

Final

Environmental Assessment

for the Disposal of the
Former Lynn Haven Fuel Depot

Lynn Haven, Florida

December 2015

Finding of No Significant Impact (FONSI) / Finding of No Practicable Alternative (FONPA) for the Disposal of the Former Lynn Haven Fuel Depot

Lynn Haven, Florida

AGENCY

United States Air Force, 325th Fighter Wing, Tyndall Air Force Base (AFB), Florida

BACKGROUND

The Lynn Haven Fuel Depot (LHFD) property is located on the shore of the North Bay estuary system in Lynn Haven, Bay County, Florida. The LHFD property includes: the former 70-acre bulk fuel storage area, referred to as the Lynn Haven Defense Fuel Support Point (DFSP); the other areas of the property adjacent to the DFSP that comprise 64 acres; and the 50-acre railroad track right of way, commonly called the rail spur. The site has been owned and managed by the Department of Defense since the early 1940s, at which time the bulk fuel storage facility was constructed. The DFSP was deactivated in the early 1990s and has not been operational since that time. The LHFD property and associated rail spur are no longer needed by the Air Force.

PROPOSED ACTION AND ALTERNATIVES

The Proposed Action involves the Air Force transfer of a 40-acre parcel of the LHFD property to Florida State University (FSU) for use as a satellite (research) campus and all or part of the remaining 144 acres to the City of Lynn Haven (City) for future redevelopment and reuse. If the 144 acres are disposed by direct conveyance under Section 2835 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2015 or through the General Service Administration (GSA) under the Federal Property Act for cash proceeds, more than fifty percent of the funds would be deposited for the benefit of Tyndall AFB pursuant to Section 2835(b)(2) of the NDAA FY 2015 or 40 United States Code (USC) 572(b), respectively.

In the Environmental Assessment (EA), the Proposed Action is divided into Proposed Action Alternative 1 and Alternative 2 regarding the siting of the 40-acre parcel to be conveyed by the Air Force to FSU under the authority of Section 2843 of the NDAA FY 2008, with the remaining 144 acres to be directly conveyed to the City. If FSU or the City elects not to pursue acquiring the property, the Air Force will request that GSA determine whether other federal agencies have a mission need or public beneficiary request for the non-transferred property. If there is no federal agency interest in the non-transferred/non-conveyed portion of the property, then GSA would arrange for the public (auction) or negotiated sale pursuant to the Federal Property and Administrative Services Act (FPASA). The No Action Alternative would result in the Air Force retaining ownership of all of the LHFD property in a caretaker status under existing conditions. Figures 1 and 2, showing the site location and the Proposed

Action Alternative 1 and Alternative 2, respectively, are included at the end of this document for reference.

SUMMARY OF FINDINGS FOR PROPOSED ACTION

Based on the findings of the EA, the Proposed Action would have no significant adverse effect on aircraft operations, noise, air quality, safety and occupational health, earth resources (i.e., geology, topography and soils), hazardous materials and waste (i.e., hazardous materials, hazardous waste, and the Air Force's Environmental Restoration Program), and cultural resources (i.e., historic and cultural resources). The Proposed Action would have minor impacts on water resources (i.e., surface water and groundwater), infrastructure/utilities (i.e., sanitary sewer, potable water, solid waste management, drainage, transportation systems, electricity and natural gas), biological resources (i.e., vegetation, wildlife, threatened and endangered species, wetlands, and floodplains), and socioeconomic resources. Most minor impacts would be temporary during earthwork and construction, and, provided FSU and the City comply with state and federal permitting requirements, no significant impacts are expected. Minorities and low-income residents living in proximity to the LHFD property would not be disproportionately impacted.

The cumulative Proposed Action, with past, present, and reasonably foreseeable actions, is not expected to result in adverse cumulative impacts to any resource. The minor impacts noted above would be mitigated prior to redevelopment through actions required by various permitting authorities. Applicable regulatory requirements pertaining to surface water, vegetation, wetlands, and transportation systems would have to be addressed by FSU and the City prior to redevelopment. Overall, the project would be beneficial to the community through redevelopment of the non-operational site. Through redevelopment, the LHFD property and rail spur would be put to productive use. The redevelopment would increase tax revenues, create construction jobs and more permanent jobs at the facilities once constructed, and increase property values in the surrounding area.

Through the EA analysis, Proposed Action Alternative 1 has been determined to be the only practicable alternative. Land use soil restrictions limit the placement of residential structures at ground level in areas of the LHFD property that had remedial sites. This leaves Area 5 (Eastern Buffer Area) as one of the only area of the property that can be used for residential facilities without elevating the residential floors. The City of Lynn Haven's floor-to-area ratio limits the height of buildings and, thus, elevating residences reduces the capacity of residential units. Because FSU may propose dormitories, Alternative 2 (i.e., redevelopment of Area 2) would not afford the necessary residential space for the FSU facility plan to be implemented. Therefore, this alternative (Alternative 2) was determined to be less desirable than Proposed Action Alternative 1. For the reasons presented above, Proposed Action Alternative 1 is the only practicable alternative. Alternative 2 is not practicable because it has more adverse environmental impacts than Alternative 1. The No Action Alternative is not a practicable alternative because it would require the Air Force to continue to expend resources to maintain land it no longer needs. The selection of Proposed Action Alternative 1 (i.e., re-development of Area 5) as the Proposed Action would provide the most flexibility in redevelopment by providing a parcel for FSU with the required facilities and leaving the remaining property contiguous for redevelopment by the City.

SUMMARY OF PUBLIC REVIEW AND INTERAGENCY COORDINATION

A 31-day public review period was held from 27 October 2015 to 27 November 2015 to solicit public comments on the draft final EA, as well as proposed FONPA and FONSI. No public comments were received. Copies of the draft final EA, FONPA and FONSI were also sent to the Florida State Clearinghouse, State of Florida Division of Historical Resources, United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service, United States Army Corps of Engineers, and Native American Tribes/Nations that expressed an interest in Tyndall AFB regarding their ancestral ties, to confirm that these entities concur that the proposed action would not adversely affect resources that are of concern to them. Minor comments and concurrence were provided by the Florida State Clearinghouse, USFWS and one Native American Tribe/Nation; these are addressed in the attached final EA. No other comments were received from agencies or Native American Tribes/Nations.

ALTERNATIVE DEVELOPMENT AND SELECTION

Several alternatives to the Proposed Action were considered and eliminated. The option of transferring the property to another government agency was considered. The Air Force consulted with the Department of Housing and Urban Development (HUD) for a determination on whether the property was suitable for homeless assistance. HUD formally determined that the property was not environmentally suitable for homeless use. Following HUD's evaluation, further consideration of a federal agency-to-federal agency transfer was eliminated. Instead, from 2008 through 2009, the Air Force proposed a property-for-construction exchange for the disposal of the non-FSU LHFD property. However, the NDAA FY 2010 amendment to 10 USC 2869 removed the general authority for the military services to pursue property-for-construction exchanges.

Another alternative eliminated from consideration included transfer of the non-FSU LHFD property through a property-for-property exchange with a developer under the authority of the amended 10 USC 2869. Even though several potential candidate properties were identified on which Air Force acquisition of real property interests might benefit the flying mission at Tyndall AFB, the value of the desired real property interests that might be acquired was estimated to exceed the value of the LHFD property. As 10 USC 2869 does not allow the Air Force to supplement the exchange with additional funds, the real property acquisition under a 10 USC 2869 exchange was not feasible.

During the alternatives analysis conducted for the Proposed Action, siting of the FSU parcel at two different locations was evaluated as Proposed Action Alternative 1 and Alternative 2. A No Action Alternative was also evaluated. Alternative 2 was considered but was eventually eliminated from selection. This alternative included locating the FSU parcel on the western portion of the property along the northern shoreline. This alternative provided for deep water access, but would result in more seagrass impacts if the shoreline was developed. It also presents limited utility access. There are also existing storm water features and limited wetland resources within the parcel. With this alternative, the FSU parcel location would fragment the remaining property to be developed and the alternative also provided for more limited access from local transportation routes. Alternative 2 would not fulfill FSU's needs for a satellite campus location and would degrade the expected value of the non-FSU LHFD property.

Under the Proposed Action Alternative 1, FSU would assume ownership of the eastern property with the majority of wetland resources. FSU has indicated its desire to maintain an open space area where the majority of wetlands are located; conversely, if a commercial developer assumed ownership of the same property, the developer would have a commercial incentive to develop and potentially disturb the majority of the wetlands area to maximize property values. For the reasons presented above, Alternative 2 was considered to be not practicable. Based on the alternative analysis, there is no practicable alternative to placing the FSU parcel on the eastern portion of the LHFD property (Proposed Action Alternative 1). The eastern location of the FSU parcel provides the most favorable access and configuration scenarios for the FSU satellite campus, as well as prevents fragmentation of the remaining property. As such, Alternative 1 was selected as the Proposed Action.

NO ACTION ALTERNATIVE

The No Action Alternative was evaluated, as well. Under the No Action Alternative, Tyndall AFB would retain the entire LHFD property (both the FSU parcel and non-FSU LHFD property that includes the rail spur). This alternative assumes that the existing structures and property would remain in caretaker status. Under the No Action Alternative, the Air Force would continue to be responsible for maintaining environmental and cultural resources under their ownership and control, and to ensure that such properties are not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly. This alternative would also deprive the community of the education resources and increased tax base anticipated from the satellite campus and property reuse, and would lead to no increase in value of the surrounding property due to the vacant and unused nature of the LHFD property. The Air Force would be relegated to a property caretaker for property it no longer needs for mission requirements. The Air Force would also have to absorb annual property caretaker costs and face legal liability exposure as a land owner for property that likely will be an attractive nuisance for private trespassers. Therefore, this alternative was determined to be less practicable for both the community and the installation than Proposed Action Alternative 1.

PROPOSED ACTION

The Proposed Action involves the disposal of the non-FSU LHFD property to the City of Lynn Haven and the transfer of the 40-acre parcel to FSU. The Proposed Action locates the FSU parcel at the eastern siting location at the LHFD property (Proposed Action Alternative 1). This location provides opportunity for deep water access with less seagrass impacts, as well as access to the protected water of Lynn Haven Bayou. The site has exiting utility access and would provide for the use of the existing boat ramp located east of the pier. The development of the LHFD property would affect the vegetation and wildlife species that inhabit this area. However, the habitats are of low value and are not unique within the St. Andrews basin. Compensation for loss of habitat in the form of mitigation would be easily attainable. The use of the wetland habitats is optional, given the presence of the existing pier facility. A new pier facility would cause minor impacts to the estuarine marsh habitat.

FINDING OF NO SIGNIFICANT IMPACT/FINDING OF NO PRACTICABLE ALTERNATIVE

Based on the results of this EA, I have determined that the Proposed Action would not have significant adverse impacts on the human environment or on the environmental resources

described in the EA. Therefore, issuance of a Finding of No Significant Impact is justified and an Environmental Impact Statement is not required. Pursuant to Executive Order 11988 (Floodplain Management) and 11990 (Protection of Wetlands), and considering all supporting information, I find that there is no practicable alternative to the Proposed Action (Alternative 1) being sited in areas within the 100-year floodplain and in wetlands, as described in the EA. The EA identifies all practicable measures to minimize harm to the existing environment. Alternative 1, the preferred alternative for the Proposed Action, will have minor impacts to some resources, but those impacts will likely be minimized and mitigated during the permitting process for re-development of the LHFD property and associated rail spur.


JENNIFER L. KILBOURN, Colonel, USAF
Chief, Civil Engineer Division

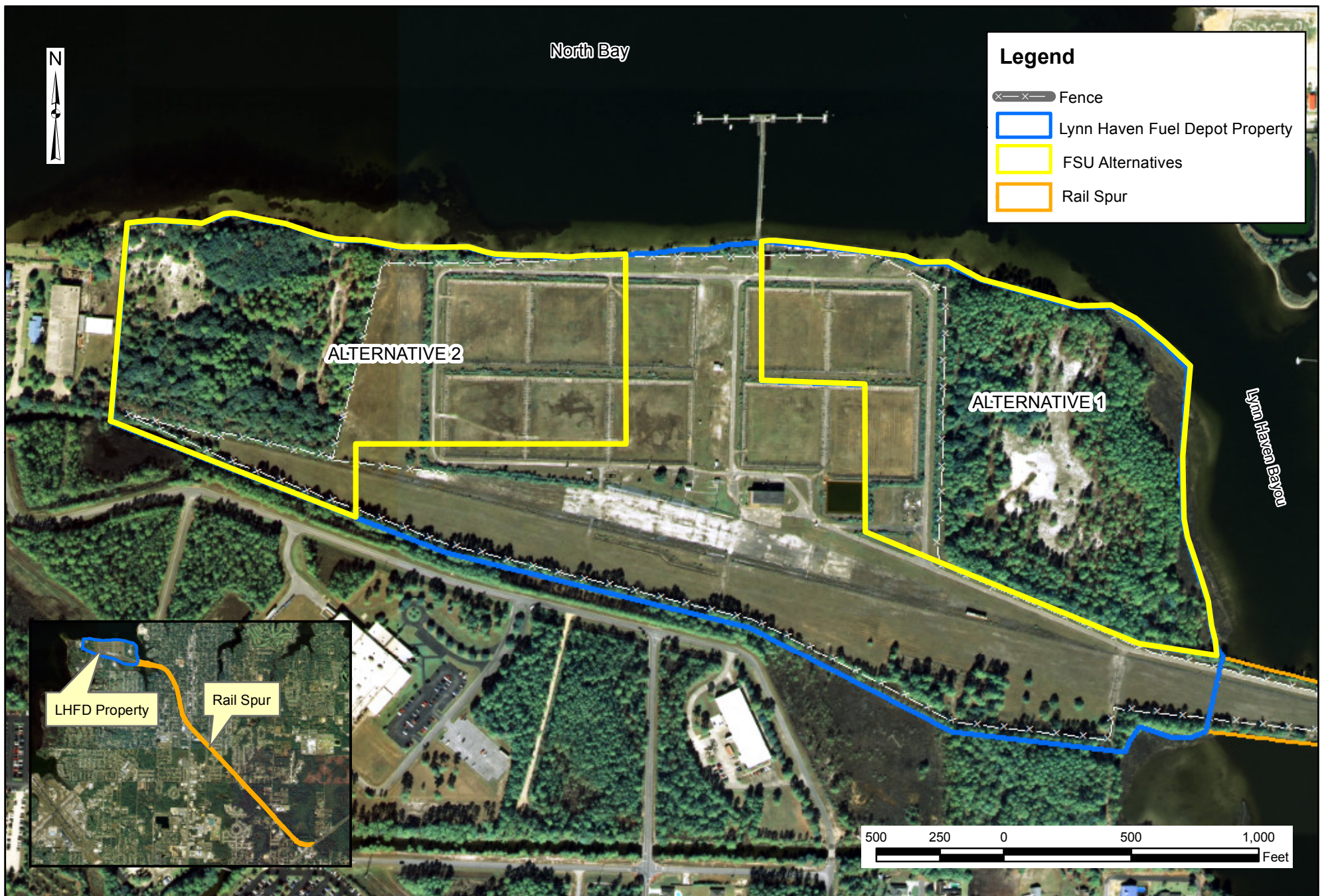
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Date



