Assessment

Prepared for the
Department of the Air Force
and
Okaloosa County, Florida

In Cooperation with
Hurlburt Field, Florida
and
Florida Department of Transportation, District 3

September 2010

Prepared by:

HDR

ONE COMPANY | *Many Solutions*

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FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT FOR
US 98 AT THE ENTRANCE TO HURLBURT FIELD

Introduction

Pursuant to the Council on Environmental Quality (CEQ) regulations for implementing procedural provisions of the *National Environmental Policy Act* (NEPA) (40 Code of Federal Regulations [CFR] 1500-1508), and the U.S. Air Force's Environmental Impact Analysis Process (EIAP) as effectuated by 32 CFR Part 989, Okaloosa County with support from the Air Force, Hurlburt Field, and the Florida Department of Transportation (FDOT) has conducted an Environmental Assessment (EA) to identify and assess probable environmental consequences for the construction and operation of a proposed new interchange at U.S. Highway 98/State Road (SR) 30 and Cody Avenue intersection located at the main gate entrance to Hurlburt Field in Okaloosa County, Florida. The EA is incorporated by reference into this finding.

Background

This project is the continuation of a Project Development and Environmental (PD&E) study that was conducted in 2003 by HDR Engineering, Inc., under contract with Okaloosa County, Florida, to examine various interchange alternatives at the US 98/SR 30 access to Hurlburt Field, Florida. The PD&E study was conducted in cooperation with the FDOT and Hurlburt Field. An Enterprise Florida, Inc. (EFI) Florida Infrastructure Grant funded the PD&E study.

Purpose and Need for the Proposed Action (EA Section 1.4, pages 1-6 to 1-7):

The purpose for reconstructing and reconfiguring the existing intersection of US 98 and Cody Avenue, which leads to the main gate at Hurlburt Field, is to provide increased capacity to improve the operation of the interchange/intersection by providing an adequate traffic level of service in the future (reduce traffic delays and congestion) and improve access to Hurlburt Field by reducing response times for personnel living off base, which will subsequently enhance safety. The need for the intersection improvements at US 98 and Cody Avenue has previously been defined in other project studies completed by Okaloosa County and FDOT, with extensive coordination with Hurlburt Field to include the evaluation of various alternatives. The needs for these improvements have been recognized for many years and the current roadway is congested even without emergency situations. Needs identified in the EA include, but are not limited to, reducing delays to motorists at the intersection, reducing the likelihood of base-bound motorists blocking the through lanes on US 98, and extending the distance that personnel can live from Hurlburt Field by reducing the travel times and the response times for base personnel during mission activities and potential security situations.

Proposed Action and Alternative Actions (EA Section 2.2 - 2.5, pages 2-4 to 2-12):

For this EA, eight build alternatives as well as two alternatives that would not involve construction (namely, Transportation System Management [TSM] and the No Build alternative) were reviewed against the defined Purpose and Need and the potential impacts were compared to each other. Five of the ten alternatives (identified as Alternatives A through D and the No Build) were carried forward for further analysis. The other five alternatives did not meet the defined Purpose and Need and were eliminated from further analysis. In summary, the four actions and one no action alternative brought forward in this assessment include the following:

- Alternative A: Single Point Urban Interchange with US 98 over Cody Avenue
- Alternative B: Single Point Urban Interchange with Cody Avenue over US 98
- Alternative C: Tight Urban Diamond Interchange with US 98 over Cody Avenue
- Alternative D: Tight Urban Diamond Interchange with Cody Avenue over US 98
- No Build Alternative

Description of Proposed Action (Alternative A) (EA Section 2.5.1, pages 2-15 to 2-24):

Alternative A: Single Point Urban Interchange with US 98 over Cody Avenue has been identified as the Proposed Action and would address the Purpose and Need of the project in the following areas:

- Maximize traffic operational efficiency or the level of service (LOS)
- Improve safety and reduce traffic hazards
- Minimize the loss of usable property
- Avoid direct and indirect environmental impacts to the maximum extent practicable

The Okaloosa-Walton Transportation Planning Organization (TPO) adopted its 2025 Long Range Transportation Plan on June 21, 2001. On August 22, 2002, the TPO voted to amend the 2025 Cost Feasible Plan to include an interchange at the main gate to Hurlburt Field (Cody Avenue) and US 98. As of 2010, this project is one of the top priorities for Okaloosa County, the FDOT, and Hurlburt Field as well as the surrounding community. Therefore, this project would be consistent with Okaloosa County's local transportation plan by accommodating traffic circulation and access needs to Hurlburt Field.

Other benefits of the Single Point Urban Interchange include providing larger turning radii for vehicles like trucks and buses, moving more traffic through a smaller amount of space, and building a new interchange without the need for significant additional right of way (ROW).

Construction of the Proposed Action would require approximately 4.9 acres (2.2 acres on the north side of US 98 and 2.7 acres on the south side of US 98) of federally owned property at Hurlburt Field. Additionally, a temporary construction easement would be required on 2.4 acres (1.2 acres on the north side of US 98 and 1.2 acres on the south side of US 98) of federally owned property at Hurlburt Field.

The Proposed Action would have the least amount of impacts to federally owned property at Hurlburt Field and would also have the least amount of impacts to wetlands. Preliminary estimates of the total construction costs for the Proposed Action are $13,025,923.

Summary of Environmental Consequences

Air Quality (EA Section 4.1.1, pages 4-2 to 4-3): Construction of the proposed interchange would result in temporary, localized emissions associated with vehicle and equipment exhaust as well as dust and debris from grading and paving. The Proposed Action will actually have a positive impact on air quality relative to the No Build alternative, as it will contribute to the general improvement of air quality in the proposed project area since US 98 through traffic would not have to stop at the intersection.

Geological Resources (EA Section 4.1.2, page 4-4): The topography along the Proposed Action corridor would be affected by removing some elevation in some areas and filling in lower areas.

The topography would be insignificantly affected during construction and not impacted after construction. No seismic impacts would occur as a result of constructing and operating the Proposed Action. Although the potential for soil erosion during construction is low, wind erosion during construction could be substantial during dry periods.

Water Resources (EA Section 4.1.3, pages 4-5 to 4-6): There would be minor impacts to surface waters from sedimentation originating during construction. There would be an increase in the amount of stormwater runoff due to the increase in the amount of impervious surfaces due to the Proposed Action. As a result, there would be an increase in runoff to the ditches and the stormwater management ponds. The Proposed Action will extend parallel and adjacent to the floodplain boundary that occurs along Hume Drive. The additional ROW required for the real estate easement will traverse 0.01 acre of 100-year floodplain. However, no encroachment from construction is expected. One of the existing stormwater ponds is located within FEMA Flood Zone AE (100-year).

Biological Resources (EA Section 4.1.4, pages 4-7 to 4-8): Impacts to biological resources from the Proposed Action would result primarily from tree clearing and grading activities associated with the construction of the interchange. The effect of the Proposed Action on vegetation in the immediate vicinity of the proposed project area is considered adverse, but not significant, since it would not reduce plant populations below self-sustaining levels. Any impacts to the local wildlife species and habitats would be minimal under the Proposed Action as existing development and surrounding land use in the proposed project area has fragmented the natural corridors and the associated wildlife movement potential. Because of this disturbance, typically only wildlife tolerant of human activity would remain in the proposed project area. Impacts to threatened or endangered species, species proposed to be eligible for such classifications, or critical habitats are not anticipated as a result of the Proposed Action.

Wetlands (EA Section 4.1.5, pages 4-9 to 4-10): Under the Proposed Action, no wetlands in the proposed project area would be affected. Since the proposed alignment is located along the existing corridor, the stability and quality of these wetland systems would not be significantly impacted and, based on current best management practices and the requirement of stormwater management structures, the potential contribution of secondary and/or cumulative impacts to the wetland systems should have no short- or long-term adverse effects.

Noise (EA Section 4.1.6, pages 4-11 to 4-12): The Proposed Action will not cause substantial noise level increases at any of the identified noise sensitive sites.

Cultural Resources (EA Section 4.1.7, page 4-13): No archeological sites or standing structures potentially eligible for inclusion in the National Register of Historic Places were found during a Phase I Cultural Resources survey. Because of the proposed project location and/or nature, it is unlikely that any such sites would be present.

Hazardous Materials and Wastes Management (EA Section 4.2, pages 4-14 to 4-15): Construction of the Proposed Action will involve the use of hazardous materials, and generation of hazardous and solid wastes, but impacts will be insignificant. All handling, storing, transporting, and disposing of hazardous materials will be in accordance with applicable federal and state regulations.

Socioeconomic and Environmental Justice (EA Sections 4.3.1 and 4.3.2, pages 4-15 to 4-16): There will be short-term beneficial impacts to local employment, income, and the construction economy, and no impacts to population. There will be no environmental justice impacts as a result of the Proposed Action.

Land Use and Aesthetics (EA Section 4.3.3, page 4-17): The majority of the Proposed Action lies within the existing US 98 ROW and a majority of the surrounding area is federally owned property at Hurlburt Field. The Proposed Action would be considered insignificant given the amount of lands already included in the existing right-of-way.

Transportation (EA Section 4.3.4, pages 4-18 to 4-19): Insignificant short-term impacts to traffic will occur during construction activities. The completed Proposed Action would provide a beneficial traffic impact to the area at the US 98 and Cody Road interchange by alleviating the current congestion at the intersection improving safety, and allowing Hurlburt Field personnel easier access to the installation.

Utilities (EA Section 4.3.5, page 4-20): There would be very limited interruptions in services as a result of the Proposed Action. Services in close proximity to residential or commercial areas would be temporarily impacted by scheduled interruptions in service as a result of construction activities. These actions will be coordinated to have very limited interruptions in service to the public or operations on Hurlburt Field.

Cumulative Impacts (EA Sections 4.6 & 4.7, pages 4-21 to 4-25): No significant cumulative impacts are projected to occur based on the Proposed Action and other reasonably foreseeable projects in the project area. The Proposed Action would improve the transportation efficiency and capacity in the area, and benefit the overall transportation network. Future actions in the area include the Hurlburt Visitor Control Center and a potential new corridor through Eglin AFB from SR 87 in Santa Rosa County to US 331 in Walton County. These projects along with the other past, present, and reasonably foreseeable future actions discussed in EA Section 2.6 have been or will be assessed under separate NEPA documents.

Plans, Permits, and Management Actions (EA Section 5.0, pages 5-1 to 5-3): The proponent has committed to obtaining and complying with the plans, permits, and management actions associated with the Proposed Action.

Consultation, Coordination, and Public Involvement (EA Section 6.0, pages 6-1 to 6-2 and Appendices A & B):

Copies of the Draft EA and Draft FONSI were advertised in the *Northwest Florida Daily News* on Friday, 16 July 2010 and made available for review on the web at *http://www2.hurlburt.af.mil/library/index.asp* under the "Hurlburt Field Environmental Documents" link from Friday, 16 July 2010 through Monday, 30 August 2010. Each of the public libraries in Fort Walton Beach located at 185 SE Miracle Strip Parkway and Mary Esther located at 100 Hollywood Boulevard, had computers available to the general public and librarians who can provide assistance linking to the document.

No public comments on the Draft EA and FONSI were received over the 45-day comment period.

Results from the 2003 PD&E Study Public Involvement Program:

Presentations were made regarding the proposed project to the following entities:

- Okaloosa Board of County Commissioners on November 19, 2002
- Okaloosa-Walton Transportation Planning Organization (TPO) Citizens Advisory Committee on November 21, 2002
- TPO Technical Coordinating Committee on November 21, 2002

- TPO Board on November 21, 2002
- Representatives of HDR Engineering, Inc. gave an informational presentation to the Mayor and City Council of the City of Mary Esther on December 30, 2002.

A public information meeting ("workshop") was held at the Soundside Club at Hurlburt Field on January 23, 2003, from 5:30 to 7:00 PM. It was advertised in advance in both the *Northwest Florida Daily News* and the *Destin Log*. In addition, all property owners located within or near the proposed project area were notified by mail in advance of the meeting.

A presentation was also given to the Eglin Encroachment Committee on February 13, 2003.

On December 18, 2003, a Public Hearing was held from 6:00 PM to 7:00 PM at the Florosa Elementary School. The Public Hearing was advertised in advance in the *Northwest Florida Daily News*. In addition, all property owners located within or near the proposed project area were notified by mail in advance of the meeting.

An advertisement was published in the *Northwest Florida Daily News* on October 15, 2003, announcing the availability of the Draft EA for review and comment. A copy of the Draft EA was placed at the Mary Esther Library from October 15, 2003 through November 15, 2003. No written comments were received by mail or e-mail.

Copies of the Draft EA were also provided to the following agencies: Florida Department of Transportation, Florida State Clearinghouse; U.S. Army Corps of Engineers, Jacksonville District; U.S. Department of the Interior, Fish and Wildlife Service, Panama City, Florida; and the U.S EPA, Region 4, Water Management Division. Copies of correspondence received from the Florida State Clearinghouse and the Fish and Wildlife Service are included in Appendix B.

Finding of No Significant Impact

In accordance with the Council of Environmental Quality regulations implementing the National Environmental Policy Act of 1969, as amended, and the Environmental Impact Analysis Process, 32 CFR 989, an assessment of the identified environmental effects has been prepared for the proposed new interchange at the US 98 and Cody Avenue intersection located at the main gate entrance to Hurlburt Field in Okaloosa County, Florida. The Air Force concludes that the Proposed Action, as determined by Okaloosa County, will have no significant impacts on the quality of the human environment; thus, an Environmental Impact Statement is not warranted.

CLAUDE V. FULLER, JR., Colonel, USAF — Date
Director, Installations and Mission Support

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ACRONYMS AND ABBREVIATIONS

AADT	Annual Average Daily Traffic
AFB	Air Force Base
AFI	Air Force Instruction
AFSOC	Air Force Special Operations Command
BMP	Best Management Practice
CATEX	Categorical Exclusion
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
DoD	Department of Defense
EA	Environmental Assessment
EFI	Enterprise Florida, Inc.
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDHR	Florida Department of Historical Resources
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
F.S.	Florida Statutes
FWC	Florida Fish and Wildlife Conservation Commission
LCDA	Location & Conceptual Design Acceptance
LOS	Level of Service
MPH	Miles per Hour
NEPA	National Environmental Policy Act
NFTCA	Northwest Florida Transportation Corridor Authority
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
NWFWMD	Northwest Florida Water Management District
PD&E	Project Development & Environment
ROW	Right-of-Way
SHPO	State Historic Preservation Officer
SOW	Special Operations Wing
SPUI	Single Point Urban Interchange
SR	State Road
TMS	Transportation Management System
TUDI	Tight Urban Diamond Interchange
UMAM	Uniform Mitigation Assessment Method
USAF	United States Air Force
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
VCC	Visitor Control Center
VPD	Vehicles per Day

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1.0 PURPOSE AND NEED

1.1 INTRODUCTION

This Environmental Assessment (EA) examines the potential environmental impacts resulting from the construction of a proposed new interchange at U.S. Highway (US) 98/State Road (SR) 30 and Cody Avenue intersection located at the main gate entrance to Hurlburt Field in Okaloosa County, Florida (see **Figures 1.3-1 and 1.3-2**). US 98 is the major east-west arterial along the Gulf of Mexico and connects the Fort Walton Beach area with Panama City to the east and Pensacola to the west. The highway is a four-lane principal arterial from Pensacola to Panama City. This EA defines the Purpose and Need for the project, describes the Proposed Action and alternatives, identifies the preferred alignment for the interchange, and evaluates the potential environmental impacts resulting from the Proposed Action and alternatives (to include the No Action (No Build) alternative), as well as any applicable management actions, mitigation measures, and best management practices (BMPs) that would avoid or minimize environmental impacts.

This EA has been prepared in accordance with the requirements of the *National Environmental Policy Act* (NEPA) of 1969 (42 United States Code [U.S.C.] 4321 et seq.), the Council on Environmental Quality (CEQ) regulations of 1978 (40 Code of Federal Regulations [CFR] 1500-1508), and the Air Force's Environmental Impact Analysis Process (EIAP) (32 CFR 989). The environmental analysis contained within the EA will determine if there are significant impacts requiring preparation of an Environmental Impact Statement (EIS). If impacts are not significant, a Finding of No Significant Impact (FONSI) will be prepared.

1.2 BACKGROUND

The US 98 and Cody Avenue location has been included in several regional corridor studies and coordination between Hurlburt Field, Florida Department of Transportation (FDOT), Eglin Air Force Base (AFB), and Okaloosa County. This interchange location is an important connection to the local transportation system serving local citizens commuting to and from Hurlburt Field, work, and school and traveling to and from shopping and recreational activities, and as a part of east-west hurricane evacuation route, serving southern Okaloosa County.

In 2003, a Project Development and Environmental (PD&E) study was conducted to examine various interchange alternatives at the US 98 entrance to Hurlburt Field, Florida. The PD&E process is specified by the FDOT for new road development and meets all federal and state requirements for new road construction and environmental impacts pursuant to NEPA. The purpose of the study was to find a solution that would alleviate traffic congestion at the entrance to Hurlburt Field's main gate. The PD&E study was performed for Okaloosa County, Florida on behalf of the Department of the Air Force (Air Force) and was conducted in cooperation with the FDOT and Hurlburt Field. An Enterprise Florida, Inc. (EFI) Florida Infrastructure Grant funded the PD&E Study.

During the 2003 PD&E study, it was documented that the No Build alternative did not solve any of the existing traffic problems. It was also identified that an alternative interchange was necessary to provide adequate traffic capacity (HDR, 2010c). In 2008, the intersection at US 98 and Cody Avenue was improved to include additional turn lanes to handle the increased traffic demand. Dual lefts were added on US 98, east-bound, into the main gate and south-bound dual rights leaving the main gate, west-bound, onto US 98. However, the existing configuration is inadequate to handle current traffic demand as the level of service (LOS) is LOS F in the PM peak period. Intersection LOS can be used to describe the ability of an intersection to meet traffic demands. Much like a student's report card, LOS is represented by the letters "A" through "F", with "A" generally representing the most favorable driving conditions and "F" representing the least favorable (or the intersection is over capacity).

As an update to the 2003 PD&E study, Okaloosa County has initiated this EA to determine a solution that satisfies the objectives of Hurlburt Field's traffic issues at the main gate entrance as well as the local and regional communities' transportation network. The proposed improvements would accommodate the projected increases in traffic by providing an adequate LOS by reducing traffic delays and congestion, improving safety, and preventing traffic congestion from affecting the gate operation on Cody Avenue (north of the intersection). Without these improvements and with a projected significant increase in the average annual daily traffic (AADT), the congestion in this region will continue to deteriorate the capacity of US 98 below an unacceptable LOS. Therefore, an interchange at this location is proposed in order to relieve these problems.

1.3 LOCATION OF PROPOSED ACTION

The proposed project area is located at the intersection of US 98 and Cody Avenue, which leads to the main gate at Hurlburt Field, on the southern boundary of Hurlburt Field. The proposed project area, within Okaloosa County, lies approximately 6 miles west of Fort Walton Beach, Florida, 30 miles east of Pensacola, Florida, and 11 miles west of the Eglin AFB main complex. Hurlburt Field comprises 6,600 acres and lies within the Eglin AFB complex; the airfield and most of the installation lies immediately north of US 98. A narrow strip of land south of US 98, extending to the north shore of Santa Rosa Sound, contains family housing and recreation facilities (Okaloosa County, 2004). **Figure 1.3-1** illustrates the general location of the project, while **Figure 1.3-2** is a portion of an aerial photograph illustrating features at the proposed project area.


Alabama
Georgia
Eglin AFB
Atlantic Ocean
Gulf of Mexico
Florida
Eglin AFB
Hurlburt Field
Project Location
Santa Rosa Sound
0 25 50 100
Miles
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR
Location Map
Figure 1.3-1

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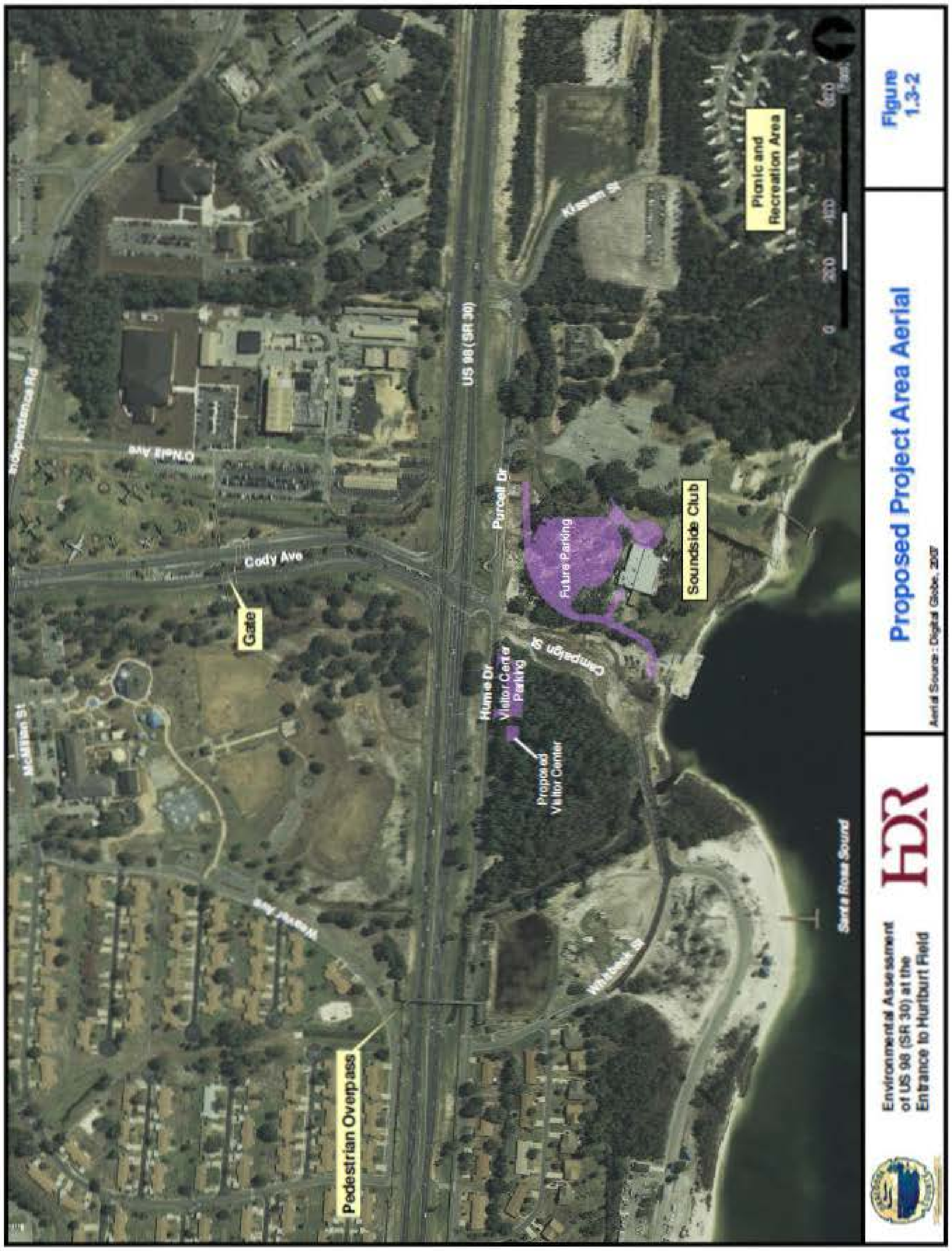
Proposed Project Area Aerial
Figure 1.3-2
Aerial Source: Digital Globe, 2007
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
US 98 (SR 30)
Independence Rd
O'Neill Ave
Cody Ave
Gate
McMillan St
Purcell Dr
Future Parking
Soundside Club
Campaign St
Hume Dr
Visitor Center Parking
Proposed Visitor Center
Picnic and Recreation Area
Kissam St
Santa Rosa Sound
Whitbeck St
Wagner Ave
Pedestrian Overpass
0 200 400 600 Feet

1.4 PURPOSE OF AND NEED FOR ACTION

The purpose of the EA is to determine the feasibility of reconstructing and reconfiguring the existing intersection of US 98 and Cody Avenue, which leads to the main gate at Hurlburt Field. The proposed project would achieve the following:

- Increase capacity and improve access to Hurlburt Field
- Improve the operation of the interchange/intersection
- Enhance safety

Specifically, the proposed project would improve the US 98 Hurlburt Field entrance, provide an adequate traffic level of service in the future (reduce traffic delays and congestion), improve safety, and reduce response times for personnel living off base.

The general objective of this EA is to provide documented information necessary for Okaloosa County, Hurlburt, the Air Force, and the FDOT to reach a decision on the type, design, and location of the proposed improvements to the US 98 and Cody Avenue intersection. The EA includes the preliminary engineering (conceptual design) and environmental analysis necessary for the proposed intersection improvements (HDR, 2010c).

Hurlburt Field is home to the Headquarters of the Air Force Special Operations Command (AFSOC) and to the 1st Special Operations Wing (1 SOW). Over the past several years, AFSOC and 1 SOW personnel numbers have increased in response to changing global events. Hurlburt Field is now the eighth-largest Air Force base in the United States in terms of personnel. In connection with AFSOC's mission, Hurlburt Field also hosts an average of more than 10,000 transient personnel per year, with an average stay of one or two weeks; most of these visitors are housed in contract quarters off-base. Due to land constraints at Hurlburt Field, an estimated two-thirds of its military personnel are housed off of Hurlburt Field, either at Eglin AFB or in nearby towns. At the same time, Fort Walton Beach and the other communities surrounding Hurlburt Field have experienced rapid growth in permanent residents, both civilians and military retirees. As Hurlburt Field expands its activities and services, installation personnel and their families, along with local military retirees, will access Hurlburt Field more frequently. Seasonal tourism and the absence of local mass transit further contribute to traffic congestion. The Okaloosa County road improvement program has not been able to keep pace with this growth (HDR, 2010a).

Existing AADT along US 98 varies from approximately 38,500 vehicles per day (VPD) east of Cody Avenue to approximately 47,000 VPD west of Cody Avenue. Estimated AADT on Cody Avenue range from approximately 1,600 VPD south of US 98 to approximately 8,500 VPD north of US 98. The traffic pattern is directional, with the east-bound traffic heaviest in the AM peak period, and the west-bound traffic heaviest in the PM peak period. As one would expect, traffic is heavy *entering* Hurlburt Field in the morning, and heavy *leaving* in the afternoon (HDR, 2010a).

Traffic is expected to increase approximately 32 percent to a projected traffic volume of approximately 62,000 VPD west of Cody Avenue between 2010 and 2032. This equates to an annual average increase of about 2.03 percent for this 22-year period. During this time period, traffic on Cody Avenue north of US 98 is expected to increase 0.61 percent per year (HDR, 2010a).

LOS, as described in Section 1.2, can be used to describe the ability of a roadway or intersection to meet traffic demands. Similar to a grade in school, LOS A is the best and suggests the free flow of traffic, while LOS F is the worst and indicates inadequate service. The acceptable minimum for urban facilities is LOS D. The existing LOS for the intersection of US 98 and Cody Avenue is estimated to be LOS C in the morning peak period and LOS F in the afternoon peak period, based on the existing 2010 directional design hour volumes. LOS F indicates that the intersection is operating unacceptably (HDR, 2010a).

A total of 100 crashes were reported on US 98 for the section one mile both east and west of the main gate entrance to Hurlburt Field during the period of January 2004 through December 2009. This equates to an annual average of 20.0 crashes per year. Of the total 100 crashes that occurred, 60 (60 percent) of those were related to the entrance of Hurlburt Field along US 98. A total of 86 injuries and 1 fatality occurred during this period. This is an average of 17 injuries and 0.2 fatalities each year. Of the total 86 injuries, 55 (64 percent) were directly related to the Hurlburt Field entrance along US 98 (HDR, 2003a). As the AADT volume increases over time, there is a high probability that the total number of accidents may increase. An improved interchange that increases capacity and improves operations would be expected to reduce the frequency and severity of traffic crashes occurring at the intersection (HDR, 2010a).

An interchange at the main gate to Hurlburt Field on Cody Avenue and US 98, if constructed, would substantially reduce delays to motorists at the intersection, reduce the likelihood of base-bound motorists blocking the through lanes on US 98, and extend the distance that personnel can live from Hurlburt Field by reducing the travel times. It could also reduce the response times for base personnel during security alerts (HDR, 2010c).

Due to the unique mission characteristics of AFSOC and the 1 SOW, Hurlburt Field's move to staggered work hours has done little to alleviate the congestion problem. During periods of mobility preparations or increased alert, when most military personnel (and many civilians) must be present (often with little advance warning), traffic backups occur that could delay or compromise mobility operations. Consequently, a project is needed to improve access and traffic flow at the US 98 entrance to Hurlburt Field (HDR, 2010a).

1.5 RELEVANT ENVIRONMENTAL ISSUES

As a result of the scoping process for this Proposed Action, relevant environmental issues that are addressed in this document include potential effects in the areas of the natural environment (air, geology, water, biology, wetlands, noise, and cultural resources), hazardous materials and wastes, and the local community (socioeconomics and environmental justice, land use and aesthetics, transportation, and utilities). In addition, the EA examines the cumulative effects of the project when considered with other projects (listed in Section 2.6).

A sliding-scale approach is the basis for the analysis of potential environmental and socioeconomic effects in this EA. That is, certain aspects of the Proposed Action have a greater potential for creating environmental effects than others, therefore, they are discussed in greater detail in this EA than those aspects of the action that have little potential for effect. For example, implementation of the Proposed Action could affect transportation, water, and wetlands in the area. This EA, therefore, presents in-depth descriptive information on these resources to the fullest extent necessary for effects analysis. On the other hand, implementation of the Proposed Action would cause only a minor effect on socioeconomics. Thus, a minimal description of socioeconomics is presented.

1.6 SCOPING AND CONSULTATION

The scoping for this EA consisted of discussing relevant issues pertaining to the action planned at Hurlburt Field. Discussions occurred between representatives of Hurlburt Field, FDOT, Okaloosa County, Eglin AFB, and the preparers of the document.

The input from these and other sources was sought and considered in preparing this EA. In addition, letters requesting comments on possible issues of concern related to the Proposed Action were sent to agencies with pertinent resource responsibilities. Appendix A contains the 2003 PD&E study and 2010 EA public involvement program. Appendix B contains copies of the scoping letters sent to, and responses received from, the Florida Department of State, Division of Historical Resources; the U.S. Fish and Wildlife Service (USFWS); and the Florida State Clearinghouse.

1.7 ORGANIZATION OF THIS ENVIRONMENTAL ASSESSMENT

This EA evaluates the Proposed Action, other action alternatives, and the No Build alternative. The approach used for this EA is to identify and describe the Proposed Action and alternatives in Chapter 2. Chapter 3, Affected Environment, describes the environment on and around Hurlburt Field that can be affected by the Proposed Action or an alternative. Chapter 4, Environmental Consequences, addresses potential impacts of the Proposed and alternative actions and the No Build alternative to the physical, biological, and human environs within the proposed project area, along with potential cumulative impacts. Chapter 5 provides the plans, permits, and management actions. Chapter 6 contains the list of agencies and individuals contacted during development and preparation of this EA as well as the public noticing process. Chapter 7 is the list of preparers, and Chapter 8 lists the reference material utilized to prepare the EA. Appendix A provides information concerning the public involvement activities conducted for the Proposed Action. Appendix B includes copies of correspondence with agencies contacted during development and preparation of the EA.

1.8 PERMITTING REQUIREMENTS

Stormwater management must be provided for any proposed improvements per the requirements of 62-346, Florida Administrative Code (F.A.C.). If one or more acres are disturbed by the construction, the construction contractor must also submit a National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI) and a Notice of Termination (NOT) for stormwater as required under 62-621.300, F.A.C. There are two permits required prior to filling jurisdictional wetlands: An Environmental Resource Program (ERP) Permit from either the Northwest Florida Water Management District (NWFWMD) or the Florida Department of Environmental Protection (FDEP) under Phase II of 62-346, F.A.C. and a Section 404 Permit under the *Clean Water Act* (CWA) from the United States Army Corps of Engineers (USACE). A joint permit application form would be submitted to all three regulatory agencies. The state agencies would then determine jurisdiction based on factors such as sovereign state lands involvement. The Phase II ERP Permit would cover such actions as placing drainage culverts in Florida jurisdictional wetland ditches.

1.9 LAWS AND REGULATIONS

A brief summary of federal and state laws and regulations that may be applicable to the proposed action is provided in the following paragraphs and in **Table 1**.

1.9.1 Environmental Policy

NEPA establishes a national environmental policy with goals for the protection, maintenance, and enhancement of the environment, and provides a process for implementing these goals within federal agencies. This policy recognizes humankind's impact on the biosphere and the importance of restoring and maintaining the overall quality of our natural environment. NEPA essentially encompasses sound planning practices designed to minimize damage to the environment. It provides federal agencies with a systematic, interdisciplinary approach to planning, thereby ensuring the "widest range of beneficial uses of the environment without degradation, risk to health and safety, or other undesirable and unintended consequences." NEPA requires federal agencies to consider, as part of planning and decision-making processes, the impact(s) of their actions on the environment. NEPA's purpose is not to generate paperwork, but to foster agency action through informed decision-making. NEPA established the CEQ, which is charged with the development of implementing regulations and ensuring federal agency compliance with NEPA. In 1978, the CEQ promulgated guidelines to implement NEPA, and in November 1979 these guidelines became regulations (Title 40 Code of Federal Regulations (CFR) Parts 1500-1508) referred to in this document as the "CEQ regulations," which are applicable to all federal agencies. The CEQ regulations mandate that all federal agencies use a systematic interdisciplinary approach to environmental planning and the evaluation of actions that may affect the environment. The CEQ regulations are intended to assist federal agency officials in decision-making based on an understanding of the potential environmental consequences, and to take actions that protect, restore, and enhance the environment. The level of analysis required to meet NEPA requirements depends on the scope and severity of the environmental impacts threatened by the proposed action.

Air Force Policy Directive 32-70, *Environmental Quality*, 20 July 1994, states "the Air Force will conduct its activities according to national environmental policy," and all personnel are accountable for the environmental consequences of their actions. The Air Force, in its mission to achieve and maintain environmental quality, is committed to conserving natural and cultural resources through effective planning and integrating, into all levels of decision-making, the environmental consequences of proposed actions and alternatives.

The Air Force, like all federal agencies, was required to develop its own rules implementing the CEQ regulations. The Air Force regulation, Title 32 CFR 989, EIAP, provides the required procedures for implementing the Air Force's EIAP. The rule was revised and became effective with its publication in the 15 July 1999 *Federal Register*. The EIAP regulation, Title 32 CFR 989, also published as Air Force Instruction (AFI) 32-7061, outlines the steps for the analysis of environmental impacts on installations in the United States and abroad. The policies and procedures set forth in the instruction and regulation are designed to ensure Air Force compliance with NEPA and the CEQ regulations.

Executive Order (EO) 11514, *Protection and Enhancement of Environmental Quality,* as amended by EO 11991, sets the policy for directing the federal government in providing leadership in protecting and enhancing the quality of the nation's environment.

EO 12372, *Intergovernmental Review of Federal Programs,* provides for opportunities for consultation by state and local governments on proposed federal developments.

1.9.2 Integration of Other Environmental Statutes and Regulations

To comply with NEPA, the planning and decision-making process for actions proposed by federal agencies involves a study of other relevant environmental statutes and regulations. The NEPA process, however, does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA, EIS, or categorical exclusion (CATEX) which enables the decision-maker to have a comprehensive view of major environmental issues and requirements associated with the proposed action. According to CEQ regulations, the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively". **Table 1** below, summarizes the other statutes and regulations.

Table 1: Federal and State Statutes and Regulations	
Regulation	**Part Number**
Air Quality	
Clean Air Act	42 USC 7401 et seq., as amended
Florida Air and Pollution Control Act	F.S. 403.011 et seq.
Federal Compliance with Pollution Control Standards	EO 12088
Environmental Quality	AFI 32-70
Air Quality Compliance	AFI 32-7040
Noise	
Noise Control Act of 1972	42 USC 4901 et. seq., Public Law 92-574
Air Installation Compatible Use Zone Program	AFI 32-7063
Water Quality, Wetlands, Floodplains and Coastal Areas	
Clean Water Act	33 USC 1251 et seq., as amended
Coastal Zone Management Act	42 USC 1451 et seq. and F.S. 380.20 et. seq.
Florida Environmental Land and Water Management Act	F.S. 380.012 et. seq.
Protection of Wetlands	EO 11990
Floodplain Management	EO 11988
Water Quality Compliance	AFI 32-7041
Florida Air and Water Pollution Control Act	F.S. 403.011 et. seq.
State Surface Water Regulations	Chapters 62-346, F.A.C. and 62-621, F.A.C.
Biological Resources	
Endangered Species Act of 1973	16 USC 1531-1543
Migratory Bird Treaty Act of 1918	16 USC 703-712
Integrated Natural Resource Management	AFI 32-7064
Land Use and Aesthetic Resources	
NEPA	42 USC 4321 et seq.
Cultural Resources	
National Historic Preservation Act of 1966	16 USC 470 et seq., as amended
Archaeological Resources Protection Act	16 USC 470a-11, as amended
American Indian Religious Freedom Act of 1978	
The Native American Graves Protection and Repatriation Act of 1990	Public Law 101-601; 25 USC 3001-3013
Cultural Resource Management	AFI 32-7605
Hazardous Materials and Waste Management	
Resource Conservation and Recovery Act of 1976	42 USC 6901, as amended
Florida Solid and Hazardous Waste Management Act	F.S. 403.702 et seq.
Solid and Hazardous Waste Compliance	AFI 32-7042
Environmental Restoration Program	AFI 32-7020
Defense Environmental Restoration Program	10 USC 2701 et seq.
Environmental Baseline Surveys in Real Estate Transactions	AFI 32-7066
Environmental Justice	
Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations	EO 12989
Transportation	
Hazardous Material Transportation Act of 1975	49 USC 1761

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2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

As required by federal regulations, this EA addresses the possible environmental impacts of the Proposed Action and other action alternatives, as well as a No Build alternative. Chapter 2 contains six parts:

- Description of Alternatives
- Selection Criteria for Alternatives
- Alternatives Considered but Eliminated from Further Analysis
- Selection of Alternatives to Carry Forward for Analysis
- Reasonably Foreseeable Cumulative Actions
- Comparison of Alternatives

As discussed in Chapter 1, the need for the US 98 and Cody Avenue interchange at Hurlburt's main gate was established in several regional corridor studies and most recently in the 2003 PD&E study.

A significant increase in traffic is expected in the vicinity of the US 98 and Cody Avenue intersection from the years 2010 to 2032. Okaloosa County, Hurlburt Field, and FDOT recognize the need to increase traffic capacity and improve the access to Hurlburt Field, improve the operation of the intersection, and enhance safety. To accomplish these objectives, the existing intersection of US 98 and Cody Avenue, which leads to the main gate at Hurlburt Field, needs to be reconstructed and reconfigured. The proposed improvements would provide for the projected increases in traffic by providing an adequate LOS by reducing traffic delays and congestion, improving safety, and reducing response time for personnel living off base by improving the intersection at the US 98 Hurlburt Field entrance. Without these improvements, the congestion will continue to deteriorate the capacity of the already failing intersection as the AADT is expected to increase.

To carry out these objectives, this EA is being conducted to examine various alternatives at the US 98 access to Hurlburt Field, Florida. The EA is being performed for Okaloosa County, Florida on behalf of the Air Force and is being conducted in cooperation with the FDOT, Hurlburt Field, and Eglin AFB.

The Proposed Action is the result of findings, conclusions, and recommendations originally presented in the 2003 PD&E study (HDR, 2010c). **Figure 2.1-1** shows the initial interchange types considered as part of that 2003 PD&E study.

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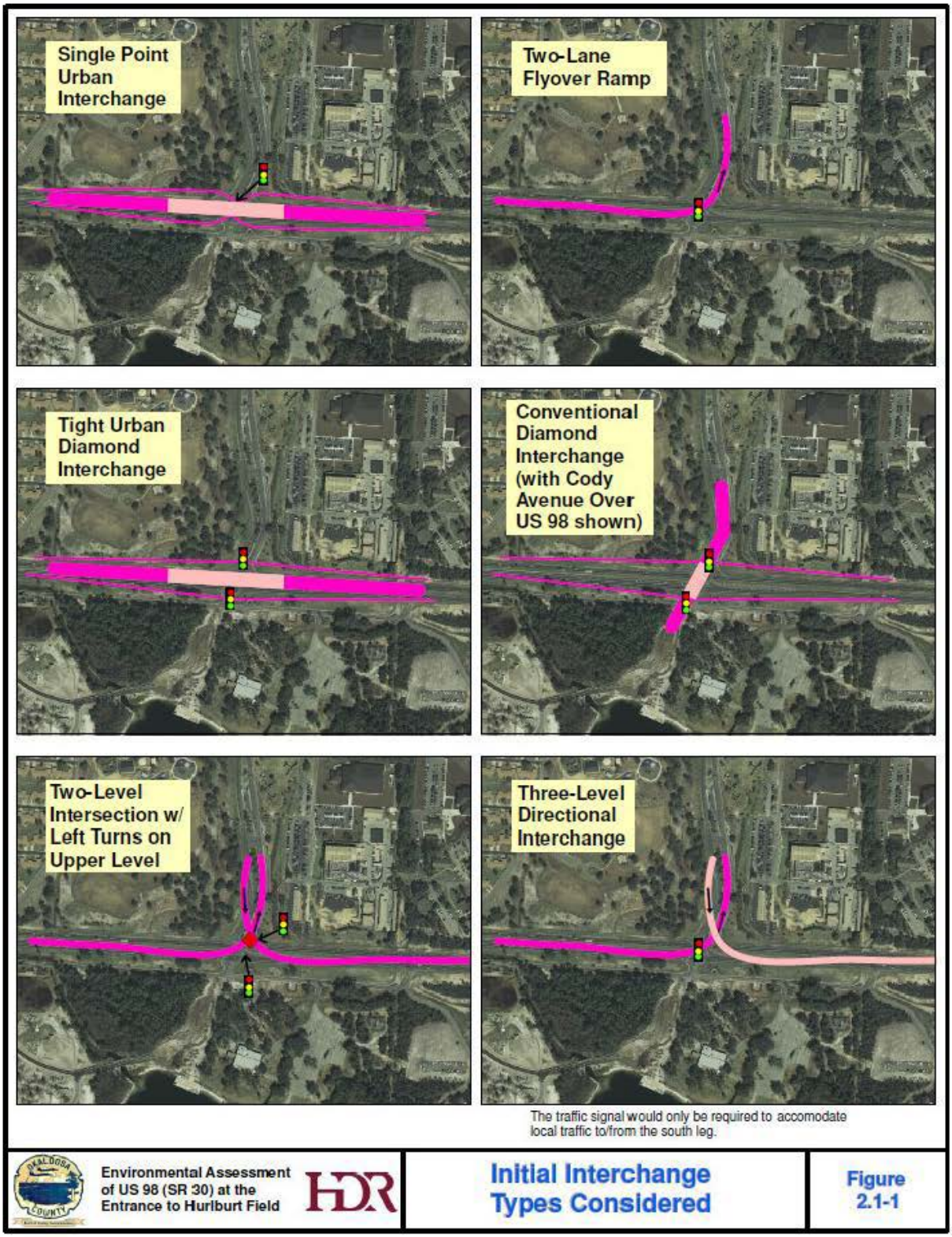

Single Point Urban Interchange
Two-Lane Flyover Ramp
Tight Urban Diamond Interchange
Conventional Diamond Interchange (with Cody Avenue Over US 98 shown)
Two-Level Intersection w/ Left Turns on Upper Level
Three-Level Directional Interchange
The traffic signal would only be required to accomodate local traffic to/from the south leg.
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR
Initial Interchange Types Considered
Figure 2.1-1

2.2 DESCRIPTION OF ALTERNATIVES

2.2.1 Alternative A: SPUI with US 98 over Cody Avenue (Preferred Alternative)

The Single Point Urban Interchange (SPUI) with US 98 over Cody Avenue (Alternative A) is shown in **Figure 2.2-1**. The proposed design speed is 50 miles per hour (mph) for the US 98 segment. With the high left-turn volumes, the SPUI would be a safe, efficient and compact urban interchange design that would decrease motorists' delays and congestion. Alternative A is projected to provide LOS B in the AM peak hour and LOS A in the PM peak hour in the year 2032 for the signalized intersection portion of the interchange.

The SPUI is unique in that the exit and entrance lanes to US 98 would be placed close together to make them effectively part of the same intersection. This allows one signalized intersection through which all four left-turn movements would operate on Cody Avenue. In the SPUI, the streams of left-turning traffic onto Cody Avenue do not cross; thus, opposing left turns can be made simultaneously allowing more vehicles to make a turn and clear the interchange in one traffic signal cycle. Also, the right turn lanes can be channelized; thus, removing the right turning vehicle from the intersection. The south-bound right and west-bound right turns will operate as free-flow movements while other right turns in the intersection will operate under yield control. Construction of Alternative A anticipates the least amount, approximately 4.9 acres (2.2 acres on the north side of US 98 and 2.7 acres on the south side of US 98), of federally owned property at Hurlburt Field. Preliminary estimates of the total construction costs for the Alternative A are $13,025,923 (HDR, 2010a).

Alternative A would address the Purpose and Need of the project in the following areas:

- It would alleviate congestion and address capacity deficiencies.
- It would accommodate the resultant increases in traffic volumes forecasted for the year 2032.
- It would be consistent with the local transportation plan by accommodating traffic circulation and access needs to Hurlburt Field.


Alt A: SPUI with US 98 over
Cody Avenue Conceptual Design Plan
Figure
2.2-1
Environmental Assessment
of US 98 (SR 30) at the
Entrance to Hurlburt Field
HDR
Legend
Proposed Easement
Edge of Pavement
Lane Line
Proposed Facilities
Wetlands
Flood Zones
X: Outside 100-yr Floodplain
A,AE, VE: Inside 100-yr Floodplain
Pedestrian Overpass
Gate
Cody Ave
Future Parking
Soundside Club
Picnic and
Recreation Area
Visitor Center
Parking
Proposed
Visitor Center
Santa Rosa Sound
Kissam St
Purcell Dr
Whitbeck St
Hume Dr
Independence Rd
O'Neil Ave
McMillan St
Weaver Ave
US 98 (SR 30)
AE
VE

2.2.2 Alternative B: SPUI with Cody Avenue over US 98

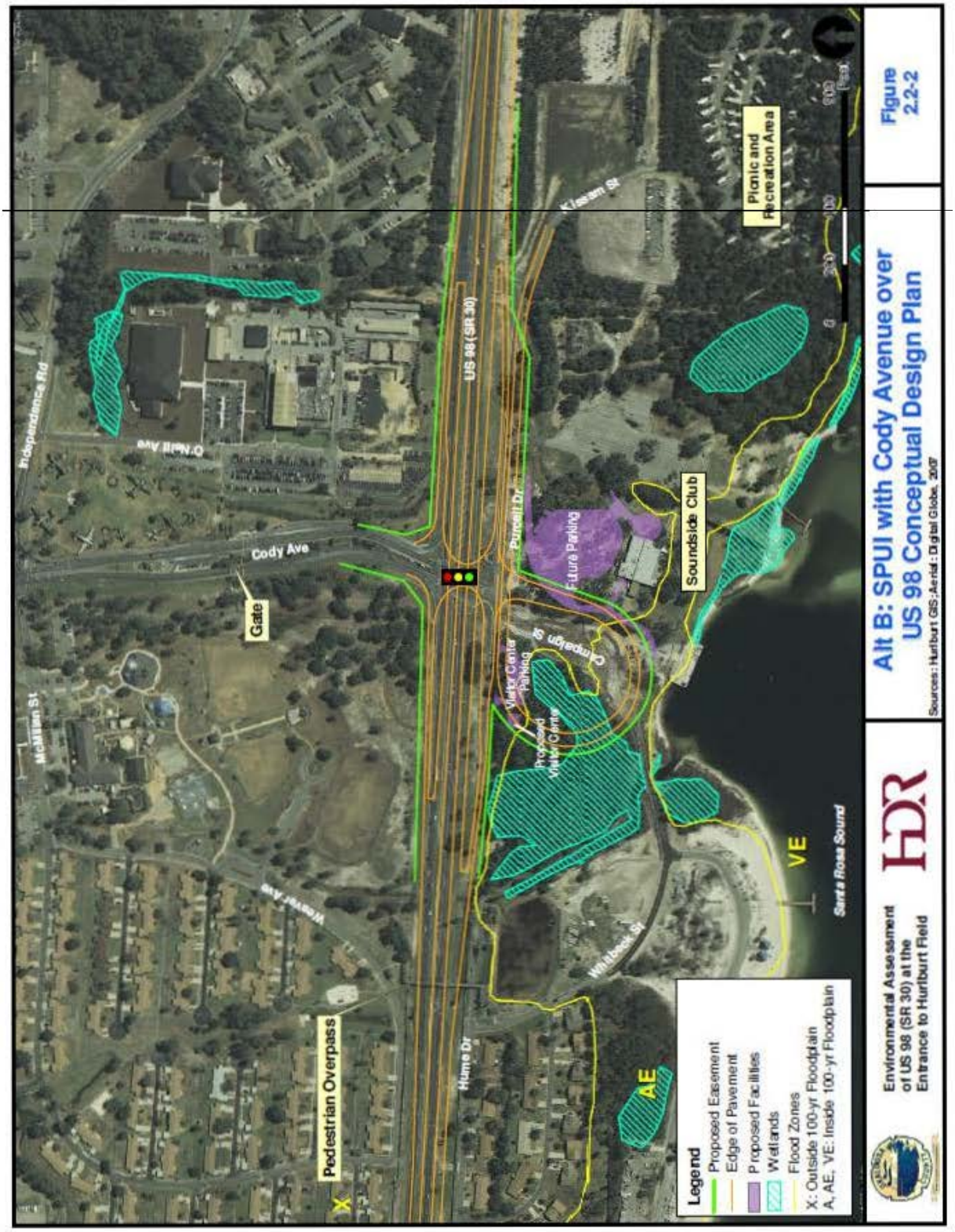
The SPUI with Cody Avenue over US 98 (Alternative B) is illustrated in **Figure 2.2-2**. The proposed design speed is 50 miles per hour for the US 98 segment. With the high left-turn volumes, the SPUI would be a safe, efficient urban interchange design that can decrease motorists' delays and congestion. This alternative is also projected to provide LOS B or better in the peak hours in the year 2032 for the signalized intersection portion of the interchange.

The SPUI is unique in that the exit and entrance lanes to Cody Avenue would be placed close together to make them effectively part of the same intersection. This allows one signalized intersection through which all four left-turn movements would operate on US 98. In the SPUI, the streams of left-turning traffic onto US 98 do not cross; thus, opposing left turns can be made simultaneously allowing more vehicles to make a turn and clear the interchange in one traffic signal cycle. Also, the right turn lanes can be channelized and controlled with yield signs. Other benefits of the SPUI include providing larger turning radii for vehicles such as trucks and buses, moving more traffic through a smaller amount of space, and building a new interchange without the need for significant additional ROW.

This SPUI would require use of proprietary earth walls and would be more expensive to construct than any of the alternatives. This alternative would require sections of Cody Avenue to be elevated as well as a loop ramp on the south side due to the close proximity of the Santa Rosa Sound and the need to keep the ramp out of the water. Construction of Alternative B anticipates approximately 9.88 acres (1.0 acres on the north side of US 98 and 8.88 acres on the south side of US 98) of federally owned property at Hurlburt Field. Thus, this alternative would impact the most federally owned property than any of the other action alternatives. Preliminary estimates of the total project costs of this alternative are $23,086,809 (HDR, 2010a).

Alternative B would address the Purpose and Need of the project in the following areas:

- It would alleviate congestion and address capacity deficiencies.
- It would accommodate the resultant increases in traffic volumes forecasted for the year 2032.
- It would be consistent with the local transportation plan by accommodating traffic circulation and access needs to Hurlburt Field.


Alt B: SPUI with Cody Avenue over US 98 Conceptual Design Plan
Figure 2.2-2
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR
Legend
Proposed Easement
Edge of Pavement
Proposed Facilities
Wetlands
Flood Zones
X: Outside 100-yr Floodplain
A, AE, VE: Inside 100-yr Floodplain
Pedestrian Overpass
Gate
Cody Ave
Pursuit Dr
Future Parking
Soundside Club
Picnic and Recreation Area
Kissam St
US 98 (SR 30)
Independence Rd
O'Neill Ave
McMillan St
Hilmo Dr
Whitbeck St
Santa Rosa Sound
Campaign St
Visitor Center Parking
Proposed Visitor Center
AE
VE
X

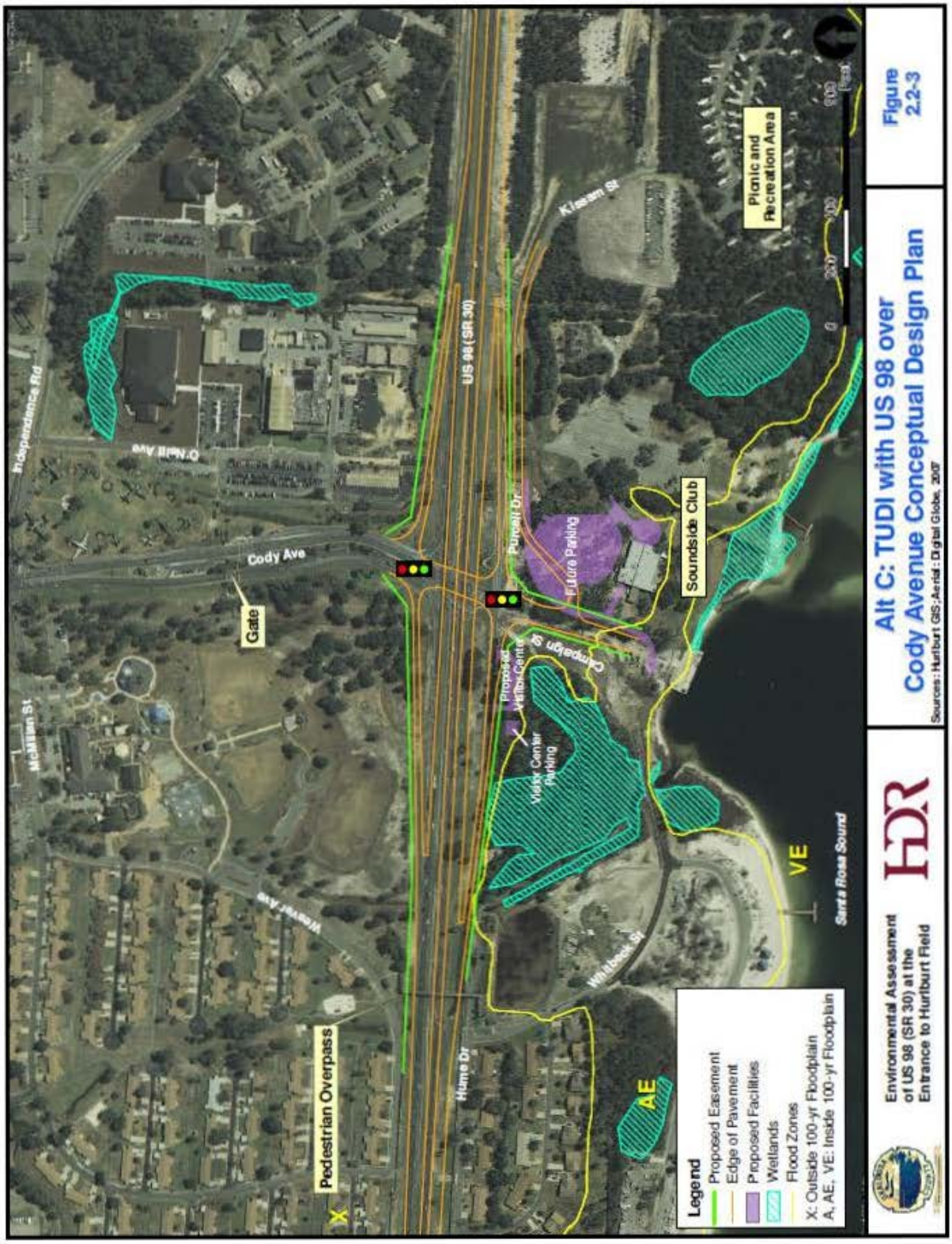
2.2.3 Alternative C: TUDI with US 98 over Cody Avenue

The Tight Urban Diamond Interchange (TUDI) with US 98 over Cody Avenue (Alternative C) is illustrated in **Figure 2.2-3**. The proposed design speed is 50 miles per hour for the US 98 segment. The alternative is projected to also provide acceptable service levels in the peak hours in the year 2032 for the signalized intersection portion of the interchange.

In this TUDI, the exit and entrance lanes to US 98 would not be placed close together; thus, they would effectively be separate intersections. This would require separate traffic signals at each intersection. In the TUDI, the streams of left-turning traffic onto Cody Avenue cross each other; thus, traffic signals on either end can keep turning vehicles from clearing the interchange. Construction of Alternative C anticipates approximately 5.96 acres (2.29 acres on the north side of US 98 and 3.66 acres on the south side of US 98) of federally owned property at Hurlburt Field. Preliminary estimates of the total project costs of this alternative are $10,301,950 (HDR, 2010a).

Alternative C would address the Purpose and Need of the project in the following areas:

- It would alleviate congestion and address capacity deficiencies; however, the LOS would be less and the traffic delays would be more than either of the SPUI alternatives.
- It would accommodate the resultant increases in traffic volumes forecasted for the year 2032.
- It would be consistent with the local transportation plan by accommodating traffic circulation and access needs to Hurlburt Field.


Alt C: TUDI with US 98 over
Cody Avenue Conceptual Design Plan
Figure
2.2-3
Environmental Assessment
of US 98 (SR 30) at the
Entrance to Hurlburt Field
HDR
Legend
Proposed Easement
Edge of Pavement
Proposed Facilities
Wetlands
Flood Zones
X: Outside 100-yr Floodplain
A, AE, VE: Inside 100-yr Floodplain
Pedestrian Overpass
Gate
Cody Ave
Independence Rd
O'Neill Ave
McMillan St
Weaver Ave
Hilme Dr
US 98 (SR 30)
Purcell Dr
Kissam St
Whitbeck St
Campaign St
Proposed Visitor Center
Visitor Center Parking
Future Parking
Soundside Club
Picnic and Recreation Area
Santa Rosa Sound
AE
VE

2.2.4 Alternative D: TUDI with Cody Avenue over US 98

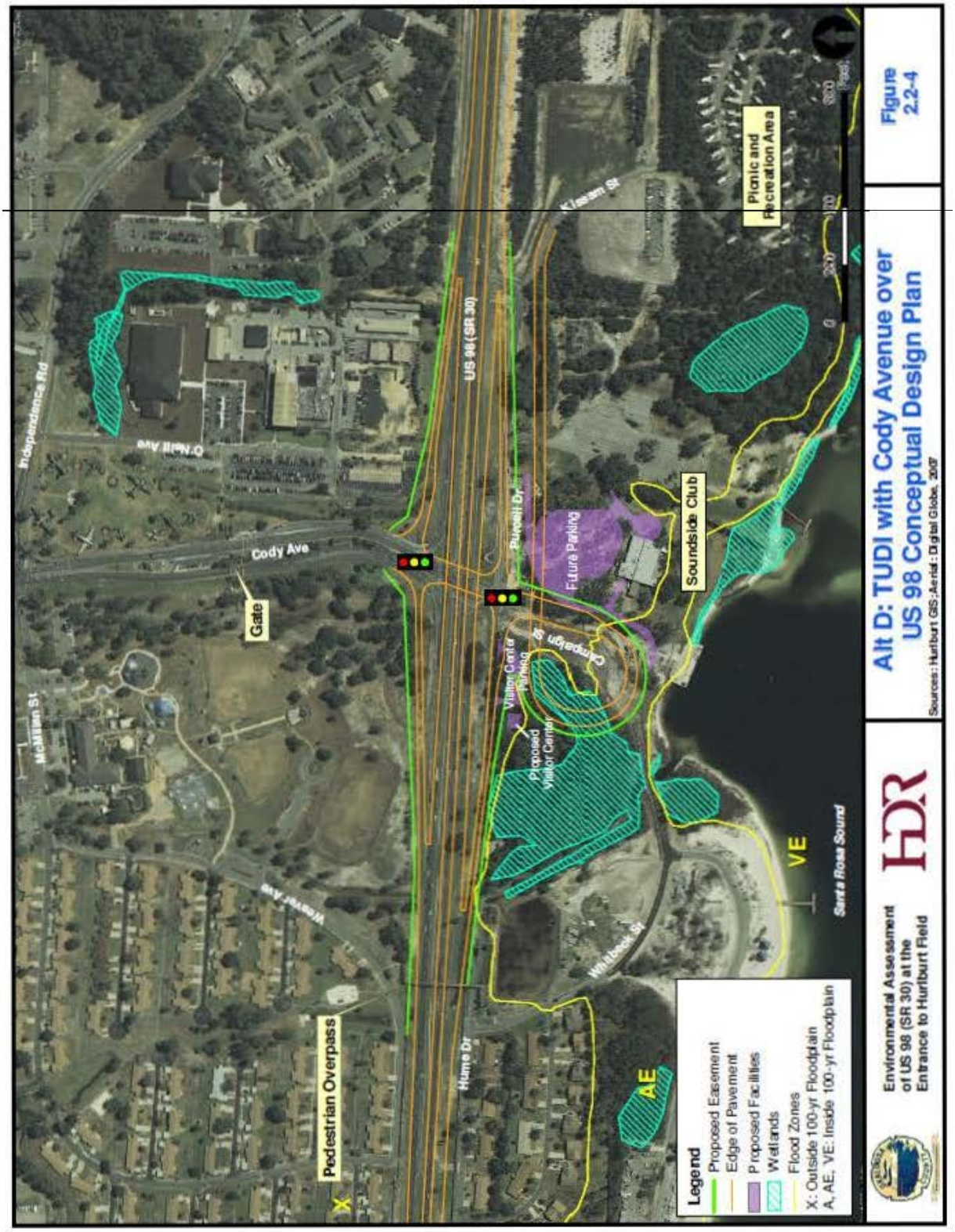
The TUDI with Cody Avenue over US 98 (Alternative D) is illustrated in **Figure 2.2-4**. The proposed design speed is 50 miles per hour for the US 98 segment. The alternative is also projected to provide acceptable service levels in the peak hours in the year 2032 for the signalized intersection portion of the interchange.

In this TUDI, the exit and entrance lanes to Cody Avenue would not be placed close together; thus, they would effectively be separate intersections. This would require separate traffic signals at each intersection. In the TUDI, the streams of left-turning traffic onto US 98 cross each other; thus, traffic signals on either end can keep turning vehicles from clearing the interchange.

This alternative would require sections of Cody Avenue to be elevated as well as a loop on the south side due to the close proximity of the Santa Rosa Sound and the need to keep the ramp out of the water. Construction of Alternative D anticipates approximately 9.45 acres (2.37 acres on the north side of US 98 and 7.08 acres on the south side of US 98) of federally owned property at Hurlburt Field. Thus, this alternative and Alternative B would impact more federally owned property than Alternatives A & C. Preliminary estimates of the total project costs of this alternative are $16,890,677 (HDR, 2010a).

Alternative D would address the Purpose and Need of the project in the following areas:

- It would alleviate congestion and address capacity deficiencies; however, the LOS would be less and the traffic delays would be more than either of the SPUI alternatives.
- It would accommodate the resultant increases in traffic volumes forecasted for the year 2032.
- It would be consistent with the local transportation plan by accommodating traffic circulation and access needs to Hurlburt Field.


Alt D: TUDI with Cody Avenue over US 98 Conceptual Design Plan
Figure 2.2-4
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR
Legend
Proposed Easement
Edge of Pavement
Proposed Facilities
Wetlands
Flood Zones
X: Outside 100-yr Floodplain
A, AE, VE: Inside 100-yr Floodplain
Pedestrian Overpass
Gate
Cody Ave
US 98 (SR 30)
Soundside Club
Future Parking
Picnic and Recreation Area
Proposed Visitor Center
Visitor Center Parking
Santa Rosa Sound
Independence Rd
O'Neil Ave
McMillan St
Weaver Ave
Hulme Dr
Whitbeck St
Kissam St
Campaign St
Purcell Dr
AE
VE

2.2.5 No Build Alternative

The No Build alternative is studied to ensure an objective evaluation and to provide a basis from which to measure the performance, costs and impacts of all alternatives. The No Build alternative assumes that the intersection at the main gate to Hurlburt Field on Cody Avenue at US 98 would remain exactly as it is, i.e., there would be no improvements to the intersection. It assumes no capacity improvements will be made to the facility. Continued and perhaps increased maintenance of the existing intersection would remain a factor in its use and expense of operation. Based on current traffic growth trends, the existing intersection will not accommodate forecasted traffic volumes and is expected to decline in LOS in the future scenarios. Furthermore, as the volume of traffic increases, the crash rate may be expected to increase if capacity and other improvements are not made.

2.2.6 Transportation System Management Alternative

The Transportation System Management (TSM) alternative includes activities designed to maximize the utilization and efficiency of the present system. These activities typically include minor improvements like signal re-timing and adding auxiliary turn lanes (as was the case in 2008), ridesharing, traffic signal timing optimization and designating high occupancy vehicle lanes on existing roadways. Ridesharing is already heavily promoted at Hurlburt Field as a way to reduce peak hour traffic demand at the US 98 and Cody Avenue intersection.

2.2.7 Two-Lane Flyover Ramp Alternative

The Flyover Ramp Alternative is illustrated in **Figure 2.1-1**. It was developed to provide a direct connection for the east-bound to north-bound left turns, which is one of the heaviest intersection movements, particularly in the morning peak period. This alternative would result in impacts to the federal property at Hurlburt Field, as sections of Cody Avenue would have to be elevated.

2.2.8 Conventional Diamond Interchange Alternative

The Conventional Diamond Interchange Alternative with Cody Avenue of US 98, illustrated in **Figure 2.1-1**, would have a wider footprint than the TUDI and require dual stop conditions.

2.2.9 Two-Level Intersection with Left Turns on Upper Level Alternative

The Two-Level Intersection with Left Turns on Upper Level Alternative is illustrated in **Figure 2.1-1**.

2.2.10 Three-Level Directional Interchange Alternative

The Three-Level Directional Interchange Alternative is illustrated in **Figure 2.1-1**.

2.3 SELECTION CRITERIA FOR ALTERNATIVES

The following criteria were identified in Section 1.4 (Purpose and Need) and were essential in the selection of an action to improve the interchange at the main gate to Hurlburt Field on Cody Avenue and US 98:

- Maximize traffic operational efficiency or the level of service (LOS)
- Improve safety and reduce traffic hazards

The following criteria were also important in the selection of an action to improve the interchange at the main gate to Hurlburt Field on Cody Avenue and US 98:

- Minimize the loss of usable property
- Avoid direct and indirect environmental impacts to the maximum extent practicable

Table 2 below, summarizes the selection criteria used to evaluate the Proposed Action and alternatives.

Table 2: Selection Criteria for Proposed Alternatives (Summary)

Alternatives	Maximize traffic operational efficiency (LOS)	Improve safety and reduce traffic hazards	Minimize the loss of usable property (*Additional Air Force land required*)	Avoid direct and indirect environmental impacts to the maximum extent practicable
A	Yes	Yes	Yes (*4.90 acres*)	Yes
B	Yes	Yes	No (*9.88 acres*)	No
C	Yes	Yes	No (*5.96 acres*)	Yes
D	Yes	Yes	No (*9.45 acres*)	No
No Build	No	No	Yes	Yes
TSM Alternative	No	No	Yes	Yes
Two-Lane Flyover Ramp	No	No	No	Yes
Conventional Diamond Interchange	No	Yes	No	No
Two-Level Intersection with Left Turns on Upper Level	No	No	No	Yes
Three-Level Directional Interchange	No	No	No	Yes

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS

The alternatives, illustrated in **Figure 2.1-1**, considered for the US 98 and Cody Avenue project but eliminated from further analysis included: TSM Alternative; Two-Lane Flyover Ramp Alternative: Conventional Diamond Interchange Alternative; Two-Level Intersection with Left Turns on Upper Level Alternative; and Three-Level Directional Interchange Alternative. The five eliminated alternatives are discussed below.

2.4.1 Transportation System Management Alternative

The TSM Alternative was eliminated because minor improvements would not fully satisfy the project need, which is to improve the capacity of the intersection in order to improve the LOS and reduce delays to motorists.

2.4.2 Two-Lane Flyover Ramp Alternative

This alternative was eliminated from further evaluation after the traffic analysis found that the projected future LOS was lower than that of the other build alternatives. The flyover was projected to operate at LOS F in the PM peak by year 2021. The projected average LOS (AM & PM) in year 2025 was LOS E, which does not meet the design standard of LOS D or better in the design year. Another factor contributing to elimination of the Flyover Ramp Alternative includes the disadvantage of requiring the US 98 through traffic to stop for traffic crossing US 98 on Cody Avenue.

2.4.3 Conventional Diamond Interchange Alternative

The Conventional Diamond Interchange Alternative was considered but was eliminated from further evaluation, as the west-bound off-ramp would impact more federal property at Hurlburt Field than the TUDI and require dual stop conditions. Another factor contributing to elimination of this alternative includes the impacts to more wetlands on the south side of US 98 than the other alternatives. This alternative was eliminated because it would not fully satisfy the project need.

2.4.4 Two-Level Intersection with Left Turns on Upper Level Alternative

The Two-Level Intersection with Left Turns on Upper Level Alternative was considered but was eliminated from further evaluation as it would also impact too much of the federal property at Hurlburt Field, as sections of Cody Avenue would have to be elevated. Another factor contributing to elimination of this alternative includes the disadvantage of requiring the US 98 through traffic to stop for traffic crossing US 98 on Cody Avenue.

2.4.5 Three-Level Directional Interchange Alternative

The Three-Level Directional Interchange Alternative was considered but was eliminated from further evaluation as it would also impact too much of the federal property at Hurlburt Field, as sections of Cody Avenue would have to be elevated. Other factors contributing to elimination of this alternative include the construction of more infrastructure than required to serve the future traffic demand and this alternative would also have the disadvantage of requiring the US 98 through traffic to stop for traffic crossing US 98 on Cody Avenue.

2.5 SELECTION OF ALTERNATIVES TO CARRY FORWARD FOR ANALYSIS

In summary, the following ten alternatives were initially considered for this project:

- Alternative A: SPUI with US 98 over Cody Avenue
- Alternative B: SPUI with Cody Avenue over US 98
- Alternative C: TUDI with US 98 over Cody Avenue
- Alternative D: TUDI with Cody Avenue over US 98
- No Build Alternative
- TSM Alternative
- Two-Lane Flyover Ramp Alternative
- Conventional Diamond Interchange Alternative
- Two-Level Intersection with Left Turns on Upper Level Alternative
- Three-Level Directional Interchange Alternative

A conceptual layout of the interchange types is presented in **Figure 2.1-1**. The Two-Lane Flyover Ramp, the Conventional Diamond Interchange, the Two-Level Intersection with Left Turns on Upper Level, and the Three-Level Directional Interchange Alternatives were initially considered but eliminated from further evaluation.

Therefore, the four actions and one no action alternative brought forward in this assessment include the following:

- Alternative A: SPUI with US 98 over Cody Avenue (Proposed Action)
- Alternative B: SPUI with Cody Avenue over US 98
- Alternative C: TUDI with US 98 over Cody Avenue
- Alternative D: TUDI with Cody Avenue over US 98
- No Build Alternative

2.5.1 Alternative A: SPUI with US 98 over Cody Avenue (Proposed Action)

Alternative A: SPUI with US 98 over Cody Avenue has been identified as the Proposed Action and would fully satisfy the Purpose and Need of the project in the following areas:

- Maximize traffic operational efficiency or the LOS
- Improve safety and reduce traffic hazards

In addition, the Proposed Action would:

- Minimize the loss of usable property
- Avoid direct and indirect environmental impacts to the maximum extent practicable
- Be consistent with the local transportation plan by accommodating traffic circulation and access needs to Hurlburt Field.

Other benefits of the SPUI include providing larger turning radii for vehicles like trucks and buses, moving more traffic through a smaller amount of space, and building a new interchange without the need for significant additional right of way (ROW).

Construction of the Proposed Action anticipates approximately 4.9 acres (2.2 acres on the north side of US 98 and 2.7 acres on the south side of US 98) of federally owned property at Hurlburt Field. Additionally, it is anticipated that a temporary construction easement may be required on approximately 2.4 acres (1.2 acres on the north side of US 98 and 1.2 acres on the south side of US 98) of federally owned property at Hurlburt Field. The approximate location of the additional federally owned property at Hurlburt Field for construction of the Proposed Action is shown in **Figure 2.5-1**. The Proposed Action would have the least amount of impacts to federally owned property at Hurlburt Field and would also have the least amount of impacts to wetlands.

Preliminary estimates of the total construction costs for the Proposed Action are $13,025,923. The proposed typical section for the Proposed Action is illustrated in **Figure 2.5-2**. An "urban" typical section is proposed for Cody Avenue underneath the overpass to minimize the length of the proposed overpass bridge structure (HDR, 2010a).