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Finding Of No Significant Impact / Finding of No Practicable Alternative
Site Location Map

Figure 1
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Finding Of No Significant Impact / Finding of No Practicable Alternative
Proposed Alternatives Map

Figure 2
December 2015

COVER SHEET

ENVIRONMENTAL ASSESSMENT FOR THE DISPOSAL OF THE LYNN HAVEN FUEL DEPOT PROPERTY, BAY COUNTY, FLORIDA

- a. Responsible Agency: United States (U.S.) Air Force, 325th Fighter Wing, Tyndall Air Force Base (AFB), Florida.
- b. Proposed Action: The Air Force proposes to transfer 40 acres of the Lynn Haven Fuel Depot (LHFD) property to Florida State University (FSU) and dispose of the remaining 144 acres of the LHFD property and rail spur, located in Bay County, Florida, directly to the City of Lynn Haven, Florida (City).
- c. Inquiries regarding this document should be directed to: Mr. Jose Cintron, 325 CES/CEIEC, 119 Alabama Avenue, Stop 42, Tyndall AFB, FL, 32403, (850) 283-4341, jose.cintron.1@us.af.mil.
- d. Report Designation: Final Environmental Assessment (EA)
- e. Abstract: This document is for the disposal of the LHFD property and focuses on the: (1) 40-acre portion of the main LHFD property anticipated to be conveyed to FSU (referred to as the FSU parcel); (2) 94-acre portion of the main LHFD property excluding the FSU parcel; and (3) 50-acre rail spur. It is anticipated that the 40 acres will be conveyed to FSU for use as a satellite (research) campus in accordance with Section 2843 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2008, Public Law Number (No.) 110-181. It is anticipated the 94- and 50-acre parcels (collectively referred to as the non-FSU LHFD property) will be conveyed to the City by special legislation conveyance authority in Section 2835 of the Carl Levin and Howard P. “Buck” McKeon NDAA of FY 2015, Public Law No. 113-291. In the event any of the above property is not transferred to FSU or the City by the aforementioned methods, then the Air Force will arrange for disposal of the non-transferred portions of the LHFD property through negotiated or public sale by the General Services Administration (GSA) under the Federal Property and Administrative Services Act (FPASA), specifically under the provisions in 40 United States Code (USC) 545.

The Proposed Action involves the Air Force transfer of a 40-acre parcel to FSU and all or part of the remaining 144 acres to the City. If the 144 acres are disposed by direct conveyance under Section 2835 of the NDAA FY 2015 or through GSA under the Federal Property Act for cash proceeds, more than fifty percent of the funds would be deposited for the benefit of Tyndall AFB pursuant to Section 2835(b)(2) of the NDAA FY 2015 or 40 USC 572(b), respectively.

The Proposed Action is divided into Proposed Action Alternative 1 and Alternative 2 regarding the siting of the 40-acre parcel to be conveyed by the Air Force to FSU under the authority of Section 2843 of the NDAA FY 2008, with the remaining 144

acres to be directly conveyed to the City. If FSU or the City elects not to pursue acquiring the property, the Air Force will request that GSA determine whether other federal agencies have a mission need or public beneficiary request for the non-transferred property. If there is no federal agency interest in the non-transferred/non-conveyed portion of the property, then GSA would arrange for the public (auction) or negotiated sale pursuant to the FPASA.

The No Action Alternative would result in the Air Force retaining ownership of all of the LHFD property in a caretaker status under existing conditions.

Pursuant to National Environmental Policy Act guidance, the Air Force's Environmental Impact Analysis Process, and other applicable federal and local requirements of the Air Force for land disposal actions, the reasonably foreseeable environmental consequences of property reuse are being analyzed for the Proposed Action Alternatives, and No Action Alternative.

Based on the findings of this EA, the Proposed Action would have no significant adverse effect on aircraft operations, noise, air quality, safety and occupational health, earth resources (i.e., geology, topography and soils), hazardous materials and waste (i.e., hazardous materials, hazardous waste, and the Air Force's Environmental Restoration Program), and cultural resources (i.e., historic and cultural resources) and would have minor impacts on water resources (i.e., surface water and groundwater), infrastructure/utilities (i.e., sanitary sewer, potable water, solid waste management, drainage, transportation systems, electricity and natural gas), biological resources (i.e., vegetation, wildlife, threatened and endangered species, wetlands, and floodplains), and socioeconomic resources. Minorities and low-income residents living in proximity to the LHFD property would not be disproportionately impacted. The cumulative Proposed Action, with past, present, and reasonably foreseeable actions, is not expected to result in adverse cumulative impacts to any resource.

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ACRONYMS AND ABBREVIATIONS

ACM	Asbestos Containing Material
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFI	Air Force Instruction
AFRPA	Air Force Real Property Agency
AVGAS	Aviation Gasoline
bls	below land surface
BMP	Best Management Practice
Bunker C Oil	Heavy Fuel Oil No.6 (Ship Oil)
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
City	City of Lynn Haven, Florida
CMP	Coastal Management Program
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	Decibel
DERP	Defense Environmental Restoration Program
DFSP	Defense Fuel Support Point
DLA	Defense Logistics Agency
DoD	Department of Defense
EA	Environmental Assessment
EBS	Environmental Baseline Survey
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ERP	Environmental Restoration Program (at Tyndall AFB)
FAR	Floor-to-Area Ratio
FDEP	Florida Department of Environmental Protection
FDEP ARM	FDEP Air Resource Management Division
FERP	Florida Environmental Resource Permit
FFWCC	Florida Fish and Wildlife Conservation Commission
FNAI	Florida Natural Areas Inventory
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
FPASA	Federal Property and Administrative Services Act ("Property Act")
Friends	Friends of Lynn Haven Bayou
FSU	Florida State University
FY	Fiscal Year
GSA	General Services Administration
HUD	Housing and Urban Development
JP-4	Jet Propulsion Fuel, Grade 4

JP-5	Jet Propulsion Fuel, Grade 5
LBP	Lead-Based Paint
LHFD	Lynn Haven Fuel Depot
LUCs	Land Use Controls
MBTA	Migratory Bird Treaty Act
MILCON	Military Construction
MOA	Memorandum of Agreement
NDAA	National Defense Authorization Act
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
No.	Number
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
RACCR	Remedial Action Construction Completion Report
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
ROWs	Rights of Way
SHPO	State Historic Preservation Officer
SWPPP	Storm Water Pollution Prevention Plan
U.S.	United States
USC	U.S. Code
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOUS	Waters of the United States

CHAPTER 1. PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

This chapter explains the purpose and need for action, which is part of the Environmental Impact Analysis Process (EIAP), and is prepared in accordance with the Council on Environmental Quality (CEQ) and Air Force regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508 and 32 CFR Part 989, respectively). Chapter 1.0 is divided into ten parts: 1). this introduction, 2). a statement of the purpose of the Proposed Action, 3). a discussion of the need for the Proposed Action, 4). a description of the location of the Proposed Action, 5). a description of the decision to be made and the decision-maker, 6). an overview of the scope of the environmental assessment, 7). a description of the public review process, 8). an overview of the applicable regulatory requirements, 9). an introduction to the organization of the document, and 10). a discussion of the cooperating agencies and intergovernmental coordination, consultation, and agency review.

1.2 PURPOSE OF THE ACTION

The purpose of the Proposed Action is to dispose approximately 184 acres of the former Lynn Haven Fuel Depot (LHFD) property out of federal ownership. To do this, the United States (U.S.) Air Force (Air Force) proposes to transfer approximately 40 acres of the LHFD property to Florida State University (FSU) for use as a satellite (research) campus pursuant to Section 2843 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2008. The Air Force further proposes to transfer the remaining 144 acres of the former LHFD property to the City of Lynn Haven (City), Florida, by special legislation currently enacted in Section 2835 of the NDAA FY 2015, for future reuse and development.

1.3 NEED FOR THE ACTION

The Air Force need for the action stems from the cessation of military mission activities at the former LHFD. The LHFD property was determined to no longer be needed for Air Force or Department of Defense (DoD) mission requirements. Military property that is excess to DoD needs is normally subject to property disposal under the various property disposal laws and regulations available to the military services and other federal agencies. Such laws include the Federal Property and Administrative Services Act (FPASA) of 1949, (40 United States Code [USC] 101 et seq.), and special legislation that has been enacted into law

such as Section 2843 of the NDAA FY 2008 and Section 2835 of the NDAA FY 2015. Presidential Executive Order 13327 (6 February 2004), *Federal Real Property Asset Management*, urges federal agencies to realize the equity value of real property assets to further the federal agencies' mission needs. Tyndall Air Force Base (AFB) has a mission funding need for the cash proceeds and cost savings that the Air Force expects to realize from the transfer of the LHFD property.

Consistent with the Executive Order, pursuing the disposal of the LHFD property under Section 2835 of the NDAA FY 2015 or, in the alternative, disposal by the General Services Administration (GSA) under FPASA, would provide a return of asset value to the Air Force by converting the asset value of the LHFD property into funding that supports the military mission at Tyndall AFB. Additionally, disposal of the LHFD property would produce cost savings by allowing the Air Force to cease any continuing property caretaker obligations and minimize potential liabilities to the Air Force under applicable federal law as a federal agency property owner for the LHFD property.

1.4 LOCATION OF THE PROPOSED ACTION

Tyndall AFB, which comprises approximately 29,100 acres of land along the Gulf of Mexico, is located southeast of Panama City, Florida. The LHFD property and rail spur, which together comprise 184 acres, are located approximately 14.3 miles (roadway miles via U.S. Route 98 and South Highway 77) northwest of Tyndall AFB in Lynn Haven, Florida. The rail spur is a linear property comprised of an elevated rock rail bed and rails (in most areas) with a 50-foot-wide buffer, for a total width of 100 feet. The rail spur property extends from the main portion of the LHFD to the active rail lines at U.S. Route 231 and has no other facilities other than signal equipment. The rail within the main portion of the LHFD has been removed and a minimum of two sections of this rail spur have been removed. The rail spur is inactive and there are no plans for further use of the rail spur by the Air Force.

Figure 1-1 provides a site location map showing the area near the LHFD property, to include the 50-acre LHFD rail spur.

1.5 DECISION TO BE MADE

The decision that must be made is:

- Which portion of the main LHFD property will constitute the 40-acre parcel to be transferred to FSU under Section 2843 of the NDAA FY 2008 and which portion of the main LHFD property will constitute the remaining 94 acres that, along with the 50-acre rail spur property, will be disposed;

- Disposal under what conditions, as authorized by law or regulation, will the Air Force impose; or
- Whether the Air Force should retain ownership of the 144-acre non-FSU LHFD property under the No Action Alternative and retain the property in caretaker status.

After completion of the Environmental Assessment (EA) as required under the EIAP, the Air Force will either: (1) Issue a Finding of No Significant Impact (FONSI) if the Air Force concludes the lack of any significant environmental impacts associated with the disposal of the property; or (2) if the Air Force reasonably foresees that significant environmental impacts will result from the disposal action, initiate the preparation of an Environmental Impact Statement (EIS) by publishing a notice of intent to prepare an EIS and Record of Decision.

The Air Force will issue a Finding of No Practicable Alternative (FONPA) regarding Air Force findings for support of a construction or redevelopment project in floodplains or wetlands within the scope of Presidential Executive Order 11988 (Floodplain Management) and 11990 (Protection of Wetlands).

The EA will assist the Air Force in identifying which of two site locations for the FSU parcel on the LHFD property should be selected, deciding whether to choose the No Action Alternative by retaining the property, and selecting land use restrictions and mitigations associated with the disposition of the LHFD property to the FSU and the City.

The Air Force may make recommendations in the EA, FONSI, and FONPA on potential mitigations that may be considered by the property recipient and the local or state land use regulatory authorities for implementation or to be undertaken by the property recipient to mitigate environmental impacts resulting from future redevelopment or reuse of the property. The future allowable land use will primarily be driven by the City and its land use comprehensive plan for the property.

The Air Force will not impose restrictions regarding land use and property development, other than those restrictions that the Air Force is specifically authorized or required to impose under federal or state law, Presidential Executive Order, or federal or state regulation for post-property transfer purposes.

Examples of such specific Air Force authorizations to impose post-transfer land use restrictions by law or regulation include restrictions necessary to implement remedies under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to protect human health and

the environment from past releases or disposal of CERCLA hazardous substances; restrictions required by the Florida Department of Environmental Protection (FDEP) that are deemed necessary to protect human health and the environment; restrictions to ensure adequate protection of federally-listed endangered or threatened species and critical habitat under the Endangered Species Act, and preservation covenants to protect cultural resources that are eligible for listing on the National Register of Historic Places (NRHP) under the National Historical Preservation Act and implementing regulations.

Another example of allowable use restrictions that the Air Force could impose as part of the conveyance would be restrictions required by special legislation, such as the requirement that FSU must use the property transferred to it under Section 2843 of the NDAA FY 2008 for a satellite research campus.

The CEQ regulation at 40 C.F.R. 1508.1 states that “Effects”, for purposes of the National Environmental Policy Act (NEPA) analysis, include:

- (a) Direct effects, which are caused by the action and occur at the same time and place.
- (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

The conveyance of the property from federal to non-federal ownership, and method of conveyance, would have few, if any, direct environmental effects.

The methods of property disposal for the LHFD real property are:

- Air Force transfer of 40 acres to FSU for use as a satellite research campus pursuant to special legislation at Section 2843 of the NDAA FY 2008, and
- Sale to the City, under Section 2835 of the NDAA FY15, of the 144-acre non-FSU LHFD property; or
- In the event that FSU or the City elect not to acquire their portions of the LHFD property as described above, the Air Force can request that the GSA dispose of the property under the provisions in the FPASA, which include the following GSA property disposal methods:

- Transfer to a federal agency who has a mission need for the property,
- Public benefit conveyance to an eligible entity,
- Negotiated sale to a public body for a public purpose,
- Competitive sale to the public by sealed bid or auction, or
- A combination of the above.

The potential environmental impacts resulting from the Air Force's disposal of the LHFD property using one or all of the above-described procedures will not likely vary since the City will have the land use designation authority, similar to zoning, for the post-transfer use and development of the LHFD property for which the City has under its annexation boundary. A portion of the LHFD property currently lies outside the City's annexation boundary, but the City is in the process of annexing those portions; annexation may occur before, or after, property transfer from the Air Force to the City.

The federal transfer of the property to non-federal ownership is expected to result in indirect environmental effects. This EA will attempt to evaluate the reasonably foreseeable environmental effects that will result from the potential future development and land use of the property undertaken by the property recipients.