The Proposed Action would include a construction component and an operation component. The construction component contains the following activities:

- Acquire needed property, ROW, and/or easements from the Federal government
- Construct new underground stormwater collection system for Cody Avenue and modify the three existing stormwater management ponds within the corridor to provide additional volume required to treat and attenuate (if required) the roadway runoff
- Realign the service roads on the south side of US 98
- Relocate and/or install traffic signals, as needed
- Clear and excavate the roadway; as much as possible, remove and reuse the existing pavement and base materials

- Construct future ramps and temporary pavement along US 98 along the outer edges, and then shift traffic to the outside to provide work area in the median for construction of the overpass
- Construct the overpass embankment and structure on US 98 in stages, as necessary, in order to reduce the area of construction impact
- Divert traffic to the newly completed overpass and remove temporary pavement
- Reseed/plant vegetation along roadway, as needed
- Relocate water, sewer, telephone, cable television, electrical, gas lines and other utilities as necessary
- Provide special security features such as Closed Circuit Television and other surveillance measures
- Obtain all required stormwater and other permits, as required

During construction, all of the usual BMPs would be employed to minimize impacts to wetlands, surface water, and soils, in addition to any other requirements. Stormwater management design would be coordinated with the FDEP during pre-application meetings, since this agency must approve the stormwater management system design as part of the permitting process under 62-346, F.A.C. and construction activity discharge under 62-621, F.A.C.

The operations component of the Proposed Action involves the use of the roadway by motorists and standard maintenance activities.

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Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field

Additional Real Estate Requirements for Proposed Action

Sources: Hurlburt GIS; Aerial: Digital Globe, 2007

Figure 2.5-1

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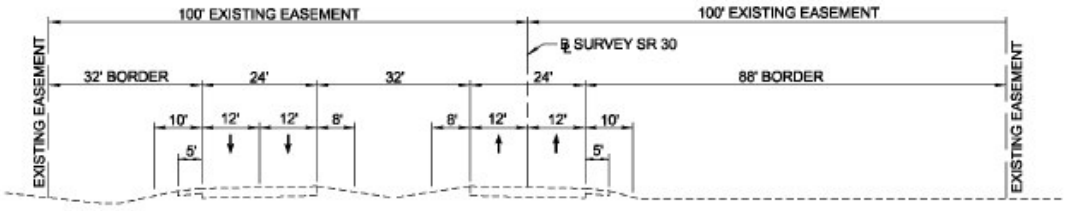
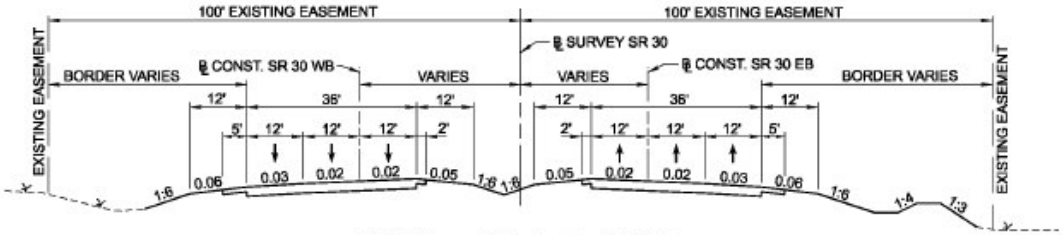
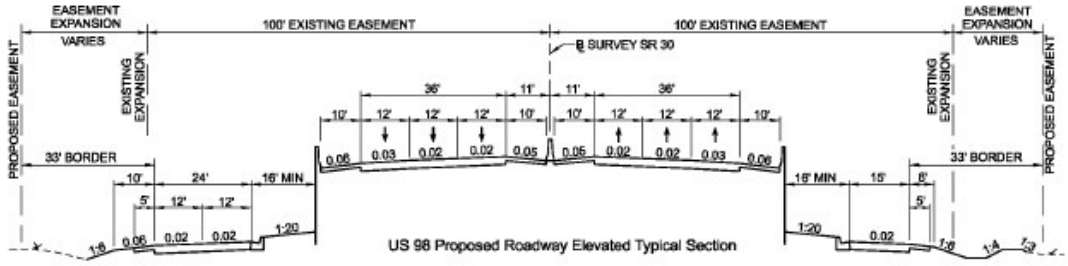


US 98 Existing Typical Section



US 98 Proposed Roadway Typical Section



US 98 Proposed Roadway Elevated Typical Section

Page 1 of 2

Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field	HDR	**Existing and Proposed Typicals**	**Figure 2.5-2**

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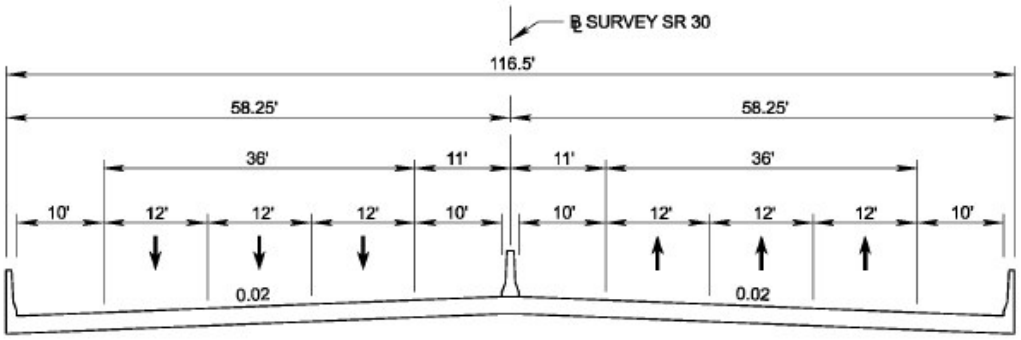
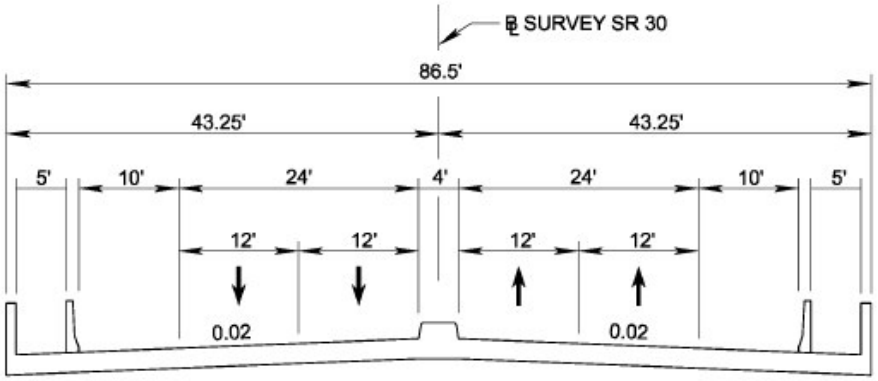


Overpass for US 98 over Cody Avenue Alternatives



Overpass for Cody Avenue over US 98 Alternatives

Page 2 of 2

Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field	HDR	**Existing and Proposed Typicals**	Figure 2.5-2

2.5.2 Alternative B: SPUI with Cody Avenue over US 98

As seen in **Table 2**, Alternative B meets the Purpose and Need defined in Section 1.4 and will therefore, be carried forward for further analysis.

2.5.3 Alternative C: TUDI with US 98 over Cody Avenue

As seen in **Table 2**, Alternative C meets the Purpose and Need defined in Section 1.4 and will therefore, be carried forward for further analysis.

2.5.4 Alternative D: TUDI with Cody Avenue over US 98

As seen in **Table 2**, Alternative D meets the Purpose and Need defined in Section 1.4 and will therefore, be carried forward for further analysis.

2.5.5 No Build Alternative

The No Build alternative would not meet the project's stated Purpose and Need; it would result in increased congestion; thus, producing higher vehicle operating costs, increased cost of driver time, and increased fuel consumption and air emissions and it would also result in increasingly longer response times for base personnel. There is no construction cost associated with the No Build alternative. However, as required by NEPA it will be carried forward for analysis to provide a detailed comparison.

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2.6 REASONABLY FORESEEABLE CUMULATIVE ACTIONS

Cumulative impacts are impacts on the environment, which results from the incremental impacts of the actions when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The scoping process used to identify and address key issues for the Proposed Action generated a list of other reasonably foreseeable projects by government agencies that could occur in or near the US 98 at Cody Avenue (Hurlburt main gate) area. For a project to be reasonably foreseeable, it must have advanced far enough in the planning process that its implementation is likely. The following major reasonably foreseeable federal, state, and local projects within the area have been identified as additional actions to be considered:

- New Hurlburt Visitor Control Center (VCC) and parking lot
- Northwest Florida Transportation Corridor Authority (NFTCA) roadway corridor from SR 87 in Santa Rosa County to SR 83 (US 331) in Walton County

Other projects located in the vicinity of the Proposed Action are listed below. Many of these projects were assessed in Hurlburt's General Plan EA or were issued a CATEX from further assessment based on that EA. Some of these projects have been assessed in separate EA's and the future housing projects are being assessed in an EIS being prepared for the military housing privatization effort for both Eglin AFB & Hurlburt Field (Tharpe, 2010). Therefore, the following projects listed in **Table 3**, will not be carried forward for further analysis in this EA.

Table 3: Other Projects in the Proposed Action Area

Project(s)	Description
Military Housing	Future military housing privatization initiative (Assessed under a separate EIS).
Main Gate	Reconfiguration/ Relocation at Cody Avenue and US 98 (Addressed under General Plan EA; Project #07-03A).
Soundside Gate	Relocation from Hume Drive to Campaign Street (Addressed under General Plan EA; Project #07-03A).
Consolidated Club	FTEV #01-5007 Soundside Club (Addressed under General Plan EA; Project #06-01).
Mission Planning Center	FTEV #02-3001 (Addressed under General Plan EA; Project #06-02).
123-Person Billeting	FTEV #03-3020 (Addressed under General Plan EA; Project #05-01).
Soundside Infrastructure Improvements	EA FONSI/FONPA, October 2005; Proposed Action includes replacing existing culvert on Whitbeck Street with a span bridge, constructing a boat ramp, and relocating Marina Road.
New Marina Operations Facility and Associated Fuel Supply System	EA FONSI/FONPA, December 2005; Proposed Action includes construction of a new marina operations building and installation of a new fuel supply system at Santa Rosa Sound.
Boathouse and Restroom Facility Construction	EA FONSI/FONPA, September 2007; Proposed Action includes construction of a boathouse to support military training vessels and a restroom facility to accommodate the needs of people using recreational beach facilities.
Planned Growth at Hurlburt Field	EA FONSI/FONPA, January 2010; Proposed Action is to implement base-wide Planned Growth at Hurlburt Field which includes personnel increases, aircraft increases and changes, along with facility and construction.

Source: General Plan EA & FONSI/FONPA, 2006 and Tharpe, 2010.

It should be noted that the base command is concerned about the potential compromise to security at the main gate that may be created with the construction of an interchange, as well as safety and capacity issues. A study was developed and designs were implemented to the main gate so that security under increased Force Protection Conditions can be quickly and easily enhanced to meet the criteria of the *DoD Antiterrorism/Force Protection Program* and the Air Force Installation *Entry Control Facilities Design Guide*.

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2.7 COMPARISON OF ALTERNATIVES

Table 4 presented below summarizes the impacts for each resource area under the Proposed Action, Alternatives B, C, and D, and the No Action (No Build) alternative.

Table 4: Summary of Impacts

Resource Category	Alternative A (Proposed Action) SPUI with US 98 over Cody Avenue	Alternative B SPUI with Cody Avenue over US 98	Alternative C TUDI with US 98 over Cody Avenue	Alternative D TUDI with Cody Avenue over US 98	No Build Alternative
Air Quality	Will not exceed NAAQS through 2032; Beneficial impacts to local air quality; Temporary, localized emissions from equipment and dust during construction	Will not exceed NAAQS through 2032; Beneficial impacts to local air quality; Temporary, localized emissions from equipment and dust during construction	Will not exceed NAAQS through 2032; Beneficial impacts to local air quality; Temporary, localized emissions from equipment and dust during construction	Will not exceed NAAQS through 2032; Beneficial impacts to local air quality; Temporary, localized emissions from equipment and dust during construction	Will exceed 8-hour concentration limits for carbon monoxide (CO) by 2012.
Physiography	Short-term insignificant impacts from grading activities	Short-term insignificant impacts from grading activities	Short-term insignificant impacts from grading activities	Short-term insignificant impacts from grading activities	No impacts
Geology	Short-term insignificant impacts from excavation and fill material	Short-term insignificant impacts from excavation and fill material	Short-term insignificant impacts from excavation and fill material	Short-term insignificant impacts from excavation and fill material	No impacts to geology
Geologic Hazards	No impacts from seismic activity or other hazards	No impacts from seismic activity or other hazards	No impacts from seismic activity or other hazards	No impacts from seismic activity or other hazards	No impacts from seismic activity or other hazards
Soils	Short-term insignificant disturbance of soils during construction	Short-term insignificant disturbance of soils during construction	Short-term insignificant disturbance of soils during construction	Short-term insignificant disturbance of soils during construction	No impact to soils
Surface Water	Short-term insignificant impacts to water quality from sedimentation and erosion; Stormwater ponds will be utilized pursuant to 62-346, F.A.C.	Short-term insignificant impacts to water quality from sedimentation and erosion; Stormwater ponds will be utilized pursuant to 62-346, F.A.C.	Short-term insignificant impacts to water quality from sedimentation and erosion; Stormwater ponds will be utilized pursuant to 62-346, F.A.C.	Short-term insignificant impacts to water quality from sedimentation and erosion; Stormwater ponds will be utilized pursuant to 62-346, F.A.C.	No impacts to surface waters
Groundwater	No significant impacts to groundwater	No significant impacts to groundwater	No significant impacts to groundwater	No significant impacts to groundwater	No impacts to groundwater
Floodplains	No impacts from construction activities; ROW easement traverses 0.01 acres	Construction impacts estimated at 3.30 acres; ROW easement traverses 0.01 acres	No impacts from construction activities; ROW easement traverses 0.01 acres	Construction impacts estimated at 2.50 acres; ROW easement traverses 0.01 acres	No impacts to floodplains

Resource Category	**Alternative A (Proposed Action)** SPUI with US 98 over Cody Avenue	**Alternative B** SPUI with Cody Avenue over US 98	**Alternative C** TUDI with US 98 over Cody Avenue	**Alternative D** TUDI with Cody Avenue over US 98	**No Build Alternative**
Vegetation	No impacts to critical habitat	No impacts to critical habitat	No impacts to critical habitat	No impacts to critical habitat	No impacts to critical habitat
T&E Species	No impacts to T&E species	No impacts to T&E species	No impacts to T&E species	No impacts to T&E species	No impacts to T&E species
Wildlife	Short-term insignificant impacts to wildlife	Short-term insignificant impacts to wildlife	Short-term insignificant impacts to wildlife	Short-term insignificant impacts to wildlife	No impacts to wildlife
Wetlands	No impacts to wetlands	Impacts estimated at 0.95 acres	No impacts to wetlands	Impacts estimated at 0.78 acres	No impacts to wetlands
Noise	None of the 24 noise sensitive receptors approach or exceed the noise abatement criteria (NAC) as set by FHWA	None of the 24 noise sensitive receptors approach or exceed the NAC as set by FHWA	None of the 24 noise sensitive receptors approach or exceed the NAC as set by FHWA	None of the 24 noise sensitive receptors approach or exceed the NAC as set by FHWA	Does not currently approach or exceed the NAC as set by FHWA; No change in current noise levels
Cultural Resources	No resources eligible or potentially eligible in the *National Register of Historic Places* (NRHP) were found during a Phase 1 cultural resource survey	No resources eligible or potentially eligible in the NRHP were found during a Phase 1 cultural resource survey	No resources eligible or potentially eligible in the NRHP were found during a Phase 1 cultural resource survey	No resources eligible or potentially eligible in the NRHP were found during a Phase 1 cultural resource survey	No impacts to cultural resources
Hazardous Materials	No encounters with hazardous materials are expected	No encounters with hazardous materials are expected	No encounters with hazardous materials are expected	No encounters with hazardous materials are expected	No encounters with hazardous materials are expected
Health & Safety	Positive impact to health & safety	Positive impact to health & safety	Positive impact to health & safety	Positive impact to health & safety	Negative impact to health & safety
Hazardous Waste	No significant impacts from hazardous waste generators are expected	No significant impacts from hazardous waste generators are expected	No significant impacts from hazardous waste generators are expected	No significant impacts from hazardous waste generators are expected	No encounters with hazardous waste generators are expected
Solid Waste	Short-term Increase in solid waste from construction activities; No long-term impact	Short-term increase in solid waste from construction activities; No long-term impact	Short-term increase in solid waste from construction activities; No long-term impact	Short-term increase in solid waste from construction activities; No long-term impact	No change in solid waste generation

Resource Category	**Alternative A (Proposed Action)** SPUI with US 98 over Cody Avenue	**Alternative B** SPUI with Cody Avenue over US 98	**Alternative C** TUDI with US 98 over Cody Avenue	**Alternative D** TUDI with Cody Avenue over US 98	**No Build Alternative**
Population	Regional population is expected to increase as a result of BRAC	Regional population is expected to increase as a result of BRAC	Regional population is expected to increase as a result of BRAC	Regional population is expected to increase as a result of BRAC	Regional population is expected to increase as a result of BRAC
Employment & Income	Short-term benefits from construction dollars; No long-term impact	Short-term benefits from construction dollars; No long-term impact	Short-term benefits from construction dollars; No long-term impact	Short-term benefits from construction dollars; No long-term impact	No change in employment or income
Environmental Justice	No impact to low-income or minority populations	No impact to low-income or minority populations	No impact to low-income or minority populations	No impact to low-income or minority populations	No impact to low-income or minority populations
Land Use	Will not negatively impact adjacent Air Force land use. Requires approx. 4.90 acres of federally owned property at Hurlburt Field	Will negatively impact adjacent Air Force land use. Requires approx. 9.88 acres of federally owned property at Hurlburt Field	Will negatively impact adjacent Air Force land use. Requires approx. 5.96 acres of federally owned property at Hurlburt Field	Will negatively impact adjacent Air Force land use. Requires approx. 9.45 acres of federally owned property at Hurlburt Field	No changes to current land use
Aesthetics	Insignificant change to visual resources	Insignificant change to visual resources	Insignificant change to visual resources	Insignificant change to visual resources	No change to visual resources
Transportation	Beneficial impacts to LOS; Significant (71%) reduction in traffic delays compared to TUDI; Short and long-term benefits to regional commuters and transportation network; Short-term impacts during construction	Beneficial impacts to LOS; Significant (71%) reduction in traffic delays compared to TUDI; Short and long-term benefits to regional commuters and transportation network; Short-term impacts during construction	Beneficial impacts to LOS; Minimal reduction in traffic delays compared to SPUI; Short and long-term benefits to regional commuters and transportation network; Short-term impacts during construction	Beneficial impacts to LOS; Minimal reduction in traffic delays compared to SPUI; Short and long-term benefits to regional commuters and transportation network; Short-term impacts during construction	Substantial negative impacts to LOS; Substantial increase in traffic delays; Overall negative impact to regional transportation network
Utilities	Short-term insignificant impacts during the relocation of utilities at proposed interchanges	Short-term insignificant impacts during the relocation of utilities at proposed interchanges	Short-term insignificant impacts during the relocation of utilities at proposed interchanges	Short-term insignificant impacts during the relocation of utilities at proposed interchanges	No utility impacts

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3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This section describes the natural and human environment that could be affected by the Proposed Action, the other action alternatives (Alternatives B, C, and D), and the No Build alternative. The potential environmental consequences of those actions are presented in Section 4. Based on the Proposed Action description, environmental resources that may be potentially affected as a result of implementing the Proposed Action have been considered. Environmental issues are identified and addressed based on a sliding scale approach discussed earlier in this EA (Section 1.5). The history and mission of the installation are described to provide background information, although no evaluation of mission impacts was conducted. The order of resource description is based on introducing the background and mission of the installation, the natural environment (air, geology, water, biology, wetlands, noise, and culture), hazardous materials and wastes, and the local community (socioeconomics, environmental justice, land use and aesthetics, transportation, and utilities).

3.2 HISTORY AND CURRENT MISSION OF HURLBURT FIELD

Hurlburt Field was originally designated as Auxiliary Field No. 9, one of the original pilot and gunnery training fields built within the Eglin AFB complex in the 1940's. The field was named for 1st Lieutenant Donald W. Hurlburt, a World War II pilot who was killed in an airplane accident on the Eglin reservation in 1943.

Engineer regiments from Eglin Field started construction of Hurlburt Field. The current Eglin AFB was established as Valparaiso Bombing and Gunnery Base in 1935, and redesignated first as Eglin Field in 1937 and then as the Army Air Corps Proving Ground, Eglin Field, in 1941. The installation grew to a major command during World War II with the responsibility for testing aircraft, weapons, and equipment used in combat. The relative isolation and sparsely inhabited surrounding communities created an ideal location to test and develop a variety of military projects. By 1950, Eglin Field had been redesignated Eglin AFB, and its activities were expanded when the Air Research and Development Command (later Air Force Systems Command) established the Air Force Armament Center at the reservation.

Hurlburt Field's runways, along with temporary and mobilization-type buildings, were constructed between 1943 and 1944. Since the end of World War II, Hurlburt Field has been used as an auxiliary field to Eglin Field, and extensive additions and runway alterations have been made.

Today, Hurlburt Field employs more than 8,000 military and 700 civilian personnel and manages a fleet of more than 75 aircraft. The 1st Special Operations Wing (1st SOW) at Hurlburt Field, Florida was redesignated from the 16th SOW on Nov. 16, 2006, and is one of two Air Force active duty SOW's and falls under AFSOC.

The 1st SOW mission focus is unconventional warfare: counter-terrorism, combat search and rescue, personnel recovery, psychological operations, aviation assistance to developing nations,

"deep battlefield" resupply, interdiction and close air support. The wing has units located at Hurlburt Field, Florida and Eglin AFB, Florida.

The wing's core missions include aerospace surface interface, agile combat support, combat aviation advisory operations, information operations, personnel recovery/recovery operations, precision aerospace fires, psychological operations dissemination, specialized aerospace mobility and specialized aerial refueling.

The 1st SOW also serves as a pivotal component of AFSOC's ability to provide and conduct special operations missions ranging from precision application of firepower to infiltration, exfiltration, and resupply and refueling of special operations force operational elements. In addition, the 1st SOW brings distinctive intelligence capabilities to the fight, including intelligence, surveillance and reconnaissance contributions, predictive analysis, and targeting expertise to joint special operations forces and combat search and rescue operations.

The wing is divided into four groups:

- 1st Special Operations Group:
- 1st Special Operations Maintenance Group:
- 1st Special Operations Mission Support Group:
- 1st Special Operations Medical Group:

The 1st SOW and Hurlburt Field also play host to several major partner units including AFSOC, 505th Command and Control Wing, Air Force Special Operations Training Center, Joint Special Operations University, 823rd Red Horse Squadron, and the 720th Special Tactics Group.

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3.3 NATURAL ENVIRONMENT

This section describes the affected resources for the natural environment, which includes air quality, geological resources, water resources, biological resources, wetlands, noise, and cultural resources.

3.3.1 Air Quality

This section describes the climatic and meteorological conditions that influence air quality, and the existing concentrations of various pollutants.

3.3.1.1 Climate

Climate is relevant to the proposed action because of the effects that local rainfall and wind conditions can have on soil erosion, surface runoff, and generated air emissions. Generally, Hurlburt Field experiences a mild, subtropical climate as a consequence of its latitude (30° to 31°) and the stabilizing effects of the Gulf of Mexico. Warm, humid summers and mild winters, prevailing southerly winds, and intense thunderstorm events and hurricane cycles characterize the climate. The Gulf of Mexico, numerous marshes, and swamps add moisture to the air and moderate winter and summer temperatures. Overall, the Gulf of Mexico moderates the climate of Hurlburt Field by tempering the cold northern winds of winter and causing cool sea breezes during the daytime in the summer (USAF, 2010c).

3.3.1.2 Temperature, Rainfall and Wind

The mean daily maximum temperature at Hurlburt Field is near 75 degrees Fahrenheit (°F). The average daily high temperature for August is 90°F; the average daily low temperature for January is 42°F (Destin-ation.com, 2010). Temperatures are equal to or below 32°F on an average of 18 days and equal or above 90°F on an average of 50 days. The mean annual precipitation is 62 inches. Thunderstorms occur on an average of 80 days, and measurable amounts of precipitation occur on an average of 106 days. Rainfall occurs primarily in the summer and late winter or early spring. The two peak rainfall periods are the primary period of June through September and the secondary period of December through April. Historically, the heaviest rainfall occurs during July at an average of 7.2 inches, and the lowest occurs in October at an average of 3.2 inches (Destin-ation.com, 2010). Most of the summer rainfall is from scattered showers and thundershowers that are often heavy and last only one or two hours. A monthly weather summary is presented in **Table 5**.

Hurlburt Field is vulnerable to tropical storms that originate off of North Africa and the Caribbean Sea. The Atlantic hurricane season runs from 1 June through 30 November. In the Hurlburt Field area, the most likely months are August through October. Historically, this area experiences gale-force winds an average of once every three years and hurricane-force winds an average of once every six years. Weather associated with hurricanes includes tornadoes, high winds, and extremely heavy rain (Okaloosa County, 2004).

Table 5: Weather Statistics Chart By Month (Averages)				
Month	**High Temp (°F)**	**Low Temp (°F)**	**Rainfall (Inches)**	**Water Temp (°F)**
January	61	42	4.0	64
February	63	44	4.3	64
March	68	50	6.0	66
April	76	58	4.5	72
May	83	65	3.4	78
June	89	74	5.2	81
July	89	74	7.2	83
August	90	74	7.1	85
September	87	70	6.8	84
October	80	59	3.2	84
November	69	48	3.4	72
December	63	44	5.0	64
*Source: Weather.com, 2010				

3.3.1.3 Air Quality

Air quality in a given location is generally determined by the concentrations of various measurable substances in the atmosphere known as "criteria pollutants." The type and amount of pollutants in the atmosphere, the size and topography of the air basin, and the local and regional meteorological influences determine air quality.

Identifying the affected area for an air quality assessment requires knowledge of pollutant types, source emissions rates and release parameters, proximity relationships of project emission sources to other emissions sources, and local and regional meteorological conditions. For inert pollutants (those that do not participate in photochemical reactions - i.e., all pollutants other than ozone and its precursors), the affected area is generally limited to an area extending a few miles downwind from the source. Pollutant concentrations are compared to federal and state ambient 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 (USAF, 2010c).

The National Ambient Air Quality Standards (NAAQS) developed by the U.S. Environmental Protection Agency (EPA) sets a national limit on the concentrations of "criteria pollutants" in the atmosphere of a particular area. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. The pollutants of highest concern to the EPA are Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2), particulate matter less than or equal to 2.5 and 10 micrometers in diameter ($PM_{1.5}$ and PM_{10}), Ozone (O_3), and Lead (Pb) (EPA, 2010b). The *Clean Air Act* (CAA) of 1990 requires states to achieve and maintain the NAAQS within their borders. Each state may adopt requirements stricter than those of the national standard. Each state is required by the EPA to develop a State Implementation Plan that contains strategies to achieve and maintain the national standard of air quality within the state.

Air quality is affected by point sources and area sources. Point source emissions are from a single source and are usually passed through a vent or stack. Area sources are generally characterized as a conglomerate of general point sources near each other such as an industrial area or manufacturing area. The status of an area is determined by how "criteria pollutant" concentrations in the atmosphere compare to the NAAQS. Areas that meet the NAAQS are designated as attainment. Conversely, areas that violate the NAAQS are designated as non-attainment. Finally, areas where data is insufficient for classification as either attainment or non-attainment are designated as unclassifiable. In areas designated as non-attainment, a State Implementation Plan is developed to bring the area into compliance with the NAAQS. Currently, Okaloosa County is designated as an attainment area for all "criteria pollutants." **Table 6** shows the federal NAAQS and the stricter standards adopted by Florida.

Table 6: Ambient Air Quality Standards

Air Pollutant	Averaging Time	Federal National Ambient Air Quality Standards		Florida Ambient Air Quality Standards
		Primary (>)	Secondary (>)	
Carbon Monoxide (CO)	8-hour	9 ppm	9 ppm	9 ppm
	1-hour	35 ppm	35 ppm	35 ppm
Nitrogen Dioxide (NO_2)	Annual	0.053 ppm	0.053 ppm	0.05 ppm
Sulfur Dioxide (SO_2)	Annual	0.03 ppm	-	0.02 ppm
	24-hour	0.14 ppm	-	0.10 ppm
	3-hour	-	0.50 ppm	0.50 ppm
Particulate Matter ($PM_{2.5}$)	24-hour	35 µg/m^3	35 µg/m^3	--
Particulate Matter (PM_{10})	Annual Arithmetic Mean	50 µg/m^3	50 µg/m^3	50 µg/m^3
	24-hour	150 µg/m^3	150 µg/m^3	150 µg/m^3
Ozone (O_3)	8-hour	0.075ppm	0.075ppm	--
	1-hour [1]	0.12 ppm	0.12 ppm	0.12 ppm
Lead (Pb)	Calendar Quarter	1.5 µg/m^3	1.5 µg/m^3	1.5 µg/m^3

Notes: ppm: parts per million
µg/m^3: micrograms per cubic meter
[1] Only applies to non-attainment areas
Source: EPA 2010a, Florida Department of Environmental Protection 2010a.

In accordance with EO 12088, *Federal Compliance with Pollution Control Standards*, DoD facilities must ensure that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to the CAA and other environmental laws. In support of EO 12088, AFI 32-70, *Environmental Quality*, requires Air Force facilities to comply with applicable federal, state, and local environmental laws and standards. Furthermore, AFI 32-7040, *Air Quality Compliance*, establishes a framework for Air Force facilities to follow in order to comply with applicable CAA requirements. Within this framework are the requirements to obtain and maintain operating permits as required and to prepare and periodically update a comprehensive base emissions inventory (USAF, 2010c).

Okaloosa County meets current standards for O_3 and for all NAAQS Criteria Pollutants (EPA 2010b). However, the EPA proposes to lower the NAAQS for 8-hour primary ground-level O_3 to a level within the range of 0.060-0.070 ppm. The proposed rule was published in the *Federal Register* on January 19, 2010. In 2013, the O_3 standard will most likely be lowered and projections are that Okaloosa County will go non-attainment for ozone at that time. If designated non-attainment, there is a provision in the *Clean Air Act* that requires federal funded transportation investments to be consistent with the emissions targets in state implementation plans to avoid federal and state sanctions on transportation construction. The Long Range Transportation Plan and the Transportation Improvement Program would be analyzed for consistency with air quality goals. The Okaloosa-Walton Transportation Planning Organization would develop a Transportation Conformity Plan to show how it will do its part in transportation planning to meet Florida's Implementation Plan goals.

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An air quality monitoring station (AIRS # 091-0002) was placed in Okaloosa County in December 2008 just east of Hurlburt Field in Mary Esther, Florida to collect data through the end of 2011 at which time the current status of attainment will be re-evaluated. Current data from that station are provided in **Table 7** providing the ten highest daily O_3 averages for calendar year 2009.

Table 7: Ten Highest Daily Ozone (O_3) Averages for Year 2009
AIRS # A091-0002

Date	Max 8-Hour Average (in parts per million)	Max 1-Hour Average (in parts per million)
March 2, 2009	--	0.071
March 21, 2009	0.060	--
April 8, 2009	0.067	0.071
April 21, 2009	--	0.069
April 22, 2009	0.061	--
June 6, 2009	0.061	--
June 20, 2009	0.064	0.072
June 21, 2009	0.062	--
June 22, 2009	--	0.071
June 23, 2009	--	0.071
June 29, 2009	--	0.071
June 30, 2009	--	--
July 1, 2009	0.064	0.071
July 2, 2009	0.066	0.070
July 3, 2009	0.079	0.089
July 29, 2009	--	--
November 15, 2009	0.061	--
November 21, 2009	--	--

Other air emissions relevant to transportation-related impacts include mobile emissions and greenhouse gases (GHG). The FDEP has not required Hurlburt Field to conduct a mobile source emission inventory. In accordance with EOs 13423, 13514, and EPA's Mandatory Greenhouse Gas Reporting Rule, guidance will be forthcoming from the Air Force for the development of systems by which GHG emissions will be inventoried, tracked, and reported annually after the baseline year Fiscal Year (FY) 2008. An applicability study conducted Air Force wide revealed that Hurlburt Field is well below the 25 metric ton threshold for reporting at this time.

3.3.2 Geological Resources

Geological resources include the physical surface and subsurface features of the earth such as physiography, geology, geologic hazards, and soils.

3.3.2.1 Physiographic

The interchange at the intersection of US 98 and Cody Avenue, which leads to the main gate at Hurlburt Field, is located in the Gulf Coastal Lowlands physiographic region. The Gulf Coastal Lowlands (GCL) are a series of coast-parallel terraces composed of clastics (i.e. consisting of rock or mineral fragments) that extend to higher inland elevations; terraces are separated by an escarpment or gentle slope. The GCL are generally characterized by beach ridge plains, shorelines, and marine terraces formed during the Pleistocene Epoch or Ice Age between 10,000 and 1.8 million years ago. The terrace complexes are predominantly underlain by sand with local occurrences of clay, shell beds, and peat. The inland elevations of the terraces occur at about 150 feet, 100 feet, and 35 feet. The terrace is present at approximately 10 feet but is poorly preserved. Elevations in these lowlands range from 0 to 100 feet above National Geodetic Vertical Datum (USAF, 2010c).

3.3.2.2 Geology

Millions of years ago, Florida began as limestone formed at the bottom of a shallow sea. Panhandle Florida has been slowly emerging from the sea since at least some time in the Miocene geologic period. The age of surface sediments, therefore, is older near the Alabama and Georgia borders and becomes progressively younger toward present sea level. The floor of each stand of the sea was a relatively flat, gently seaward-sloping terrace when first exposed by the receding shoreline. Terraces are separated from each other by step-like escarpments or by subtle changes in relief. Since their emergence, terraces have been eroded and dissected by streams and rivers. Entire strata have been removed in some areas, and materials from other strata have been deposited on top of lower terraces and rearranged by the erosive power of water (Wolfe et al., 1988).

3.3.2.3 Geologic Hazards

Geologic hazards in the area are negligible; there are no sinkholes and no damage is likely from seismic events in Florida or Southern Alabama (USAF, 1992).

3.3.2.4 Soils

A listing of the types of soils identified within the proposed project area is presented in **Table 8**, and these are illustrated in **Figure 3.3.2.4-1**. The Soil Map indicates that the soils in the immediate study area are conducive to roadbed construction.

Table 8: Soil Descriptions

Symbol	Soil Name	Soil Classification		Permeability (In/ Hour)	Suitability for Road Subgrade
		Unified [1]	AASHTO [2]		
4	Chipley, 0 to 5 percent slopes	SP-SM	A-3, A-2-4	6-20	Fair
6	Dorovan muck, frequently flooded	PT	-----	.6 - 2.0	Poor
10	Kureb sand, 0 to 8 percent slopes	SP, SP-SM	A-3	6-20	Good
17	Mandarin, 0 to 3 percent slopes	SP, SP-SM	A-3	6-20	Fair
21	Resota sand, 0 to 5 percent slopes	SP, SM, SP-SM	A-3, A-2-4	>20	Good
22	Rutledge sand, depressional	SP-SM, SM	A-2, A-3	6-20	Poor
27	Urban land	-----	-----	-----	Good[3]
48	Pickney loamy sand, depressional	SM, SP-SM	A-2	6-20	Poor

Source: USDA, 1995.
[1] Based on the Unified Soil Classification System.
[2] Based on the AASHTO Soil Classification System.
[3] As determined by SPT borings

Most of the soils in the study area have high rates of permeability, being classified as SP, SM, or SP-SM by the unified soil classification system or A-2, A-3, or A-2-4 by AASHTO. Based on the Okaloosa County Soil Survey, there are three predominant soil types within the approximate project limits. (This soil description pertains only to the near-surface soils - generally less than 6 feet in depth.) The soil types are indicated by map unit number 4, 6, and 27, which correspond to the Chipley, Dorovan muck, and Urban Soils. A brief description of each follows:

- Chipley - This soil is located south of the proposed project and at the northeastern limits on Hurlburt Main. The soil consists of somewhat poorly drained, very dark sand about 6 inches deep with under laying sand to a depth of 80 inches or more. Permeability is rapid and available water capacity is low.
- Dorovan - This soil appears to be located at the western end of the proposed project limits. This soil type was not encountered during the geotechnical field investigation; however, the soil consists of black muck to a depth of 60 inches or more overlying very dark grayish brown sand that extends to a depth of 80 inches or more. Dorovan soils are moderate in permeability and have very high water capacity.
- Urban - Urban land consists of areas that are 75 percent or more covered with streets, houses, commercial buildings, parking lots, shopping centers, industrial parks, airports and related facilities. Urban soil consists of several types of soils, all too small in area to map separately.

During the 2003 PD&E study, soil investigations were conducted to determine the soil characteristics with respect to road construction. Nine hand auger borings were performed to a depth of 6 feet along the northern and southern sides of US 98. Two Standard Penetration Test (SPT) borings were performed within the approximate locations of the proposed construction to depths of 130 feet below ground level. The two SPT borings were placed such that they would be applicable to any alignment selected as a result of this EA. The soils encountered in the hand auger and SPT borings on the roadway portion of this project consist predominantly of fine sands and slightly silty to silty fine sands. Neither organic (muck) material nor material unsuitable for use in roadway construction was encountered in the findings during the subsurface investigation. The borings performed for this phase were performed within the existing ROW. No significantly thick unsuitable stratum was encountered; however, this does not imply that unsuitable soils will not be encountered elsewhere when a more extensive design evaluation is performed (HDR, 2000a).