1.6 SCOPE OF THE ENVIRONMENTAL REVIEW

The Air Force planning process includes an analysis of the potential environmental consequences created by a Proposed Action. This is summarized in the Description of Proposed Action and Alternatives (DOPAA) and the EA. The potential environmental impacts that could result from the implementation of the Proposed Action and reasonable alternatives, including the No Action Alternative, are also identified, described, and evaluated in the EA. For this Proposed Action, the reasonably foreseeable environmental impacts would primarily result from the development and reuse of the LHFD property after federal transfer of the property to non-federal entities. Resource issues to be discussed in the EA for the Proposed Action and No Action Alternative include:

- Infrastructure and Utilities – Environmental effects from changes to sanitary sewer, potable water, solid waste management, drainage, transportation, electricity, and natural gas.

- Hazardous Materials and Hazardous Waste – Potential effects on existing environmental and management practices for hazardous materials and hazardous wastes.
- Biological Resources – Potential effects on endangered species, protected habitats, wetlands, vegetation, or wildlife in the proposed project areas.
- Cultural Resources – Potential effects on archaeological sites, historic buildings/structures, or artifacts located in the proposed project areas.
- Land Use – Environmental effects from potential changes to land use or zoning.
- Water Resources – Potential effects on groundwater or surface water quality and quantity in the region.
- Air Quality – Potential effects on visibility, odor, and other factors of general air quality.
- Noise – Potential effects on noise intensity and related impacts.
- Earth Resources – Potential effects on the geology, topography, or soils in the proposed project areas.
- Socioeconomic Resources – Potential effects on socioeconomic resources in the proposed project areas.
- Environmental Justice – Disproportionate adverse effects on minority and low-income populations.

The environmental impacts concerning the above resource categories for the redevelopment and reuse of the LHFD property are expected to occur within a limited geographical area on and surrounding the LHFD property. This geographical area is referred to in the DOPAA and EA as the region of influence (ROI). Due to its distance from the LHFD property, Tyndall AFB is not within the LHFD property ROI.

The Proposed Action is primarily a set of administrative property transactions involving a property transfer from the Air Force to the City and to FSU.

For purposes of the EA, the Air Force can only evaluate the environmental impacts that the Air Force reasonably foresees would result from the Proposed Action. The Air Force will not be involved in the future development of the LHFD property or rail spur after transfer of ownership of the properties to the City and FSU. Future development plans and permitting would be the responsibility of the City, any City-selected developer, or subsequent property transferees. Therefore, future

plans and permits that will be addressed by the City and/or a developer during redevelopment and reuse can only be generally evaluated in the EA. Impacts are estimated using the density and intensity of the redevelopment and reuse of the property based on land use categories. Additional factors affecting decisions regarding anticipated future land use are also considered due to soil and shallow groundwater contamination at the LHFD property and the associated land use controls to be put in place.

Although general descriptions of the existing resources on the property will be provided, the EA will be issue-driven and will concentrate on those resources that may be affected by the Proposed Action and No Action Alternatives. The EA will also consider cumulative impacts. A cumulative impact, as defined by the CEQ (40 CFR 1508.7), is the "...impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of which agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." The cumulative impacts of the Proposed Action and No Action Alternatives, as well as impacts from other actions, will be considered for the ROI.

1.7 PUBLIC COMMENT PROCESS

In September through October 2009, the Air Force made available, for public review and comment, a Draft Final EA, FONSI, and FONPA for a proposed property-for-military construction exchange of the LHFD property with a private developer and a 40-acre parcel transfer to FSU. The Air Force sent the Draft Final EA, FONSI, and FONPA to local public libraries and to the State Clearinghouse for distribution among various state agencies for review and comment.

As a result of agency and public review of the 2009 documents, the Air Force received several comments. Agency comments included the following:

- The State Historic Preservation Office suggested that the LHFD property undergo a professional cultural resource survey since none had been accomplished previously for the property.
- The U.S. Fish and Wildlife Service (USFWS) cautioned that, due to the presence of wetlands on the LHFD, any discharge of fill material into the water of the U.S. would require a permit under Section 404 of the Clean Water Act (CWA).

A group of local citizens, referred to as the Friends of Lynn Haven Bayou (Friends), expressed concerns about the need for removing a portion of the existing causeway that isolates a portion of the Lynn Haven Bayou from

sufficient tidal flows from North Bay. The Friends believed that the poor flow into Lynn Haven Bayou due to the causeway has resulted in degradation of water quality and the ecosystem in the isolated portion of the bayou, and that the EA should address the effects caused by the historical construction of the causeway and potential mitigation measures to eliminate the adverse environmental effects.

Based on the comments, the Air Force conducted further analyses. Subsequently in the National Defense Authorization Act for Fiscal Year 2010, Congress amended the federal statute, 10 USC 2869, which eliminated property-for-construction exchanges. This change in law, the need for the Air Force to complete the further analyses, subsequent enactment of new legislation in the NDAA FY 2015 authorizing a direct conveyance to the City, and intervening lapse in time resulted in the Air Force preparation and publication of this 2015 EA, FONSI, and FONPA.

A 31-day public review period was held from 27 October 2015 to 27 November 2015 to solicit public comments on the draft final EA, as well as proposed FONPA and FONSI. No public comments were received. Copies of the draft final EA, FONPA and FONSI were also sent to the Florida State Clearinghouse, State of Florida Division of Historical Resources, USFWS, National Marine Fisheries Service, U.S. Army Corps of Engineers (USACE), and Native American Tribes/Nations that expressed an interest in Tyndall AFB regarding their ancestral ties, to confirm that these entities concur that the proposed action would not adversely affect resources that are of concern to them. Minor comments, with concurrence, were provided by the Florida State Clearinghouse, USFWS and one Native American Tribe/Nation; these are included in Appendix E. No other comments were received from agencies or Native American Tribes/Nations.

1.8 APPLICABLE REGULATORY REQUIREMENTS

Under NEPA (42 USC 4321 et seq.), federal agencies are required to consider the environmental consequences of their proposed actions and reasonable alternatives, to include the No Action Alternative, by using a systematic, interdisciplinary approach, thereby ensuring well-informed federal decisions. The CEQ was established under NEPA to implement and oversee federal policy in this process. To this end, the CEQ has issued regulations for *Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR 1500-1508). The DoD also published its DoD Instruction 4715.9, *Environmental Planning and Analysis*, outlining the DoD approach to fulfilling the NEPA and CEQ process requirements. Air Force Instruction 32-7061, *The Environmental Impact Analysis Process (EIAP)* (32 CFR Part 989) implements the NEPA, CEQ, and DoD regulations within the Air Force.

The NEPA requires federal agencies to consider the environmental effects of their proposed actions and reasonable alternatives, to include the No Action Alternative, as part of the decision-making process. The Air Force considers the potential environmental impacts identified during the EIAP in its decision-making process. The EA considers applicable laws and regulations, including but not limited to the following:

- National Historic Preservation Act (16 USC 470 et seq.)
- Archaeological Resources Protection Act (16 USC 470aa-470mm)
- Clean Air Act (42 USC 7401-7671q)
- CWA (33 USC 1251 et seq.)
- Coastal Zone Management Act (16 USC 1451-1456)
- Endangered Species Act (16 USC 1531-1544)
- Fish and Wildlife Coordination Act (16 USC 661-667e)
- Pollution Prevention Act (16 USC 470)
- Resource Conservation and Recovery Act (42 USC 6901-6992k)
- CERCLA (42 USC Chapter 103)
- Executive Order 11988, Floodplain Management, 24 May 1977 (42 FR 26951)
- Executive Order 11990, Protection of Wetlands, 24 May 1977 (42 FR 26961)
- Executive Order 12372, Intergovernmental Review of Federal Programs, 1982 (47 FR 30959)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 11 February 1994 (59 FR 7629)

1.9 INTRODUCTION TO THE ORGANIZATION OF THE DOCUMENT

This EA is organized into seven chapters. Chapter 1 focuses on the purpose of and need for the Proposed Action. This includes a description of the purpose of and need for the Proposed Action, the location of the Proposed Action, decisions to be made and the decision-maker, a summary of the scope of the environmental review, and identification of applicable regulatory requirements. Chapter 2 focuses on the Proposed Action and alternatives. This includes a brief history of the formulation of alternatives, description of the alternatives eliminated from further consideration, detailed descriptions of the Proposed Action and No Action Alternative, identification of the preferred alternative, and addresses mitigation requirements. Chapter 3 describes the existing resources and their relationship to the surrounding environment. Chapter 4 explains

the estimated impacts to property resources and the surrounding environment, the cumulative impacts, and the concurrence of the proposed alternatives with USC and pertinent governing statutes. The last three chapters (Chapters 5, 6 and 7) include lists of preparers, persons and agencies consulted during the EA, and references, respectively.

1.10 COOPERATING AGENCY AND INTERGOVERNMENTAL COORDINATION, CONSULTATION AND AGENCY REVIEW

For the EA, there are no cooperating agencies. Rather, the Air Force has identified consulting agencies and the associated planning and consultation requirements for the EA. The consulting agencies include the tribal, state and local governments, as well as other federal agencies, having jurisdiction by law or special expertise. As noted in Section 1.7, a Draft Final EA, FONSI, and FONPA were made available by the Air Force in September through October 2009 for consulting agency review and comment. These same agencies, as applicable, were contacted to review and provide comments for the new 2015 Draft Final EA, FONSI, and FONPA in October through November 2015. Comments received and responses to these comments are provided in Appendix E.

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CHAPTER 2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

This section is comprised of ten parts: 1). an introduction, 2). a description of the Proposed Action, 3) a description of the siting alternatives for the FSU 40-acre property, 4) a brief history of the formulation of the alternatives, 5). identification of alternatives eliminated from further consideration, 6). a description of the No Action Alternative, 7). other action alternatives within the ROI, 8). comparison of environmental effects of all alternatives, 9). identification of the preferred alternative, and 10). mitigation requirements.

2.1 INTRODUCTION

The LHFD property, which is located on the shore of the North Bay estuary system in Lynn Haven, Bay County, Florida, is bordered on the north by North Bay, on the east by Lynn Haven Bayou, on the south by both undeveloped and commercial/industrial properties, and on the west by an industrial property. The LHFD property includes: the former 70-acre bulk fuel storage area, referred to as the Lynn Haven Defense Fuel Support Point (DFSP); the other areas of the property adjacent to the DFSP that comprise 64 acres; and the 50-acre railroad track right of way, commonly called the rail spur. Figure 2-1 provides a site layout map of the LHFD property, including the 94 acres of the LHFD property and the 50-acre rail spur (combined, referred to as the “non-FSU LHFD property”) proposed for the direct conveyance by the Air Force to the City pursuant to authority in Section 2835 of the NDAA FY 2015. Figure 2-1 also shows the portion of the LHFD property comprising 40 acres at a siting location referred to as Proposed Action Alternative 1 that is anticipated to be transferred to FSU for use as a satellite campus. Figure 2-2 shows both the Proposed Action Alternative 1 and Alternative 2 siting locations for the 40-acre FSU parcel to be transferred to FSU pursuant to Section 2843 of NDAA FY 2008. Figure 2-1

The site has been owned and managed by the DoD since the early 1940s, at which time the bulk fuel storage facility (i.e., DFSP) was constructed by the U.S. Navy. The areas immediately adjacent to the DFSP on the east and west were used for dredge material placement when the area around the pier was deepened to accommodate ship traffic. The rail spur is a linear extension of the property comprised of an elevated rock rail bed and rails located within a 50-foot-wide buffer. The rail spur extends from the DFSP, within the main portion of the LHFD property, to the active rail lines at U.S. Route 231 and has no facilities other than signal

equipment. The rail spur is inactive and there are no plans for further use by the Air Force.

The DFSP was activated in 1943 and served as a bulk storage fuel facility and supply center, with ten vertical, above ground storage tanks and associated fuel transfer equipment. The tank farm was used to store Bunker C oil, Jet Propulsion Fuel, Grade 4 (JP-4), Jet Propulsion Fuel, Grade 5 (JP 5), and Aviation Gasoline (AVGAS) 100/130. Nine of the tanks had capacities of 55,000 barrels each and one had a capacity of 80,000 barrels. The DFSP was deactivated in the early 1990s. During deactivation, the fuels were transferred to other terminals, the tanks were de-gassed and cleaned, and the delivery lines were purged. The bulk storage tanks were removed from the site in 1992. Investigation and remediation have been performed at the site by the Defense Logistics Agency (DLA) and under Tyndall AFB's Environmental Restoration Program.

2.2 DESCRIPTION OF THE PROPOSED ACTION

The Air Force proposes to transfer 144 acres of LHFD property to the City for fair market value consideration and to transfer 40 acres of the LHFD property to FSU.

About 50 of the 144 acres of non-FSU LHFD property constitute the former rail right-of-way that extends from the main LHFD property for about 2.9 miles. This former rail right-of-way property, shown as Parcel C in the inset on Figure 2-1, is not expected to be used for rail or other industrial use purposes. It will likely be used for providing utility line access to the main LHFD property, continued stormwater management and control, and road conversion and access to the main LHFD property. Portions may be used for recreational purposes, such as walking or bicycle trail.

The remaining 94 acres of non-FSU LHFD property, shown as Parcel B in Figure 2-1, would likely be developed and used consistent with the City's current land use designations for this portion of the property, which are "Research Park and Public." This would comprise a development that may include, but not be limited to, water-dependent research and light high-tech industry facilities, recreational and commercial working waterfront, low-density residential units, and office and commercial facilities that are not water-dependent. While a small portion of the 94 acres is currently outside of the City's annexation boundary, the City is in the process of annexing this area.

For more information concerning the land use districts and, specifically, "Research Park and Public" land use categories, refer to:

- The City's Comprehensive Plan, which can be accessed at the following website link:
<http://www.cityoflynnhaven.com/document/comprehensive-plan>
- The City's Future Land Use Map ("FLUM"), which can be accessed at the following Bay County website link:
<http://www.baycountyfl.gov/planning/comp-plan/chapter3.pdf>

The Air Force has not received any specific or concrete redevelopment or reuse plan from the City. In developing a Proposed Action, the Air Force has had to make land use intensity assumptions based on the general type of land use, property terrain and other geophysical limitations, current and anticipated land use designations by the City (similar to zoning), and considerations of economic feasibility.

Additionally, the Air Force proposes to transfer 40 acres of land to FSU for use as a satellite research campus. The campus is anticipated to be primarily research-oriented with FSU efforts to attract other tenants in marine or high technology research & development. The 40 acres of land for FSU will be land shown as Parcels A and A1 in Figure 2-1. The northwestern boundary of the proposed FSU property is near or adjacent to the entrance to the T-shaped pier currently situated on the LHFD property and extending into North Bay, thus providing FSU and its tenants with reasonable access to the pier for research and other educational-related purposes.

As a means of estimating the development capacity of the land, the proposed land use was analyzed for probable reuse using the application of the Floor to Area Ratio (FAR). The FAR defines the amount of building floor area a specific property with specific land use may contain per acre. This is a method utilized in planning to assess property value or usefulness in regards to development plans based on proposed usage.

The proposed research park and public land uses for the 94 acre parcel and the 40 acre parcel allocated to FSU require specific building density and intensity values in accordance with the Florida FAR. Intensity for the associated land uses is restricted to no more than 70% impervious surfaces on the property and no more than a 2.0 FAR. Thus, the adherence with the FAR restricts the number of floors a building would have and the amount of open space and buffer a property must possess. The proposed land use includes research and development space, however, the specific nature of the development has not been proposed. Given the variability of the proposed reuse, specific area plan calculations are difficult to estimate. General assumptions for the DOPAA and EA are based on 70% impervious surfaces and 200% FAR for redevelopment and reuse plans and their impact on the surrounding area.

2.3 DESCRIPTION OF FSU PROPERTY SITING ALTERNATIVES

2.3.1 Proposed Action Alternative 1

Alternative 1, the Preferred Alternative, locates the FSU parcel in the eastern portion of the LHFD property along the northern shoreline, adjacent to Lynn Haven Bayou (see Figure 2-2). For the FSU parcel, this location provides deep water access along the northern shore and to the protected shallow waters of Lynn Haven Bayou. While this area has existing utility access and would provide for the use of the existing boat ramp located east of the pier, it has limited stormwater features and extensive wetlands along the bayou's margins. The pier itself is not included in the FSU parcel. The remaining 94 acres, along with the rail spur, would be directly conveyed to the City.

2.3.2 Alternative 2

For Alternative 2, the FSU parcel is located on the western end of the property along the northern shoreline (see Figure 2-2). This option provides for deep water access and limited utility access. There are existing stormwater features and limited wetland resources in the area. The remaining 94 acres, along with the rail spur, would be directly conveyed to the City.

2.4 HISTORY OF THE FORMULATION OF ALTERNATIVES

In April 2007, the Air Force, FSU, and the City executed a Memorandum of Agreement (MOA) in anticipation of special legislation that would allow the Air Force to transfer up to 40 acres of the LHFD to FSU for use as a satellite research campus. The MOA was also intended to facilitate a cooperative effort among the parties to the MOA for assisting the Air Force in the disposal of the remaining LHFD property for fair market value.

The Air Force consulted with the Department of Housing and Urban Development (HUD) for HUD's determination on whether the property was suitable for homeless assistance. On December 21, 2008, HUD formally determined that the property was not environmentally suitable for homeless use.

Initially, the Air Force contemplated a property-for-Military Construction (MILCON) exchange under 10 USC 2869. However, the NDAA for FY 2010, signed into law on 29 October 2009, amended 10 USC 2869 so that it eliminated the Air Force authority to exchange the LHFD property for construction. The amendment to 10 USC 2869, however, allowed the Air Force to pursue a property-for-property exchange for purposes of

preventing mission encroachment. As such, the alternative to pursue a property-for-MILCON exchange was eliminated from further consideration.

On March 4, 2008, the LHFD property was determined to no longer be needed for Air Force or DoD mission requirements. Military property that is excess to DoD needs is normally subject to property disposal under the various property disposal laws and regulations available to the military services and other federal agencies. In addition, once the property has been deemed excess to Air Force needs, the Air Force cannot lease the property under the Military Leasing Act, 10 USC 2667, in lieu of transfer by deed. However, if necessary, the Air Force could temporarily lease the property prior to final property conveyance.

In September 2008, the Air Force had competitively selected a prospective developer for a property-for-construction exchange for the non-FSU portion of the LHFD property. The selected developer elected to continue negotiations with the Air Force and City for a proposed property-for-property exchange after the NDAA FY 2010 provision eliminated the property-for-construction authority. Subsequently, the selected developer indicated that it desired to withdraw from further negotiations for a property-for-property exchange. The only other developer who submitted a bid for the property-for-construction exchange solicitation offered to take the withdrawing developer's place in the property-for-property exchange. While negotiations were ongoing between the Air Force, City, and substitute developer, Section 2835 of the NDAA FY 2015 was enacted into law allowing the Air Force to directly convey the non-FSU LHFD property to the City for fair market value. The Proposed Action for purposes of this EA is for the Air Force to transfer the non-FSU LHFD property to the City for fair market value pursuant to the authority in Section 2835 of the NDAA FY 2015.

During joint discussions with all of the parties, the Air Force sought to identify feasible siting locations for the FSU 40-acre property that would be transferred to FSU under Section 2843 of the NDAA FY 2008. FSU indicated it sought a portion of the LHFD property that would least likely have historical environmental contamination, was contiguous, had easy or direct access to the main road(s) into the LHFD property, and would be located where FSU and its satellite campus tenants would have access to a pier for marine research and educational use.

Based on these discussions, two alternatives for the location of the FSU 40-acre property have been proposed. Alternatives 1 and 2, as more fully discussed in Section 2.3 above, will be evaluated in the EA.

A no-action alternative, where all of the LHFD property would be retained by the Air Force, will also be evaluated in the EA.

2.5 IDENTIFICATION OF ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

Several alternatives to the Proposed Action were considered and eliminated. The option of transferring the property to another government agency was also considered. As noted previously, the Air Force consulted with HUD for a determination on whether the property was suitable for homeless assistance. HUD formally determined that the property was not environmentally suitable for homeless use.

Initially, from 2008 through 2009, the Air Force had proposed a property-for-construction exchange for the disposal of the non-FSU LHFD property. As noted above, the NDAA FY 2010 amendment to 10 USC 2869 removed the general authority for the military services to pursue property-for-construction exchanges.

Another alternative eliminated from consideration included transfer of the non-FSU LHFD property through a property-for-property exchange with a developer under the authority of the amended 10 USC 2869. This would require the Air Force to identify property needed for acquisition to limit or prevent encroachment or other constraints to the military mission. Even though several potential candidate properties were identified on which Air Force acquisition of real property interests might benefit the flying mission at Tyndall AFB, the value of the desired real property interests that might be acquired was estimated to exceed the value of the LHFD property. As 10 USC 2869 does not allow the Air Force to supplement the exchange with additional funds, the real property acquisition under a 10 USC 2869 exchange was not feasible.

Obtaining lesser real property interests under 10 USC 2869 would provide the Air Force with less mitigation against encroachment and was of limited value to the Tyndall AFB flying mission. Additionally, if the lesser real property interest acquired was of low dollar value, the difference between the asset value of the property the Air Force provided and the lower-cost real property interest to be acquired would require cash payment for the price difference by the exchange partner. The cash payment would not directly benefit Tyndall AFB.

Another consideration that weighed against a property-for-property exchange under 10 USC 2869 was that the owners of the potential candidate properties on which the Air Force initially sought a real property interest to prevent mission encroachment were either reluctant to provide the interest sought by the Air Force for the appraised amount for the interest. The owners were either pursuing other development opportunities for their property or felt that the initial proffered amount (based on the appraisal) by the Air Force for the property interest was too

low compared to how much they had invested in the property for future development.

2.6 DESCRIPTION OF THE NO ACTION ALTERNATIVE

Under the No Action Alternative, Tyndall AFB would retain the entire LHFD property (both the FSU parcel and non-FSU LHFD property that includes the rail spur). This alternative assumes that the existing structures and property would remain in caretaker status. Under the No Action Alternative, the Air Force would continue to be responsible for maintaining environmental and cultural resources under their ownership and control, and to ensure that such properties are not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.

2.7 DETAILED DESCRIPTION OF OTHER ACTIONS IN THE REGION OF INFLUENCE

In addition to the Proposed Action, other actions within the ROI, including non-federal actions, will be evaluated. At the time this document was prepared, no other actions were planned within the ROI. This will be re-evaluated as the EA is prepared.

2.8 COMPARISON OF ENVIRONMENTAL EFFECTS OF ALL ALTERNATIVES

Table 2-1 compares the potential impacts of the alternatives described above in Section 2.3 (Proposed Action Alternative 1 and Alternative 2) and Section 2.6 (No Action Alternative). Chapters 3 and 4 of this EA provide details regarding the identification and analysis of resources and the associated environmental effects of all alternatives.

Table 2-1: Environmental Effects of All Alternatives

Resources	Alternatives		
	Proposed Action Alternative 1	Alternative 2	No Action
Aircraft Operations	No effect	No effect	No effect
Noise	No effect	No effect	No effect
Air Quality	No effect	No effect	No effect
Safety and Occupational Health	No effect	No effect	No effect
Earth Resources (Geology, Topography, Soils)	No effect	No effect	No effect

Resources	Alternatives		
	Proposed Action Alternative 1	Alternative 2	No Action
Water Resources (Surface Water, Groundwater)	Minor impacts (negative)	Minor impacts (negative)	No effect
Infrastructure / Utilities (Sanitary Sewer, Potable Water, Solid Waste Management, Drainage, Transportation Systems, Electricity, Natural Gas)	Minor impacts (negative)	Minor impacts (negative)	No effect
Hazardous Materials and Waste (Hazardous Materials, Hazardous Waste, Environmental Restoration Program)	No effect	No effect	No effect
Biological Resources (Vegetation, Wildlife, Threatened and Endangered Species, Wetlands, Floodplains)	Minor impacts (may require mitigation)	Minor impacts (may require mitigation)	No effect
Cultural Resources (Historic Resources, Archaeological Resources)	No effect	No effect	No effect
Socioeconomic Resources	Minor impacts (positive)	Minor impacts (positive)	No effect

2.9 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The Air Force's preferred alternative is the Proposed Action for the disposal of the non-FSU LHFD property to the City and the transfer of the 40-acre parcel to FSU, which is based on the eastern siting location for Proposed Action Alternative 1 (Figure 2-2).

2.10 MITIGATION REQUIREMENTS MATRIX

Because the Air Force will not be involved in the future development of the LHFD property or rail spur after the Air Force enters into a contract to transfer the ownership of the property, the project-specific mitigation requirements associated with development of the property will primarily be the responsibility of the City, and/or a developer selected by the City, and by FSU for their respective parcel. Therefore, mitigation

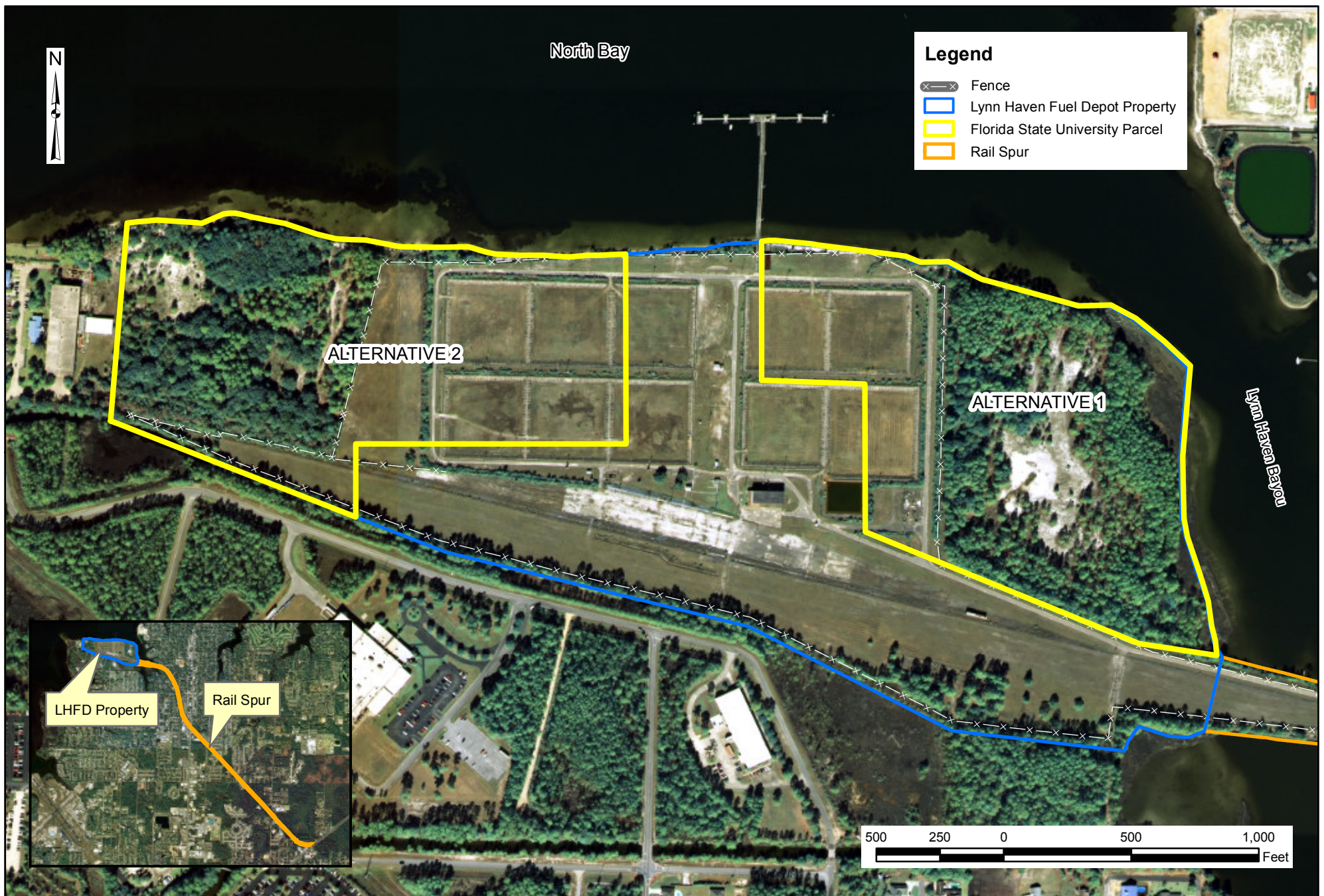
requirements specially tailored to FSU's and the City's, and/or their developer's, project-specific development plans will be addressed by FSU and the City during development and reuse planning. Wetlands and floodplains on the LHFD property and rail spur are identified in the EA and mitigation requirements are discussed as they relate to the land use designations for the LHFD property (94 acres), rail spur (50 acres), and the identified property for FSU use (40 acres). This use includes a research park (research, development, light industrial and residential space) for the LHFD property, a satellite research campus for FSU, and a public trail and roadway for the rail spur. As a means of estimating the development capacity of the land, the proposed land uses were analyzed for probable reuse using the application of the Florida FAR.