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Legend
3 Beaches
4 Chipley
6 Dorovan muck
12 Lakeland
17 Mandarin sand
21 Resota sand
22 Rutledge sand
27 Urban Land
US 98 (SR 30)
Cody Ave
Kissam St
Purcell Dr
Campbell St
Whitehead St
Santa Rosa Sound
Soils Map
Figure 3.3.2.4-1
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR

3.3.3 Water Resources

3.3.3.1 Surface Water

Runoff from the proposed project area is currently collected in roadside ditches and conveyed to several outfall drainage basins that eventually drain to the Santa Rosa Sound. **Figure 3.3.3.1-1** identifies these outfall basins (as obtained from Hurlburt's GIS database). The drainage basins within the proposed project area are described in **Table 9**.

Table 9: Stormwater Outfall Basins

Basin ID	Comments
7	Ditch that conveys runoff from US 98 & Basin 7 to a permitted stormwater pond North of Whitbeck St.
8	Stormwater conveyance through Basin 8 to Santa Rosa Sound.
9	Ditch that conveys runoff through Basin 9 to Santa Rosa Sound.
11	Ditch that conveys runoff from US 98 & Basin 11 to a permitted stormwater pond East of Kissam St.
26	Basin 26 runs along Campaign St. & drains to a permitted stormwater pond associated with a new security gate and Santa Rosa Sound.

The proposed project area contains six existing cross drains (shown in **Figure 3.3.3.1-1**, as Stormwater Flow Lines underneath US 98) serving the outfall drainage basins (**Table 10)**. In addition, there are three stormwater ponds, all located immediately south of US 98, that provide treatment for stormwater leaving Hurlburt Field. These ponds received permits from FDEP under the previous stormwater regulation (62-25, F.A.C.). As of October 2007, 62-346, F.A.C. became effective and requires attenuation as well as water quality treatment if certain thresholds are tripped. Physical changes to one or more of the regional ponds described above (for instance as a result of proposed construction) may trigger the management system be brought up to 62-346, F.A.C. standards for the basin served by that pond. The other stormwater ponds shown in **Figure 3.3.3.1-1** were permitted under 62-346, F.A.C. and are associated with some of the other projects listed in **Table 3**, Section 2.6; page 2-21, of this EA.

Table 10: Existing Cross Drains

No.	Structure	Comments
1	36" CMP	No observed structural damage or scour
2	36" CMP	No observed structural damage or scour
3	48" RCP	No observed structural damage or scour
4	2 - 54" RCP	No observed structural damage or scour
5	48" RCP	No observed structural damage or scour
6	5' x 3' CBC	No observed structural damage or scour


Drainage Features
Figure 3.3.3.1-1
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR
Legend
Stormwater Flow Lines
Outfall Basins
Existing ROW
Permitted Stormwater Ponds
Flood Zones
US 98 (SR 30)
Cody Ave
Independence Rd
O'Neil Ave
Hamilton St
Hewitt Ave
Hume Dr
Purcell Dr
Whitfield St
Kissimmee St
Santa Rosa Sound
A
X
AE
VE
Sources: Hurlburt GIS; Aerial: Digital Globe, 2007

3.3.3.2 Floodplains

Flood Insurance Rate Maps (FIRM), prepared by the Federal Emergency Management Agency (FEMA) and obtained from the Hurlburt GIS database, were reviewed to determine the location of floodplains. The project falls within Community Panel Number 12091C0437H (**Figure 3.3.3.2-1**).

As defined by EO 11988, *Floodplain Management*, prior to any construction activity in a floodplain area, proponents must first prepare a FONPA prior to signature on a FONSI or Record of Decision (ROD) document, which documents that there are no practicable alternatives to such construction, and that the proposed action includes all practicable measures to minimize harm to floodplains. In preparing the FONPA, the Air Force must consider the full range of practicable alternatives that will meet the proposed mission requirements. The proposed action must include all practicable measures to minimize harm to floodplains.

The construction activities related to this project are located in FEMA Flood Zone X. The "X" denotes areas determined to be outside of the 100-year floodplain. However, as seen on **Figure 3.3.3.2-1**, a small (0.01 acre) portion of the proposed ROW easement will traverse Zone AE. Zone AE denotes areas determined to be inside the 100-year floodplain. This is the closest AE designated floodplain to the proposed interchange improvements and occurs south of Hume Drive. At this location, Zone AE parallels Hume Drive for a distance of approximately 500 feet. The proponent has committed, in Section 4.1.3.1 and in Section 5.3.3, to avoiding impacts to 100-year floodplains.

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Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field

HDR

FIRM Community Panel Number 12091C0437H

Aerial Source: Digital Globe, 2007; Flood Zones: Hurlburt GIS

Figure 3.3.3.2-1

3.3.3.3 Groundwater

The significant aquifers located near the proposed project area are the sand and gravel aquifer and the Floridan aquifer. The shallow sand and gravel aquifer, which provides the uppermost source of groundwater in usable quantities, is an unconfined surface unit segregated from the underlying limestone Floridan aquifer by low permeability Pensacola Clay. The sand and gravel aquifer consist of the Citronelle Formation and marine terrace deposits; the aquifer ranges in thickness from 125 to 150 feet at Hurlburt Field. The aquifer is composed of clean, fine to course sand and gravel often containing silt, silty clay, and peat beds. The main producing zone of this aquifer is located in the southeastern part of Hurlburt Field and is capable of yielding more than 300 gallons per minute. The shallowest portion of the sand and gravel aquifer may be at or near the ground surface around the coastal areas (USAF, 2003c).

During the soil investigations, nine hand auger borings were performed along US 98. Additionally, two SPT borings were performed within the approximate locations of the proposed construction. The groundwater table was measured at each of these borings; groundwater was encountered at 3 feet below the existing ground surface along US 98. The seasonal high water table (SHWT) levels may be encountered at depths ranging from 3.5 feet to 5.0 feet below the existing ground surface. Groundwater elevations are highly dependent on environmental and seasonal conditions such as frequency and magnitude of rainfall patterns, tidal influences, and man-made influences such as existing drainage ditches and ponds, underdrains, and areas of covered soils (parking lots, side walks, etc.,) (HDR, 2010c).

Hurlburt Field's drinking water is supplied through the Floridan aquifer from on-base wells that provide water from a depth exceeding 500 feet. Demand for this water would be essentially unaffected during construction and operation of the Proposed Action, and the water quality of this aquifer would be unaffected because of its depth. Therefore, no further characterization of the Floridan aquifer is provided in this EA (Okaloosa County, 2004).

Water quality in the sand and gravel aquifer is generally acceptable for potable use with minimal treatment and pH adjustment. Raw water is relatively void of dissolved solids, and is acidic with the pH ranging from 4.8 to 5.8 (Okaloosa County, 2004).

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3.3.4 Biological Resources

Biological resources include the plants and animals that make up natural communities. These natural communities are dependant upon the climate and landscape position (topography) of the area. The discussion of biological resources is divided into three components: vegetation, wildlife, and rare, threatened, or endangered (listed) species.

3.3.4.1 Vegetation

The dominant upland vegetation in the sandhill communities along the US 98 and Cody Avenue intersection consist of long leaf pine, slash pine, sand live oak and live oak, southern magnolia, and saw palmetto. The majority of the wetlands along the corridor is classified by the U.S. Fish and Wildlife Service (USFWS) as palustrine/forested and palustrine/emergent and contains species like willows, sweetbay magnolia, red maple, cypress, titi, wax myrtle, dahoon holly, myrtle-leaved holly, gallberry, fetterbush, ferns, yellow-eyed grass, saw grass, and meadow beauty.

3.3.4.2 Wildlife

The proposed project corridor has the potential to contain suitable habitat for many animal species. However, existing development and surrounding land use have severed the natural wildlife corridors and the associated wildlife movement potential. While bird species are more mobile, the Santa Rosa Sound to the south and US 98 to the north limit the small mammals, reptiles, and amphibians associated with the natural communities. **Table 11** provides a summary of fish and wildlife species found in the vicinity of Hurlburt Field and the Eglin Reservation.

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Table 11: Summary List of Fish and Wildlife Species Found in the Vicinity of Hurlburt Field

Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
Red-cockaded Woodpecker	*Picoides borealis*	Wood Duck	*Aix sponsa*	Pine Barrens Tree Frog	*Hyla andersonii*
Northern Bobwhite	*Colinus virginianus*	Red-winged Blackbird	*Agelaius phoenicius*	Five-lined Skink	*Eumeces fasciatus*
Great Horned Owl	*Bubo virginianus*	Cotton Mouth	*Agkistridon piscivorus*	Green Anole	*Anolis carolinensis*
Gopher Tortoise	*Gopherus polyphemus*	Flatwoods Salamander	*Ambystoma bishopi*	Garter Snake	*Thamnophis sirtalis*
Indigo Snake	*Drymarchon corais*	River Otter	*Lutra canadensis*	American Beaver	*Castor canadensis*
Diamondback Rattlesnake	*Crotalus adamanteus*	Gray Fox	*Urocyon cinereoargenteus*	Northern Parula	*Parula Americana*
Six-lined Racerunner	*Cnemidophorus sexlineatus*	Ghost Crab	*Ocypode quadratus*	Periwinkles	*Littorina Irrorata*
Florida Black Bear	*Ursus americanus floridanus*	Least Tern	*Sterna albifrons*	Oyster	*Crassostrea virginica*
Fox Squirrel	*Sciurus niger*	Loggerhead Sea Turtle	*Caretta caretta*	Gulf Crab	*Calinectes smilis*
Least Shrew	*Cryptodus parva*	Shorebirds	*Several genera & species*	Long-nosed Killifish	*Fundulus similis*
Cottontail Rabbit	*Sylvilagus floridanus*	Fox	*Vulpes vulpes*	Sheepshead Minnow	*Cyprinodon variegatus*
Pocket Gopher	*Geomys pinetus*	Cotton Rat	*Sigmodon hispidus*	Great Blue Heron	*Ardea herodias*
White-tailed Deer	*Odocoileus virginianus*	Opossum	*Didelphis virginiana*	Belted Kingfisher	*Megaceryle alcyon*
Feral Pig	*Sus scrofa*	Eastern Mole	*Scalopus aquaticus*	Red shouldered Hawk	*Buteo lineatus*
Salt Marsh Rabbit	*Sylvilagus aquaticus*	Florida Burrowing Owl	*Athene cunicularia*	Southeastern American Kestrel	*Falco sparverius paulus*
Slender Glass Lizard	*Ophisaurus attenuatus*	Flycatchers	*Tyrannidae spp.*	American Alligator	*Alligator mississippiensis*
Raccoon	*Procyon lotor*	Cotton Mouse	*Peromyscus gossypinus*	Pygmy Rattlesnake	*Sistrurus miliarius*
Beach Mouse	*Peromyscus polionotus sbspp.*	Black Racer	*Coluber constrictor*	Okaloosa Darter	*Etheostoma okaloosae*
Largemouth Bass	*Micropterus salmoides*	Sailfin Shiner	*Pteronotropis hypselopterus*		

Source: USAF, 2007

3.3.4.3 Listed Species

According to the Florida Natural Areas Inventory (FNAI), several threatened and endangered species have been recorded within the proposed project corridor. **Table 12** shows the species that have been recorded within the last twenty years and their federal and state status in Okaloosa County. **Table 13** shows the species and their federal and state status documented as historic occurrences, those that have not been observed within the last twenty years. **Table 14** shows the listed species with potential to occur within the project corridor.

Table 12: Listed Species Recorded in the Proposed Action Area Within the Last Twenty Years

Species		Listing Status	Habitat	Potential
Amphibian and Reptiles				
Gopher tortoise	*Gopherus polyphemus*	ST	Xeric upland communities	Low
Plants				
Godfrey's Goldenaster	*Chrysopsis godfreyi*	SE	Xeric upland communities	Low
Cruise's Goldenaster	*Chrysopsis gossypina ssp. cruiseana*	SE	Stable Coastal Dunes	Low

FE - federally endangered; FT - federally threatened; SE - state endangered; ST - state threatened
Source: FNAI

Table 13: Listed Species Historically Recorded in the Proposed Action Area Not Recorded in the Last Twenty Years

Species		Listing Status	Habitat	Potential
Plants				
Perforate Reindeer Lichen	*Cladonia perforata*	FE/SE	Coastal Scrub	Low
Gulf Coast Lupine	*Lupinus westianus*	SE	Coastal Scrub	Low

FE - federally endangered; FT - federally threatened; SE - state endangered; ST - state threatened
Source: FNAI

Table 14: Listed Species with Potential to Occur within the Proposed Action Area				
Species		**Listing Status**	**Habitat**	**Potential**
Amphibian and Reptiles				
Eastern indigo snake	Drymarchon corais couperi	FT	Most habitat types; xeric uplands; (including gopher tortoise burrows)	Low
Birds				
Bald eagle	Haliaeetus leucocephalus	FT	Near large bodies of water	Moderate
Mammals				
Florida black bear	Ursus americanus floridanus	ST	Most habitat types including riparian areas	Low
Plants				
Pine-woods Bluestem	*Andropogon arctatus*	ST	Coastal Scrub	Low
Hairy Wild Indigo	*Baptisia calycosa var. villosa*	ST	Xeric upland community	Low
Curtis' sandgrass	*Calamovilfa curtissii*	ST	Wet prairies and savannas	Low
Panhandle Lily	*Lilium iridollae*	SE	Floodplain forest, bogs, swamps	Low
West's Flax	*Linum westii*	SE	Wet flatwoods and depression ponds	Low
Hummingbird Flower	*Macranthera flammea*	SE	Seepage slopes, edges of baygalls	Low
Primrose-flowered Butterwort	*Pinguicula primuliflora*	SE	Seepage Slope, bogs	Low
Yellow Fringeless Orchid	*Platanthera integra*	SE	Seepage Slope, bogs	Low
Large-leafed jointweed	*Polygonella macrophylla*	ST	Upland communities	Low
White-top pitcher plant	*Sarracenia leucophylla*	SE	Wet prairies and savannas	Low
Florida flame azalea	*Rhododendron austrinum*	SE	Slope forests	Low
Small-flowered Meadowbeauty	*Rhexia parviflora*	SE	Seepage slopes and depression marshes	Low
Panhandle meadow-beauty	*Rhexia salicifolia*	ST	Wet Prairies and savannas	Low
Pineland Hoary-pea	*Tephrosia mohrii*	ST	Coastal scrub	Low
Chapman's Crownbeard	*Verbesina chapmanii*	ST	Wet Prairies and savannas	Low
Harper's Yellow-eyed Grass	*Xyris scabrifolia*	ST	Seepage slopes and bogs	Low
FE - federally endangered; FT - federally threatened; SE - state endangered; ST - state threatened **Source: FNAI**				

The federal and state listed species presented in **Table 14** above have the potential to occur within a one-mile radius of the Proposed Action. Therefore, species surveys were conducted to determine if adverse impacts to any listed species are likely to occur as a result of the Proposed Action. Based on surveys, historic and current disturbances in the vicinity of the Proposed Action it was determined no federal or state listed species will be adversely impacted by the Proposed Action. The wildlife species (including gopher tortoise) listed in **Table 14** are described below.

Eastern indigo snake

The federally threatened Eastern indigo snake is the largest non-venomous snake in North America and can grow up to 125 inches in length. The USFWS listed the Eastern indigo snake as threatened in 1978 (FR Vol. 43 No 52:11082-11093). It generally requires very large tracts of land to survive and Eglin Reservation provides an ideal habitat with large expanses of undeveloped and undisturbed land. Indigos utilize a diverse range of habitats, from flatwoods, hammocks, stream bottoms, cane brakes, riparian thickets, and high ground with deep, well-drained to excessively drained, sandy soils. Habitat preferences vary seasonally. Pine sandhill winter dens are used from December to April. Summer territories are selected from May to July. From August through November, indigo snakes are frequently located in shady creek bottoms. These seasonal changes in habitat encourage the maintenance of travel corridors that link these different habitat types (Hallam et al., 1998). They are considered commensals of the gopher tortoise, wintering over in their burrows in the uplands, but foraging in more mesic to hydric habitats. The Eastern indigo snake is found throughout Florida, but is rare in most areas. There is a low potential for the indigo snake in the Proposed Action area.

Bald eagle

As of August 8, 2007, the USFWS has removed (de-listed) the bald eagle from the federal endangered species list. However, protection would continue under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The National Bald Eagle Management Guidelines would take the place of the 1987 Habitat Management Guidelines which operated with 750-foot and 1,500-foot buffers around active nests. The proposed guidelines require one 660-foot no activity buffer zone for projects of any size that are visible from the nest. The bald eagle most commonly uses habitats close to bays, rivers, lakes or other bodies of water providing good food sources. Bald eagles generally nest in tall pine trees and return to the same nest year after year. Most bald eagles in northern and central Florida migrate north out of the state in May-July after the breeding season but some birds from northern populations migrate to northern Florida in the winter. No active bald eagle nests are documented within 660-feet of the Proposed Action corridor.

Gopher tortoise

The state threatened gopher tortoise is a terrestrial tortoise that lives primarily in well managed upland scrub habitats. They typically feed in the dawn and dusk hours and spend most of the day in their burrows. Eglin Reservation provides excellent habitat and foraging areas for the gopher tortoise. No gopher tortoises or active burrows were located within the Proposed Action corridor.

Florida black bear

The state threatened Florida black bear is a large mammal that inhabits large expanses of undeveloped land for foraging. Their range is throughout north Florida and commonly found on Eglin Reservation. The black bear moves through various habitats such as pine flatwood communities and floodplain areas foraging primarily on berries and insects. Most sitings on the reservation occur during the dawn and dusk hours as the bear is mostly nocturnal and feeds during the cooler hours of the day. Eglin Reservation has taken numerous measures to protect the bear from development and habitat degradation. Vehicle traffic and development are the primary problems for the bear. There is a low potential for impacts to the Florida black bear as the Proposed Action corridor is in area that has been severed from primary habitat and greenways utilized by the Florida black bear.

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3.3.5 Wetlands

Wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (Army, 1987). Wetlands are the most productive ecosystems in the world (Mitsch and Gosselink, 1993). Values associated with biological productivity of wetlands include: water quality, flood control, erosion control, community structure and wildlife support, recreation, aesthetics, and commercial benefits as well as serving to control the local climate. Many wetlands return over two-thirds of their annual water inputs to the atmosphere through evapotranspiration (Richardson and McCarthy, 1994).

3.3.5.1 Wetland Regulations

Wetlands are regulated pursuant to Section 404 of the CWA, EO 11990, *Protection of Wetlands*, and Chapter 373, Florida Statutes (F.S.). The USACE and NWFWMD or FDEP have jurisdiction over wetlands in the proposed project area. For projects on federally owned property at an Air Force installation where avoidance of wetlands impacts is not feasible, the Deputy Assistant Secretary of the Air Force for Environment, Safety, and Occupational Health must be notified in accordance with EO 11990. According to EO 11990, May 24, 1977, the Air Force will seek to preserve the natural values of wetlands while carrying out its mission on both Air Force lands and non-Air Force lands. To the maximum extent practicable, the Air Force will avoid actions which would either destroy or adversely modify wetlands. The Air Force will fully disclose the location of wetlands, and any land-use restrictions imposed by regulatory authority, on lands that are transferred or sold to non-federal entities. Prior to any construction activity in a wetland area (as defined by EO 11990), proponents must first prepare a FONPA prior to signature on a FONSI or ROD document, which documents that there are no practicable alternatives to such construction, and that the proposed action includes all practicable measures to minimize harm to wetlands. In preparing the FONPA, the Air Force must consider the full range of practicable alternatives that will meet the proposed mission requirements. The Proposed Action must include all practicable measures to minimize harm to wetlands. The proponent of any activity that may affect known or suspected wetlands is required to conduct jurisdictional wetland delineations.

3.3.5.2 Proposed Project Area

Wetland delineations were provided by Hurlburt Field in GIS format. Hurlburt Field had the FDEP and USACE perform a formal wetland jurisdictional determination. The wetlands shown on **Figure 3.3.5.2-1** represent jurisdictional boundaries of wetlands of both regulatory agencies along the proposed project corridor in relation to the Proposed Action. The wetland was classified according to the USFWS manual, "*Classification of Wetlands and Deepwater Habitats of the United States*" (Cowardin et. al., 1979).

The nearest wetland, wetland 1, is located in the southwest quadrant at the corner of US 98 and Campaign Street. This wetland is Forested, Broad-leaved Evergreen, Needle-leaved Evergreen, Saturated/Semipermanent/Seasonal (PFO3/4Y) along the northern limits and contains emergent vegetation to the south. The emergent vegetation is associated with a maintained ditch, which borders the western limits of the wetland. The ditch is connected to the Santa Rosa Sound via a culvert located along the southwestern boundary (HDR, 2010f).

Wetland canopy vegetation within the proposed project area corridor consists of slash pine (*Pinus elliotii*), willows (*Salix spp.*), sweetbay (*Magnolia virginiana*), red maple (*Acer rubrum*), and cypress (*Taxodium spp.*). The understory and groundcover consist of species such as titi (*Cliftonia monophylla*), wax myrtle (*Myrica cerifera*), dahoon holly (*Ilex cassine*), myrtle-leaved holly (*Ilex myrtifolia*), gallberry (*Ilex glabra and coriacea*), fetterbush (*Lyonia lucida*), ferns (*Osmunda spp.*) and (*Woodwardia spp.*), yellow-eyed grass (*Xyris spp.)*, saw grass (*Cladium jamaicense*) and meadow beauty (*Rhexia spp.*).

Public uses of the wetlands are limited by the proximity to the roadway and the controlled access points associated with a military installation and security gates as well as residential development on both sides of the project.

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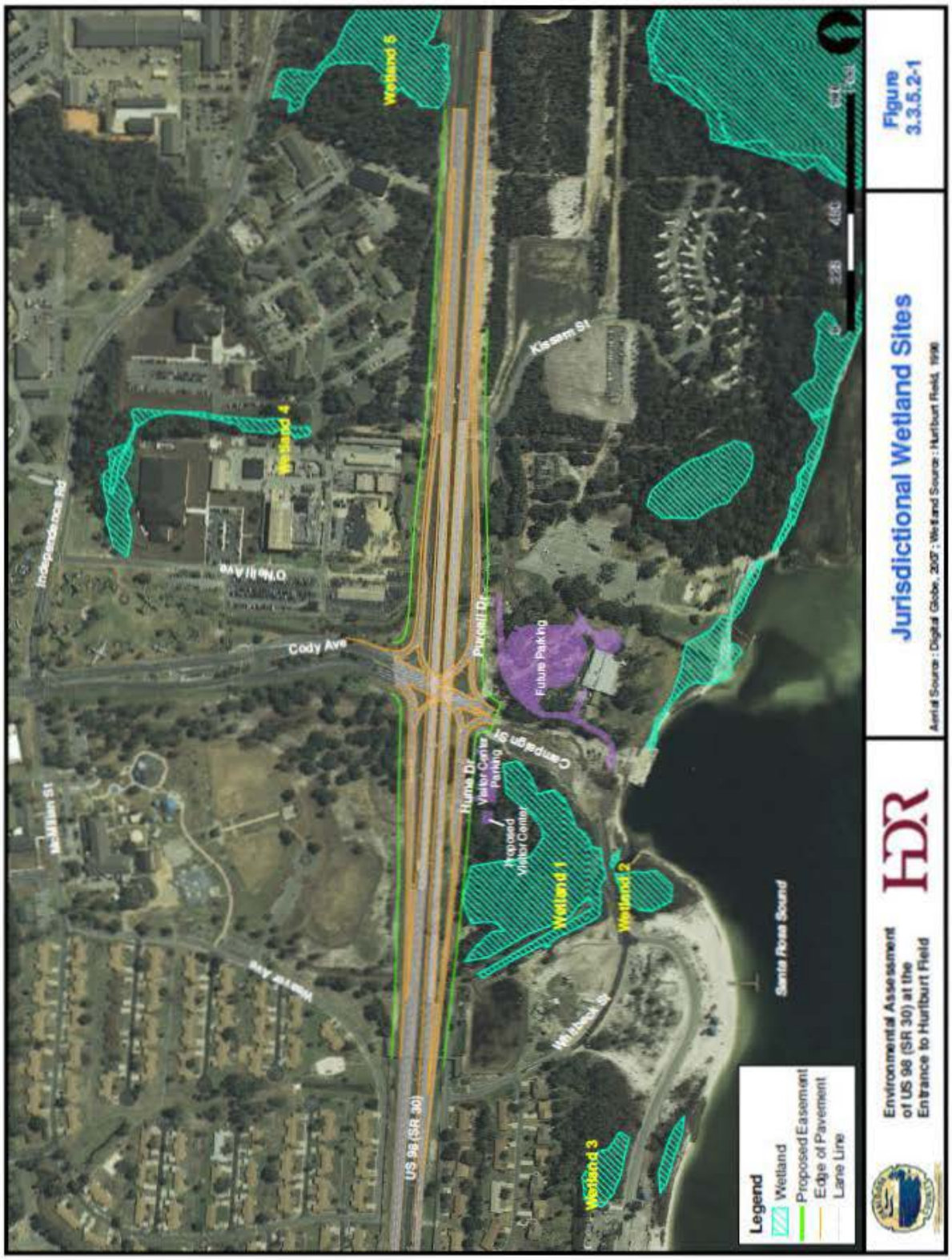
Wetland 5
Wetland 4
Wetland 1
Wetland 2
Wetland 3
Cody Ave
Parcell Dr
Kissam St
Future Parking
Proposed Visitor Center
Visitor Center Parking
Campaign St
Hunts Dr
US 98 (SR 30)
Santa Rosa Sound
Legend
Wetland
Proposed Easement
Edge of Pavement
Lane Line
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR
Jurisdictional Wetland Sites
Figure 3.3.5.2-1

3.3.6 Noise

This section provides a description of noise, the region of influence (ROI), area noise receptors, and the affected environment.

3.3.6.1 Noise Description

Noise is defined, as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying. Human response to noise varies according to the type and characteristics of the noise sources, distance between source and receiver, receiver sensitivity, and time of day.

Sound is measured with instruments that measure variations in air pressure, which are used to calculate instantaneous sound levels in decibels (dB). A-weighted sound level measurements (often denoted dBA) are used to characterize sound levels that the human ear responds to especially well by emphasizing mid-frequencies and de-emphasizing the low and high frequencies. The C-weighted sound level, denoted dBC, is used less frequently but is practical when measuring impulsive sounds such as blasts. Unlike A-weighting, the C-weighting does not de-emphasize the low frequencies within the audible spectrum.

Noise can be presented as day-night average sound level (DNL), a cumulative metric that accounts for the total sound energy occurring over a 24-hour period with a 10-dB penalty added to those operations between 10:00 pm and 7:00 am. The DNL is the preferred metric of the U.S. Department of Housing and Urban Development, the Federal Aviation Administration, and the EPA. Most studies have demonstrated that people are exposed to DNL of 50 to 55 dBA or higher on a daily basis. Research has indicated that approximately 87 percent of the population is not highly annoyed by outdoor sound levels below 65 dBA DNL (FICON, 1992). Therefore, 65 dBA DNL is typically used to help determine compatibility of military operations with local and community land use.

Other descriptors used to describe time-varying sound levels are the equivalent sound level (LEQ) and the sound exposure level (SEL). LEQ represents the continuous sound level having the same acoustic energy and time interval as the actual fluctuating sound event. For example, 8-hr LEQ signifies that the continuous sound level is measured over an 8 hour period. SEL is a measure of the total acoustic energy transmitted to the listener. It represents the sound level of a constant sound that would, in one second, generate the same acoustic energy, as did the actual time-varying noise event (USAF, 2003b).

3.3.6.2 Region of Influence

Based on the roadway segment traffic volumes, proposed typical section, posted speed, and land use, this project consisted of one Noise Sensitive Area (NSA). NSA "A" begins at the western end of the proposed project limits, which is approximately 4,150 feet west of the US 98 and Cody Avenue interchange, and extends eastward approximately 1.9 miles to a point located approximately 5,850 feet east of the interchange.

3.3.6.3 Noise Sensitive Receptors

Each noise sensitive site analyzed depicts an individual noise sensitive receptor. Noise sensitive receptors are defined as any property (owner occupied, rented, or leased) where frequent exterior human use occurs and where a lowered noise level would be of benefit. In those situations where there are no exterior activities to be affected by the traffic noise, the interior of the building shall be used to identify a noise sensitive receptor. Mission requirements, including aircraft over flights, at Hurlburt Field could also contribute to the noise sources.

The land use surrounding and adjacent to the proposed project area consists primarily of federally owned property (Hurlburt Field). The land use changes to mixed single-family/multi-family residential and low intensity commercial near the project limits along US 98. The city of Mary Esther is located approximately 500 feet east of the eastern project limits.

Most of the noise sensitive sites are within 95 to 255 feet of the closest existing centerline. All of the 24 noise sensitive sites are within 300 feet of the centerline. The surrounding terrain within NSA "A" is relatively flat near the roadway. An approximate 6-foot high privacy wall is located between US 98 and some of the north and south residential receptors in the proposed project area west of the Hurlburt Field entrance. There are no other unusual features that could significantly influence the noise propagation environment.

3.3.6.4 Affected Environment

The FHWA Noise Abatement Criteria (NAC), summarized in **Table 15**, establish guidelines for traffic noise impact assessment with respect to various land uses. If one or more noise sensitive receptors are affected by project related traffic noise levels that approach or exceed the abatement criteria or that substantially exceed (15 dBA) existing noise levels, then abatement measures must be considered. By FDOT guidelines, as approved by FHWA, approaching the criteria means within 1 dBA of the appropriate FHWA NAC. If the abatement criteria is not approached or exceeded or if projected traffic noise levels do not substantially exceed existing noise levels, abatement measures normally will not be considered. For this analysis, noise impacts were identified for locations whose predicted noise levels were 1 dBA less than the FHWA criteria for the Activity Category "B" and "C". Existing noise levels within NSA “A” are contained in **Table 16** (HDR, 2010d).

Table 15: FHWA Noise Abatement Criteria			
Activity Category	**Abatement Level (in L_{Aeq1h})**		**Description of Activity Category**
	FHWA	**FDOT**	
A	57	56 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	66 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, RV Parks, day care centers and hospitals.
C	72	71 (Exterior)	Developed lands, properties, or activities not included in Categories A and B above.
D	N/A	N/A	Undeveloped lands
E	52	51 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Table 16: Noise Sensitive Area "A" Existing Noise Levels		
Noise Receptor	**NAC (dBA)**	**Existing Hourly LAeq1h (dBA)**
1 - Residence	67	57.5
2 - Residence	67	57.5
3 - Residence	67	57.6
4 - Residence	67	57.3
5 - Residence	67	57.6
6 - Residence	67	60.1
7 - Residence	67	60.7
8 - Residence	67	60.5
9 - Residence	67	60.6
10 - Residence	67	60.5
11 - Residence	67	61.0
12 - Residence	67	58.5
13 - Residence	67	59.7
14 - Residence	67	63.4
15 - Residence	67	63.3
16 - Base Offices	72	65.2
17 - Residence	67	60.7
18 - Residence	67	60.9
19 - Residence	67	59.9
20 - Residence	67	59.9
21 - Residence	67	59.9
22 - Residence	67	59.7
23 - Residence	67	60.1
24 - Residence	67	60.8

3.3.7 Cultural Resources

Cultural resources consist of prehistoric and historic districts, sites, structures, artifacts, or any other physical evidence of human activities considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. Cultural resources can be divided into three major categories: archaeological resources (prehistoric and historic), architectural resources, and traditional cultural resources. Archaeological resources are locations and objects from past human activities. Architectural resources are those standing structures that are usually over 50 years of age and are of significant historic or aesthetic importance. Traditional cultural resources hold importance or significance to Native Americans or other ethnic groups in the persistence of traditional culture.

The significance of such resources relative to the Native American Graves Protection and Repatriation Act and/or eligibility for inclusion in the *National Register of Historic Places* (NRHP) is considered a part of the EA process. The regulations and procedures in 36 CFR 800, which implements Section 106 of the National Historic Preservation Act, requires federal agencies to consider the effects on properties listed in, or eligible for inclusion in the NRHP.

Prior to approval of the proposed action, Section 106 requires that the Advisory Council on Historic Preservation be afforded the opportunity to comment (USAF, 2003b).

3.3.7.1 Local Area History

The Early American period in west Florida essentially encompasses the nineteenth-century following the Second Spanish period. In 1821, Spain ceded its holdings in the Southeast and Florida became an American Territory. The lumber and Naval Stores industries became major subsistence activities and economic factors in the American settlement of the northern Gulf Coast. Ports along the northern Gulf coast became cultural centers and shortly after the Civil War, railroads provided a boost to the thriving lumber and timber products industry. By the1880s, the turpentine industry was a major industry in the area. Fishing had long been a mainstay of early American life in these coastal communities.

The early 20th century brought a world war (WWI) in 1914 followed in the 1920's by a period of economic prosperity known as the "Roaring 20's." The economic base of the populous was largely based on agrarian activities such as small farms, fishing communities, as well as production of timber and naval stores. Near the end of the first half of the twentieth century this isolated coastal area saw dramatic change with the coming of yet another world war (WWII).

The United States military has had a prominent presence in this area throughout most of the 20th century. Hurlburt Field, also known as Field 9, saw limited use during World War II. It was virtually abandoned after the war until the 1950's when a Light Bombardment Wing and an Air Defense Missile Wing was established there (Thomas & Campbell, 1993). In 1968, it became home for the 16th SOW (currently 1 SOW). Currently, Hurlburt Field performs numerous important missions for the United States military (Section 3.2).

3.3.7.2 Archaeological Surveys

A Phase I Cultural Resource survey was conducted during May 2003 for this proposed project area. The goal of this survey was to identify any archeological sites or historic structures within the proposed project area that might be potentially eligible for nomination in the NRHP. Although one isolated find, a chert flake, (a variety of silica that contains microcrystalline quartz or a siliceous rock of chalcedonic or opaline silica occurring in limestone) was recovered during the survey, there were no significant archeological features associated with it. Aside from the isolated find, there were no archeological sites or historic structures discovered within the proposed project area during this Phase I study (HDR, 2003e).

3.4 HAZARDOUS MATERIALS AND WASTES MANAGEMENT

Hazardous materials and wastes include substances that, because of their quantity, concentration, physical, chemical, or infectious characteristics, may present danger to public health or welfare or to the environment when released or otherwise improperly managed.

Air Force Instruction (AFI) 32-7086, *Hazardous Materials Management*, primarily establishes hazardous materials management at Air Force installations. The AFI incorporates the requirements of all Federal regulations, other AFIs, and DoD Directives, for the reduction of hazardous material uses and purchases (USAF, 2003b).

Environmental programs at Hurlburt Field to control hazardous materials and wastes include, but are not limited to: asbestos, hazardous material management, hazardous waste management, pollution prevention, storage tanks, lead-based paint, pesticides, solid waste, wastewater, and the installation restoration program. All programs are managed in accordance with applicable federal, state, local, DoD, and Air Force instructions, standards, laws, and regulations that apply to the installation. Most of these programs would not be impacted by the construction and use of the new interchange at the main gate to Hurlburt Field and are not discussed or analyzed in this assessment.

A preliminary hazardous materials evaluation was conducted to determine the potential for contamination from properties and business operations located within the proposed project area. Since the identification of potential contamination problems was a primary objective of the evaluation, all parcels subject to ROW acquisition were located and identified. Field reviews were performed to determine business names, types, and general site characteristics of each parcel. Special attention was paid to any business, which might handle potentially contaminating materials or generate contaminated waste. The methodology utilized for investigation involved: coordination with the appropriate regulatory agencies; obtaining lists of hazardous class information (generators, transporters, etc.), stationary tanks, and known leaks and spills; obtaining and evaluating aerial photographs from 1979, 1983, 1995, and 2001 to determine potential contamination problem areas; conducting site visits to document the existing conditions at the site, to verify information provided by others, and to identify other potentially contaminated sites within the vicinity of the project; and determining the contamination potential for each property within the proposed project limits.

Due to the mobile nature of pollutants in soils and groundwater, sites located in close proximity, but not included in the actual ROW acquisition, were also evaluated; especially if there was any evidence of involvement with contaminants.

Through historical and regulatory searches and inspections within the proposed project area, one (1) site was identified for further evaluation for potential contamination. This site is located adjacent to the Santa Rosa Sound south of the project (**Figure 3.4.1-1**) and is associated with a petroleum-refueling pier, specifically aviation fuel. This pier is connected via an underground pipeline to above ground storage tanks on Hurlburt Field. The pipeline runs northward under US 98 and has been relocated. This site (POL Valve Pit-Site 214) was identified in November 1999 when Hurlburt Field personnel performing maintenance work reported odors similar to jet fuel in the soils surrounding a valve pit adjacent to the refueling pier. Initial investigations determined that soil contamination extended north and west of the valve pit in increasing concentrations. Additional fieldwork began in May 2001 and was completed in June 2001 to further delineate and characterize the contamination. A draft Site Assessment Report was completed in October 2001 to present the findings. Results and recommendations were reported to the regulatory agencies (HDR, 2003d). The contaminated soil was removed and replaced, and the site was resodded (Pruitt, 2003a).