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Site Layout Map

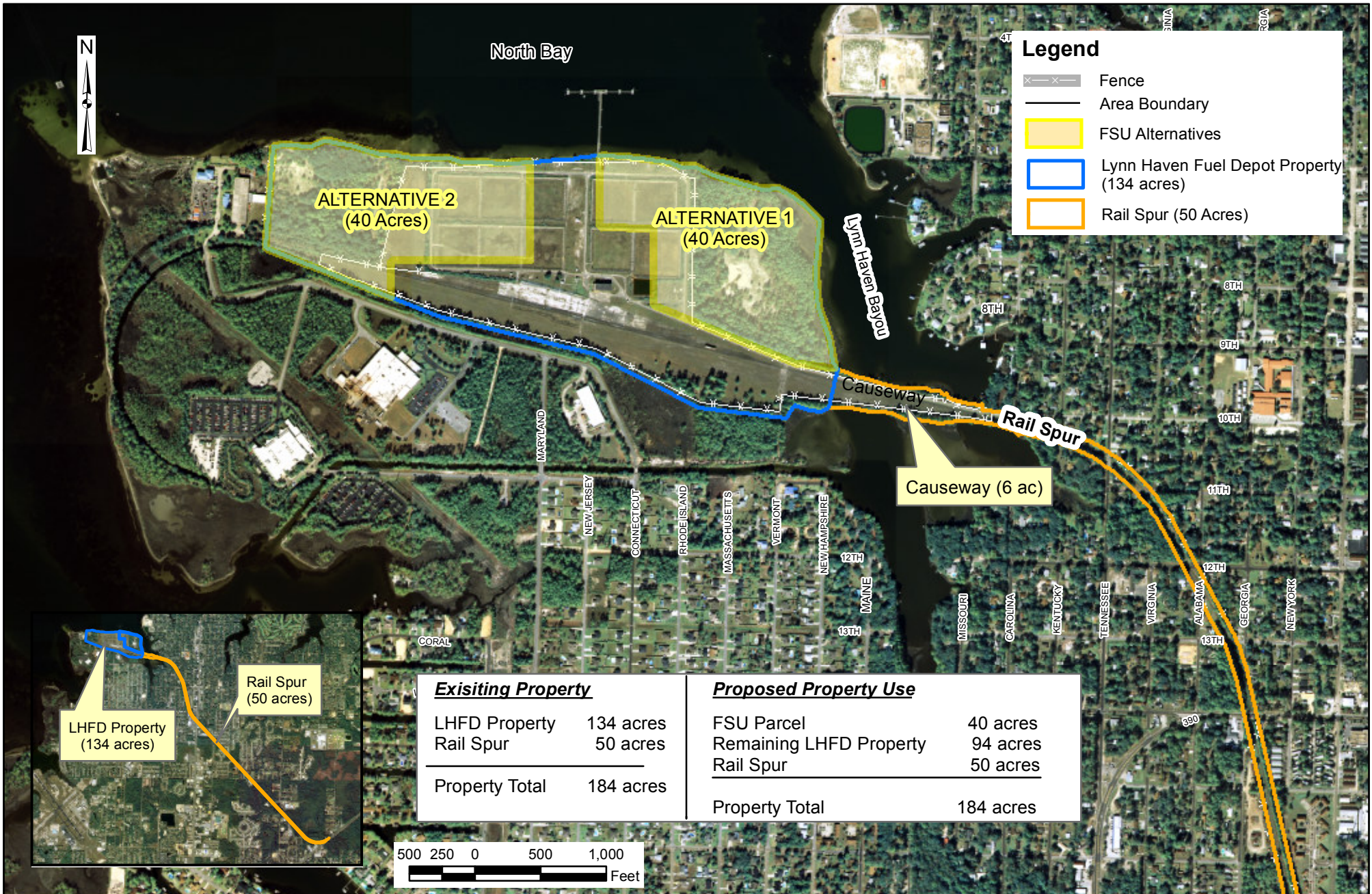
Figure 2-1
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Proposed Action Alternatives Map

Figure 2-2
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Proposed Alternatives and Associated Acreage Map

Figure 2-3
December 2015

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This chapter presents the existing environment or baseline conditions for the biophysical resources that could potentially be affected by the implementation of the Proposed Action. This section is organized by individual resources, and includes descriptions of both the biological and physical portions of the ecosystems potentially impacted by the Proposed Action. Information is presented in this chapter to the level of detail necessary to support the conclusions made in Chapter 4: Environmental Consequences.

3.2 INSTALLATION LOCATION, HISTORY, AND CURRENT MISSION

The Air Force property comprises the 134-acre LHFD property and the 50-acre rail spur. The LHFD property is located on the shore of the North Bay estuary system in Lynn Haven, Florida. The LHFD property is bordered on the north by North Bay, on the east by Lynn Haven Bayou, on the south by both undeveloped and commercial/industrial properties, and on the west by an industrial property (Figure 3-1). The LHFD property and associated rail spur have been owned and managed by the DoD since the early 1940s, when the U.S. Navy constructed the former 70-acre bulk fuel storage facility (referred to as the DFSP) on the LHFD property. The supporting rail spur is a linear property constructed to provide transfer access for fuel operations at the DFSP. The rail spur is comprised of an elevated rock rail bed and rails located within a 100-foot-wide linear property. The rail spur property extends from the DFSP to the active rail lines at U.S. Route 231 and has no facilities other than signal equipment. Because the rail spur is inactive and there are no plans for further use by the Air Force, a minimum of two sections of this rail spur have been removed. As referenced in the Environmental Baseline Survey, the LHFD has been divided into Areas of Concern that effectively provide a frame of reference for the discussions of hazards and resources throughout the EA (Figure 3-2).

- **DFSP Area** covers approximately 47 acres and includes the former DFSP, with the associated tank farm and buildings for fuel transfer and safety.
- **Study Area 1** covers approximately 11 acres on the south east corner of the property and includes the track areas. The rail within the main portion of the LHFD has been removed.
- **Study Area 2** covers approximately 24 acres of undeveloped land west of the DFSP area. This area includes the dredge spoil area,

upland pine forest, stormwater treatment areas, and oak hammock.

- **Study Area 3** covers approximately 23 acres of the southwestern portion of the property and includes the rail loading yard and associated railroad track areas, as well as tank service and cleaning areas.
- **Study Area 5** covers approximately 29 acres of undeveloped land in the northeast corner of the property, adjacent to Lynn Haven Bayou. This area includes the dredge spoil disposal area and lowland pine forest. The remaining land in Area 5 consists mainly of estuarine marsh wetland.
- **Rail Spur** covers 49.81 (approximately 50) acres of linear railroad tracks and includes the 4.1 miles of track from the causeway to its terminus at the intersection of U.S. Route 231. There at least two sections of rail that have been removed, a section that crosses U.S. Route 231 and a section that crosses South Highway 77.

This chapter of the EA focuses on the biophysical resources associated with the LHFD property. A quantitative assessment of impacts to/resulting from the action alternatives and subsequent placement of the FSU parcel are included in Chapter 4.

3.3 DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.3.1 Aircraft Operations

The LHFD property is a geographically-separated unit (GSU) from Tyndall AFB which controls this site. The LHFD is not part of Tyndall's National Priorities List and has a separate United States Environmental Protection Agency (EPA) identification number. There has never been aircraft operations as part of its operations on site. Furthermore, the LHFD property is no longer operational and, therefore, does not support nor affect Air Force aircraft operations.

3.3.2 Noise

There are presently no operational sources of noise that emanate from the facility. Since its closure in the 1990s, the only sources of noise have been associated with maintenance of the property and remediation efforts (e.g., lawn maintenance equipment, pumps, heavy equipment used during removal actions). Any new construction would generate similar noise levels. Adjoining land uses are industrial and residential. The extent of the LHFD property separates these land uses from on-site activities and, thus, buffers the residential areas from the industrial noise levels of adjacent properties and the LHFD property. There would be elevated noise levels on the Alternative 2 parcel, which would be closer to the industrial noise levels from the adjacent industrial properties to the west

of the LHFD property. Based on the distance between the Proposed Action Alternative 1 and Alternative 2 parcel locations, noise levels on the Alternative 2 parcel could be as much as 20db higher.

3.3.3 Air Quality

The FDEP Air Resource Management (ARM) Division is responsible for the enforcement of the Clean Air Act throughout Florida. According to the FDEP ARM, ground-level ozone has long been the air pollutant of greatest concern to Florida. Throughout the 1980s, the state's largest urban counties were designated by EPA as "nonattainment" for ozone—meaning that ozone levels violated the national ambient air quality standard for ozone in effect during those years. By the early 1990s conditions had improved, and all Florida counties were meeting the standard. Since then EPA has twice strengthened the national air quality standard for ozone to better protect public health. At the same time ozone levels across the state have been trending downward, and the state has remained in "attainment" with the air quality standards.

The FDEP ARM is also responsible for permitting air emissions throughout the state. In the past, the DFSP's Title V Operating Permit covered activities and processes throughout the LHFD property. It contained numerous provisions for a variety of general activities and equipment, including but not limited to, limited use power supply units, solvent cleaning machines, boilers, and fueling operations. Since the facility's closure, these activities have ceased and equipment sources have been removed. For this reason, the LHFD property (or DFSP) does not have a current Title V Operating Permit. That permit is no longer active and cannot be transferred to future property owner. According to the FDEP's Spatial Air Quality System, there are two air emission sites located within a mile of the LHFD property. They include Honeywell Friction Material (0050040) and Natural Light, Inc. (0050054). For reference, these facilities are shown on Figure 3-1.

3.3.4 Safety and Occupational Health

There are no mission-based operations being performed at the LHFD property. Occupational safety and health issues are limited to the occasional maintenance of the LHFD property and rail spur. These activities are performed by Tyndall AFB operations staff on an infrequent basis. The Tyndall AFB operations personnel are regularly certified in the Air Force's Occupational Safety and Health Administration (OSHA) programs.

The LHFD property facilities are generally in moderate to poor repair. For example, the railroad tracks within the main portion of the LHFD property have been removed, there is evidence of storm damage resulting from past hurricanes to the Pier House, the Boat House rear overhead

door, and the roof of the Well Pump House #1 (Building 5007), and there has been vandalism at the Administration Building (Building 5000), as well as in other areas of the property. Access is restricted by chain link fencing around the LHFD property; however, there are portions of the fence that have been damaged by trespassers. Authorized access to the property is granted only by Tyndall AFB personnel who have keys to the access gates.

With regard to environmental considerations related to safety and occupational health during redevelopment of the LHFD property, surface and subsurface soils at the site have been cleaned up to either residential or industrial cleanup values (Remedial Action Construction Completion Report [RACCR], 2007) depending on the location at the site. Groundwater has been remediated to industrial cleanup values (RACCR, 2007). Low concentrations of hydrocarbons and arsenic may still be present in shallow groundwater at the site. Other environmental considerations for the property include the presence of lead-based paint and asbestos containing materials in some buildings and the small number of transformers that need to be confirmed as not containing polychlorinated biphenyls (PCBs). Other historical activities, including those associated with fuel storage and handling at the DFSP and maintenance-related activities that took place on other portions of the LHFD property have been addressed by the DLA and Tyndall AFB under the ERP. This information is described in more detail in the applicable sections in this Chapter.

3.3.5 Earth Resources

3.3.5.1 Geology

Regional Geology

The geology in the Bay County area of the Florida Panhandle can be described based on the unit formations present. The uppermost deposits of interstitial silt and clay, and occasional hardpan layers, are moderately permeable and consist of undifferentiated Pleistocene-Holocene sediments, with an underlying Miocene confining unit of the Intracoastal Formation. The Miocene unit forms part of the intermediate confining unit between the Intermediate and Floridan Aquifer System. The Floridan Aquifer System is a continuous series of interconnected carbonate sediments that are comprised of all or parts of the Ocala Limestone, Marianna Limestone, Suwannee Limestone, Chickasawhay Limestone, Chattahoochee Formation, St. Marks Formation, and the Bruce Creek Limestone.

Site Geology

The geology present at the LHFD property is considered to be consistent with the general geology of Bay County, as described by Schmidt and Clark [Applied Research Associates (ARA), 2003]. The area underlying Bay County contains four geological units or formations. These formations include the Citronelle, Jackson Bluff, Intracoastal, and Bruce Creek Limestone formations. They contain varying amounts of silt, sand, clay, and calcareous formations that vary with age and depth. The Citronelle ranges in thickness from zero to 100 feet and is underlain by the Jackson Bluff formation. The Intracoastal formation, lying below the Jackson Bluff formation, and the Bruce Creek Limestone formation, the deepest unit, vary in thickness but generally are thickest at the coast and thin towards the inland margins of the county.

In 2003, ARA performed a detailed study regarding stratigraphy of the DFSP site, as illustrated in the Innovative Environmental Site Assessment (ARA, 2003). Information gathered as a result of cone penetrometer testing indicates the following:

- A relatively continuous fill zone extends across the site from the ground surface to approximately 10 feet below land surface (bls);
- The surficial aquifer consists of relatively homogeneous sands and is relatively continuous across the site. The surficial aquifer varies in depth from approximately 3 feet bls to approximately 40 feet bls.
- A continuous clay zone lies beneath the surficial aquifer, extending over the entire site. This clay zone varies in depth from approximately 20 feet bls to approximately 70 feet bls.
- Seismic zone maps describe the installation area as Seismic Zone 0 (lowest seismic probability). The area has had only one significant earthquake in recorded history. According to the U.S. Geological Survey (USGS), that earthquake occurred in 1718 approximately 147 kilometers north of the City of Lynn Haven.

3.3.5.2 Topography

The topography in the area where the LHFD property and rail spur are located is essentially flat, with elevations ranging from sea level to approximately 20 feet National Geodetic Vertical Datum 1929 (NGVD). These elevations are based on the USGS Topographic Series maps and the Bay County Geographic Information System data for the area (Figure 1). The highest elevations (greater than four meters) occur in Areas 2 and 5 on the LHFD property (Figure 2). The wetland soil elevations range from zero to one meter NGVD. Given these elevations, the majority of the wetland areas are exposed to storm surge and tidal waters. The southernmost wetland identified at the site, located along the southern boundary of the LHFD property, has a slightly higher elevation than the

other two wetlands and may not be as frequently impacted by saline concentrations.

3.3.5.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) mapping program, there are five soil types found within the LHFD property boundaries: Arents; Bayvi Loamy Sand; Leon Sand; Osier Fine Sand; and Urban Land. Information regarding these soil types is provided in Table 3-1. Wetland areas onsite are mapped as Arents and Osier Fine Sand soil types (Figure 3-2, Table 3-1); however, wetland soils appear to differ from the mapped soil type (Arents) and more resemble more poorly drained sands with hydric inclusions. The soils of the rail spur consist of an artificial gravel bed and the soil types included in Table 3-1. Surface and subsurface soils at the LHFD property have been cleaned up to either residential or industrial cleanup values (Remedial Action Construction Completion Report [RACCR], 2007) depending on the location at the site.