In addition, as a result of the potential ROW requirements associated with the proposed project and in accordance with AFI 32-7066, *Environmental Baseline Survey in Real Estate Transactions*, an environmental baseline survey (EBS) will be required to document the nature, magnitude, and extent of any potential environmental contamination of real property located on Hurlburt Field, specifically in the ROI of the US 98 at Cody Avenue intersection.

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Pipeline Location
Gate
Pedestrian Overpass
POL Valve Pit
Soundside Club
Picnic and Recreation Area
Independence Rd
O'Neil Ave
Cody Ave
McMillan St
Weaver Ave
US 98 (SR 30)
Hume Dr
Purcell Dr
Campaign St
Whitbeck St
Kissam St
Santa Rosa Sound
0 200 400 800 Feet
Potential Contamination Site and Associated Pipeline Location
Aerial Source: Digital Globe, 2007
Figure 3.4.1-1
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR

3.5 LOCAL COMMUNITY

This section describes socioeconomic resources, environmental justice, land use and aesthetics, and transportation.

3.5.1 Socioeconomics

Socioeconomic resources are described in this section using demographic and employments measures. The Proposed Action does not involve the relocation of personnel to or from Hurlburt Field; therefore, this analysis does not include any discussion of housing, schools or other community service, or infrastructure requirements. The latest available consistent data are used to characterize the socioeconomic resources.

3.5.1.1 Location and Region of Influence

Hurlburt Field is located in Okaloosa County in the Florida Panhandle, near the city of Fort Walton Beach, Florida. Hurlburt Field lies within the Eglin AFB complex, which encompasses more than 724 square miles of land in the Florida Panhandle. Okaloosa County comprises the one-county Fort Walton Beach Metropolitan Statistical Area (MSA). **Figure 1.3-1** shows the location of Hurlburt Field.

The socioeconomic ROI for this type of analysis is generally defined by the residence patterns of installation personnel and by the number of incoming personnel associated with the action under consideration. No incoming personnel are associated with the action under consideration, and the construction labor force is expected to be drawn from the local area. For this reason, Okaloosa County (the Fort Walton Beach MSA) is defined as the ROI (Okaloosa County, 2004).

3.5.1.2 Population

The population of Okaloosa County in 2008 was approximately 179,693. The county's population increased by more than 18 percent during the 1990's, compared to nearly 23 percent for the state of Florida. From 2000-2008, the county's population has increased by 5.4 percent, while the state as a whole grew 14.7 percent.

There are nearly 16,000 active duty military and their family members associated with Hurlburt Field. Of these, about 70 percent reside on Hurlburt Field or Eglin AFB, in Mary Esther, or in Fort Walton Beach. Of Okaloosa County's total population, there are an estimated 36,000 Air Force retirees in the area (EDC, 2003).

3.5.1.3 Employment and Income

Key indices for measuring the economic strength of a given area include the number of individuals' employed, employment growth, economic diversification, the rate of unemployment, and per capita income (PCI). This section discusses characteristics and growth patterns of Okaloosa County employment and income.

Total 2008 employment in Okaloosa County was approximately 89,036 (USCB, 2006-2008 ACS). Okaloosa County experienced a 34.8 percent increase in employment between 1990 and 1999, compared to a 29.3 percent increase for the state of Florida (USCB, 2008). From 2000 to 2008, Okaloosa County had an approximate 2.3 percent increase in employment, while the state had an approximate 2 percent increase in employment.

Okaloosa County has a somewhat diversified economy as illustrated in **Table 3.5.1.3-1**. In 2008, the government sector accounted for nearly 11.8 percent of (USCB, 2006-2008 ACS).

Table 17: Employment By Industry in Okaloosa County

Industry	Employment (%)
Agriculture, Forestry & Mining	0.4
Construction & Real Estate	9.1
Education Services, Health Care, and Social Assistance	16.8
Finance & Insurance	7.3
Government	11.8
Retail Trade	12.5
Information	1.6
Manufacturing	6.2
Other Services	16.3
Professional & Business Services	13.7
Transportation /Wholesale Trade	4.2

3.5.2 Environmental Justice

The President signed EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, on February 19, 1994. This EO requires that each federal agency identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. In order to evaluate these potential effects, demographic data on minority and low-income populations are provided in this section. The latest available consistent data are used.

The terms "low-income population" and "minority population" are defined according to 32 CFR 989.33. Under this guidance, "Low-Income Population" is defined as persons below the poverty level, designated as $12,674 for a family of four in 1989 by the U.S. Bureau of the Census (USBC). The poverty threshold is a function of family size and is adjusted over time to account for inflation. "Minority Population" is defined as persons designated as Black; American Indian, Eskimo, or Aleut; Asian or Pacific Islander; Other; and of Hispanic origin in census data. For Census 2002, the Hispanic origin and race designation was separate from the race designation, as Hispanic persons can be of any race (USBC, 2003). The Hispanic population is not broken out by race for this analysis. Within this document, to avoid confusion and eliminate double counting, the Hispanic population is differentiated from ethnic (race) minority populations.

3.5.2.1 Ethnic Origin

According to the 2006-2008 American Community Survey (ACS) provided by the USCB, which provides the latest consistent data for ethnic composition and poverty status, the 2008 population of Okaloosa County was 82.4 percent Caucasian, 9.5 percent African-American, 3 percent Asian /Pacific Islander, 2 percent other, and 3.1 percent multi-racial; 5.7 percent are considered Hispanic. In Florida, 76.7 percent of the population is Caucasian and 15.3 percent is African-American, while persons of the Asian/Pacific Islander, Native American, or Other origin make up only about 2.6 percent of the total. More than 20 percent of the state's population is of Hispanic origin. The United States is approximately 74.3 percent Caucasian and 12.3 percent African-American, with persons of Hispanic origin making up 15.1 percent of the U.S. total population (USBC, 2006-2008 ACS).

3.5.2.2 Low-Income Status

The 2006-2008 ACS found approximately 8.9 percent of Okaloosa County residents living below the poverty level. In comparison, approximately 12.6 percent of the state's population and 13.2 percent of the U.S. population are in this category.

3.5.3 Land Use and Aesthetics

Communities categorize land according to its current use, and may restrict future development based on those categories. Thus, the financial value of land is dependent on its land use classification as well as other factors. The aesthetic nature of an area is also dependent in part on land use and on the presence or absence of man-made structures. This section describes the land use and aesthetics in the proposed project area.

3.5.3.1 Land Use

The land use surrounding and adjacent to the proposed project area consists primarily of federally owned property at Hurlburt Field. The land use changes to mixed singe-family/multi-family residential and low intensity commercial near the east and west project limits along US 98. The city of Mary Esther is located approximately 500 feet from the eastern project limits. Generalized existing land use is shown in **Figure 3.5.3.1-1** (HDR, 2010c).

Existing land use on Hurlburt Field has been grouped into 12 general categories designated in the Hurlburt Field Land Use Plan (USAF, 1994). These categories have been consolidated and modified slightly into seven general categories as follows:

- Airfield/Aircraft Operations and Maintenance Industrial/Administrative
- Community/Commercial/Service/Medical
- Housing
- Outdoor Recreation
- Uncommitted
- Water

3.5.3.2 Aesthetics

Visual resources consist of the natural and man-made landscape features that appear indigenous to the proposed project area and that give a particular environment its aesthetic qualities. Impacts to visual sensitivity are assessed in terms of whether the visual resource is of high, medium, or low sensitivity.

High sensitivity resources include designated areas of aesthetic, recreational, cultural, or scientific significance that meet certain criteria; examples include wilderness areas, state and national parks, wildlife refuge, wild and scenic rivers, and historic areas. Medium sensitivity areas are more heavily developed and contemporary human influences is more apparent. They are generally designated for recreational, scenic, and historical use by local authorities, such as community parks, highway scenic overlooks, and hiking trails. All other areas are considered to be of low sensitivity (Okaloosa County, 2004).

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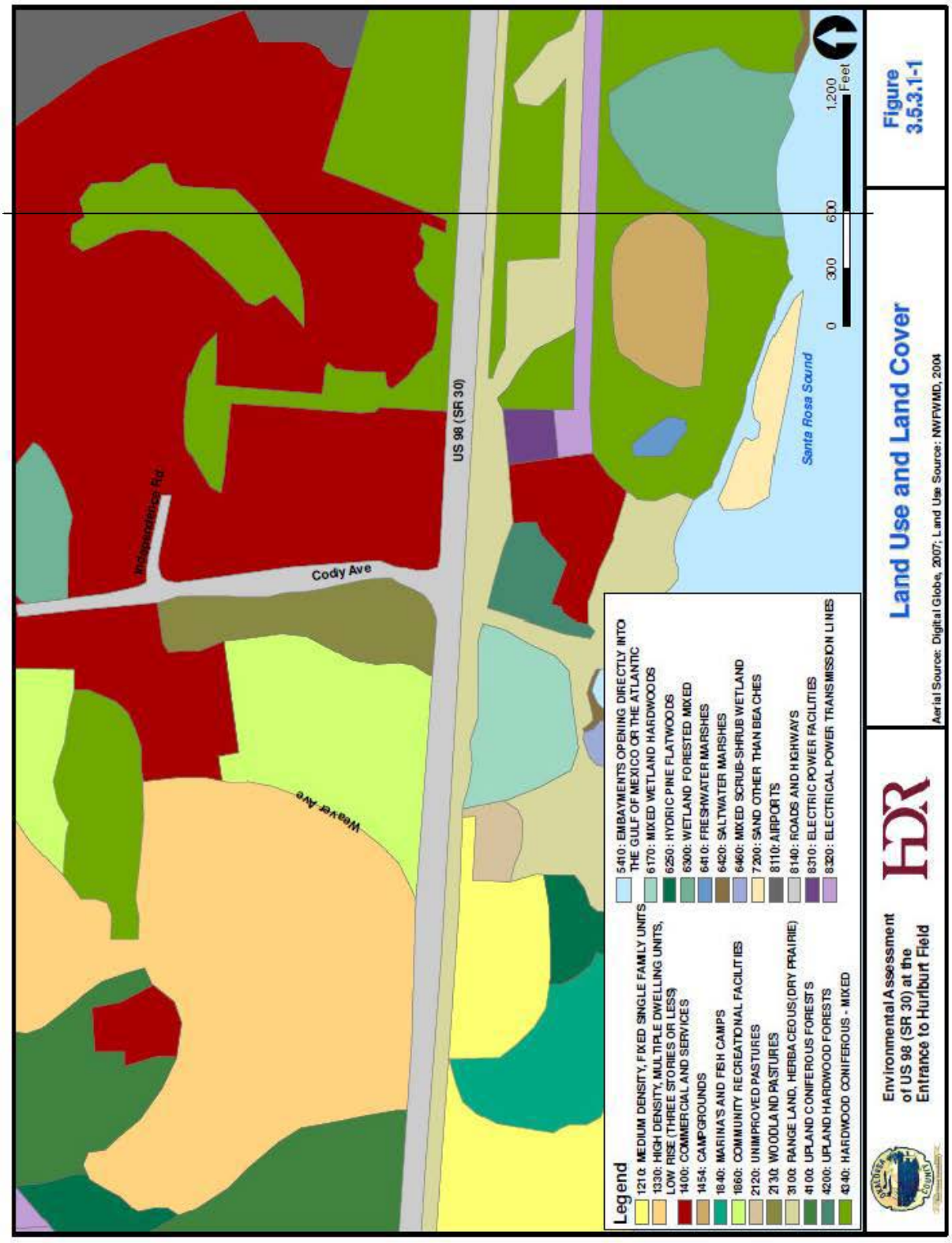
Legend
1210: MEDIUM DENSITY, FIXED SINGLE FAMILY UNITS
1330: HIGH DENSITY, MULTIPLE DWELLING UNITS, LOW RISE (THREE STORIES OR LESS)
1400: COMMERCIAL AND SERVICES
1454: CAMPGROUNDS
1840: MARINAS AND FISH CAMPS
1860: COMMUNITY RECREATIONAL FACILITIES
2120: UNIMPROVED PASTURES
2130: WOODLAND PASTURES
3100: RANGE LAND, HERBACEOUS (DRY PRAIRIE)
4100: UPLAND CONIFEROUS FORESTS
4200: UPLAND HARDWOOD FORESTS
4340: HARDWOOD CONIFEROUS - MIXED
5410: EMBAYMENTS OPENING DIRECTLY INTO THE GULF OF MEXICO OR THE ATLANTIC
6170: MIXED WETLAND HARDWOODS
6250: HYDRIC PINE FLATWOODS
6300: WETLAND FORESTED MIXED
6410: FRESHWATER MARSHES
6420: SALTWATER MARSHES
6460: MIXED SCRUB-SHRUB WETLAND
7200: SAND OTHER THAN BEACHES
8110: AIRPORTS
8140: ROADS AND HIGHWAYS
8310: ELECTRIC POWER FACILITIES
8320: ELECTRICAL POWER TRANSMISSION LINES
Independence Rd
Cody Ave
US 98 (SR 30)
Weaver Ave
Santa Rosa Sound
0 300 600 1,200 Feet
Environmental Assessment of US 98 (SR 30) at the Entrance to Hurlburt Field
HDR
Land Use and Land Cover
Aerial Source: Digital Globe, 2007; Land Use Source: NWFWMD, 2004
Figure 3.5.3.1-1

3.5.4 Transportation

Transportation systems facilitate the movement of people, goods, and materials by ground, water, or air. For transportation systems to be adequate, users must be able to reach their destinations within reasonable limits of time, cost, and convenience.

The Proposed Action addressed in this EA involves roadway transportation. Existing conditions of roads are characterized by LOS as a primary measure of operational efficiency. Other performance measures include the comparison of road or gate traffic counts to design capacity and the delay in hours a vehicle experiences during periods of peak traffic through the intersections.

Performance of a roadway segment may be expressed in terms of LOS, a qualitative measure of operational factors such as speed, travel delay, freedom to maneuver, safety, and time (frequency or hours) of operation. Roadway capacity depends mainly on the street width, number of travel lanes, intersection controls, and other physical factors. The LOS of urban arterial roads is based on average travel speed as compared to free-flow conditions. The capacity and LOS of intersections along routes often determine average travel speed on these roads. In the case of Cody Avenue, the LOS is also determined by the capacity of the main gate to Hurlburt Field. The LOS scale ranges from A (best) to F (worst), with each level defined by the criteria contained in the Highway Capacity Manual 2000, published by the Transportation Research Board, National Research Council. LOS ratings of A, B, C, and D represent good operating conditions where minor or tolerable delays are experienced by motorists; as LOS goes from A to D, there are increasing levels of congestion, longer waits at signals, and increasing reductions in speed from free-flow operations. A LOS rating of D borders on a range in which small increases in flow may cause substantial decreases in speed. A LOS rating of E represents the roadway at capacity, and LOS F represents unacceptable flow conditions; both E and F are characterized by average travel speeds of one-third to one-quarter of the free-flow speed and highly congested operating conditions. The desired LOS for US 98 has been established by the MPO as LOS D or better (HDR, 2010c).

Figure 1.3-1 illustrates the main highways and other primary and secondary access roads in the vicinity of the proposed project area. As shown, US 98, the major 4-lane east-west arterial along the Gulf of Mexico, connects the Fort Walton Beach area with Panama City to the east and Pensacola to the west.

In addition to being the major east-west arterial, US 98 is also used for access to Hurlburt Field. Two of the three gates used for access to Hurlburt and its facilities are located off of US 98. These gates provide access to the main portion of the installation, including the airfield, military family housing, and the community center. The gate south of US 98 provides access to a small military family housing area, and outdoor recreation areas along the Santa Rosa Sound. In addition, the new Soundside Club can be accessed south of US 98 without passing through a gate. The third gate (back gate) is located off of Martin Luther King Boulevard.

Based on traffic studies conducted in 2002 and again in 2010, the AADT volume along US 98 varies from approximately 38,500 VPD east of Cody Avenue to approximately 47,000 VPD west

of Cody Avenue. The AADT passing through the main gate at Hurlburt Field in 2010 was estimated to be approximately 8,500 VPD. The AADT volume is projected to be 9,600 VPD in 2032. The AM Peak directional design hour volume (DDHV) passing through the main gate is estimated to be 1,900 vehicles per hour in 2010 and 2,210 vehicles per hour in 2032. The heaviest 15-minute peak at the main gate occurs between 7:00 AM and 7:15 AM. The volume during these 15-minutes in 2010 was estimated to be 488 vehicles. The heaviest 15-minute peak volume in 2032 is projected to be 542 vehicles (HDR, 2010a).

US 98 traffic crash data for 2004 through 2009 was obtained from information compiled by the FDOT Safety Office. The Safety Office makes this information available for PD&E Studies in order to help identify existing problem areas. The characteristics of each crash are broken down for direct comparison with all of the other crashes that occurred during the same period. Some of the more important information included in the Summary Report is the type of crash, the number of injuries, and the number of fatalities. Only crashes that resulted in injuries and/or the issuance of criminal charges are included in the FDOT summaries. An estimate of the economic loss, property damage, and a safety ratio are determined for each state road section based on the data assimilated from the individual crashes occurring in each year.

The results of the crash analysis are summarized below (HDR, 2010a):

- A total of 100 crashes were reported on US 98 for the section one mile both east and west of the main gate entrance to Hurlburt Field during the 5-year analysis period of January 1, 2004 through December 31, 2009. This equates to an annual average of 20.0 crashes per year.

- A total of 86 injuries and one (1) fatality occurred during the analysis period. This is an average of 17.2 injuries and 0.2 fatalities each year.

- The ratio of the actual crash rate to the critical crash (Safety Ratio) rate averaged approximately 0.245 for 2004 through 2009. The safety ratio never rose above one (1), which indicates that the crash rate for US 98 does not exceed the crash rate expected for this type of roadway and volume of use in Florida.

- The most prominent crash type was rear-end collisions, accounting for 32 percent of the total crashes.

- Of the total 100 crashes that occurred during the study period 60 (60 percent) of those were related to the entrance of Hurlburt Field along US 98.

3.5.5 Utilities

The utilities located in the proposed project area consist of power, gas, water/sewer, and communication lines as well as a fuel pipeline (**Figure 3.4.1-1**). Generally, the power, gas, water/sewer, and communication lines run within the ROW of existing roadways. There will be short-term, minimal impacts associated with the relocation of these services especially where the interchange is proposed. Where utility lines and easements diverge from the roadways, the proponent will have to adhere to strict regulations prohibiting construction activities within these areas. Therefore, utility coordination efforts and plans are being developed to insure compliance with the rules and regulations of the affected utility companies.

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4.0 ENVIRONMENTAL CONSEQUENCES

This chapter provides a discussion of the potential for significant impacts to the human environment as a result of implementing the Proposed Action, other action alternatives (Alternatives B, C, and D), or the No Build alternative and describes potential measures to mitigate adverse impacts. This discussion is based upon information developed in the following engineering and environmental technical studies that were conducted as part of the original 2003 PD&E study discussed in Section 1.2.

- *U.S. 98 at Hurlburt Field Entrance, Okaloosa County Florida, PD&E Study, Draft Traffic & Capacity Analysis Report.* HDR Engineering, Inc. August 2002. Updated April 2010.
- *US 98 (SR 30) at the Entrance to Hurlburt Field PD&E Study, Draft Preliminary Engineering Report.* HDR Engineering, Inc. March 2003. Updated April 2010.
- *US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Noise Study Report.* HDR Engineering, Inc. May 2003. Revised May 2010.
- *US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Draft Air Quality Screening Test Report.* HDR Engineering, Inc. May 2003. Revised April 2010.
- *US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Draft Contamination Screening Evaluation Report.* HDR Engineering, Inc. May 2003.
- *US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Draft Phase 1 Cultural Resources Investigations.* HDR Engineering, Inc. May 2003.
- *US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Wetland Evaluation Report.* HDR Engineering, Inc. May 2003. Revised April/May 2010.
- *US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Draft Location Hydraulic Report.* HDR Engineering, Inc. June 2003.

These reports provide baseline information concerning environmental resources and issues, and evaluate the potential impacts resulting from alternatives identified at the time the studies were completed. In accordance with NEPA, significant impacts are those that have the potential to significantly affect the quality of the human environment. "Human environment" is a comprehensive phrase that includes the natural and physical environments and the relationship of people to those environments (40 CFR 1508.14). Whether or not a Proposed Action "significantly" affects the quality of the human environment is determined by considering the context in which it will occur and the intensity of the action. The context of the action is determined by studying the affected region, the affected locality, and the affected interests within both. Significance varies depending on the setting of the Proposed Action (40 CFR 1508.27). This intensity of an action refers to the severity of the impacts, both regionally and locally. The level at which an impact is considered significant varies for each environmental resource area. For each resource area, consideration is given to whether potential environmental effects are short-term or long-term, minor or significant, and adverse or beneficial. Consideration of potential cumulative effects and any applicable mitigation measures are also presented (USAF, 2001).

4.1 NATURAL ENVIRONMENT

Potential impacts to the affected natural environment have been evaluated and are discussed in the subsequent sections.

4.1.1 Air Quality

Methodology for establishing significance of air quality impacts is based on FDOT guidance as established in the PD&E Manual, Part 2, Chapter 16, *Air Quality Analysis* (FDOT 2006). Calculations for CO emissions estimates were made using the computer model, CO Florida 2004, Version 2.0.5 (August 2004). This is the model sponsored by the FDOT for estimating CO emissions for Florida intersections. Significant impacts would be a violation of the NAAQS or Florida Ambient Air Quality Standards (FAAQS), excessive or frequent exposure of sensitive receptors to increased pollutant concentrations (due to high emission rates or proximity to a source), or worker or public exposure to a hazardous air pollutant (HAP) in excess of standard. Insignificant impacts would be those that are adverse but do not meet the criteria for significant. No impact would occur if no measurable change in emissions resulted. A reduction in baseline emissions would have a beneficial impact on air quality.

4.1.1.1 Proposed Action

Potential temporary effects of the Proposed Action on air quality would be minimal. Construction of the proposed interchange would result in temporary, localized emissions associated with vehicle and equipment exhaust as well as dust and debris from grading and paving. These impacts will be minimized by adherence to all state and local regulations and to the FDOT *Standard Specifications for Road and Bridge Construction*. Impacts due to exhaust and dust would be considered substantial without the implementation of the BMPs specified in the FDOT standard specifications. Impacts due to the generation of vehicle emissions and dust will be less than substantial. However, generally accepted BMPs will be used to mitigate the air quality impacts of the Proposed Action.

Based on the carbon monoxide (CO) air quality screening test results, the Proposed Action would not cause, or contribute, to CO concentrations above the one-hour or eight-hour NAAQS. The results of an air quality analysis, run through the year 2032, indicated that the CO concentrations of the Proposed Action would be in compliance with NAAQS (HDR, 2010b); the Proposed Action will actually have a positive impact on air quality relative to the No Build alternative, as it will contribute to the general improvement of air quality in the proposed project area since US 98 through traffic would not have to stop at the intersection. Results of the analysis are shown in **Table 4.1.1.1-1**. As shown, the Proposed Action stayed below the eight-hour (9 ppm) and one-hour (35 ppm) maximum CO concentration limits set by the NAAQS. The project is located in an area which is designated attainment for all NAAQS under the criteria provided in the *Clean Air Act*. Therefore, the *Clean Air Act* conformity requirements do not apply to the project. Because the Proposed Action would not contribute to a violation of the NAAQS and would have inconsequential, localized project effects, no mitigation for operational effects is necessary. Furthermore, based on the CEQ's draft guidance regarding the analysis of climate change impacts in NEPA documents; because the Proposed Action is not creating increased traffic and because Hurlburt Field is well below the 25 metric ton threshold for reporting at this time, further GHG analysis is not warranted as part of this EA. (HDR, 2010b).

Table 18: Air Quality Results for the Proposed Action								
Alternative	**Year**	**Average Speeds on US 98/Cody Avenue (mph)**	**Traffic Volumes VPH**	**Receptor**	**Max 1-Hr Conc (ppm)**	**NAAQS & FAAQS 1-Hr (ppm)**	**Max 8-Hr Conc (ppm)**	**NAAQS & FAAQS 8-Hr (ppm)**
Proposed Action	2012	30/50	3,650	Hurlburt Field main gate	10.0	35	6.0	9.0
Proposed Action	2032	30/50	4,830	Hurlburt Field main gate	9.9	35	5.9	9.0

4.1.1.2 Other Action Alternatives

Under the other action alternatives, the affects on air quality would be similar as for the Proposed Action as discussed above.

4.1.1.3 No Build Alternative

The results of the air quality analysis for the No Build alternative are shown in **Table 19** (HDR, 2010b). The model was run for years 2012 and 2032 and indicates that the CO concentrations at the chosen receptor (Hurlburt Field main gate) would not be in compliance with NAAQS in the year 2012. The model predicted by the year 2012, the 8-hour concentrations would exceed the maximum CO concentration limits (9 ppm) set by the NAAQS. If no action were taken the maximum 1-hour concentration would be 16.1 (2012) and 14.6 (2032), while the maximum 8-hour concentration would be 9.7 (2012) and 8.8 (2032).

Table 19: Air Quality Results for the No Build								
Alternative	**Year**	**Average Speeds on US 98/Cody Avenue (mph)**	**Traffic Volumes VPH**	**Receptor**	**Max 1-Hr Conc (ppm)**	**NAAQS & FAAQS 1-Hr (ppm)**	**Max 8-Hr Conc (ppm)**	**NAAQS & FAAQS 8-Hr (ppm)**
No Build	2012	30/45	4,770	Hurlburt Field main gate	16.1	35	9.7	9
No Build	2032	30/45	5,460	Hurlburt Field main gate	14.6	35	8.8	9

4.1.2 Geological Resources

Significant impacts to geological resources would occur if the resources are depleted at a local or regional level, or if any mass movements or slumping (down slope movement of sediment and rock) events triggered by project activities cause irreversible damage or injuries. Significant adverse impacts to soils would result from an accelerated erosion rate (above existing erosion rates) or degradation of soil properties. An insignificant impact would occur if a resource is only slightly impacted or is not important to a region. A beneficial impact could occur if potential hazards were reduced or if soil productivity is enhanced (Okaloosa County, 2004).

4.1.2.1 Proposed Action

The Proposed Action would have no adverse impact on the geological resources of the area. Construction of the road and stormwater pond construction would require clearing and grading. The topography along the Proposed Action corridor would be affected by removing some elevation in some areas and filling in lower areas. The topography would be insignificantly affected during construction and not impacted after construction. Due to the shallowness of the anticipated excavations, underlying geologic layers would not be impacted. Operation of the roads would not affect the local geology. No seismic impacts would occur as a result of constructing and operating the Proposed Action. Although the potential for soil erosion during construction is low, wind erosion during construction could be substantial during dry periods. This erosion could result in sediments entering the roadside ditches and being ultimately conveyed by the outfalls to the Santa Rosa Sound. Construction activities would be staged to limit the amount of soil exposed at any one time. During construction, an erosion control plan conforming to FDOT requirements would be followed. BMPs (such as watering, reestablishing ground cover for disturbed areas, sediment basins, and use of sediment barriers during construction) would be implemented to reduce the potential for soil erosion. With the use of these BMPs, impacts to soils would be insignificant.

4.1.2.2 Other Action Alternatives

Geological resources impacts under the other action alternatives would be insignificant and would be similar to the Proposed Action.

4.1.2.3 No Build Alternative

No significant or beneficial impacts to geological resources would occur with the No Build alternative.

4.1.3 Water Resources

An impact to water resources would be considered potentially significant if an aquifer, groundwater well, or surface water body is adversely affected, resulting in a measurable change in a user's water supply, or if a water quality criteria, such as a maximum contaminant level (MCL), is exceeded. A decrease in groundwater recharge and increase in runoff could also be significant if the stormwater system cannot adequately handle the increased volume of water, thus increasing the potential for flooding. A finding of no impact would result if no measurable change is predicted to occur. A beneficial impact would result from an improvement to water quality or quantity by decreasing contaminant levels, decreasing the potential for future contamination, or increasing groundwater recharge.

4.1.3.1 Proposed Action

Water resources may be affected during construction (typically short-term impacts) or during operation of the Proposed Action. There would be minor impacts to surface waters from sedimentation originating during construction. Due to the abundant rainfall of the region, disturbed soil in construction areas and stockpiles of dirt are susceptible to erosion during the construction process. This erosion could result in sediments entering the roadside ditches and being ultimately conveyed by the outfalls to the Santa Rosa Sound. These sediments could smother aquatic resources. Construction through wetland areas would affect an area of exposed water and require an ERP Permit (impacts to wetlands are addressed in Section 4.1.5). An erosion control plan following FDOT and NWFWMD/FDEP requirements would be developed for the construction of the Proposed Action. Proper construction techniques using BMPs such as sediment barriers, turbidity barriers, and small sediment collection ponds would minimize the potential for adverse impacts to surface waters from runoff. Ground cover would be replaced as soon as possible to reduce erosion. Spill plans and cleanup plans would be followed to prevent spills or leaks of hazardous materials or wastes from impacting the environment. Therefore, siltation in the ditches, outfalls and Santa Rosa Sound would be minimal and not considered substantial.

There would be an increase in the amount of stormwater runoff due to the increase in the amount of impervious surfaces due to the Proposed Action. As a result, there would be an increase in runoff to the ditches and the stormwater management ponds. The proposed drainage system will maintain the existing drainage patterns. Runoff will be collected in roadside ditches and conveyed to their respective outfalls. Modifying one or more of the three existing stormwater management ponds within the proposed project corridor will provide for additional treatment and attenuation volumes required for the Proposed Action. The existing outfall ditches may require modification to handle the increase in runoff. Consequently, surface water flow would be insignificantly impacted.

The additional ROW (**Figure 2.5-1**) associated with the real estate easement for the Proposed Action will traverse the 100-year floodplain (Zone AE) that occurs along Hume Drive (**Figure 3.3.3.2-1**). This easement will encompass a minimal amount of property (0.01 acres) within the 100-year floodplain. However, no construction activities associated with the Proposed Action will occur inside the 100-year floodplain boundary. Furthermore, no regulatory floodways, as designated by FEMA, will be impacted. With regard to stormwater management, one of the existing stormwater ponds identified for potential improvement is located within Zone AE.

Any modification to stormwater management facilities will require coordination with the NWFWMD or FDEP.

It is anticipated that the following permits would be required for construction of the Proposed Action:

- ERP Stormwater Permit (62-346, F.A.C.)
- NPDES (62-621, F.A.C.)

Project construction would increase the amount of impervious area, thus increasing the amount of and rate of stormwater runoff after the interchange is completed. Surface water quality would be protected with the use of BMPs to minimize erosion.

Excavations below grade would likely encounter groundwater during construction as groundwater was encountered at three feet below the surface. The trend of shallow groundwater movement would continue in the direction of surface water flow. The introduction of additional impermeable surface to the proposed project area would further reduce the local recharge area. Consequently, the small decrease in overall recharge area would result in an insignificant impact.

4.1.3.2 Other Action Alternatives

Impacts to water resources, specifically surface water and groundwater, will be similar to those outlined in the Proposed Action and are considered to be insignificant. As seen in **Table 20**, construction activities associated with the Proposed Action or Alternative C will not impact 100-year floodplains. However, Alternatives B and D will impact approximately 3.30 and 2.50 acres of 100-year floodplains, respectively.

Table 20: Action Alternatives - Floodplain Impacts

	Proposed Action: SPUI (US 98 over Cody Ave.)	**Alternative B:** SPUI (Cody Ave. over US 98)	**Alternative C:** TUDI (US 98 over Cody Ave.)	**Alternative D:** TUDI (Cody Ave. over US 98)
Total 100-year Floodplain Impacts (Acres)	**0.0**	**3.30**	**0.0**	**2.50**

4.1.3.3 No Build Alternative

Current impacts to water resources at or adjacent to the proposed project area are insignificant. No disturbance from construction would result from the No Build alternative. Consequently, impacts to water resources for this alternative would be insignificant.

4.1.4 Biological Resources

Impacts to biological resources would be significant if the viability of any threatened or endangered plant or animal species was jeopardized. Impacts to biological resources would also be significant if the viability of a protected plant or animal species was jeopardized, with little likelihood of re-establishment after the action is complete. An adverse but insignificant impact could result if a disturbed population could be re-established to its original state and condition, or the population is sufficiently large or resilient to respond to the action without a measurable change. The significance of the impact depends upon the importance of the resource, and the proportion of the resource that would be affected relative to its occurrence in the vicinity. An increase in population numbers in response to an enhanced habitat, or the increased viability of a species, would be a beneficial impact.

4.1.4.1 Proposed Action

Impacts to vegetation, wildlife, and rare, threatened or endangered species from the Proposed Action are discussed in the following sections.

4.1.4.1.1 Vegetation

A preliminary field survey and literature search was conducted for the proposed project area. No special status plants that would be expected to occur in the proposed project area have been identified at this time. Impacts to biological resources from the Proposed Action would result primarily from tree clearing and grading activities associated with the construction of the interchange. Grading activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs. The respiratory function of the plants in the area would be impaired when dust accumulation is excessive. Disturbed areas would be reestablished with ground cover to reduce or prevent wind and water erosion and invasion of undesirable weed species. Additional measures to minimize adverse effects would include using straw bale dikes, silt fences, silt traps, or diversion structures during construction to contain and reduce waterborne erosion, which could affect biological resources. The areas would be seeded with native or natural grasses, or planted with other vegetation (HDR, 2010c). The effect of the Proposed Action on vegetation in the immediate vicinity of the proposed project area is considered adverse, but not significant, since it would not reduce plant populations below self-sustaining levels.

4.1.4.1.2 Wildlife

Any impacts to the local wildlife species and habitats would be minimal under the Proposed Action as existing development and surrounding land use in the proposed project area has fragmented the natural corridors and the associated wildlife movement potential. Because of this disturbance; typically only wildlife tolerant of human activity remains in the proposed project area. Due to the fragmented condition of the existing wildlife habitat, any impact would be considered insignificant (HDR, 2010c). BMPs would be implemented to minimize impacts to wildlife habitats.

4.1.4.1.3 Listed Species

Although protected species are expected in the area, evidence of these individuals was not observed during field studies. Impacts to threatened or endangered species, species proposed to be eligible for such classifications, or critical habitat are not anticipated as a result of the Proposed Action (HDR, 2010c).

4.1.4.2 Other Action Alternatives

Impacts to vegetation, wildlife, and rare, threatened or endangered species from the other action alternatives are discussed in the following sections.

4.1.4.2.1 Vegetation

The impact to vegetation under the other action alternatives would be greater due to the design of the access loop through wetlands within the construction area. Wetland impacts are discussed further in Section 4.1.5. Otherwise, impacts to vegetation would be similar to the Proposed Action.

4.1.4.2.2 Wildlife

Impact to the local wildlife and habitat would be similar to that of the Proposed Action.

4.1.4.2.3 Listed Species

The other action alternatives would have similar impact on the rare, threatened, or endangered species in the construction area as the Proposed Action.

4.1.4.3 No Build Alternative

4.1.4.3.1 Vegetation

No impact to vegetation would occur implementing the No Build alternative.

4.1.4.3.2 Wildlife

Increases in carbon monoxide due to increased traffic congestion would have adverse affects to the air quality and therefore have adverse impact on the local wildlife. Otherwise, there would be no impact on the local wildlife species or habitats.

4.1.4.3.3 Listed Species

The No Build alternative would have no impact on the local rare, threatened, or endangered species.

4.1.5 Wetlands

Significant impacts on wetlands would occur if the interchange construction resulted in altered hydrologic flow, drainage of sediment or contaminants into wetland areas, or actual filling or destruction of a wetland area. However, the wetland mitigation required by federal and state regulations could reduce a significant impact to insignificant. Although an individual wetland would be adversely affected, the required mitigation would result in an equal or greater amount of wetland acreage in the region. Enhancement or protection of existing wetland areas would result in a beneficial impact (MBBC, 2008). In accordance with EO 11990, wetlands within the proposed project area were evaluated relative to potential impacts and options for avoiding and minimizing such impacts.

4.1.5.1 Proposed Action

Under the Proposed Action, no wetlands in the proposed project area would be impacted. However, based on the unique qualities, functions, and values associated with wetlands; BMPs and the requirement of stormwater management facilities will be implemented to ensure protection of these areas. Since the Proposed Action is located along an existing roadway corridor, the potential secondary and/or cumulative impacts should have no short- or long-term adverse effects on the stability and quality of these wetland systems (HDR, 2010f).

4.1.5.2 Other Action Alternatives

Wetland impacts resulting from the other action alternatives have been quantified and are presented in **Table 21**. The Proposed Action is included for comparison purposes with the other action alternatives. This analysis indicates that Alternative B results in wetland impacts of 0.95 acres, Alternative C results in no wetland impacts (similar to the Proposed Action), and Alternative D results in wetland impacts of 0.78 acres.