Table 3-1: Property Soil Types

Soil Map Unit Name	Drainage class	Hydric (USACE)	Hydric (FDEP)
01: Albany Sand (0 to 2 percent slopes)	Somewhat poorly drained	Non-hydric	Non-hydric
13: Leon Sand	Poorly drained	Hydric	Hydric
20: Foxworth Sand (0 to 5 percent slopes)	Moderately well drained	Non-hydric	Non-hydric
22: Pamlico-Dorovan Complex	Very poorly drained	Hydric	Hydric
23: Chipley Sand (0 to 5 percent slopes)	Somewhat poorly drained	Non-hydric	Non-hydric
25: Hurricane Sand	Somewhat poorly drained	Non-hydric	Non-hydric
29: Rutledge Sand	Very poorly drained	Hydric	Hydric
31: Osier Fine Sand	Poorly drained	Hydric	Hydric
32: Plummer Sand	Poorly drained	Hydric	Hydric
40: Arents (0 to 5 percent slopes)	Somewhat poorly drained	Non-hydric	Non-hydric
43: Urban Land	Somewhat poorly drained	Non-hydric	Non-hydric
52: Bayvi Loamy Sand	Poorly drained	Hydric	Hydric

Sources: USDA NRCS Bay County Area Soil Survey; FDEP Hydric Soils List; USACE Hydric Soils List.

3.3.6 Water Resources

3.3.6.1 Surface Water

The LHFD property and the rail spur are both located within the Choctawhatchee River Basin. The river drains from the north into Choctawhatchee Bay and, eventually, into the Gulf of Mexico. Regional surface water features in the vicinity of the LHFD property include St. Andrew Bay, St. Andrew Sound, and the Gulf of Mexico. The region of influence is confined to the property limits for direct impacts, for indirect impacts ROI was confined to the Lynn Haven Bayou watershed.

The LHFD property is bordered on two sides by water bodies that are included in the St. Andrew Bay System. North Bay is located north of the property. Lynn Haven Bayou is located to the east of the property and is bisected by the causeway supporting the road and railroad track providing access to the site. The causeway contains approximately six large culverts (greater than three feet in diameter) allowing for water exchange with North Bay. The current flow condition of the culverts is restricted due to sedimentation. A survey of the culvert condition has not been performed, but given their age, is assumed that condition of the pipe structure is poor. Currently, the City is developing different flow restoration options. The results of this study are not available

Upper Goose Bayou is located west of the property. A canal south of the site runs east/west between southern Lynn Haven Bayou and Upper Goose Bayou. Several surface water features south of the LHFD property drain into the canal. This canal was originally constructed in 1953. Since then the canal has had sedimentation issues and is currently restricted due to shoaling. It has been restored to designed condition only once in 1961. These maintenance activities are authorized under the Rivers and Harbors Act 1945 and were delegated and agreed upon by the City of Lynn Haven.

A small wetland area exists immediately southeast of the property; it appears to be fed by a drainage swale south of the former DFSP rail yard and discharges to the canal. In addition, a "J" shaped channel begins near the former fuel unloading main spur track in the DFSP and travels in a semi-circle toward Upper Goose Bayou, but it does not connect to the bayou.

Two small drainage swales are located near the western and eastern borders of the former tank farm containment structures. These drainage features are oriented in a north/south direction. The western feature receives storm water from another drainage feature that originates near the Administrative Building on the site. This feature has been observed to periodically hold surface water.

The rail spur portion of the LHFD property crosses multiple perennial streams that drain to St. Andrews Bay. Other crossings consist of drainage canals and storm water features that drain from freshwater systems.

3.3.6.2 Floodplains

Floodplain mapping is provided by the Federal Emergency Management Agency (FEMA). Areas prone to receiving flood waters from adjacent surface water systems are defined as special flood hazard areas (SFHA). FEMA defines SFHAs as "land areas subject to inundation by a flood that has a one percent probability of being equaled or exceeded in any given year" (FEMA, 2005). This is also referred to as "a 100-year flood", and these areas have a 26% chance of flooding within a 30-year period. SFHAs are further divided into flood zones. Zones with an A or V are considered to be in a SFHA. As shown on the FEMA online map system (FIRM panel 12005C0331G), the LHFD property adjoins the North Bay and Lynn Haven Bayou. The fringe of the property is within the 100-year flood zone (Zone AE) of St Andrews Bay. The filled areas of the LHFD property are listed as having a 0.2% chance of flooding in any year or the equivalent of a 500-year flood zone (Zone X). Alternative 1 has more acreage in the floodplain, but it is at the margins of the property along the bayou fringe. Alternative 2 has fewer acreage within the floodplain, but large portions extend into the property center and are unavoidable if development is to utilize the pier.

The Coastal Zone Management Act (CZMA) compliance provides for the integrated protection and development of the U.S. coastal zone. The coastal zone is defined as coastal waters and the adjacent shorelands, strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches (CZMA, 1972). The CZMA requires that federal actions affecting any land or water use or natural resource of the coastal zone be "consistent" with the enforceable policies of a coastal state's or territory's federally-approved coastal management program.

3.3.6.3 Groundwater

3.3.6.3.1 Regional Hydrogeology

The groundwater aquifers and confining layers of the Florida Panhandle include the Surficial Aquifer System, Intermediate Confining Unit, Floridan Aquifer, and Sub-Floridan Confining Unit. The Surficial Aquifer System occurs nearest the land surface and is the permeable hydrologic unit contiguous with the land surface that is comprised of loose, porous, sandy deposits. It can range in thickness from 50 to greater than 100 feet in the Bay County area.

The Intermediate Confining Unit occurs between the Surficial Aquifer System and the Floridan Aquifer System. This layer consists of fine siliciclastic sands with carbonate rock producing a layer that has limited yield to non-water bearing strata. It may be encountered at depths ranging from 50 to 100 feet bls and may range in thickness from approximately 200 to 250 feet.

The Floridan Aquifer occurs under confined conditions between the Intermediate and Sub-Floridan Units and may range in depth from 250 to 300 feet bls and range in thickness from 800 to 1,000 feet. It is the primary source of potable water within Bay County and the State of Florida.

3.3.6.3.2 Site Groundwater

Groundwater elevations across the LHFD property measured during field investigations (ARA, 2003) were found to be consistent at approximately three to five feet bls. Historical water table elevations within this area were generally three to five feet bls. Drought conditions during 2001 and 2002 may have contributed to the water levels being lower than historically normal levels during the investigation activities.

The surficial, or water table, aquifer contains waters that are unconfined. The surficial aquifer is characterized by the presence of sands of the Citronelle Formation. The top of this water bearing zone is approximately 10 feet above msl. Within the LHFD property, the surficial aquifer ranges from 20 to 30 feet thick. In the general vicinity of the LHFD property (but not at the LHFD property), the surficial aquifer is used for residential irrigation and air conditioning systems (the nearest wells used for these purposes are over 0.25 miles from the property boundary). The surficial aquifer is not a major source of water supply in the region because of its relatively low yield, low pH, and high iron content. This aquifer is underlain by silty and clayey sand deposits extending from 27 to 42 feet bls. Below these strata is another sand stratum that is encountered from 52 to 57 feet bls. This layer is separated from the underlying Floridan Aquifer by a thick sequence of silty and clayey sands and clays (Earth Tech, August 2000).

The Floridan Aquifer is related to the Bruce Creek Limestone Formation. This formation is approximately 90 to 100 feet bls. The City of Lynn Haven relies on wells tapping the Floridan Aquifer for potable water supply. The nearest potable water supply wells are located approximately 1.25 miles away from the LHFD property in the City of Lynn Haven (Earth Tech, August 2000).

The surficial groundwater at the LHFD property has been remediated to industrial cleanup values (RACCR, 2007). Low concentrations of hydrocarbons and arsenic may still be present. Shallow groundwater

usage at the site will be restricted by land use controls (LUCs), to prevent consumption and use, following issuance of the Site Rehabilitation Completion Order by FDEP. The LUCs will be implemented by deed restrictions. The land use restrictions and controls will be documented in the property transfer documents, including the deed.

The ROI for utilities is defined by the city limits of Lynn Haven. Utility services are provided by municipal and commercial vendors that control capacity and availability.

3.3.6.4 Sanitary Sewer

Sanitary sewer service to the LHFD property is not currently provided by the City of Lynn Haven. Domestic wastewater at the LHFD property was processed through the septic system located on the east side of the Administrative Building. The fuel testing laboratory located within the Administration Building had floor drains installed during construction of the building that may have historically been connected to the septic system. These drains are now sealed with concrete, isolating the lab from the septic field. Since the Air Force terminated this site as an active duty station, it ceased maintenance on the septic system due to lack of use.

3.3.6.5 Potable Water

Potable water is supplied to the LHFD property by the City of Lynn Haven Public Works Department. Presently, potable water is supplied through a six-inch pipeline that extends along the north side of the entrance road, from the east entrance gate to the Administration Building. A small two-inch pipeline extends from the Administration Building to the pier.

3.3.6.6 Solid Waste Management

Access to solid waste services is provided through the City of Lynn Haven. This service includes residential applications, such as household and yard waste collection. According to landfill capacity reports by Bay County Solid Waste Department, the existing landfill resources are estimated to serve the known populations and proposed projects until 2025. Future landfill capacity scenarios provide for sufficient capacity until 2080.

3.3.6.7 Drainage

Drainage for the LHFD property consists of a combination of sheet flow, surface channels, and a subsurface drainage system. The LHFD property drainage (Figure 3-4) is generally divided by the former railroad beds, the metal rails having been removed, were formerly part of a railroad switching and loading yard. The railroad track beds, extend west across the property from the causeway and rail spur toward the western

property boundary. Northern areas flow to North Bay and areas south of the railroad tracks flow to the wetlands located to the south of the property. Area 2 is divided, with approximately one third of the area flowing north and the remainder flowing south to an extension of the storm water collection system. Storm water collects in a sump until it reaches the invert of an overflow pipe, which discharges to the wetlands on the south side of the LHFD property. Drainage around the former fuel storage area is directed to an oil/water separator system, which discharges to the bay via the storm water network. This system, although operational, is not currently maintained due completion of remedial actions and the lack of activity. The roads and other areas at the site are drained by sheet flow into the neighboring wetlands or by ditches that discharge into the bay.

The rail spur drainage is split along the sections. The western section drains to the adjacent ditches and swales in the developed region west of South Highway 77 and, eventually, flows to Lynn Haven Bayou. The eastern section drains to the adjacent storm water collection features and, then, to natural drainage features, such as streams or wetlands. The storm water collection structures are not well maintained and are often indistinguishable from the adjacent natural features. The wetlands, which exist in greater abundance southeast of South Highway 77 and encompass the eastern section of the rail spur, are drained by numerous streams and ditches that flow north to Beatty Bayou.

3.3.6.8 Transportation Systems

Transportation infrastructure in the vicinity of the LHFD property and rail spur consists of primarily residential- type local streets interspersed with minor and major collector streets. The major arterial, South Highway 77, runs north and south to the east of the property. No interstate highways are located in the immediate vicinity of the site. The only road ingress/egress access to the LHFD property is currently 10th Street, which enters the property from the east. 10th Street, which is primarily residential use only, intersects with South Highway 77.

For the Traffic Impact Study Report (Malcolm Pirnie, 2009), the site was assumed to include 133.87 acres based on survey information for the property. Proposed future use of the site includes a research facility/research park. The planned development of the 40-acre FSU parcel for use as a satellite FSU campus is consistent with the current land use classification. A Comprehensive Plan Amendment and Future Land Use Map change was approved by the City of Lynn Haven to reclassify the remaining 93.87 acres of the main portion of the LHFD property to Research Park (RP) land use. For the purposes of the traffic analysis, build-out for this project was projected for year 2025.

The a.m. and p.m. peak hour analysis was completed to better understand the future access needs for the planned redevelopment of the LHFD property. The Traffic Impact Study Report summarizes the future (assumed year 2025 build-out) analysis and the identified infrastructure needs. Specific improvements to address the identified needs have not been made as part of this analysis, but rather the specific improvements are expected to be developed in consultation with the City during the permitting and approval process completed during redevelopment.

The Traffic Impact Study Report indicates that several intersections along major arterials (Highways 77 and 390) of roadways, which could be used to provide access to the site, currently experience elevated levels of delay and either are deficient or have deficient movements.

3.3.6.9 Electricity / Natural Gas

Gulf Power Company provides electricity to the area in which the LHFD property is located. Electrical service enters the property by way of overhead lines along the north side of the entrance road. The system follows the entrance road to the Administration Building and extends to the pier. Distribution lines and transformers within the LHFD property are owned and maintained by Tyndall AFB. However, existing electrical utilities at the LHFD have been removed by unauthorized activity or destroyed by vandalism. Electrical utilities are supplied to the rail spur at road crossings for signal operations. These facilities are not currently in operation and are not powered.

There are also underground electrical supply lines that provide power to industrial facilities in the industrial park located to the southwest of the LHFD property. The supply lines do not currently go to the LHFD property, but are within 1,000 feet of the property and could be utilized. The power in the area is supplied from main power supply lines to a substation located within the industrial park.

There are no sources currently supplying the LHFD property with natural gas. Natural gas was available at one time at the Administration Building and piping remains in place at the site. There are three marked gas pipeline crossings within the rail spur portion of the property. The reuse/development of the rail spur will require a full survey of utilities, both above ground and below ground, to ensure they are identified prior to design and permitting.

3.3.7 Hazardous Materials and Wastes

3.3.7.1 Hazardous Materials

Hazardous materials at the LHFD property, which have included maintenance and landscaping materials, are required to be tracked,

managed, and distributed by Tyndall AFB through the HAZMAT Management Program. This includes any materials covered under Emergency Planning and Community Right-To-Know Act tracking requirements, the OSHA Hazard Communication Standard, and all Class I and Class II ozone-depleting substances (USAF, 2006).

Several buildings within the LHFD property, including the Administration Building, were formally designated for hazardous material storage and/or distribution. Hazardous materials included fuel products, fuel testing products, and maintenance and landscaping materials. Following closure of the DFSP, the fuels and other hazardous materials were removed for reuse or were properly disposed off-site by Tyndall AFB. There are currently no hazardous materials stored at the LHFD property. In addition, the rail spur has never had designated hazardous materials storage areas used by the DoD.

Various operational uses of hazardous materials at the property may have included the following:

- Oils in electrical equipment;
- Oils in hydraulic lifts and elevators;
- Automotive fluids and batteries present in vehicles and lift equipment;
- Compressed gases in air conditioning and refrigeration equipment, including the environmental chamber in Building 5000; and
- Halon used in fire suppression systems.

Although no lifts or elevators existed on the LHFD, some equipment (e.g., electrical transformers) still exists at the site and may contain residual amounts of hazardous materials. During previous visual inspections of the rail spur, electrical equipment and household debris placed there by others was observed (Final Environmental Baseline Survey, Malcolm Pirnie, 2009).

3.3.7.1.1 Asbestos

Asbestos management at Air Force installations is established in Air Force Instruction (AFI) 32-1052, *Facility Asbestos Management*. AFI 32-1052 incorporates all requirements and assigns responsibilities to incorporate facility asbestos management principles and practices into all Air Force programs.

Asbestos Containing Material (ACM) is defined as any material containing more than one percent (1%) asbestos in the CFR (29 CFR 1910.1001). Asbestos, when exposed as a particulate matter, is known to have harmful effects on the respiratory system and has been classified as a Class A carcinogen by the USEPA (USEPA, 2000).