As shown in **Table 21**, the other action alternatives with Cody Avenue over US 98 (Alternatives B & D) have more wetland impacts occurring to Wetland #1 than the alternatives with US 98 over Cody Avenue (Alternatives A & C).

Table 21: Action Alternatives - Wetland Impacts

Wetland Number	Proposed Action: SPUI (US 98 over Cody Ave.)	Alternative B: SPUI (Cody Ave. over US 98)	Alternative C: TUDI (US 98 over Cody Ave.)	Alternative D: TUDI (Cody Ave. over US 98)
1	0.0	0.95	0.0	0.78
Total Wetland Impacts (Acres)	**0.0**	**0.95**	**0.0**	**0.78**

The USACE and the FDEP have claimed jurisdiction over all of the identified wetlands shown in **Figure 3.3.5.2-1**, as evident by a binding jurisdictional determination (JD) conducted by the agencies for Hurlburt Field. As a result of the construction of Alternatives B or D, the proponent will be responsible for applying and securing an Individual Permit (Section 404) from the USACE and an ERP Permit from the NWFWMD or FDEP under Phase II of 62-346, F.A.C., (HDR, 2010f).

Possible measures for reducing wetland impacts will include the following:

Avoidance and minimization; to the maximum extent possible, the proponent will avoid and minimize direct and indirect disturbance of wetlands through roadway design alternatives.

After avoidance and minimization are addressed, mitigation may be required pursuant to USACE and NWFWMD or FDEP applicable regulations. Further determination will be necessary to establish the extent of mitigation and coordination with the USACE and NWFWMD or FDEP will be necessary during the design phase before final permits would be issued (HDR, 2010f).

Mitigation; replace on-site (if possible) any wetland function lost with increased wetland function through enhancement of wetland habitat elsewhere on the site or purchase, enhancement, and protection of off-site replacement habitat (property) based on consultation with the USACE and NWFWMD or FDEP using the Uniform Mitigation Assessment Method (UMAM). The proponent will develop a mitigation plan to satisfy the requirements of the USACE and NWFWMD or FDEP. Mitigation will require monitoring enhanced or preserved wetlands to determine the effectiveness of the replacement, and of any necessary remedial measures (HDR 2101f). All mitigation options will be carefully planned with Hurlburt to ensure maximum benefit pursuant to the Air Force's *Integrated Natural Resource Management Plan*.

The wetlands were evaluated in compliance with EO 11990, *Protection of Wetlands*, which states, an agency shall consider factors relevant to a proposal's effect on the survival and quality of the wetlands. Among these factors are:

- public health, safety, and welfare, including water supply, quality, recharge and discharge; pollution; flood and storm hazards; and sediment and erosion;
- maintenance of natural systems, including conservation and long term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and
- other uses of wetlands in the public interest, including recreational, scientific, and cultural uses.

4.1.5.3 No Build Alternative

Under the No Build alternative, there would be no impacts to wetlands along the US 98 and Cody Avenue segments (HDR, 2010f).

4.1.6 Noise

For construction or traffic noise, increasing noise levels to 66 dBA or higher could be a significant impact. If noise levels increased to a level below 66 dBA at noise-sensitive receptors, an insignificant impact would occur. A decrease in noise levels would be a beneficial impact (HDR, 2010d).

4.1.6.1 Proposed Action

The noise study for this project was conducted in accordance with 23 CFR 772 entitled *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. In addition, Chapter 335.17, F.S., requires the use of 23 CFR 772 in the noise impact assessment process, regardless of funding. The FHWA Traffic Noise Model (TNM) version 2.5 was used to predict noise levels, perform noise barrier analysis, and develop noise isopleth locations

The results of the noise prediction analysis are presented in **Table 22**. The predicted noise levels reflect the existing field conditions, elevation differences, and the proposed roadway alignment in relation to the noise sensitive sites. Of the 24 individual noise sensitive receptors found to exist along the Proposed Action corridor, none were found to approach, exceed, or substantially exceed the FHWA Noise Abatement Criteria (NAC). The change in relative noise levels for the design year (2032), defined as any noise level increase or decrease directly attributable to the Proposed Action, varies from 0.7 to 3.5 dBA greater than the noise levels predicted for the year (2012). Currently, none of the noise sensitive receptors approach or exceed the FHWA NAC. Thus, the Proposed Action will not cause substantial noise level increases at any of the identified noise sensitive sites.

The construction of the Proposed Action would result in temporary noise and vibration increases within the proposed project area. The noise and vibration would be generated primarily from heavy equipment used in hauling materials and building the roadway improvements. Sensitive areas located close to the construction area, in this case single-family residences, may temporarily experience increased noise and vibration levels. Construction noise will be minimized to the greatest extent practicable through the adherence to controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction* (HDR, 2010d).

Table 22: Noise Sensitive Area "A" Predicted Noise Levels					
Noise Receptor	**NAC (dBA)**	**Hourly LAeq1h (average noise level in 1 hour) (in dBA)**			
		2012	**2032**		**Difference between Existing/Build**
		Existing	**No Build**	**Build**	
1 - Residence	67	57.5	57.5	60.6	3.1
2 - Residence	67	57.5	57.5	60.2	2.7
3 - Residence	67	57.6	57.6	60.2	2.6
4 - Residence	67	57.3	57.3	59.9	2.6
5 - Residence	67	57.6	57.6	60.1	2.5
6 - Residence	67	60.1	60.1	62.7	2.6
7 - Residence	67	60.7	60.7	63.5	2.8
8 - Residence	67	60.5	60.5	63.3	2.8
9 - Residence	67	60.6	60.6	63.4	2.8
10 - Residence	67	60.5	60.5	63.4	2.9
11 - Residence	67	61.0	61.0	64.5	3.5
12 - Residence	67	58.5	58.3	60.4	1.9
13 - Residence	67	59.7	59.5	62.0	2.3
14 - Residence	67	63.4	63.3	65.4	2.0
15 - Residence	67	63.3	63.2	65.4	2.1
16 - Base Offices	72	65.2	65.1	67.5	2.3
17 - Residence	67	60.7	60.7	63.1	2.4
18 - Residence	67	60.9	60.9	61.6	0.7
19 - Residence	67	59.9	59.9	60.8	0.9
20 - Residence	67	59.9	59.9	60.7	0.8
21 - Residence	67	59.9	59.9	60.7	0.8
22 - Residence	67	59.7	59.7	60.9	1.2
23 - Residence	67	60.1	60.1	61.1	1.0
24 - Residence	67	60.8	60.8	62.0	1.2

4.1.6.2 Other Action Alternatives

Under the other action alternatives, the predicted noise levels will be similar to those of the Proposed Action and will not cause violation of the FHWA NAC or substantial noise level increases at any of the identified noise sensitive sites (HDR, 2010d).

4.1.6.3 No Build Alternative

Predicted noise levels resulting during the design year (2032) for the No-Build alternative generally stay the same as existing levels; noise level increases range from 0.0 dBA to 0.2 dBA (HDR, 2010d).

4.1.7 Cultural Resources

The criteria used to determine the significance of impact on cultural resources include the effects on NRHP eligibility, future research potential, or suitability for religious or traditional uses. An impact could be significant if it resulted in the physical alteration, destruction, or loss of a resource listed or eligible for listing on the NRHP. Dependent upon the nature of the resource, an adverse impact would not be significant if only slight portions of the resource were affected or if the value of the resource were protected or reconstructed. Discovering and recording artifacts from previously unknown sites would also represent a beneficial impact (MBBA, 2008).

4.1.7.1 Proposed Action

During a Phase I Cultural Resources survey performed during May 2003, no archeological sites or standing structures potentially eligible for inclusion in the NRHP were found. Furthermore, because of the proposed project location and/or nature, it is unlikely that any such sites would be present. Because it is unlikely that cultural resources are present in vicinity of the Proposed Action, impacts to cultural resources would be considered insignificant.

However, in the event that unexpected finds (artifact concentrations, refuse pits, posthole patterns, human burials, etc.) are encountered during construction stages of the project, they would be reported to the Florida Division of Historical Resources. Should these unexpected finds occur, construction activities would cease in the immediate area of the finds until a professional archeologist could evaluate these areas (HDR, 2003e).

4.1.7.2 Other Action Alternatives

For the other action alternatives, impacts from these alternatives would be similar to those described under the Proposed Action; thus, impacts to cultural resources would be considered insignificant.

4.1.7.3 No Build Alternative

For the No Build alternative, baseline conditions would not change and no impacts would occur to cultural resources in the proposed project area.

4.2 HAZARDOUS MATERIALS AND WASTES MANAGEMENT

As mentioned in Section 3.4, additional ROW requirements associated with the proposed project will require the preparation of an EBS. The EBS will be conducted in accordance with AFI 32-7066 and will be a necessary component prior to execution of the real estate transaction.

Construction of the interchange would involve the use of hazardous materials (e.g., asphalt, fuels, paint, etc.) and generation of solid wastes. In order to determine significance, the following were considered: the type and overall quantity of material or waste being generated; the duration of a particular activity using hazardous materials or generating solid and hazardous waste; the potential for releases during handling, transport, storage, treatment, and disposal activities; and the reduction, minimization or cleanup of hazardous materials or wastes. An impact would be significant if the quantities of any solid or hazardous waste generated by the action exceeded regulatory limits or existing transport or disposal capabilities, or if the use of additional hazardous materials or generation of hazardous wastes would have a detrimental impact on worker health and safety. Small increases would result in an insignificant impact. A beneficial impact would occur if the types or quantities of hazardous materials or wastes would be reduced or eliminated, or if the potential for leaks, spills, or exposure to hazardous substances would be reduced as a result of the action (MBBA, 2008).

4.2.1 Proposed Action

Hazardous materials would be used by the contractor during the construction of the interchange. Typical hazardous materials used would be asphalt, fuels for equipment, paints, and cleaning compounds for equipment and the facility. Standard materials would be used for construction and would not pose any unusual or substantial threat to human health or the environment. The contractor would be responsible for properly storing, transporting, and using the materials according to applicable regulations. The contractor would be responsible for ensuring avoidance of the underground pipeline during construction of the Proposed Action. Subsequent to construction, negligible amounts of hazardous materials would be used. Potential uses include paint for striping the road and cleaning compounds. The use of hazardous materials would have an insignificant impact on the environment, and would not adversely affect the health and safety of workers or the public.

Any hazardous wastes (e.g., waste adhesives and paint wastes) generated during construction would be handled by the contractor in accordance with applicable federal and state laws and regulations. Negligible amounts of similar types of hazardous waste produced during construction would be generated during maintenance of the road. Consequently, handling and disposal of hazardous wastes in accordance with applicable requirements would not significantly impact the environment, nor affect the health and safety of workers or the public.

The construction of the interchange would temporarily increase the amount of solid waste generated in the proposed project area. Debris from the cutting of trees and brush, soils, and rock would be generated. Some of the existing roadway in the proposed project area would be removed and a new surface applied. The solid waste generated by the Proposed Action would be handled by the contractor and would not affect Hurlburt Field's solid waste management programs. The contractor would be required to take the construction debris to a landfill that would accept the debris. Adequate landfill space is available in the area for construction debris.

Subsequent to construction of the interchange, minimal solid waste would be generated during maintenance of the road. Consequently, no long-term impact involving solid waste would occur under the Proposed Action (Okaloosa County, 2004).

There are no hazardous waste sites/locations in the proposed project area. If previously undetected hazardous waste sites/locations are unearthed during construction, all excavation activities in the immediate vicinity of the contaminated site will be suspended. Appropriate agencies will develop a plan to investigate the site of contamination and to determine what corrective measures, if any, may be required to safeguard public health and the environment.

4.2.2 Other Action Alternatives

Hazardous materials used and any hazardous wastes generated for the other action alternatives would be the same type as the Proposed Action. Insignificant impacts would occur as a result of handling hazardous materials, or generating hazardous or solid waste.

4.2.3 No Build Alternative

The No Build alternative would not impact hazardous material, hazardous waste, or solid waste programs.

4.3 LOCAL COMMUNITY

This section addresses potential impacts to the local community including socioeconomics, environmental justice, land use and aesthetics, and transportation.

4.3.1 Socioeconomic

Significance criteria for socioeconomic resources are determined for each ROI by analyzing long-term fluctuation in elements such as population and employment within that ROI. A significant impact would be based on an increase or decline of projected employment and/or an increase or decline in income. In this case, increases in employment and income would be considered beneficial.

4.3.1.1 Proposed Action

Implementing the Proposed Action is not expected to substantially impact social or economic resources, including population, income, and employment within the Hurlburt Field ROI.

No impacts to population from construction activities would be expected. Persons already living in the region would perform construction work related to the Proposed Action. Therefore, no increase in population would be expected.

Small beneficial impacts to local employment and income from construction under the Proposed Action could occur. Local contractors furnishing construction services for the Proposed Action may provide insignificant increases in construction employment for local workers. Increases in construction employment and expenditures would lead to insignificant but beneficial impacts to the overall income of the area (Okaloosa County, 2004). The Proposed Action would have a beneficial effect on the local construction economy.

4.3.1.2 Other Action Alternatives

Slight beneficial impacts to local employment and income from the construction would occur under the other action alternatives, similar to those described under the Proposed Action.

4.3.1.3 No Build Alternative

Under the No Build alternative, socioeconomic impacts would not change from existing conditions.

4.3.2 Environmental Justice

Environmental justice impacts include "ecological, cultural, human health, economic, or social impacts when interrelated to impacts on the natural or physical environment" (32 CFR 989.33). A significant environmental justice impact would be a serious or long-term health, environmental, cultural, or economic effect that disproportionately affected a nearby minority or low-income population, rather than all nearby residents. An insignificant environmental justice impact would be a minor or short-term health, environmental, cultural, or economic effect that disproportionately affected a nearby minority or low-income population. No environmental justice impacts would occur if the environment was not affected, or if no disproportionate effects on minority or low-income populations would occur (Okaloosa County, 2004).

4.3.2.1 Proposed Action

Under the Proposed Action, insignificant short-term air quality and noise impacts have been predicted for the areas near the construction activities. However, there would not be disproportionate impacts to any nearby low-income or minority populations, and therefore no environmental justice impacts would occur. Since no adverse impacts to environmental justice have been identified, no mitigation measures are necessary.

4.3.2.2 Other Action Alternatives

Impacts from the other action alternatives would be similar to those described under the Proposed Action; thus, no environmental justice impacts would occur.

4.3.2.3 No Build Alternative

Under the No Build alternative, environmental justice impacts would not change from existing conditions.

4.3.3 Land Use and Aesthetics

Land-use impacts would be significant if there was a long-term effect on adjacent land uses caused by foreclosing the existing use of the land, or the adjacent land is degraded to the extent that it can no longer be used for its current or intended use. Insignificant impacts would occur if some noticeable degradation occurred or if there were minor, short-term prohibitions on the use of nearby lands. No impact would result if no noticeable change in land use occurred.

The significance criteria for aesthetic impacts were based on the perception of the degree of acceptability of changes to the physical characteristics of the landscape. A significant impact would involve strong disapproval by many individuals, whereas an insignificant impact would be minimal disapproval, or strong disapproval by some individuals. No impact would occur if there was negligible disapproval, or moderate disapproval by some individuals. If the aesthetic environment were improved, a beneficial impact would occur (Okaloosa County, 2004).

4.3.3.1 Proposed Action

There would not be a significant impact to land use as a result of the Proposed Action. The majority (95 percent) of the proposed project area lies within the existing ROW for the US 98 and a majority of the surrounding area is federally owned property at Hurlburt Field (HDR, 2003e). Using this area for the Proposed Action would be considered insignificant given the amount of lands already included in the existing ROW. Construction of the Proposed Action anticipates approximately 4.9 acres (2.2 acres on the north side of US 98 and 2.7 acres on the south side of US 98) of federally owned property at Hurlburt Field. Additionally, it is anticipated that a temporary construction easement may be required on approximately 2.4 acres (1.2 acres on the north side of US 98 and 1.2 acres on the south side of US 98) of federally owned property at Hurlburt Field.

Even with the construction of the overpass, there would be insignificant aesthetic impacts. Construction activity would occur over twelve months or more. The amount of dust generated by the construction activity would be short-term and not be expected to degrade visibility in the proposed project area. A BMP would be used to maintain slightly moist soil conditions during the interchange construction; this would lessen the potential for any generation and transport of fugitive dust emissions in the proposed project area and reduce adverse aesthetic impacts. The Proposed Action would be landscaped after construction.

4.3.3.2 Other Action Alternatives

The impact on land use would be the same as with that in the Proposed Action. The other action alternatives will require the same level of federally owned property acquisition at Hurlburt Field. However, with the construction of the access ramp from Purcell Drive to Cody Avenue, a significant portion of federally owned property at Hurlburt Field would have to be acquired. It is anticipated that Alternatives B, C, and D would impact approximately 9.88, 5.96, and 9.45 acres, respectively.

4.3.3.3 No Build Alternative

There would be no impact on either land use or aesthetic environment for the No Build alternative. This alternative would not require any acquisition of property. No changes would be made to existing drainage or roadside ditches.

4.3.4 Transportation

Transportation impacts would be significant if the projected peak traffic volume generated by the Proposed Action exceeded the capacity of the interchange. Impacts would be insignificant if the LOS stayed the same or only slightly decreased, and would be beneficial if the LOS was improved.

4.3.4.1 Proposed Action

During construction of the Proposed Action, additional vehicle trips would be generated in and around the south side of Hurlburt Field by vehicles transporting workers, material, and equipment to the proposed site. This additional loading of local roadways would contribute to the area's existing traffic congestion, but would be a short-term insignificant impact, as most of this increased traffic would be kept away from the main gate to Hurlburt Field.

Traffic control plans would be implemented to minimize delays and congestion during the construction. Nevertheless, those traveling to and from Hurlburt Field and Campaign Street would experience some inconvenience and delays during construction. A BMP to lessen the short-term traffic impacts, and reduce the cumulative impacts of this project when considered with the other area construction work, would be to avoid peak-hour entry and departure of construction and worker vehicles near the main gate at Hurlburt Field. Project design and sequencing would be used to minimize traffic and infrastructure impacts during construction of the proposed service roads and related access controls, including delayed response times for emergency vehicles (HDR, 2010c).

The completed Proposed Action would provide a beneficial traffic impact to the area at the US 98 and Cody Road interchange by alleviating the current congestion at the intersection, improving safety, and allowing Hurlburt Field personnel easier access to the installation (HDR, 2010a). **Table 23** provides a LOS comparison between the Proposed Action, the other action alternatives, and the No Build alternative. For example, the Proposed Action is projected to provide a LOS B in the AM peak hour and LOS A in the PM peak period in the year 2032 for the signalized intersection portion of the interchange (HDR, 2010a).

Table 23: Level of Service (LOS) Summary

YEAR	LOS	
	AM	PM
SPUI (Proposed Action & Alternative B)		
2012	B	A
2022	B	A
2032	B	A
TUDI (Alternatives C & D)		
2012	C	B
2022	C	B
2032	C	B
No Build Alternative		
2012	C	F
2022	D	F
2032	F	F

Table 24 below shows how the operational performance at the US 98/Cody Avenue Intersection for the Proposed Action is superior to the other action alternatives and the No Build alternative. The data presented in the table represents the total delay in hours for the peak one hour traffic demand in the morning and in the afternoon for one day. In the opening year 2012, the Proposed Action results in a 71% reduction in traffic delay when compared to the TUDI alternatives. A 99% reduction is realized over the No Build alternative.

Table 24: Operational Performance Summary

Year	Proposed Action: SPUI (US 98 over Cody Ave.)	Alternative B: SPUI (Cody Ave. over US 98)	Alternative C: TUDI (US 98 over Cody Ave.)	Alternative D: TUDI (Cody Ave. over US 98)	No Build Alternative
2012	12 delay hours	12 delay hours	42 delay hours	42 delay hours	1,014 delay hours
2032	15 delay hours	15 delay hours	50 delay hours	50 delay hours	1,318 delay hours

Data was analyzed at the proposed signalized intersection(s) and assumed the same based on the SPUI's single signalized intersection and the TUDI's double signalized intersection.

4.3.4.2 Other Action Alternatives

As seen in **Table 23** and **Table 24**, the SPUI alternatives (A and B) are projected to provide acceptable LOS and a significant reduction in traffic delays in the peak hours in 2032 for the signalized intersection portion of the interchanges. In contrast, the TUDI alternatives (C and D) produce acceptable LOS, but the traffic delays are significantly higher than the SPUI alternatives. In addition, Alternatives B & D (**Figures 2.2-2 & 2.2-4**) would require a loop ramp on the south side due to the close proximity of the Santa Rosa Sound and the need to keep the ramp out of the Sound and require the relocation of Purcell Drive through recently constructed Air Force infrastructure projects. Alternative C would require the construction of an access ramp from Purcell Drive to Cody Avenue (**Figure 2.2-3**) through the same Air Force infrastructure projects, therefore, requiring the acquisition of additional federally owned property and infrastructure south of US 98 and east of Campaign Street (HDR, 2010a). The construction costs associated from the demolition, relocation, and reconstruction of this exiting infrastructure would render the project impracticable. For these reasons, the other action alternatives would not produce the optimum transportation system and would not be the most cost feasible as compared to the Proposed Action. The effects on the existing traffic infrastructure for the other action alternatives would be similar to the Proposed Action. Traffic control plans would also be implemented to minimize delays and congestion during construction.

4.3.4.3 No Build Alternative

The existing LOS for the US 98 and Cody Avenue intersection is estimated to be LOS D in the AM peak period and LOS E in the PM peak period. The existing segment LOS on US 98 in the proposed project area is estimated to be LOS F. Under the No Build alternative, no construction or interchange improvements to resolve the problem at the intersection would occur. It is likely that the existing traffic congestion would continue to deteriorate as the area's population and Hurlburt Field employment continue to increase. Current significant impacts to traffic flow and delay time would continue to worsen. Traffic congestion could impact base access during critical mission requirements. Based on the traffic crash and growth data, the No Build alternative would result in an increase in traffic crashes associated with the main gate entrance to Hurlburt Field (HDR, 2010a).

4.3.5 Utilities

Impacts to utilities would be considered significant or possibly substantial if services were disrupted for long periods of time. Through early planning and coordination with the utility companies, interruptions would be short-term and considered insignificant. The utilities would be relocated along or adjacent to the ROW to minimize disturbance to the public and operations on Hurlburt Field.

4.3.5.1 Proposed Action

There would be very limited interruptions in services as a result of the Proposed Action. Services in close proximity to residential or commercial areas would be temporarily impacted by scheduled interruptions in service as a result of construction activities. These actions will be coordinated to have very limited interruptions in service to the public or operations on Hurlburt Field.

4.3.5.2 Other Action Alternatives

Impacts from the other action alternatives would be similar to those described under the Proposed Action. Interruptions would be temporary and scheduled to minimize adverse impacts to the public and operation on Hurlburt Field.

4.3.5.3 No Action Alternative

There would be no impacts to utilities as a result of the No Build alternative.

4.4 CONSISTENCY WITH TRANSPORTATION PLAN

The Okaloosa-Walton Transportation Planning Organization (TPO) adopted its 2025 Long Range Transportation Plan on June 21, 2001. On August 22, 2002, the TPO voted to amend the 2025 Cost Feasible Plan to include an interchange at the main gate to Hurlburt Field (Cody Avenue) and US 98 (HDR, 2010c). As of 2010, this project is one of the top priorities for Okaloosa County, the FDOT, and Hurlburt Field as well as the surrounding community.

4.5 RELATIONSHIPS BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

The Proposed Action would involve removing some vegetation, including trees from the proposed project area. The use of this habitat by wildlife would be lost. Runoff will be collected in roadside ditches and conveyed to their respective outfalls. Modifying the three existing ponds within the corridor would provide additional treatment and attenuation volumes required by the Proposed Action. Modification of the existing ponds may require the affected basin to be brought up to current stormwater management standards under 62-346, F.A.C. Construction of the roadside ditches and modification of the ponds would prevent long-term degradation of wetlands next to the Proposed Project (HDR, 2010c). There would be no impact to croplands or commercial forests. Therefore, implementing the Proposed Action would not degrade the productivity of the area.

4.6 CUMULATIVE IMPACTS

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

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

For this project, potential cumulative impacts will be addressed for the Proposed Action, the three other action alternatives (B, C, and D), and the reasonably foreseeable future actions carried forward for detailed analysis.

Proposed Action:

- Alternative A: SPUI with US 98 over Cody Avenue

Other Action Alternatives:

- Alternative B: SPUI with Cody Avenue over US 98
- Alternative C: TUDI with US 98 over Cody Avenue
- Alternative D: TUDI with Cody Avenue over US 98

Reasonably Foreseeable Future Actions:

- Hurlburt VCC
- NFTCA roadway corridor through Eglin AFB from SR 87 in Santa Rosa County to SR 83 (US 331) in Walton County

4.6.1 Past and Present Actions Relevant to the Proposed Action

Past actions relevant to the Proposed Action include the construction of turn lanes on US 98 at the Cody Avenue intersection, the reconfiguration/relocation of the Hurlburt main gate and soundside gate, and the location of the Soundside Club. Present actions include the clearing and subsequent construction associated with a new Hurlburt VCC which is located directly south and adjacent to Hume Drive. The improvements of the US 98 intersection and reconfiguration to the gate entrances helped temporarily alleviate traffic along US 98 at Cody Avenue but aggravated traffic conditions continue to exist today at this location during peak hours. The locations of these past and present actions and their relationship to the US 98 intersection will dictate the design geometry of the Proposed Action.

4.6.2 Reasonably Foreseeable Future Actions

As discussed in Section 2.6 of this EA, reasonably foreseeable future actions in the project area include the new Hurlburt VCC and the NFTCA roadway project. The new Hurlburt VCC is proposed in the area south of US 98 and Hume Avenue and immediately adjacent to Champaign Street. The Hurlburt VCC has been categorically excluded from further NEPA analysis which references Hurlburt's General Plan EA (Tharpe, 2010). However, this EA will evaluate the type of cumulative impacts that could occur from the Hurlburt VCC in conjunction with the Proposed Action.

In addition, the NFTCA is currently studying an alignment from SR 87 in Santa Rosa County to SR 83 (US 331) in Walton County. Scoping, environmental planning, and early coordination with Eglin AFB, Hurlburt Field, other state and local governments, and the public are currently underway. Design, ROW acquisition, and construction schedules have not been finalized. This action, in conjunction with the Proposed Action or other action alternatives, would have beneficial effects on transportation along US 98 by increasing the LOS across the region. The NFTCA project is still in its early planning stages, so specific impacts are not yet known. However, this EA will evaluate the type of cumulative impacts that could occur from the NFTCA project in conjunction with the Proposed Action. The NFTCA project and other current and planned projects with federal funding or requiring federal approval (such as a Section 404 permit) will be evaluated for potential environmental impacts under separate NEPA documents.

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4.7 ANALYSIS OF CUMULATIVE IMPACTS

4.7.1 Air Quality

Because the Proposed Action or Alternatives B, C, and D, the Hurlburt VCC, and NFTCA project (foreseeable future actions) are located in attainment areas, no negative cumulative impacts to air quality from transportation or stationary sources are expected to occur.

4.7.2 Geological Resources

No negative cumulative impacts on geological resources including soils/erosion are anticipated as a result of the Proposed Action or Alternatives B, C, and D, and the foreseeable future actions. BMPs would be implemented for each construction project as required by federal and state regulations.

4.7.3 Water Resources

Cumulative impacts to water resources, specifically surface water and groundwater, are not anticipated for the Proposed Action or Alternatives B, C, and D, and the foreseeable future actions. The Proposed Action or Alternative C will not impact 100-year floodplains; however, Alternatives B and D will impact 3.30 and 2.50 acres of 100-year floodplains, respectively. Therefore, a FONPA will be required for these alternatives. In addition, any project that will impact floodplains is required to obtain No-Rise certifications that ensure backwater elevations will not rise and increase the risk of flooding to residences or businesses. Each project has or will increase the amount of impervious surface in the project areas and will require permits from the NWFMWD or FDEP under 62-346, F.A.C. These permits will ensure adequate stormwater controls are incorporated into the design to provide required treatment and attenuation and to prevent degradation to water quality in surface and ground waters as well as floodplains.

4.7.4 Biological Resources

With facilities/services (Soundside Club) to the east, residential/recreational facilities to the west, US 98 to the north, and the Santa Rosa Sound to the south, the location of the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC is fragmented from any significant natural greenway and therefore, severed from any significant wildlife corridors. Therefore, wildlife, including rare, threatened, or endangered species and its critical habitat, will not be impacted and cumulative impacts to biological resources would not be significant. However, cumulative impacts to biological resources from the NFTCA cannot be analyzed at this time based on the uncertainty of its design and location. Because of the biological diversity found in and around Hurlburt Field, any project, especially a large transportation corridor, will require careful analysis and extensive coordination to determine its effects. Although a transportation project through federal property should eliminate the pressures from roadside development, any parcels left fragmented by the corridor would need to be analyzed for cumulative effects in the event the Air Force considers an enhanced use lease or other value based real estate transaction process.

4.7.5 Wetlands

Alternatives B and D and the NFTCA will impact wetlands. No wetland impacts from the Proposed Action, Alternative C, or Hurlburt VCC are anticipated at this time. Minimization and mitigation would occur through the permitting process and result in preserving, restoring or enhancing wetlands and wildlife habitats. The proponent will be responsible for obtaining all applicable wetland permits/authorizations prior to construction activities. The proponent will also be required to provide mitigation associated with wetland impacts prior to commencement of construction activities. The federal and state agencies responsible for regulating wetland impacts (USACE and NWFWMD or FDEP) will ensure that no negative cumulative impacts to wetlands will occur.

4.7.6 Noise

Noise impacts from the Proposed Action or Alternatives B, C, and D, and the foreseeable future actions could have short-term noise increases during construction but should have no perceptible long-term noise impacts. Noise impacts from the NFTCA will be analyzed in separate NEPA document(s). Noise abatement measures can and will be incorporated if the noise analysis warrants such mitigations.

4.7.7 Cultural Resources

Cumulative impacts to cultural resources are not anticipated from the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC. Section 106 investigations have been conducted in this area to identify any resources that may be impacted by project activities. However, the NFTCA will be further analyzed under separate NEPA document(s). Impact to these resources will be prevented during project activities by avoidance. If avoidance is not possible data recovery will be conducted. Section 106 investigations will be required for the foreseeable future actions.

4.7.8 Hazardous Materials and Wastes

A contamination screening evaluation has been completed for this project and found no current or historical hazardous material generators or storage sites within the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC. The Proposed Action or Alternatives B, C, and D, and the NFTCA would require an EBS to determine if contamination of any sort would be, or have the potential to be, encountered. The Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC have a low probability of encountering contamination from UXO. The cumulative impact of the Proposed Action or Alternative B, C, and D, and the foreseeable future actions would produce an increase in solid waste generation; however, the increase would be small and limited to the timeframe of each construction project. No negative cumulative effects from hazardous materials, including UXO, and wastes management are anticipated as a result of the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC. Cumulative impacts from the NFTCA project will be analyzed in separate NEPA document(s).

4.7.9 Socioeconomic

The cumulative impact of the Proposed Action or Alternatives B, C, and D, and the foreseeable future actions would have a beneficial impact to the local construction industry as well as short-term benefits to the local economy, especially during construction. The impact to businesses would be considered minimal based on the locations of interchange along the corridor. Currently, there are no residential or business relocations anticipated as a result of the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC. There are no negative cumulative socioeconomic effects from the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC. Cumulative impacts from the NFTCA project will be analyzed in a separate NEPA document(s).

4.7.10 Environmental Justice

There would be no negative cumulative impacts to any low-income or minority populations as a result of the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC. In addition, based on EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, negative cumulative effects are not expected from the NFTCA project. However, cumulative effects from the NFTCA project will be analyzed in a separate NEPA document(s).

4.7.11 Land Use and Aesthetics

Adjacent land use for the Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC is under Federal (DoD) government jurisdiction. Therefore, the cumulative impacts from residential development pressures, commercial services, and other potential land use changes would be insignificant. Furthermore, Air Force zoning regulations will ensure consistency regarding land use compatibility and aesthetic value. Land use change and aesthetics analysis for the NFTCA will be required (under NEPA) to determine the potential cumulative impacts.

4.7.12 Transportation

The Proposed Action or Alternatives B, C, and D, and the Hurlburt VCC will have short-term traffic impacts in the vicinity of the intersection along the US 98 corridor during construction. Construction activities would contribute an additional increment to the congestion that is being experienced at the Hurlburt main gate during peak hours. Although construction of the Proposed Action or Alternatives B, C, and D would temporarily affect traffic flow, the completed roadway would result in long-term benefits through enhanced traffic flow. Consequently, cumulative traffic impacts from the Proposed Action or Alternatives B, C, and D, and NFTCA would be considered beneficial to the community. The use of construction-related vehicles and their impacts on noise, air quality, and traffic is unavoidable. The short-term increases in air emissions and noise during construction and the insignificant impacts predicted for other resource areas would be insignificant when considered cumulatively with other ongoing activities in the area.

4.7.13 Utilities

The Proposed Action or Alternatives B, C, and D, and the foreseeable future actions would result in short-term utility impacts during construction. As required during the early planning process, utility companies would be notified and coordination regarding relocations would be scheduled to avoid and minimize disruption in service. Therefore, no negative cumulative impacts to utilities are expected.

4.8 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

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 alternatives. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site) (HDR, 2005b).

4.8.1 Proposed Action and Other Action Alternatives

Construction of an interchange involves essentially permanent use of construction materials; however, no unusual type or amount of materials would be required. The Proposed Action or Alternatives B, C, and D would require ordinary construction materials, such as concrete, steel, asphalt, etc. The materials would, except for recyclable items, be irretrievably committed.

The loss of trees, vegetation, and wetlands from clearing the land for the interchange would be an irretrievable commitment of resources. The land that would be occupied by the roadway and interchange ultimately could be restored as vegetation and wetlands if the interchange were removed in the future. Therefore, the commitment of land is not necessarily irreversible.

The Proposed Action and Alternatives B, C, and D would irretrievably consume various types of fuels and water during the construction period. A long-term commitment of resources would occur for maintenance of the interchange. The amounts of resource consumption to maintain the interchange is not expected to increase significantly from current amounts used.

4.8.2 No Build Alternative

No irretrievable or irreversible commitment of resources would occur under the No Build alternative.

5.0 PLANS, PERMITS, AND MANAGEMENT ACTIONS

The following is a list of plans, permits, and management actions associated with the Proposed Action. The environmental impact analysis process (EIAP) under 32 CFR 989, for this EA identified the need for these requirements which were developed through cooperation between the proponent and interested parties involved in the Proposed Action. These requirements are, therefore, to be considered as part of the Proposed Action and implementation would be through the Proposed Action's initiation. The proponent is responsible for adherence to and coordination with the listed entities to complete the plans, permits, and management actions.

5.1 PLANS

- Site Design, Construction, and Utility Plans.
- SWPPP and Stormwater, Erosion, and Sedimentation Control Plan.

5.2 PERMITS

- ERP Stormwater Permit (62-346, F.A.C).
- Generic Permit for Storm Water Discharge from Construction Activities that Disturb One or More Acres of Land (NPDES Permit) (62-621, F.A.C).
- Permits, easements, and authorization through Eglin Real Estate, FDOT and/or Okaloosa County prior to construction.
- Storm Sewer Permit: The proponent would be required to adhere to Phase II Municipal Separate Storm Sewer Systems (MS4) to permitting requirements.
- Coastal zone consistency determination in accordance with Florida's CZMA (Appendix B).

5.3 MANAGEMENT ACTIONS

The proponent is responsible for the implementation of the following management actions.

5.3.1 Air Quality

- Impacts will be minimized by adherence to all state and local regulations and to the FDOT *Standard Specifications for Road and Bridge Construction*. Reasonable precautions would be taken to minimize fugitive particulate emissions during ground-disturbing/construction activities in accordance with the CAA and 62-296, F.A.C.

5.3.2 Soils and Erosion

- Where applicable, rough grade slopes or use terrace slopes to reduce erosion.
- The Air Force requires inspection and maintenance of BMPs under the NPDES Permit.

5.3.3 Water Resources

- The proponent will ensure no 100-year floodplains will be impacted from construction activities related to the Proposed Action.
- In the event impacts become unavoidable, the proponent will prepare a FONPA pursuant to EO 11988 and 32 CFR 989.14.
- Permits and site plan designs would include site-specific management requirements for erosion and sediment control.
- Designation of staging and storage areas for use of construction equipment.
- Entrenched silt fencing and staked hay bales would be installed and maintained along the perimeter during construction and staging and storage areas.
- Inspection of silt fencing on a weekly basis and after rain events. Replace fencing as needed.
- Stockpiles would be removed in a timely manner.
- Waste receptacles, including dumpsters, would be covered to prevent rainwater and wildlife from entering.
- Inclusion of stormwater features designed to control runoff associated with the additional impervious surface, land clearing, grading, and excavating.
- For water quality protection, erosion control blankets/fabric and other applicable BMPs would be incorporated reduce soil erosion and prevent sedimentation from entering surface waters, floodplains, and wetlands.
- Storage of chemicals, cements, solvents, paints, or other potential water pollutants in locations where they cannot cause runoff pollution into surface waters, floodplains, and wetlands.

5.3.4 Biological Resources

- Designation of staging and storage areas for use of construction equipment.
- In the unlikely event that construction personnel were to encounter a gopher tortoise, construction activities would cease until the animal moved outside the project limits.
- If gopher tortoise burrow(s) were discovered within the project limits, and could not be avoided by a minimum of 25 feet, construction activities would cease in the area, and HDR would immediately coordinate with the FWC to request an off-site relocation permit in accordance with FWC guidelines.

5.3.5 Wetlands

- To the maximum extent possible, the proponent will avoid and minimize direct and indirect disturbance of wetlands through implementation of BMPs.
- With the implementation of Phase II of 62-346, F.A.C., the proponent will maintain a 25' buffer between construction and the wetland line.
- In the event impacts become unavoidable, the proponent will prepare a FONPA pursuant to EO 11990 and 32 CFR 989.14, develop a mitigation plan (if required), and obtain the necessary permits necessary to satisfy the requirements of the USACE (under Section 404 of the CWA) and NWFWMD or FDEP (under Phase II of 62-346, F.A.C.).

5.3.6 Noise and Vibration

- Impacts will be minimized by adherence to all state and local regulations and to the FDOT *Standard Specifications for Road and Bridge Construction*. Reasonable precautions would be taken to minimize noise and vibration during ground-disturbing/construction activities in accordance with 23 CFR 772.

5.3.7 Cultural Resources

- If unexpected discoveries, such as Native American graves or lost historic cemeteries, are encountered during construction of the Proposed Action, all construction activities will cease immediately and Hurlburt, 1 SOCES. The Florida SHPO will be notified within 24 hours at (850) 245-6333 to begin procedures outlined in Chapter 872, F.S. (Florida's Unmarked Burial Law).

5.3.8 Hazardous Materials

- As part of the real estate instrument, conduct an EBS in accordance with AFI 32-7066.
- Contact Hurlburt, 1 SOCES if unusual soil coloration and/or odors are detected and if small arms debris is found in the construction corridor.
- Any hazardous wastes (e.g., waste adhesives and paint wastes) generated during construction would be handled by the contractor in accordance with applicable federal and state laws and regulations.

5.3.9 Utilities

- The proponent will coordinate and obtain all applicable permits, easements, and/or authorizations prior to the commencement of construction activities that may affect that utilities service.

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6.0 CONSULTATION AND COORDINATION

6.1 FEDERAL, STATE, AND LOCAL AGENCIES

The section lists agencies and individuals contacted during development and preparation of this EA.

Federal Agencies

U.S. Army Corps of Engineers Pensacola Regulatory Office 41 North Jefferson Street, Suite 104 Pensacola, Florida 32501-5794	Gail A. Carmody U.S. Fish & Wildlife Service 1601 Balboa Avenue Panama City, Florida 32405-3721
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Carl T. Hoffman, R.A. HQ AFSOC/A7PP 427 Cody Ave., Suite 303 Hurlburt Field, Florida 32544-5434	Amy Tharpe 1 SOCES/CEAN Stormwater & EIAP Program Manager Hurlburt Field, Florida 32544-5244
Amy Oliver 1 SOW/PA 344 Tully Street Hurlburt Field FL 32544	Larry Chavers 96 CEG/CEVSP 501 De Leon Street, Suite 101 Eglin AFB, Florida 32542
Michael Jago 96 CEG/CEVSP 501 De Leon Street, Suite 101 Eglin AFB, Florida 32542	Barbara Brandt 96 CEG/CEAR 501 De Leon Street, Suite 100 Eglin AFB, FL 32542

State Agencies

Lauren Milligan Florida State Clearinghouse 3900 Commonwealth Boulevard Mail Station 47 Tallahassee, Florida 32399-3000	Jim DeVries Florida Department of Transportation Pensacola Urban Office Pensacola, Florida 32501
Blair Martin Florida Department of Transportation 1074 Highway 90 Chipley, Florida 32428	Cliff Street, P.E. Florida Department of Environmental Protection 160 Governmental Center Pensacola, Florida 35301

6.2 PUBLIC INVOLVEMENT

The public review process provides an opportunity for the public to comment on federal actions addressed in NEPA documents. A public notice was placed in the *Northwest Florida Daily News* announcing the availability of the Draft EA and FONSI for public review and comment. A copy of the publication as it ran in the newspaper is shown in Appendix A.

Copies of the Draft EA and Draft FONSI were made available for review on the web at *http://www2.hurlburt.af.mil/library/index.asp* under the "Hurlburt Field Environmental Documents" link from Friday, 16 July 2010 through Monday, 30 August 2010. Each of the public libraries in Fort Walton Beach located at 185 SE Miracle Strip Parkway and Mary Esther located at 100 Hollywood Boulevard, had computers available to the general public and librarians who can provide assistance linking to the document.

No public comments on the Draft EA and FONSI were received over the 45-day comment period.

7.0 LIST OF PREPARERS

HDR Engineering, Inc. prepared this EA for the Department of the Air Force and Okaloosa County, Florida in cooperation with the FDOT and Hurlburt Field under an EFI, Florida Infrastructure Grant. Contributors to the document are listed alphabetically and identified by name, qualifications, contribution, and experience.

Name/Qualifications	Contribution	Experience
Michelle Diller, P.E., LEED AP, Drainage Section Manager M.S. Environmental Science/M.P.A. Public Affairs/1996. Indiana University. B,S., Materials Science Engineering/1990. University of Michigan.	Stormwater	Fifteen years experience including ten in regulatory oversight at FDEP and three in transportation and stormwater management.
Mick Garrett - Project Manager/Senior Environmental Scientist. B.S., Marine Biology/1994. University of West Florida	Lead Author	Thirteen years environmental science/NEPA
Thomas Hiles - Traffic Engineer, EI B.S., Civil Engineering/2006, University of Missouri M.S., Civil Engineering/2008, University of Florida	Design Traffic, Traffic Analysis	Three years of Traffic Analysis. Previous work on NEPA and PD&E projects.
M. Jason McGlashan, P.E., PTOE - Senior Transportation Engineer. B.S., Civil Engineering/1993. University of Central Florida	Design Traffic, Traffic Analysis	Seventeen years total experience in multi-modal transportation planning and engineering, transportation policy, NEPA and impact analysis studies
Michael J. Parsons, P.E. - Environmental Engineer. BS/Civil and Environmental Engineering/1997. University of Wisconsin	Noise Analysis	Eleven years experience in noise investigations
Josey Walker - Environmental Scientist B.S., Environmental Biology/2000. University of Southern Mississippi. M.S., Environmental Science/2002. Louisiana State University	Wetland & Wildlife	Nine years environmental science
Aubyn Williams - Environmental Planner/GIS Specialist B.A., Economics/2007. University of North Florida	GIS/Graphics	Three years environmental planning and GIS analysis
Cory Wilkinson - Environmental Planner. B.S., Environmental Resource Management/1990. University of West Florida. M.B.A., Management/1994. Bristol University. M.S., Environmental Science/1999. The Johns Hopkins University.	Air Quality	Seventeen years experience in various environment, safety, and health evaluations.
Steve Wilson, PE - Sr. Project Manager B.S., Civil Engineering/1981, University of Florida	QC Reviewer	Twenty-nine years experience in transportation engineering and design including PD&E projects

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HDR. 2010c. US 98 (SR 30) at the Entrance to Hurlburt Field PD&E Study, Draft Preliminary Engineering Report. May 2003, Updated April 2010.

HDR. 2010d. US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Noise Study Report. May 2003, Updated April 2010.

HDR. 2010e. US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Draft Contamination Screening Evaluation Report. May 2003, Updated April 2010.

HDR. 2010f. US 98 (SR 30) at the Entrance To Hurlburt Field PD&E Study, Wetland Evaluation Report. May 2003, Updated April 2010.

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APPENDIX A: PUBLIC INVOLVEMENT

2010 Public Review Process:

A public notice was placed in the *Northwest Florida Daily News* announcing the availability of the Draft EA and FONSI for public review and comment. A copy of the publication as it ran in the newspaper is shown below.

Public Notification

In compliance with the National Environmental Policy Act, Hurlburt Field announces the availability of a Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for an interchange located on US 98 at the entrance to Hurlburt Field in Okaloosa County, Florida, for public review and comment.

The Proposed Action entails constructing an interchange on US 98 at the entrance to Hurlburt Field, Florida, which would alleviate traffic congestion and improve safety.

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

Copies of the Draft EA and Draft FONSI are available for review on the web at *http://www2.hurlburt.af.mil/library/index.asp* under the "Hurlburt Field Environmental Documents" link. In addition, each of the public libraries in Fort Walton Beach located at 185 SE Miracle Strip Parkway and Mary Esther located at 100 Hollywood Boulevard, have computers available to the general public and librarians who can provide assistance linking to the document.

Copies will be available for review from Friday, 16 July 2010 through Monday, 30 August 2010. Comments must be received by Wednesday, 01 September 2010.

For more information or to comment on the proposed action, contact: Amy Oliver, 1st Special Operations Wing/Public Affairs, 344 Tully Street, Hurlburt Field, Florida 32544 or email: amy.oliver@hurlburt.af.mil. Tel: (850) 884-3373.

No public comments on the Draft EA and FONSI were received over the 45-day comment period.

RESULTS FROM THE 2003 PD&E STUDY PUBLIC INVOLVEMENT PROGRAM

Presentations were made regarding the proposed project to the following entities:

- Okaloosa Board of County Commissioners on November 19, 2002; several questions were asked concerning the preferred alignments
- Okaloosa-Walton Transportation Planning Organization (TPO) Citizens Advisory Committee on November 21, 2002; several questions were asked concerning the alignment preferred by the Air Force (answer was that they preferred either of the US 98 over Cody Avenue options)
- TPO Technical Coordinating Committee on November 21, 2002; no questions were asked
- TPO Board on November 21, 2002; no questions were asked, but a request was made to give a presentation to the city of Mary Esther.

Representatives of HDR Engineering, Inc. gave an informational presentation to the Mayor and City Council of Mary Esther on December 30, 2002. Their main questions related to funding for the proposed project. The only technical question concerned the traffic entering Mary Esther at an increased rate of speed since traffic on US 98 will not have to slow down or stop with the proposed grade-separated interchange.

A public information meeting ("workshop") was held at the Soundside Club at Hurlburt Field on January 23, 2003, from 5:30 to 7:00 PM. It was advertised in advance in both the *Northwest Florida Daily News* and the *Destin Log*. In addition, all property owners located within or near the proposed project area were notified by mail in advance of the meeting.

Approximately 21 people attended the meeting. The meeting displays consisted of two duplicate sets of color plots of the four conceptual design alternatives, plotted at a scale of 1-inch equals 100 feet. A color handout was also provided which summarized basic project information. The written comments received included the following points:

- "Elevating US 98 is the best option"
- "A SPUI with US 98 over Cody Avenue works best"
- "Cody Avenue should have bicycle lanes and sidewalks"
- "The existing pedestrian overpass on US 98 needs to remain"
- "The project needs to be completed as soon as possible"
- "Either option with US 98 over Cody Avenue looks good"
- "A concern is the increase in traffic speed into Mary Esther because of not having a traffic light to stop or slow motorists on US 98"

A presentation was also given to the Eglin Encroachment Committee on February 13, 2003. They will need to provide a "letter of approval" for encroachment or use of base property following publication of the Final PE Report.

On December 18, 2003, a Public Hearing was held from 6:00 PM to 7:00 PM at the Florosa Elementary School. The Public Hearing was advertised in advance in the Northwest Florida Daily News. In addition, all property owners located within or near the proposed project area were notified by mail in advance of the meeting.

Approximately 27 people attended the Hearing. The meeting displays consisted of two duplicate sets of 1-inch equals 400 feet color plots of the entire corridor depicting the Preferred Alternative. A handout depicting the Preferred Alternative was also distributed. A formal presentation was given to explain the process and project.

The Hearing was non-confrontational. Those in attendance seemed concerned mostly with whether the Preferred Alternative will truly provide traffic relief or just relocate the problem into the adjacent towns. Overall, verbal comments made around the display boards suggested the attendees like the Preferred Plan and wanted to see something done in this area but were still hesitant whether this was the answer.

Written comments received included the following points:

- "Hollywood Boulevard should be extended to the west and then south to US 98 to alleviate the congestion through Mary Esther"
- "Sidewalks/bike paths should be constructed along the north side of US 98 connecting Hurlburt to Mary Esther."
- "Two new bridges should be constructed to the island and a new pass accessing the Gulf of Mexico south of the proposed interchange."

RESULTS OF THE ENVIRONMENTAL ASSESSMENT PUBLIC INVOLVEMENT

An advertisement was published in the *Northwest Florida Daily News* on October 15, 2003, announcing the availability of the Draft Environmental Assessment (EA) for review and comment. A copy of the Draft EA was placed at the Mary Esther Library from October 15, 2003 through November 15, 2003. No written comments were received by mail or e-mail.

Copies of the Draft EA were also provided to the following agencies: Florida Department of Transportation, Florida State Clearinghouse; U.S. Army Corps of Engineers, Jacksonville District; U.S. Department of the Interior, Fish and Wildlife Service, Panama City, Florida; and the EPA, Region 4, Water Management Division. Copies of correspondence received from the Florida State Clearinghouse and the Fish and Wildlife Service are included in Appendix B.

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APPENDIX B: CORRESPONDENCE

Okaloosa County Public Works

State of Florida

April 9, 2002

Florida State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

RE: Advance Notification
Hurlburt Field Entrance at US 98
Okaloosa County, Florida

Dear Sir or Madam:

The attached Advance Notification Package is forwarded to your office for processing through appropriate State agencies in accordance with Executive Order 95-359. Distribution to local and federal agencies is being made as noted.

Although more specific comments will be solicited during the permit coordination process, we request that permitting and permit review agencies review the attached information and furnish us with whatever general comments they consider pertinent at this time.

This is a potential federal aid action and Okaloosa County and the Florida Department of Transportation, in consultation with the Federal Highway Administration, will determine what degree of environmental documentation will be necessary. This determination will be based upon environmental evaluations and comments made by our consultant, HDR Engineering, Inc., as well as comments received through coordination with other agencies. Please provide a consistency review for this project in accordance with the State's Coastal Zone Management Program.

In addition, please review this improvement's consistency, to the maximum extent feasible, with the approved Comprehensive Plan of the local government(s) pursuant to Chapter 163, Florida Statutes.

We are looking forward to receiving your comments on this project within 45 days. Should additional review time be required, a written request for an extension of time must be submitted to our office within the initial 45-day comment period.

1759 S. Ferdon Blvd, Crestview, FL 32536
Office (850) 689-5772
Fax (850) 689-5715

Advance Notification
Hurlburt Field Entrance at US 98
Page 2

Your comments should be addressed to:

Ms. Danielle Slaterpryce, P.E.
Okaloosa County, Director of Public Works
1759 South Ferdon Boulevard
Crestview, Florida 32536

Your expeditious handling of this notice will be appreciated.

Sincerely,

D E Slaterpryce

Danielle Slaterpryce, P.E.
Director of Public Works

enclosure

Mailing List

cc:

Federal Highway Administration, Division Administrator

Federal Emergency Management Agency - Natural Hazards Branch, Chief

Federal Railroad Administration - Office of Economic Analysis (RRP-32), Director

U.S. Department of Interior - Bureau of Land Management, Eastern States Office

U.S. Department of Housing and Urban Development, Regional Environmental Officer

U.S. Department of Interior - U.S. Geological Survey Chief

U.S. Environmental Protection Agency - Region IV, Regional Administrator

U.S. Department of the Interior - Fish and Wildlife Service, Field Supervisor

U.S. Army Corps of Engineers - Regulatory Branch, District Engineer

U.S. Department of Commerce - National Marine Fisheries Service - Habitat Conservation Division

U.S. Department of the Interior - National Park Service - Southeast Regional Office

U.S. Department of Commerce - National Oceanic and Atmospheric Administration

U.S. Department of Health and Human services- Center for Environmental Health and Injury Control

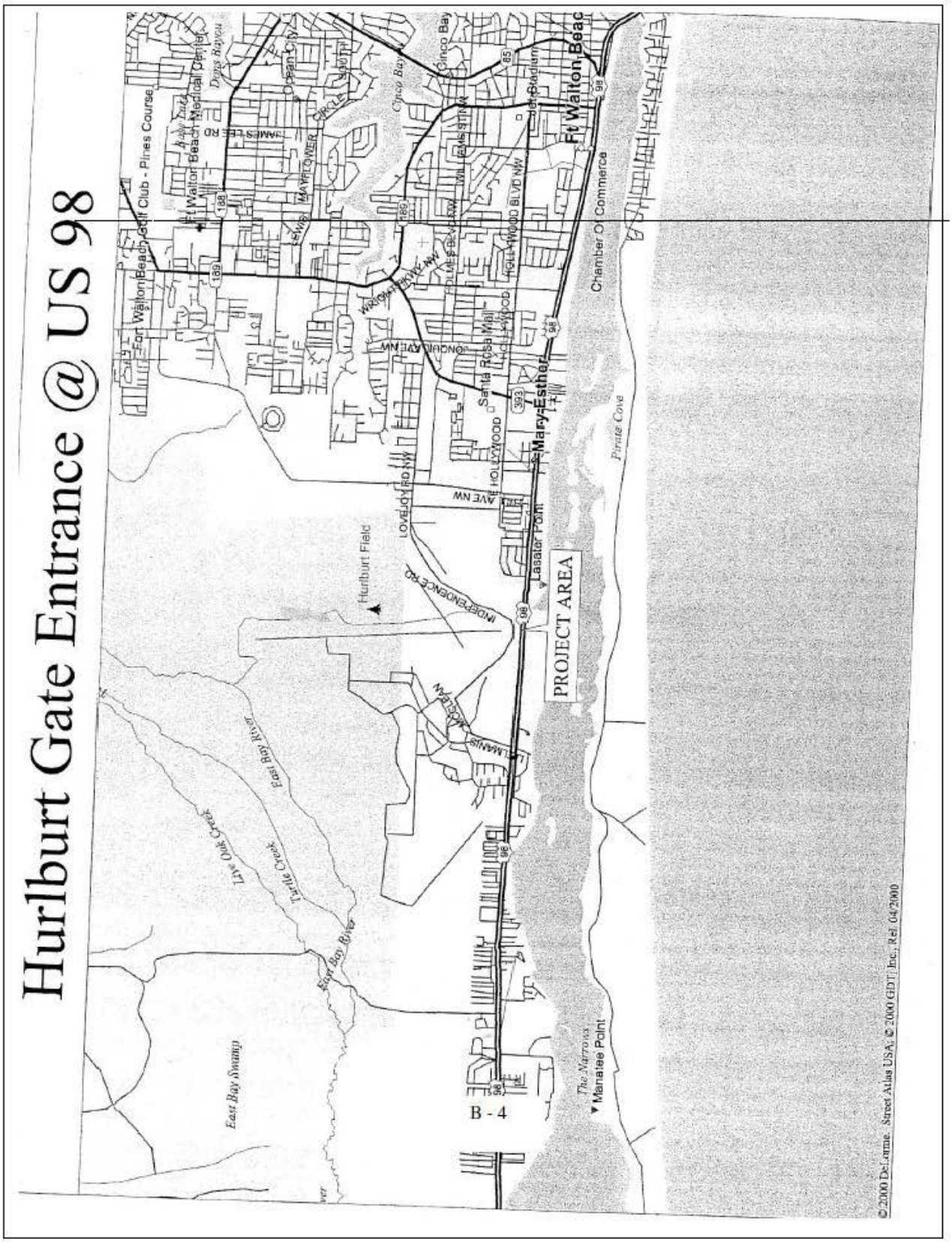
U.S. Coast Guard - Commander (obr) - Eighth District

Florida Game and Fresh Water Fish Commission - Office of Environmental Services

West Florida Regional Planning Council

Northwest Florida Water Management District

Chairman, Okaloosa County Board of County Commissioners


Hurlburt Gate Entrance @ US 98
PROJECT AREA
Hurlburt Field
Lasater Point
Mary Esther
Ft Walter Beac
Chamber Of Commerce
Pirate Cove
Manatee Point
The Narrows
East Bay Swamp
East Bay River
Turtle Creek
Live Oak Creek
Santa Rosa Mall
Fort Walton Beach Golf Club - Pines Course
Fort Walton Beach Medical Center
Choctaw Bay
Cinco Bay
INDEPENDENCE RD
LOVEJOY RD NW
HOLLYWOOD AVE NW
HOLLYWOOD BLVD NW
JAMES LEE RD
MAYFLOWER CIRCLE NW
WILLIAMS ST NW
PALM BEACH AVE NW
CONCORD AVENUE
B - 4
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HURLBURT MAIN GATE AT US 98
OKALOOSA COUNTY
ADVANCE NOTIFICATION FACT SHEET

1. Project Description:

The current project consists of a Project Development and Environmental (PD&E) Study to determine the feasibility of constructing an interchange at the main gate to Hurlburt Field on U.S. 98. It is expected that the study will lead to subsequent project design and construction phases. A Florida Infrastructure Grant from Enterprise Florida, Inc. (EFI) is funding the initial study phase.

2. Project Need:

The purpose of the study is to determine the feasibility of constructing an interchange at the main gate to Hurlburt Field on U.S. 98. An interchange, if constructed, would substantially reduce delays to motorists at the intersection, reduce the likelihood of base-bound motorists blocking the through lanes on U.S 98, and by reducing the travel times to Hurlburt Field, extend the distance that personnel can live from Hurlburt Field. An interchange would also be expected to reduce the frequency and severity of traffic crashes occurring at the intersection.

3. Environmental Information:

a. Land Uses

The potential limits of roadway construction are shown on the attached location map and consist of approximately 4,000-feet (0.75 miles). US 98 (SR 30) is a major coastal 4-lane highway providing heavy air force base traffic to Hurlburt Field, an interstate east/west tourist beach connection, and provides a local commuter connection between Navarre and the Fort Walton Beach area. The surrounding and adjacent land use consists entirely of military property. The project will impact a pedestrian walkover, and will be considered and addressed during the design. Beyond the project limits, land use changes to mixed single-family/ multi-family residential and low intensity commercial.

b. Wetlands

A Wetland Evaluation Report and Wetland Rapid Assessment Procedure (WRAP) will be prepared for this project. Impacts to mostly roadside ditches and maintained drainage ways will be temporary in nature and will be minimized by adherence to the FDOT *Standard Specifications*. The construction will avoid and minimize wetland impacts - in compliance with Executive Order 11990; *there is no practicable alternative to the proposed construction in wetlands and the action includes all practicable measures to minimize harm to wetlands, which may result from such use.*

B - 5

c. Floodplains

The proposed project is located within the 100-year floodplain as defined by Executive Order 11988. Since construction will occur within existing right-of-way, there will be no support of incompatible floodplain development. The project will not adversely affect natural or beneficial floodplain values. This encroachment is not significant.

d. Water Quality/ Stormwater

This project will increase impermeable surface area and involves replacement of existing drainage structures. Stormwater retention ponds will be constructed in the vicinity. Regulatory requirements will apply to water quality issues. Water quality issues will be mitigated through compliance with the quantity design requirements placed by the Florida Department of Environmental Protection. Water quality impacts will be minimized by following agency guidelines and best management practices for erosion and sediment control.

e. Wildlife and Habitat

A field survey and literature search will be conducted for the project area. Hurlburt AFB does provide breeding area and habitat for a variety of marine life and waterfowl species. Specific requirements with respect to protection of listed species will include construction constraints and will be documented in the Wildlife and Habitat Report.

f. Outstanding Florida Waters and Aquatic Preserves:

There are no Outstanding Florida Waters or Aquatic Preserves located within the project area.

g. Coastal Zone Consistency Determination is Required:

[X] Yes [ ] No

h. Cultural Resources:

There are no known historical sites involved with the project. However, a professional Cultural Resource Survey will be requested at the appropriate stage of project development. An evaluation by the State Historic Preservation Officer will follow completion of the survey.

i. Contamination:

A Contamination Review will be conducted for this project. One pipeline that handles petroleum products is located in the project area and is periodically used

for fuel offloading. There are no visible indications of leaks, however additional reviews will be conducted and documented during the study.

j. Noise:

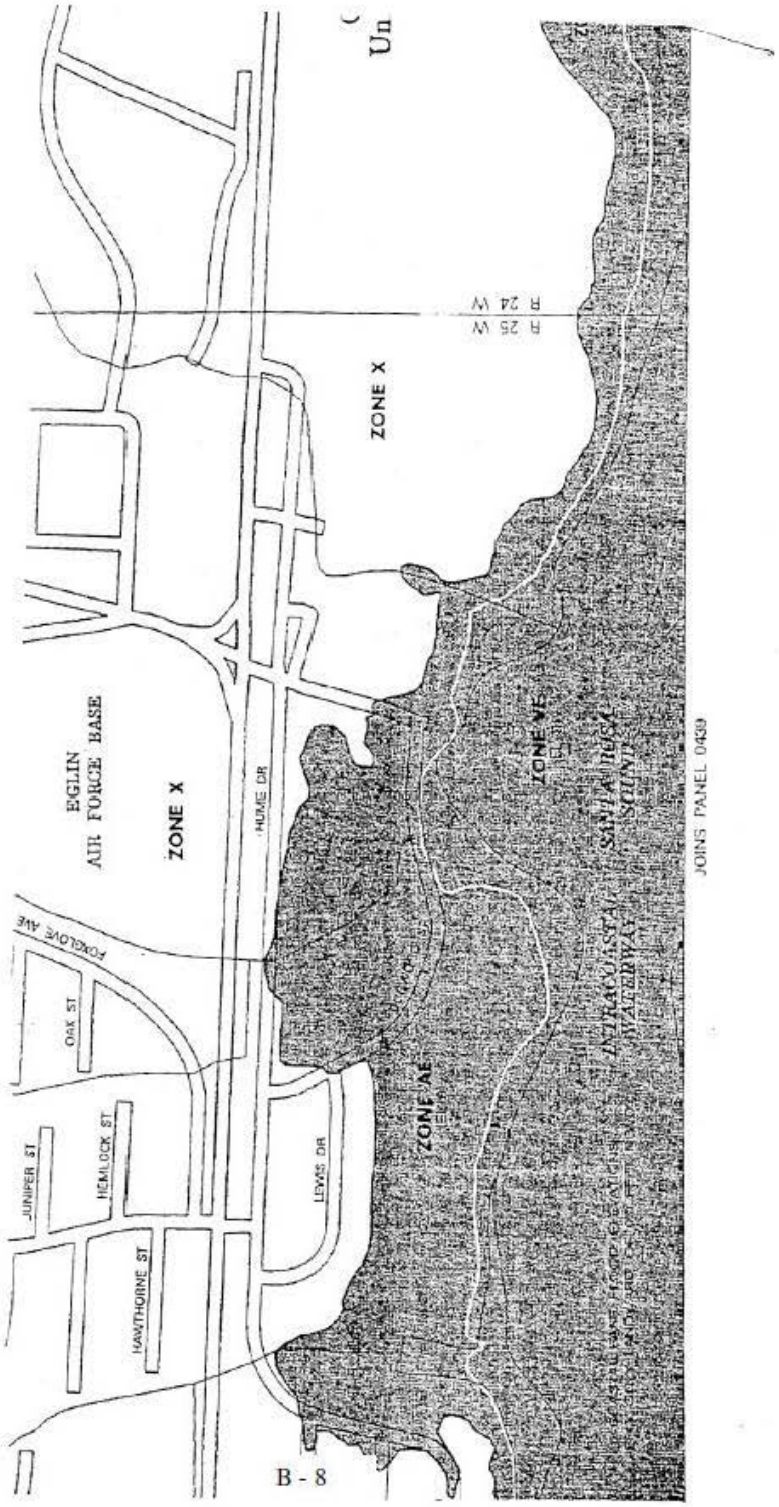
Noise levels along the project would be expected to change as the road is widened and traffic is increased. A Noise Study Report describing existing and anticipated future traffic noise will be prepared.

4. Permits Required:

It is anticipated that the following permits will be required:

- US Army Corps of Engineers -Nationwide Permit
- Florida Department of Environmental Protection – Wetland Resource Permit and Stormwater General Permit
- US Environmental Protection Agency –NPDES/M4

B - 7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ZONE AE
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OAK ST
JUNIPER ST
HEMLOCK ST
HAWTHORNE ST
LEWIS DR
JOINS PANEL 0439
B - 8

MAY-28-02 TUE 12:32 PM HDR ENGINEERING INC FAX NO. 850 432 8010 P. 02
SENT BY: OKALOOSA COUNTY ENGINEERING; 850 689 5715; MAY-28-02 12:50; PAGE 2

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Field Office
1601 Balboa Avenue
Panama City, FL 32405-3721
Tel: (850) 769-0552
Fax: (850) 763-2177

May 24, 2002

Ms. Danielle Slaterpryce, P.E.
Okaloosa County, Director of Public Works
1759 South Ferdon Boulevard
Crestview, Florida 32536

Re: FWS No. 4-P-02-169
Hurlburt Field Entrance at US 98
Advance Notification PD&E Study
Okaloosa County, Florida

Dear Ms. Slaterpryce:

Thank you for your letter of April 9, 2002, requesting Fish and Wildlife Service (Service) review of the project referenced above. This response is provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and Section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

The proposed project consists of a Project Development and Environmental (PD&E) Study to determine the feasibility of constructing an interchange at the main gate to Hurlburt Field on US 98. Construction limits are approximately 4,000 feet. Based on the information provided, we are unable to review the project's direct and secondary impacts on species protected under the Act. Please refer to the discussion below (with enclosures) of information our office needs to review a project.

To assist with your further studies of the project, we are enclosing tables of threatened, endangered, and other special status species and their habitats for Okaloosa County, Florida. Regardless of the status of the species appearing in the table, we encourage their conservation during project planning. Implementing conservation measures early in project planning may help avoid a need to list them in the future. The table is a combination of species occurrence and habitat information developed by the Florida Natural Areas Inventory (FNAI), and species status data compiled by the Florida Fish and Wildlife Conservation Commission (FWCC). The FNAI is a statewide database housing extensive information on the occurrence and quality of rare and endangered species and high quality natural communities in Florida. The FNAI can be contacted at 1018 Thomasville Road, Suite 200-C, Tallahassee, Florida 32303, (850) 224-8207. The FWCC may have additional information on state-listed species and important habitats. The

FWCC Environmental Services Division is located at 620 South Meridian Street, Tallahassee, Florida 32399-1600, (850) 488-6661. For site-specific information, we suggest coordinating with the FNAI and the FWCC.

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

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

1. The results of an on-site inspection of the areas affected by the action.
2. The views of recognized experts on the species at issue.
3. A review of the literature and other information.
4. An analysis of the effects of the action on the species and habitat, including consideration for the cumulative effects, and the results of any related studies.
5. An analysis of alternative actions considered by the federal agency for the proposed action.

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

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

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

2

[redacted]

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

It appears that the proposed improvements will occur along existing road rights-of-way. We wish to point out that, in general, certain work occurring within rights-of-way may have some potential to affect listed species. For example, a listed plant may occur in a right-of-way or in roadside ditches, because mowing has maintained suitable conditions. We are enclosing a list of rare plant species for Okaloosa County, recently developed by FNAI, that identifies species potentially occurring within rights-of-way. While no federally listed plant species are known to occur in rights-of-way in Okaloosa County, the list includes numerous state listed species. Gopher tortoise burrows, known to occur within rural rights-of-way on upland sites, may contain eastern indigo snakes. When rights-of-way occur within the boundary of red-cockaded woodpecker clusters, or in close proximity to bald eagle nests, activities causing prolonged disturbance beyond what is normally experienced, may have the potential for disturbing the birds during nesting season. Disturbance within rights-of-way occurring within wetlands has the potential for impacting any nearby flatwoods salamander breeding ponds. In order to determine the impacts of this project on federally listed species, an analysis of the effects of work occurring with rights-of-ways should be completed, as well as construction work in other areas.

To further assist you in analyzing the effects of this project, we are enclosing "*Suggested Contents for Biological Evaluations and Biological Assessments.*" This document offers more detailed guidance on what kind of information is needed to properly evaluate the impact of a project on listed species. "Topic #6" in the document has a paragraph that discusses direct, indirect, and cumulative effects on a species.

We are available to assist you in evaluating potential effects of a project on wetlands during pre-project planning. In general, we recommend that wetland impacts be avoided and minimized to the extent practicable, and unavoidable impacts be compensated with appropriate mitigation measures. Enclosed are guidelines to assist you in this process.

Thank you for providing us with the opportunity to comment on this project. Please contact Mary Mirriga of this office at extension 236 for additional information and coordination.

Sincerely yours,

Gail A. Carmody
Project Leader

3

Enclosures:
Okaloosa County Species List
FNAI List of Rare Plant Species of Okaloosa County w/Species Potentially Occurring Within Rights-of-way Underlined
Suggested Contents for Biological Evaluations and Biological Assessments
Panama City Field Office Wetland Mitigation Guidelines

MM:c:\My Documents\[illegible]\mm02169.wpd

STATE OF FLORIDA
DEPARTMENT OF COMMUNITY AFFAIRS
"Dedicated to making Florida a better place to call home"

JEB BUSH
Governor

STEVEN M. SEIBERT
Secretary

REC'D
JUN 10 2002
Okaloosa Co
Engr. Dept

Copy To:

June 3, 2002

Ms. Danielle Slaterpryce, P.E.
Okaloosa County, Director of Public Works
1759 South Ferndon Boulevard
Crestview, Florida 32536

RE: U.S. Department of Transportation - Highway Planning and Construction - Advance Notification - Hurlburt Field Entrance at U.S. 98 - Okaloosa County, Florida
SAI: FL200204171839C

Dear Ms. Slaterpryce:

The Florida State Clearinghouse, pursuant to Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 14 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated the review of the above-referenced advance notification

The Department of State (DOS) notes that an archaeological and historical survey will be conducted during the next phase of the project to identify any significant archaeological and/or historic sites which may be located within the project area. The applicant is required to provide the results of the survey to the DOS for review. The applicant is also required to consult with the DOS regarding avoidance or mitigation of any impacts to sites identified in the survey. Please refer to the enclosed DOS comments for details.

Based on the information contained in the referenced notification and the enclosed comments provided by our reviewing agencies, the state has determined that, at this stage, the allocation of federal funds for the above-referenced project is consistent with the Florida Coastal Management Program (FCMP). All subsequent environmental documents prepared for this project must be reviewed to determine the project's continued consistency with the FCMP. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews.

Comments provided by the West Florida Regional Planning Council are also enclosed for your information. Thank you for the opportunity to review this project. If you have any questions regarding this letter, please contact Ms. Jasmin Raffington at (850) 922-5438.

Sincerely,

Shirley W. Collins, Acting Administrator
Florida Coastal Management Program

SWC/rk
Enclosures
cc: Janet Snyder Matthews, DOS

2555 SHUMARD OAK BOULEVARD • TALLAHASSEE, FLORIDA 32399-2100
Phone: (850) 488-8466/Suncom 278-8466 FAX: (850) 921-0781/Suncom 291-0781
Internet address: http://www.dca.state.fl.us

CRITICAL STATE CONCERN FIELD OFFICE
2796 Overseas Highway, Suite 212
Marathon, FL 33050-2227
(305) 289-2402

COMMUNITY PLANNING
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 488-2356

EMERGENCY MANAGEMENT
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 413-9969

HOUSING & COMMUNITY DEVELOPMENT
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 488-7956

DIVISIONS OF FLORIDA DEPARTMENT OF STATE
Office of the Secretary
Office of International Relations
Division of Elections
Division of Corporations
Division of Cultural Affairs
Division of Historical Resources
Division of Library and Information Services
Division of Licensing
Division of Administrative Services

FLORIDA DEPARTMENT OF STATE
Katherine Harris
Secretary of State
DIVISION OF HISTORICAL RESOURCES

MEMBER OF THE FLORIDA CABINET
State Board of Education
Trustees of the Internal Improvement Trust Fund
Administration Commission
Florida Land and Water Adjudicatory Commission
Siting Board
Division of Bond Finance
Department of Revenue
Department of Law Enforcement
Department of Highway Safety and Motor Vehicles
Department of Veterans' Affairs

Mr. Mike Murray
Department of Community Affairs
Florida Coastal Management Program
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

May 16, 2002

RE: DHR No. 2002-04040 / Received by DHR: April 23, 2002
SAI #: 200204171839C
Advance Notification – Hurlburt Field Entrance at US 98
Okaloosa County, Florida

Dear Mr. Murray:

Our office received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966* (Public Law 89-665), as amended in 1992, and *36 C.F.R., Part 800: Protection of Historic Properties*, Chapter 267, *Florida Statutes*, Florida's Coastal Management Program, and implementing state regulations, for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical, architectural or archaeological value. The State Historic Preservation Officer is to advise and assist state and federal agencies when identifying historic properties, assessing effects upon them, and considering alternatives to avoid or minimize adverse effects.