Examples of typical materials that are assumed to contain asbestos at the LHFD property include thermal system insulation, floor and ceiling tiles and adhesives, drywall, roofing materials, and concrete.

Asbestos becomes an inhalation hazard when these materials are disturbed, transferring settled particulates into the air. Therefore, it will be important to identify and manage ACM properly during demolition and renovation projects.

Study Area 4 (DFSP) of the LHFD has only known source of asbestos, the Administration Building. There is asbestos insulation on the generator exhaust ducts. They have been properly labeled and pose little risk if properly maintained. Removal of surface ACM are not planned by the Air Force, but rather the known sources will be maintained in good condition. However, with vandalism becoming more frequent at the LHFD, some of the sources of ACM (specifically floor tiles) may not be in good condition.

A facility-wide asbestos survey has not been completed at the LHFD. ACM surveys should be completed as necessary before demolition and renovation projects, and should consist of a visual inspection by a Florida Certified Asbestos Inspector to identify materials that could be asbestos containing.

3.3.7.1.2 *Lead-Based Paint*

Lead-based paint (LBP) is defined as any surface-coating material that forms a solid thin layer when applied to a surface that contains 0.06 percent lead content (as metal) by weight (16 CFR 1303). Lead is harmful if ingested or inhaled as dust and can cause damage to the brain and nervous system. LBP was banned by the U.S. Government as of February 27, 1978. With few exceptions, paint must be labeled as having lead based materials.

While a facility-wide survey for LBP has not been performed at the LHFD property, the majority of the structures have been evaluated. Structures at the LHFD property, except for the pier, foam house (5001), boom shed (5020), and gate guard buildings, were constructed in the 1940s. Given that the discontinuation of LBP was not mandated until 1978, LBP exists as a covering material on the structures at the LHFD property. LBP surveys should be completed, as necessary, prior to demolition and renovation projects, and require inspection by a Florida Certified Inspector. Necessary precautions should be taken before any disturbance of suspected LBP occurs.

3.3.7.1.3 *Polychlorinated Biphenyl (PCB) Materials*

PCBs are federally defined as chemicals consisting of the biphenyl molecule that has been chlorinated to varying degrees. PCBs are

associated with a variety of human health issues, such as cancer and disorders of the immune, endocrine, reproductive, and nervous systems.

PCBs were commonly used as a coolant or lubricant in electrical equipment, such as transformers. Manufacturing of PCB equipment/transformers was prohibited by the Toxic Substance Control Act (15 USC 53) on July 2, 1979. Electrical equipment manufactured prior to this date, or if the manufacture date is unknown, or that do not have an established concentration through testing should be assumed to contain PCBs. The USEPA enforces the removal and disposal of PCBs greater than 50 parts per million (40 CFR 761).

There was one electrical transformer removed after previous testing due to elevated PCB content and there are three remaining transformers that are in need of testing to determine their PCB content. The untested transformers are pole-mounted transformers on utility poles #46 (three transformers). One other transformer which was a non-PCB containing unit on pole #15 was removed by unauthorized activity. Both pole locations are within Area 4 (DFSP) (Figure 3-4). PCB analyses will be required for the remaining transformers may be required to verify they are non-PCB containing. No other sources of PCBs or previous PCB contamination has been reported or are known to be associated with the LHFD property or rail spur.

3.3.7.1.4 Pesticides

Information on pesticide use was obtained from interviews with persons responsible for maintenance and upkeep of the LHFD property. No pesticide or herbicide releases were identified from these discussions. There are no bulk or significant storage, mixing, or decontamination of pesticides at the LHFD property. While pesticides and herbicides have been applied at the LHFD property and rail spur, routine applications were performed using manufacturer's directions and according to management plans and applicable regulations.

3.3.7.1.5 Radon

Indoor radon levels are regulated under the Toxic Substances Control Act Title III, Indoor Radon Abatement. The purpose of this legislation is to assist states in responding to the threat to human health posed by exposure to radon. The USEPA is required to publish an updated citizens' guide to radon health risk and to perform studies of the radon levels in schools and radon contamination in federal buildings.

The Florida Department of Health records state testing results for radon. Unfortunately, there are very few test results from the City of Lynn Haven area and, since no living quarters were part of the LHFD, radon sampling has not been performed by the Air Force at the LHFD property.

Although the radon levels are not known within the structures, radon is not expected to exceed safe concentrations based on overall regional levels reported. If the structures on site are to be reutilized, the DoD's Unified Facilities Guide Specifications addresses radon testing and mitigation, and suggests testing existing structures. Radon testing and mitigation are also incorporated into three sets of active DoD radon-reducing construction criteria for new structures, if needed.

3.3.7.1.6 Hazardous Waste

Management of hazardous waste is governed by the Resource Conservation and Recovery Act (RCRA) Subtitle C (40 CFR Parts 260 through 270) regulations, which are administered by the USEPA. RCRA requires hazardous waste to be handled, stored, transported, disposed, or recycled in compliance with applicable regulations. Hazardous materials use and storage have been limited since closure of the DFSP and subsequent remediation of the site. Currently, there is no storage or treatment of hazardous waste at the site. Expired cleaning and maintenance fluids have been removed and properly disposed through Tyndall AFBs hazardous waste management program. Cleanup of areas impacted by former activities at the site, including petroleum and other substances, has been completed by the Defense Logistics Agency (petroleum contamination associated with the bulk fuels operations) and Tyndall AFB under the ERP. An overview of the remediation activities is provided in Section 3.3.7.2.

3.3.7.2 Defense Environmental Restoration Program

The Defense Environmental Restoration Program (DERP) was established by Section 211 of the Superfund Amendments and Reauthorization Act of 1986 and is codified in Sections 2701-2707 of Title 10 of the United States Code. It is a single program, funded by several accounts, that provides for the cleanup of hazardous substances associated with past DoD activities and is consistent with the provisions of CERCLA, as amended. Three program categories have been established under DERP: the Installation Restoration Program, Military Munition Response Program, and Building Demolition/Debris Removal Program. The Installation Restoration Program includes cleanup activities associated primarily with CERCLA-defined hazardous substances, pollutants, and contaminants; DoD-unique materials; and petroleum, oil, and lubricant contamination. The Air Force implements the Installation Restoration Program under their ERP.

Since the beginning of DoD activities at the LHFD property in the 1940s, small repair shops and processes were creating industrial waste, including petroleum-based waste. These activities have included:

- Depot activities related to fuel storage and distribution;
- Fuel and oil use in vehicles and equipment;
- Use of underground storage tanks for waste fuel storage;
- Use of 55-gallon drums and above ground storage tanks for waste fuel and oils;
- Railroad engine maintenance and repair, and;
- Other industrial processes associated with maintenance operations.

Past practices and activities at the LHFD property have resulted in waste releases to the environment, including wastes containing fuels, oils, metals, and chlorinated solvents. Oil water separators were put in place at the facility to prevent fuel and oil residuals in stormwater from reaching the stormwater outfalls to North Bay.

Environmental restoration began in the early 1980s with a Phase I records search and Preliminary Assessments/Site Inspections. By 1984, it was recognized that the soil and groundwater at the LHFD property had been contaminated by past practices at the facility. Both the DLA and Tyndall AFB, under the ERP, have worked since the 1980s to investigate and clean up the site. Former releases and contamination has been remediated to at least industrial standards, and in many areas to residential standards, at the site.

There were historical releases that occurred due to the use of the site as a fuel supply depot. These issues were typically distinct and separated by location. The locations were divided into the following study areas, which are shown on Figure 3-2:

Area 1 – Area 1 is located in the southeastern most portion of the LHFD property, south of the former rail lines that transverse the site from east to west.

Area 2 – Area 2 is located in the westernmost portion of the LHFD property, in an area also referred to as the “Western Buffer Area.”

Area 3 – Area 3 is located in the south central portion of the LHFD property, south of the DFSP.

Area 5 – Area 5 is located in the easternmost portion of the LHFD property, in an area also referred to as the “Eastern Buffer Area.”

DFSP Area – The DFSP Area is located in the north central portion of the LHFD property and includes the former fuel storage facility and supply center.

Rail Spur – The Rail Spur includes the causeway, which extends east from Area 1 to the site entrance. From the site entrance, the Rail Spur extends east/southeast approximately four miles to U.S. Route 231.

Each of the study areas was given a numerical designation (Areas 1, 2, 3, and 5) or were named based on their previous use (DFSP Area and Rail Spur); these areas are discussed in this EA (refer to Figure 3-2). Portions of the water bodies adjacent to the site were designated as Areas 4, 6 and 7 in previous investigations (ARA, 2003; Earth Tech, Inc. 2006). However, since these areas are not within the LHFD property or rail spur boundary, they are not discussed in the EA.

The Air Force analyzed each of the study areas.

The environmental condition of the LHFD property and rail spur study areas were summarized, as follows:

The pier and pier shack are buildings, structures, or study areas where only the storage of hazardous substances or petroleum products or their derivatives has occurred, but no release, disposal or migration from adjacent areas occurred.

The Administration Building (Building 5000), Area 1, the former tank basin portion of DFSP area, the portions of Area 2 not historically utilized for tank bottoms disposal, Area 3 (except for the paint chip areas), Area 5, and the Rail Spur are buildings, structures, or areas where release, disposal, and/or migration of hazardous substances or petroleum products have occurred, but at concentrations that do not require removal or remedial response. For the Administration Building, even though ACMs have been identified and tagged within the building, they do not require removal as long as they are properly maintained. Although arsenic has been identified in groundwater beneath the former rail line that transverse Area 1, Area 3 and the Rail Spur, LUCs have been identified as the remedy in place. These controls apply to the entire LHFD property, including Areas 5 and the portions of Area 2 that were not historically used in conjunction with the site, due to the possible migration of arsenic in the groundwater.

The DFSP Area, the portion of Area 2 that was historically utilized for tank bottoms disposal and the portion of Area 3 that was historically utilized as a drum reconditioning area where paint chips have been removed are ERP locations where release, disposal, and/or migration of hazardous substances have occurred and all removal or remedial actions have been completed. This includes the DFSP Area and portions of Areas 2 and 3, as noted above, where the remedy has been selected (i.e., excavation and removal), implemented, and determined successful and where reviews are in place for a no further action determination. Land use restrictions and controls may be necessary for portions of Area 2 that

were historically used for tank bottoms disposal and portions of Area 3 historically used for drum reconditioning.

The Air Force has prepared an Environmental Baseline Survey (EBS) describing in more detail the environmental conditions of property in the context of the environmental restoration efforts that have been completed to date. The EBS is available to the public as part of the Tyndall AFB ERP administrative record. An amendment to the EBS will be submitted to FDEP for review and comment prior to any property transfer. The EBS will also be provided to property recipients to fulfill the disclosure requirements associated with a real property transaction.

3.3.8 Biological Resources

3.3.8.1 Vegetation

As previously discussed, the LHFD property is primarily comprised of the former fuel depot, with a supply pier, railroad yard, dredge spoil areas, and naturalized habitats. These areas comprise the region of influence for the biological resources. Exceptions to this ROI would be for adjacent seagrass beds and protected species with differing setbacks. Exceptions will be discussed in the following sections as necessary.

The existing land uses and cover were designated using the Florida Land Use, Cover and Forms Classification System. This system was published by the Florida Department of Transportation in 1999 and was used to produce the site land cover mapping (Figure 3-5).

Most of the open areas at the LHFD property are maintained as bahia grass fields. These areas, until recently, were maintained by mowing to keep them free from woody vegetation. The upland habitats include slash pine (*Pinus elliottii*) forest and riparian wetlands. The upland dredge spoil area also has large live oaks along the north shoreline within Area 2. The majority of the property includes the closed and remediated industrial petroleum supply site and the abandoned railroad beds. The wetlands on the property consist of salt marsh, freshwater spike rush marsh, wetland scrub, and willow (*Salix caroliniana*) dominated storm water collection swales and ditches. North of the LHFD property in the nearshore areas of North Bay there are dense seagrass beds. These beds have not been surveyed, but are easily identified on aerial photography, and extend up to 200 feet from shore. These habitats, although not on the property, are protected in the state of Florida and would require specific agency review for use of these areas.

Due to the rail spur's unserviceable condition with no future plans to service or maintain the line, it is categorized as an abandoned railroad bed, even though the rails have been removed from sections of the rail spur and throughout the LHFD property. It extends east from the

industrial area of the LHFD property and into medium density residential areas and continues to the commercial services corridor around South Highway 77. Southeast of South Highway 77, the rail spur extends through more residential areas, roads, and undeveloped forested upland and wetland habitats. These habitats include the mixed pine and mesic oak, cypress wetland, and slash pine mixed forest. The rail spur terminates at the active railroad line in the commercial services and light industrial corridor of U.S. Route 231.

The presence of numerous invasive species in high densities reduces the habitat quality and, thus, the functional value of the habitat impacted. The LHFD property hosts a number of species considered to be exotic or invasive. These species include Chinese tallow (*Sapium sebiferum*), torpedo grass (*Panicum repens*), cattail (*Typha* spp.), air potato (*Dioscorea bulbifera*), and rosary pea (*Abrus precatorious*). Of these species, the Chinese tallow and the torpedo grass have the widest dispersion and pose the largest management problems. The Chinese tallow is found throughout the forested areas of the property and, with extremely high densities, in the storm water swale (SW3; see Figure 3-6). The torpedo grass dominates large portions of the field south of the railroad bed on the property. It is located in the area where the drainage collects and then flows off the property to the south. The rest of the field areas are dominated by bahia grass (*Paspalum notatum*).

The rail spur is divided by South Highway 77, in terms of both maintenance and vegetation. The causeway and western sections were maintained, until recently, with regular mowing operations and traffic. There were very few exotic or invasive species present. The rail spur southeast of South Highway 77 (eastern section) is not maintained (except for road crossings) and has become overgrown with vines and small trees. The vines growing on the tracks are, for the most part, native grape species. Some exotic and invasive species observed onsite were; old world climbing fern (*Ligodium microphyllum*), Chinese tallow (*Sapium sebiferum*), torpedo grass (*Panicum repens*), cattail (*Typha* spp.), air potato (*Dioscorea bulbifera*), philippine lily (*Lilium philippinense*), and rosary pea (*Abrus precatorious*).

3.3.8.2 Wildlife

Statutes for wildlife protection under NEPA (42 U.S.C. 4321–4347), include the Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d), Endangered Species Act of 1973 (16 U.S.C. 1531–1544), and Fish and Wildlife Coordination Act (16 U.S.C. 661–666c). The LHFD property consists primarily of disturbed industrial areas and, therefore, does not provide significant wildlife habitat. Observations included sightings or signs of grey squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), muskrat (*Ondatra zibethicus*), seepage crayfish (*Procambarus rogersi*), blue crab (*Callinectes sapidus*), and barnacles (*Balanus* spp.). The seepage

crayfish burrows were observed in wetland (W3) and storm water areas (SW3). During the field survey of the rail spur, there were very few species observed. Those species observed included grey squirrel (*Sciurus carolinensis*), common crow (*Corvo brachyrhyncos*), and cattle egret (*Bubulcus ibis*).