We have reviewed the Advance Notification for the Florida Department of Transportation project referenced above. We note that the project will have a cultural resource survey performed. Therefore, conditioned upon the DOT undertaking a cultural resource survey, and appropriately avoiding or minimizing project impacts to any identified significant archaeological or historic sites, the proposed project will have no adverse effect on historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical or archaeological value. If these conditions are met, the project will also be consistent with Section 106 of the *National Historic Preservation Act of 1966* and the historic preservation aspects of Florida's Coastal Management Program.

If there are any questions concerning our comments or recommendations, please contact Sarah Jalving, Historic Sites Specialist, by electronic mail at sjalving@mail.dos.state.fl.us or at 850-245-6333 or SunCom 205-6333. Thank you for your interest in protecting Florida's historic properties.

Sincerely,

Laura A. Kammerer

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

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

☐ Director's Office (850) 245-6300 • FAX: 245-6435
☐ Archaeological Research (850) 245-6444 • FAX: 245-6436
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437
☐ Historical Museums (850) 245-6400 • FAX: 245-6433
☐ Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476
☐ St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044
☐ Tampa Regional Office (813) 272-3843 • FAX: 272-2340

B - 14

#0802 P.001/002

WFRPC
WEST FLORIDA REGIONAL PLANNING COUNCIL
Post Office Box 9759 • 3435 North 12th Avenue • Pensacola, Florida 32513-9759
Phone (850) 595-8910 • S/C 695-8910 • (800) 226-8914 • Fax (850) 595-8967

Lei Cook
Executive Director

Robert F. Barnard
Chairman

Cody Taylor
Vice-Chairman

FAX TRANSMITTAL(S) **Total # of Pages (including cover): 2**

TO: **STATE CLEARINGHOUSE** • **FAX: (850) 414-0479**

DATE: April 25, 2002

FROM: Jerrie Nelson Lewis, Intergovernmental Review Coordinator
Extension 226
lewisj@wfrpc.dst.fl.us

SUBJECT: **State Clearinghouse Review(s) Fax Transmittals:**

SAI #	Project Description	RPC #
FL200204171839C Received 4/25/02	Advance notice of a PD&E to determine feasibility of constructing an interchange at the main gate to Hurlburt Field on U.S. 98.	0591-04-17-2002

x	No Comments – Generally consistent with the WPSRPP
x	Comments Attached

If you have any questions, please call.

"...Serving Escambia, Santa Rosa, Okaloosa, Walton, Bay, Holmes & Washington Counties and their municipalities..."

B - 15

APR.25'2002 09:01 850 595 8967 WFRPC #0802 P.002/002

WFRPC
WEST FLORIDA REGIONAL PLANNING COUNCIL
Post Office Box 9759•Pensacola, Florida 32513-9759•3435 North 12th Avenue (32503)
Phone (850) 595-8910•S/C 695-8910•(800) 226-8914•Fax (850) 595-8967
Web Site: www.wfrpc.dst.fl.us

Lei Czeck
Executive Director

Robert F. Barnard
Chairman

Cody Taylor
Vice-Chairman

FL 2002 041 71839 C

Memorandum

To: Jerrie Lewis, Regional Planner

From: Gary Kramer, Senior Transportation Planner GK

Subject: Advanced Notification Hurlburt Field Entrance at US 98

Date: April 22, 2002

As a review agency for Intergovernmental Coordination for the project identified above, I have the following comment regarding the project mentioned above.

- This project, as a feasibility study, is consistent with the Fort Walton Beach MPOs 2025 Long Range Transportation Plan. This plan entails an interchange need at US 98 and Hurlburt Field. However, this project is not currently in the 2025 Cost Feasible Plan because it was anticipated it would have to be built with the normal state and federal monies that are available to build transportation projects in the MPO Study Area. If the feasibility study determines the project is feasible and funding is obtained through a Florida Infrastructure Grant from Enterprise Florida, Inc. to construct the project, the MPO's 2025 Long Range Transportation Plan will need to be amended to accommodate this request.

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Project Review Form

TO: State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

DATE: May 2, 2002

SUBJECT: Project Review: Intergovernmental Coordination
Title: U.S.Dept. of Transportation-Highway Planning & Construction-Advance Notification-Hurlburt Field Entrance at US 98 – Okaloosa County, FL
SAI #: FL200204171839C

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

ACTION

_x_ No Comment.

___ Supports the project.

___ Objects to the project; explanation attached.

___ Has no objection to the project; explanation optional.

___ Cannot evaluate the project; explanation attached.

___ Project requires a permit from the District under____.

DEGREE OF REVIEW

_x_ Documentation was reviewed.

___ Field investigation was performed.

___ Discussed and/or contacted appropriate office about project.

___ Additional documentation/research is required.

___ Comments attached.

SIGNED Maria Gilbertson
Duncan Jay Cairns
Chief, Bur. Env. & Res. Ping.

B - 17

COUNTY: OKALOOSA

DATE: 4/15/02
COMMENTS DUE DATE: 5/17/02
CLEARANCE DUE DATE: 6/14/02
SAI#: FL200204171839C

Message:

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

he attached document requires a Coastal Zone Management Act/Florida oastal Management Program consistency evaluation and is categorized s one of the following:

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

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

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

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

Project Description:

U.S. Department of Transportation - Highway Planning and Construction - Advance Notification - Hurlburt Field Entrance at US 98 - Okaloosa County, Florida.

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

EO. 12372/NEPA
☑ No Comment
☐ Comment Attached
☐ Not Applicable

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

From:
Division/Bureau: NWFWMD
Resource Management Div.
Reviewer: Duncan J. Cairns
Date: 1 May 02
Date

7/25/02

OUNTY: OKALOOSA

DATE: 4/15/02
COMMENTS DUE DATE: 5/17/02
CLEARANCE DUE DATE: 6/14/02
SAI#: FL200204171839C

essage:

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

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

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Project Description:

U.S. Department of Transportation - Highway Planning and Construction - Advance Notification - Hurlburt Field Entrance at US 98 - Okaloosa County, Florida.

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

EO. 12372/NEPA

- [ ] No Comment
- [ ] Comment Attached
- [ ] Not Applicable

Federal Consistency

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

From:
Division/Bureau: OTTED
Reviewer: M Blakeslee
Date: 4/25/02

B - 19

SENT BY: OKALOOSA COUNTY ENGINEERING; 850 689 5715; JUN-10-02 12:10; PAGE 8/8

:OUNTY: OKALOOSA

DATE: 4/15/02
COMMENTS DUE DATE: 5/17/02
CLEARANCE DUE DATE: 6/14/02
SAI#: FL200204171839C

lessage:

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

RECEIVED BY FWC

APR 24 2002

OFFICE OF
ENVIRONMENTAL SERVICES

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

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

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

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

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

Project Description:

U.S. Department of Transportation - Highway Planning and Construction - Advance Notification - Hurlburt Field Entrance at US 98 - Okaloosa County, Florida.

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

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

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

From:
Division/Bureau: ENVIRONMENTAL SERVICES
Reviewer: BRIAN BARNETT
Date: 4/25/02

B - 20

July 30, 2003

HDR

Gail A. Carmody
Attention: Mary Mittiga
US Fish and Wildlife Service
1601 Balboa Avenue
Panama City, Florida 32405

Subject: **Interchange Improvements: US 98 (SR 30) at the Entrance to Hurlburt Field**

Dear Ms. Mittiga:

On behalf of Okaloosa County, Public Works Department, HDR is acting as environmental consultant for the above referenced project design. We are seeking your concurrence that this project, located in Okaloosa County, (**Figures 1 & 2**) will have no effect on any endangered, threatened, or candidate species proposed for listing as determined based on a review of the provided information and your records.

The purpose of the study is to examine various interchange alternatives to improve the US 98 Hurlburt Field entrance, to provide an adequate traffic level of service in the future and to reduce response times for personnel living off base. (**Figure 3** shows the Preferred Alternative). The study is being conducted in cooperation with the Florida Department of Transportation (FDOT) and the USAF, Hurlburt Field Command.

All factors related to the design and facility location are being considered including alternative designs, transportation needs, social impacts, economic factors, environmental impacts and engineering analysis. It is likely that the study will lead to subsequent project design and construction phases.

FNAI and Hurlburt AFB database searches indicate several species occurrences along a 0.5-mile radius of the project area (**See FNAI Figure**). The potential construction limits are shown by the highlighted roadway. These impacts will be limited to immediately adjacent to the existing right-of-way. The larger construction area will be immediately adjacent to the US 98 and Cody Avenue interchange (**Figure 3**). Based on the lack of species within the immediate interchange limits, we have concluded that construction is unlikely to adversely affect any listed species.

Your review and concurrence with these findings will be greatly appreciated. Should you have any questions or comments concerning the proposed project, please do not hesitate to call me in Pensacola at (850) 432-6800.

Sincerely,

Mick Garrett
Environmental Scientist

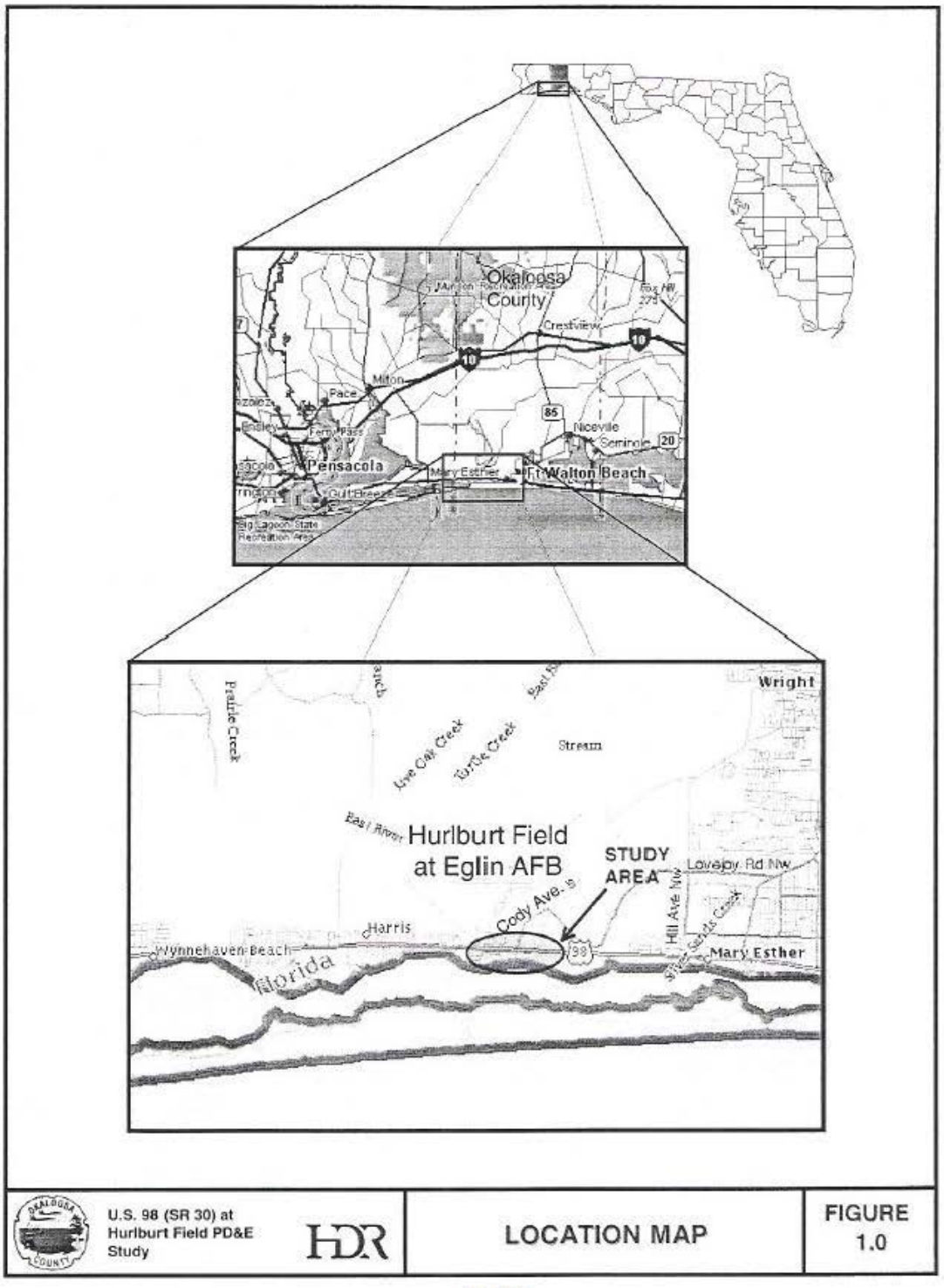
HDR Engineering, Inc.

Employee Owned

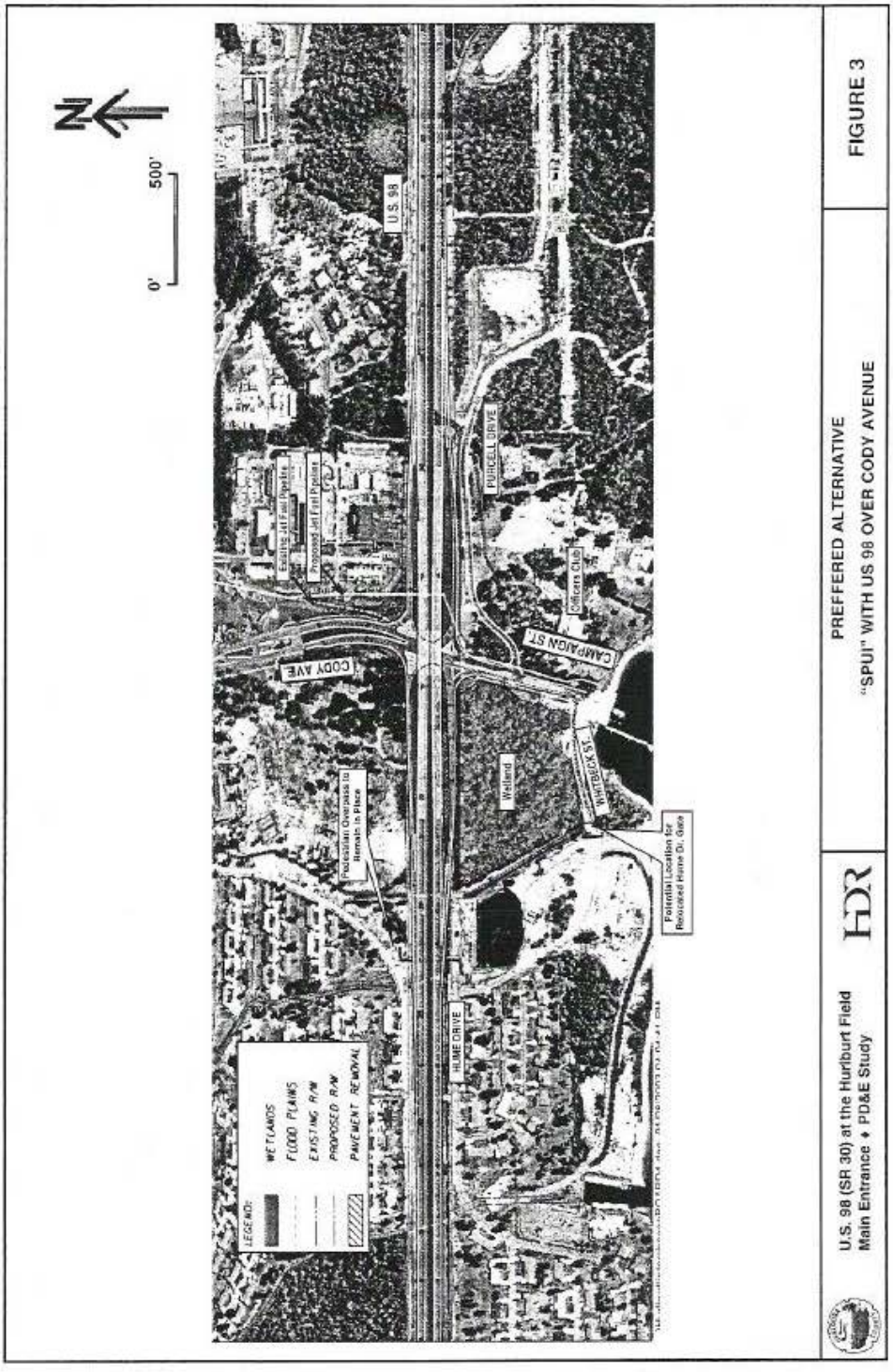
700 South Palafox Street
Suite 200
Pensacola, Florida
32501-5958

Telephone
850 432-6800
Fax
850 432-8010

B - 21


Okaloosa County
Crestview
Milton
Pace
Niceville
Pensacola
Mary Esther
Ft Walton Beach
Gulf Breeze
Wright
Stream
East River
Hurlburt Field
at Eglin AFB
STUDY
AREA
Cody Ave.
Harris
Wynnehaven Beach
Florida
Mary Esther
U.S. 98 (SR 30) at
Hurlburt Field PD&E
Study
HDR
LOCATION MAP
FIGURE
1.0

B - 22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U.S. 98
CODY AVE
CAMPAIGN ST
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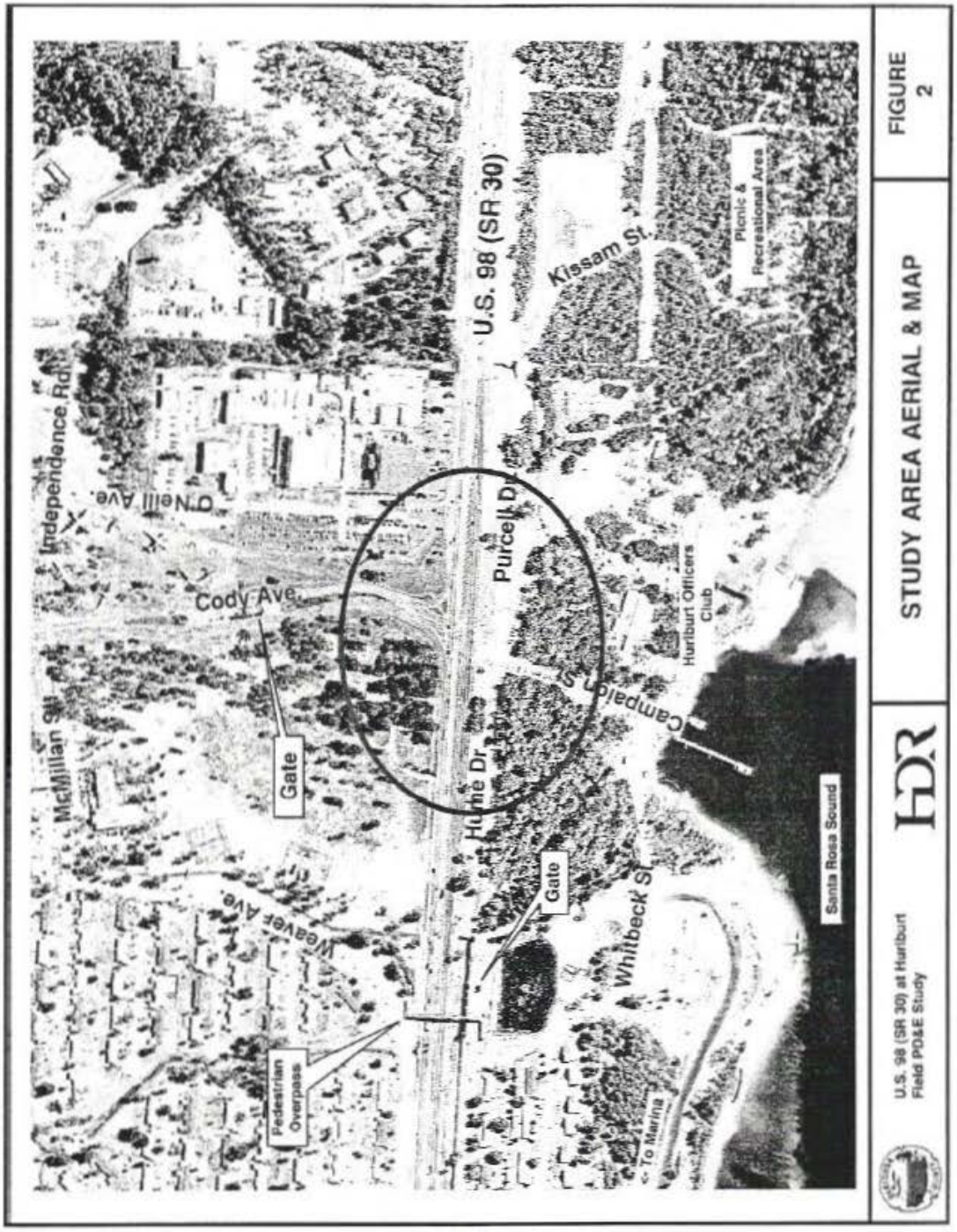
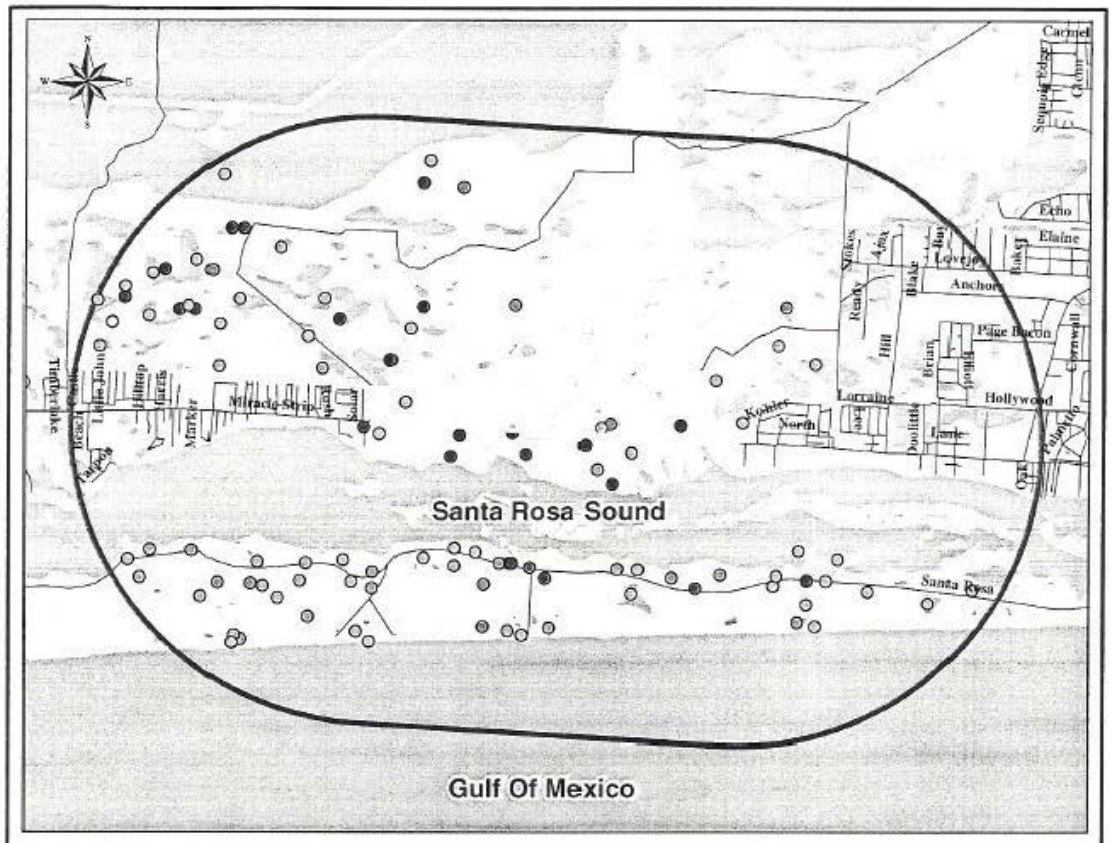
HUME DRIVE
WHITBECK ST
Officers Club
Wetland
Existing Jet Fuel Pipeline
Proposed Jet Fuel Pipeline
Potential Overpass to Remain in Place
Potential Location for Relocated Home Dr. Gate
LEGEND:
WETLANDS
FLOOD PLAINS
EXISTING R/W
PROPOSED R/W
PAVEMENT REMOVAL
U.S. 98 (SR 30) at the Hurlburt Field
Main Entrance ♦ PD&E Study
HDR
PREFFERED ALTERNATIVE
"SPUI" WITH US 98 OVER CODY AVENUE
FIGURE 3

B - 23


U.S. 98 (SR 30)
Kissam St.
Picnic & Recreational Area
Independence Rd
O'Neill Ave
Cody Ave
Gate
McMillan St
Purcell Dr
Hurlburt Officers Club
Campbell St
Hulne Dr
Gate
Whitbeck St
Weaver Ave
Pedestrian Overpass
To Marina
Santa Rosa Sound
U.S. 98 (SR 30) at Hurlburt Field PD&E Study
HDR
STUDY AREA AERIAL & MAP
FIGURE 2

B - 24



Source: Florida Natural Areas Inventory and
Eglin Air Force Base GIS Data Department

U.S. 98 (SR30) at the Hurlburt Field Main Entrance PD&E Study	THREATENED AND ENDANGERED SPECIES	HDR

B-25

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

November 26, 2003

Mr. Philip Pruitt
16 CES/CEV
415 Independence Road
Hurlburt Field, Florida 32544-5244

RE: U.S. Department of the Air Force and Department of Transportation – Draft Environmental Assessment (EA) – US 98 (SR 30) at the Entrance to Hurlburt Field PD&E Study – Okaloosa County, Florida.
SAI: FL200310034120C

Dear Mr. Pruitt:

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

The Department of Environmental Protection (DEP), Northwest District staff, notes that the proposed project will affect wetlands; thus a wetlands resource permit will be required prior to undertaking the proposed work. Please also note that Hurlburt staff should ensure that the proposed project is not located within the conservation easement granted to the Department over several thousand acres of wetlands on the Hurlburt property. The proposed scope of the project also necessitates treatment of runoff associated with the increased impervious area created by the interchange. Three permitted stormwater ponds are located on the south side of US 98 in the vicinity of the proposed construction, any or all of which could be used to provide stormwater treatment. As indicated in the draft EA, a stormwater "banking" system has been established, which allows Hurlburt to notify the Department when a project is proposed within the ponds' drainage basin, giving the size of project for treatment purposes and the before/after "balance" of treatment volume in the ponds. Presumably, the banking system will be used for this project. Please contact Mr. Cliff Street at DEP's Northwest District Office for additional information about application or requirements (850/595-8300).

The Department of Transportation (DOT) advises that any work to be accomplished within DOT right-of-way will require permits from the DOT. For further information, please contact Mr. David Johnson, Maintenance Permits Engineer, at (850) 951-0500 or by e-mail at david.johnson@dot.state.fl.us.

"More Protection, Less Process"

B-26

Mr. Philip Pruitt
SAI FL20030034120C
Page 2

Based on the information contained in the advance notification and the enclosed state agency comments, the state has determined that, at this stage, the above-referenced project is consistent with the Florida Coastal Management Program (FCMP). However, the applicant is required to address the concerns identified by reviewing agency staff. All subsequent environmental documents prepared for this project must be reviewed to determine the project's continued consistency with the FCMP. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews.

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

Sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/pb

Enclosures

cc: Mr. Scott Edwards, Florida Department of State
Ms. Traci Wallace, Florida Fish and Wildlife Conservation Commission
Mr. Geoffrey Sample, St. Johns River Water Management District
Ms. Barbara Bess, Florida Department of Environmental Protection

B-27

Categories

Florida
Department of Environmental Protection

"More Protection, Less Process"

DEP Home | Contact DEP | Search | DEP Site Map

Project Information	
Project:	FL200310034120C
Comments Due:	October 30, 2003
Letter Due:	November 29, 2003
Description:	DEPARTMENT OF THE AIR FORCE AND DEPARTMENT OF TRANSPORTATION - DRAFT ENVIRONMENTAL ASSESSMENT - US 98 (SR 30) AT THE ENTRANCE TO HURLBURT FIELD PD&E STUDY - OKALOOSA COUNTY, FLORIDA.
Keywords:	USAF & DOT - DRAFT EA, US 98 AT HURLBURT FIELD ENTRANCE - OKALOOSA CO.
CFDA #:	12.200

Agency Comments:
WEST FLORIDA RPC - WEST FLORIDA REGIONAL PLANNING COUNCIL
No Comment
OKALOOSA - OKALOOSA COUNTY
No Final Comments Received
ENVIRONMENTAL POLICY UNIT - OFFICE OF POLICY AND BUDGET, ENVIRONMENTAL POLICY UNIT
No comment
COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS
Released Without Comment
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
No Final Comments Received
STATE - FLORIDA DEPARTMENT OF STATE
No Comment
TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION
Any work to be accomplished within FDOT right-of-way will require permits from the FDOT. Contact Mr. David Johnson, Maintenance Permits Engineer, 45 North Park Street, DeFuniak Springs, FL 32433-2024. Mr. Johnson may be reached by e-mail at david.johnson@dot.state.fl.us or by phone at (850) 951-0500.
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Northwest District staff notes that the proposed project will affect wetlands, thus a wetlands resource permit will be required prior to undertaking the proposed work. Please also note that a conservation easement was granted to the Department over several thousand acres of wetlands on the Hurlburt property. Hurlburt staff should insure that the proposed project is not located within the conservation easement. The proposed scope of the project necessitates treatment of the runoff associated with the increased impervious area created by the interchange. There are three permitted stormwater ponds on the south side of US 98 in the vicinity of the proposed construction; any or all could be used to provide stormwater quality treatment. As indicated in the Draft EA, a stormwater "banking" system has been established, which allows Hurlburt to notify the Department when a project is proposed within the ponds' drainage basin, giving the size of project for treatment purposes and the before/after "balance" of treatment volume in the ponds. The banking system will presumably be used for this project.
NORTHWEST FLORIDA WMD - NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
No Final Comments Received

For more information please contact the Clearinghouse Office at:

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

Visit the Clearinghouse Home Page to query other projects.

OCT.15'2003 15:53 850 595 8967 W FL REGIONAL PLANNING COUNCIL #1279 P.001/003 PB

WFRPC
WEST FLORIDA REGIONAL PLANNING COUNCIL
Post Office Box 9759 • 3435 North 12th Avenue • Pensacola, Florida 32513-9759
Phone (850) 595-8910 • S/C 695-8910 • (800) 226-8914 • Fax (850) 595-8967

Lel Czeck
Executive Director

Cody Taylor
Chairman

Sydney Joel Pate
Vice-Chairman

FAX TRANSMITTAL (S) Total # of Pages (including cover) 1

TO: **STATE CLEARINGHOUSE • FAX: (850) 245-2190/(850) 245-2189**
Phone: 850-245-2161

DATE: October 15, 2003

FROM: Terry Joseph, Intergovernmental Review Coordinator
Extension 206
josepht@wfrpc.dst.fl.us

SUBJECT: **State Clearinghouse Review(s) Fax Transmittals:**

SAI #	Project Description	RPC #
FL2003100341 20C	Department of the Air Force and Department of Transportation are conducting a project development and environmental (PD&E) study to examine various interchange alternatives at the US 98/SR 30 access to Hurlburt Field, Florida.	0629-10-08-2003
FL2003100741 60C	EPA – Pace Property Finance Authority, Inc. is applying for a loan through the State Revolving Fund for the funding of several misc. wastewater projects.	SR388-10-13-2003

X	No Comments – Generally consistent with the WFSRPP
	Comments Attached

If you have any questions, please call.

COUNTY: OKALOOSA
SAI - USAF - DOT
2003-8691

RECEIVED
OCT 28 2003
OIP/OLGA

DATE: 9/30/2003
COMMENTS DUE DATE: 10/30/2003
CLEARANCE DUE DATE: 11/29/2003
SAI#: FL200310034120C

MESSAGE:
REFERENCE SAI # FL200204171839C

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

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

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

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

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

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

Project Description:
DEPARTMENT OF THE AIR FORCE AND DEPARTMENT OF TRANSPORTATION - DRAFT ENVIRONMENTAL ASSESSMENT - US 98 (SR 30) AT THE ENTRANCE TO HURLBURT FIELD PD&E STUDY - OKALOOSA COUNTY, FLORIDA.

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

EO. 12372/NEPA
☑ No Comment
☐ Comment Attached
☐ Not Applicable

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

From:
Division/Bureau: Division of Historical Resources
Bureau of Historic Preservation
Reviewer: S. Edwards
Date: 10-22-03
NHPA / X

10.22.03

RECEIVED
03 OCT -8 AM 11:05
BUREAU OF HISTORIC PRESERVATION

COUNTY: OKALOOSA

RECEIVED
OCT 28 2003
OIP/OLGA

DATE: 9/30/2003
COMMENTS DUE DATE: 10/30/2003
CLEARANCE DUE DATE: 11/29/2003
SAI#: FL200310034120C

MESSAGE:
REFERENCE SAI # FL200204171839C

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

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Project Description:
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Use BMP's to Minimize Environmental Impact

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

EO. 12372/NEPA
☑ No Comment
☐ Comment Attached
☐ Not Applicable

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

From:
Division/Bureau: OPB - Env Policy
Reviewer: M Yarmey
Date: 10/24/03

RECEIVED
OCT - 7 2003
OFFICE OF POLICY AND BUDGET
ENVIRONMENTAL POLICY UNIT

B-32

IN REPLY REFER TO:

United States Department of the Interior

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

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

December 3, 2003

Mr. Philip Pruitt
16 CES/CEV
415 Independence Road
Hurlburt Field, Florida 32544-5244

Re: FWS No. 4-P-02-169
Hurlburt Field Interchange
US 98 and Cody Avenue
Okaloosa County, Florida

Dear Mr. Pruitt:

Thank you for providing a copy of the September 2003, draft environmental assessment (EA) for the work referenced above, and requesting Fish and Wildlife Service (Service) review of the project. This response is provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and Section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

The project is undergoing a Project Development and Environmental (PD&E) Study to determine the feasibility of reconstructing the interchange at the main gate to Hurlburt Field on US 98 and Cody Avenue. The EA was prepared to analyze potential environmental effects of the proposed action, three alternative actions, and the no-build alternative. The proposed action would require construction on 4.9 acres of federally owned property at Hurlburt Field.

Endangered Species Act
The proposed action and the described alternative actions are not likely to adversely affect resources protected by the Act. This finding fulfills the requirements of the Act.

Fish and Wildlife Coordination Act
The proposed action would result in impacts to 2.096 acres of wetlands. These wetlands include several types and are described as palustrine forested, estuarine emergent, and palustrine emergent. Approximately 0.98 acre of the impacts would be temporary - resulting from an access road for routing traffic during construction. Temporary impacts would be restored after construction is completed. We are available to assist you in evaluating potential effects of a

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project on wetlands during pre-project planning. In general, we recommend that wetland impacts be avoided and minimized to the extent practicable, and unavoidable impacts be compensated with appropriate mitigation measures. Enclosed are guidelines to assist you in this process.

Thank you for providing us with the opportunity to comment on this project. Please contact Mary Mittiga of this office at extension 236 for additional information and coordination.

Sincerely yours,

Gail A. Carmody

Gail A. Carmody
Project Leader

Enclosure:
Panama City Field Office Wetland Mitigation Guidelines

cc:
HDR, Inc., Pensacola, FL (Howard Danley, Mick Garrett)
Okaloosa County Public Works, Crestview, FL (Danielle Slaterpryce)
USACE, Pensacola, FL (Clif Payne)
NMFS, Panama City Beach, FL (Mark Thompson)

MM\kh\c:\My Documents\Endangered\4p021699ltr2.wpd

U.S. FISH AND WILDLIFE SERVICE
PANAMA CITY FIELD OFFICE

Recommended Elements for Mitigation Plans

March 4, 1996

A mitigation plan should use appropriate narrative and drawings to fully address the proposed actions. The plan should be sufficiently accurate, clear, detailed, and specific for agency review and for personnel to use on site as instructions to implement the intended mitigation. Plan elements should include, but are not limited to the following:

1. measures taken to avoid and minimize wetland impacts,

2. conceptual description of the overall mitigation plan, including the identification of mitigation goals and objectives, and the definition of criteria for success,

3. comparison of the following features of the affected wetland versus the proposed mitigation area: biological communities, elevations, hydrology, soils and acreage,

4. identification of adjacent biological communities and land use patterns,

5. quantified justification for the proposed acreage,

6. materials, methods, and personnel to be used to achieve intended conditions of topography, hydrology, soils, and biological communities,

7. implementation schedule,

8. monitoring scheme; including schedule, personnel, and duration,

9. measures to correct anticipated problems, and contingency plans by which equivalent mitigation would be completed if the proposed mitigation fails,

10. schedule for written reports for submission to the Corps of Engineers and the Fish and Wildlife Service that quantitatively and thoroughly describe progress towards success, results of monitoring, and effectiveness of solutions to problems,

11. a legally binding commitment by the applicant to permanently protect all lands included in the plan.

HC/kh/hc#2/mitigate.3

B-35