3.3.8.3 Threatened And Endangered Species

The Endangered Species Act of 1973 requires federal agencies to determine the effects of their actions on threatened and endangered species of fish, wildlife, and plants, and their habitats, and to take steps to conserve and protect these species. As part of the Threatened and Endangered Species Report (Malcolm Pirnie, 2008), the LHFD property and rail spur were surveyed and database records from the Florida Natural Areas Inventory (FNAI) were reviewed for species identified on the federal and state endangered species lists. An updated listed from 2015 was used to generate data in Table 3-2, which is included at the end of this section. Based on the information included in the records, there are no federal or state endangered species occurrences documented on the LHFD property or rail spur. However, there are five species recorded within three miles of the LHFD property and the rail spur, as summarized in Table 3-2.

Because of anecdotal reports, one additional species, the gopher tortoise (*Gopherus polyphemus*) was added to Table 3-2 to provide an accurate listing of potential occurrences for the LHFD property. Field surveys of the LHFD property and rail spur reported the absence of listed species and protected species. However, potential habitat (i.e., dry, sandy uplands, such as oak sandhills, scrub, pine flatwoods and coastal dunes) for the gopher tortoise was observed in Areas 2 and 5 at the LHFD property. In addition, there are many forage species of forbs and grasses present that could support a small tortoise populations. Habitat is limited on the property, however, due to the previous development and the shallow depth to groundwater.

Due to the presence of marginal habitat with hydric sandy soils, sparse vegetation, and freshwater hydrology on portions of the LHFD property, a species-specific survey was requested for the Panama City Crayfish (*Procambarus econfinae*) by the Florida Fish and Wildlife Conservation Commission (FFWCC). Panama City Crayfish (*Procambarus econfinae*) surveys were conducted on August 23, 2007, September 18, 2007, September 25, 2007 and February 20, 2008. These dates were used to identify potential habitat and verify absence under an extended period of drought. The Keppners, the species experts who conducted the surveys, reported that there were no Panama City Crayfish (*Procambarus econfinae*) observed on site during the field surveys of the property. The habitats did not support the species and, due to the level of disturbance

and soil modification, it is unlikely they ever will be able to support this species.

The rail spur does have potential habitat for the Panama City Crayfish (*Procambarus econfinae*), but there are known occurrences within 700 feet of the rail spur property. The rail spur is also depicted by FNAI as being adjacent to “Rare Species Habitat”. Although no crayfish were observed during the field survey and the rail bed itself does not represent habitat for the crayfish, habitat does potentially exist along the rail spur. The species experts recommend that a formal survey for the Panama City Crayfish (*Procambarus econfinae*) be performed in the adjacent waterways and wetlands of the rail spur property prior to land clearing or disturbance.

In addition to animal species, listed or protected vegetative species were not observed during the field surveys. Vegetative species are unlikely to be present on the LHFD property due to previous site disturbance, vegetative maintenance regime, and the increased presence of exotic/invasive species.

Table 3-2: Listed Species in the Project Vicinty

Common Name	Species Name	Federal Status	State listing	Miles from LHFD
Panhandle Spiderlilly	<i>Hymenocallis henryae</i>	N*	LE	0.7
Mock Pennyroyal	<i>Stachydeoma graveolens</i>	N*	LE	2.2
Chapman’s Crownbeard	<i>Verbesina chapmanii</i>	N*	LT	2.2
Wiregrass Gentian	<i>Gentiana pennelliana</i>	N*	LE	2.1
Panama City Crayfish	<i>Procambarus econfinae</i>	N*	LS	1.6
Gopher Tortoise	<i>Gopherus polyphemus</i>	DoD MOA	LT	?

N* - Not currently listed, nor currently being considered for addition to the List of Endangered and Threatened Wildlife and Plants

LE - Listed as Endangered by the Florida Fish and Wildlife Conservation Commission (FFWCC)

LT - Listed as Threatened by the FFWCC

LS - Listed as Species of Special Concern by the FFWCC

DoD MOA – DoD memorandum of agreement

Source: FNAI Report for Lynn Haven Fuel Depot 2005 and updated in 2015 (included in Appendix A to this report)

3.3.8.3.1 Protected Species

The primary laws and regulations specifically addressing migratory birds for this report appear in the Migratory Bird Treaty Act of 1918, as amended (MBTA), and Executive Order (EO) 13186. The Migratory Bird Treaty Act (16 United States Code (U.S.C.) 703–711) addresses direct taking, killing, and possessing of migratory birds in various treaties and conventions with other nations. This law is not generally pertinent to this EA and associated evaluation. However, disclosure of unintentional take is required. Executive Order 13186 (January 17, 2001), Responsibilities of Federal Agencies to Protect Migratory Birds, outlines a collaborative approach to promote the conservation of migratory bird populations.

During the field survey of the site there were a number of birds species observed on the property, however no nests are known to occur on the property. They included a great horned owl (*Bubo virginianus*), common crow (*Corvo brachyrhyncos*), red shouldered hawk (*Buteo lineatus*), osprey (*Pandion haliaetus*), a sharp shinned hawk (*Accipiter striatus*), and Canada goose (*Branta canadensis*). Other wading birds observed at the site included great blue heron (*Ardea herodias*) and cattle egret (*Bubulcus ibis*). Many of these species are migratory and, thus, protected under the Migratory Bird Treaty Act.

The protection of species under the Act is coordinated through the United States Fish and Wildlife Service. The nearest wading bird rookery or roost is five miles to the southwest and the closest bald eagle nest is one mile to the southwest. Osprey are not currently nesting in the ROI for nesting raptors which is defined as 660 feet from the probable construction activity limits.

3.3.8.4 Wetlands

A wetland assessment was conducted at the LHFD property and rail spur to evaluate the potential presence or absence of Waters of the United States (WOUS) and Florida Jurisdictional Wetlands on the LHFD property and rail spur. The WOUS are subject to the jurisdiction of the USACE pursuant to Section 404 of the Clean Water Act. The WOUS are defined in 33 CFR Part 328.3 and include ponds, streams, and wetlands. Wetlands were identified based on the 1987 Corps of Engineers Wetland Delineation Manual. The State of Florida extends jurisdiction under the Part IV, Chapter 373, F.S., to all ponds, streams, and wetlands on the platted property. The State of Florida and its political subdivisions delineate wetland boundaries under the provisions of Chapter 62-340, Florida Administrative Code, as ratified by the Florida Legislature in Sections 373.421 and .4211, F.S. Florida law requires a defined buffer of 15 feet landward of wetland limits with an average of 25 feet for activities that have a potential to effect wetland resources. Impacts to the buffer require compensation under the law. Any construction plans that impact

wetland or surface waters will need to be permitted under a joint state and federal permitting system in Florida.

Surface water at the LHFD property drains to on-site wetland areas, adjacent surface water bodies, and the storm water collection system on the property, which is directly connected to the adjacent bay waters. National Wetland Inventory mapping depicts the wetland resources at the margins of the property. A wetland delineation performed on the property has produced the mapping shown in Figure 3-6. Based on the on-site wetland delineation, the majority of the LHFD property is in non-jurisdictional upland habitat.

The wetlands identified on the LHFD property consist of estuarine marsh, a freshwater marsh, and several swale/ditch habitats (Table 3-3) that drain the majority of the property (Figure 3-6). The estuarine marshes are located on the margins of the LHFD property and are contiguous with the bay waters. The marsh associated with Wetland W3 is dominated by non-saline species. It is a perched system that drains to the canal south of the property during significant rainfall events. The storm water ditches (SW1 and SW2) flow directly to the bay, except in the DFSP Area where there is no surface water connection (SW4) and in Area 2 where the swale (SW3) has an over-flow pipe but does not regularly discharge to surface waters.

As noted above, the ditches on the property are part of the storm water management system for the LHFD property. The ditches that connect to the bay (SW1 and SW2) are estuarine and contain coastal willow (*Salix caroliniana*) and needle rush species. The storm water collection swale (SW3) on the north side of the abandoned railroad tracks extends the entire distance through the property, but only the western extent exhibits permanent signs of hydrology. The hydrological signs observed in this area included subsidence and defined bank, subsurface pathways, tree buttressing, and crayfish burrows without towers. This area is hydric and there is a small ponded area at the western end of the swale. Except for the ponded area, this swale is dominated by Chinese tallow tree (*Sapium sebiferum*) and coastal willow (*Salix caroliniana*). These trees create a dense canopy with approximately 90 percent closure where only filtered sunlight is able to reach the ground surface. Groundwater was more than 36 inches deep (below ground surface) during the field surveys completed in September 2007 at the LHFD property. There was an obvious drought at that time, as evidenced by the extremely dry (friable) soils, the collapse of many subsurface routes, and the increased depth to groundwater. The closure of the canopy and the dehydration of the soils have reduced the habitat quality of SW3.

The rail spur itself is an elevated rock bed buffered from the centerline to 50 feet and represents little other habitat. This area is drained effectively by railside ditches. There are five stream crossings along the length of the rail spur; however, each stream was previously diverted through culverts

under the rail bed. Approximately 4,900 linear feet of the rail spur have adjacent wetlands and almost the entire length of the rail spur has storm water collection features located adjacent to the rail bed (Figures 3-7; 3-13).

The LHFD property has wetland and storm water features within and adjacent to the property boundaries. There are approximately 8.8 acres of hydric features on site. The natural systems include the estuarine marsh habitat, which extends along the eastern boundary (Area 5), the causeway section of the rail spur, and the freshwater marsh along the southern boundary (Area 1). These habitats are very common within the ROI of the Lynn Haven Bayou and St. Andrews Bay Watersheds. The remaining features are part of the storm water collection system.

The rail spur has five stream crossings and 4,900 feet of adjacent wetland habitat. Each stream has already been diverted through culverts extending under the railroad bed. Wetland habitats are adjacent to the rail bed. Projects that only utilize the existing rail bed, with proper precautions, will not directly impact streams or adjacent wetlands (Figure 3-16).

Table 3-3: Wetland Habitat and Size

<i>Wetland / Stormwater Area Designation</i>	<i>Description</i>	<i>Outfall</i>	<i>Acreage</i>
Wetland 1	Estuarine herbaceous depressional marsh (643)	Bayou	5.65
Wetland 2	Estuarine herbaceous depressional marsh (643)	Bayou	1.14
Wetland 3	Freshwater herbaceous depressional marsh (643)	Canal	0.55
Storm water 1	Storm water ditch – shallow, willow dominated	North Bay	0.33
Storm water 2	Storm water ditch – shallow, willow dominated	North Bay	0.32
Storm water 3	Storm water ditch – very dry, willow and tallow dominated	Overflow to bay - indirect	0.72
Storm water 4	Storm water ditch – shallow, willow dominated	None	0.13
Total Wetland Acreage			8.84

3.3.9 Cultural Resources

Cultural resources are those heritage-related resources, such as historic buildings or bridges, archaeological or engineering objects, and places of religious or cultural significance to Native American tribes. In compliance with AFI32-7065 of June 2004, the following information is presented to ensure State Historical Preservation Office (SHPO) coordination prior to the disposal of real property outside the federal government.

3.3.9.1 Historical Resources

Potential historical resources on the LHFD property and the rail spur have been identified during the recent historic buildings and structures review. Results of the buildings and structures review are preliminary and unpublished as of the date of this document, but draft reports identified thirteen historical structures on the LHFD property (8BY1897-8BY1910), one within the FSU parcel (BY1905) for the Proposed Action Alternative 1. Built between 1942 and 1980, these documented buildings on the LHFD property do not appear to be eligible for listing on the NRHP.

Two early 20th century isolated finds were recorded on the rail spur property. One other historic resource is located adjacent to the rail spur property. The rail spur terminates at the adjacent property of the Atlanta and St. Andrews Bay Railroad. This adjacent property is listed as NRHP eligible (8BY1366) for listing, but is not yet included on the NRHP. The rail spur is currently inactive and current redevelopment plans by the City are to reuse this corridor for a greenway trail.

In the vicinity of the rail spur, see Figure 3-1, the City of Lynn Haven has created a Community Redevelopment Area (CRA) to make improvements in appearance, revenue, and property values (City of Lynn Haven, 2003). The CRA includes several local historic landmarks, including Lynn Haven's historic town center along Florida Avenue, and the original "Main Street" that retains some of the oldest commercial buildings in the City. The CRA includes a 4,050-foot section of the rail spur property extending from Tennessee Avenue to 17th Street. This section has been included in the City's CRA plan as a redeveloped greenway trail. Current plans are for the greenway trail to terminate on the west side of U.S. Route 231 and not extend across the highway or into the Atlanta and St. Andrews Bay Railroad property.

3.3.9.2 Cultural Resources

The Gulf Coast region is rich with pre-Columbian archaeology sites, many of which are suitable for eligibility on the NRHP. In particular, Tyndall AFB has many such sites. The region is known to have sites from the following periods: Paleo-Indian (including Dalton cultures from 13,000-

8,000 B.C.), Archaic (including the Kirk culture from 8,000-1,000 B.C.), Woodland (including the Deptford through the Weeden Island cultures from 1,000 B.C.–1,200 A.D.), and the Mississippian (including the Fort Walton culture from 1,200 A.D.-1,600 A.D.). Archaeological investigations of the region date back to 1902 and the results are detailed in the National Park Service's Southeast Archeological Center (Knudsen, 1979).

The amount of development and depth of fill material over the native soils on the property make it difficult to locate archaeological resources. Historically, there had been one archaeological find on the property. One small arrowhead point was found in the dredge spoils in Area 5. It is likely that this find in dredge materials is not evidence of other in-situ artifacts that would constitute a sighting, but rather was dredged from the nearby bay. This precipitated a phase I survey of the LHFD in 2011. During this survey there were two previously unrecorded redeposited archeological sites (8BY1490 and 8BY1495) within the dredge spoil material areas. The Florida Department of Historical Resources (DHR) concluded that these specific resources lacked context and were not eligible for listing in the NRHP. The DHR further stated that mission activities will have no effect on the known resources within the property (DHR, 2011).

Based on the findings of these surveys, the Air Force concludes that the Proposed Action does not present an adverse effect to the known historic resources because the resources identified on the property are ineligible for the NRHP. As a protective measure, the Air Force will include in the transaction paperwork a clause recommending that alteration or demolition of the built resources should not occur without concurrence from the SHPO and that FSU and/or the City contact the Florida State Historic Preservation Office if unidentified historic properties or human remains are encountered on the property during redevelopment. Additional consultation by FSU and/or the City is required before altering or demolishing any historic properties determined eligible or potentially eligible for the NRHP.

3.3.10 Socioeconomic Resources and Environmental Justice Impact Analysis

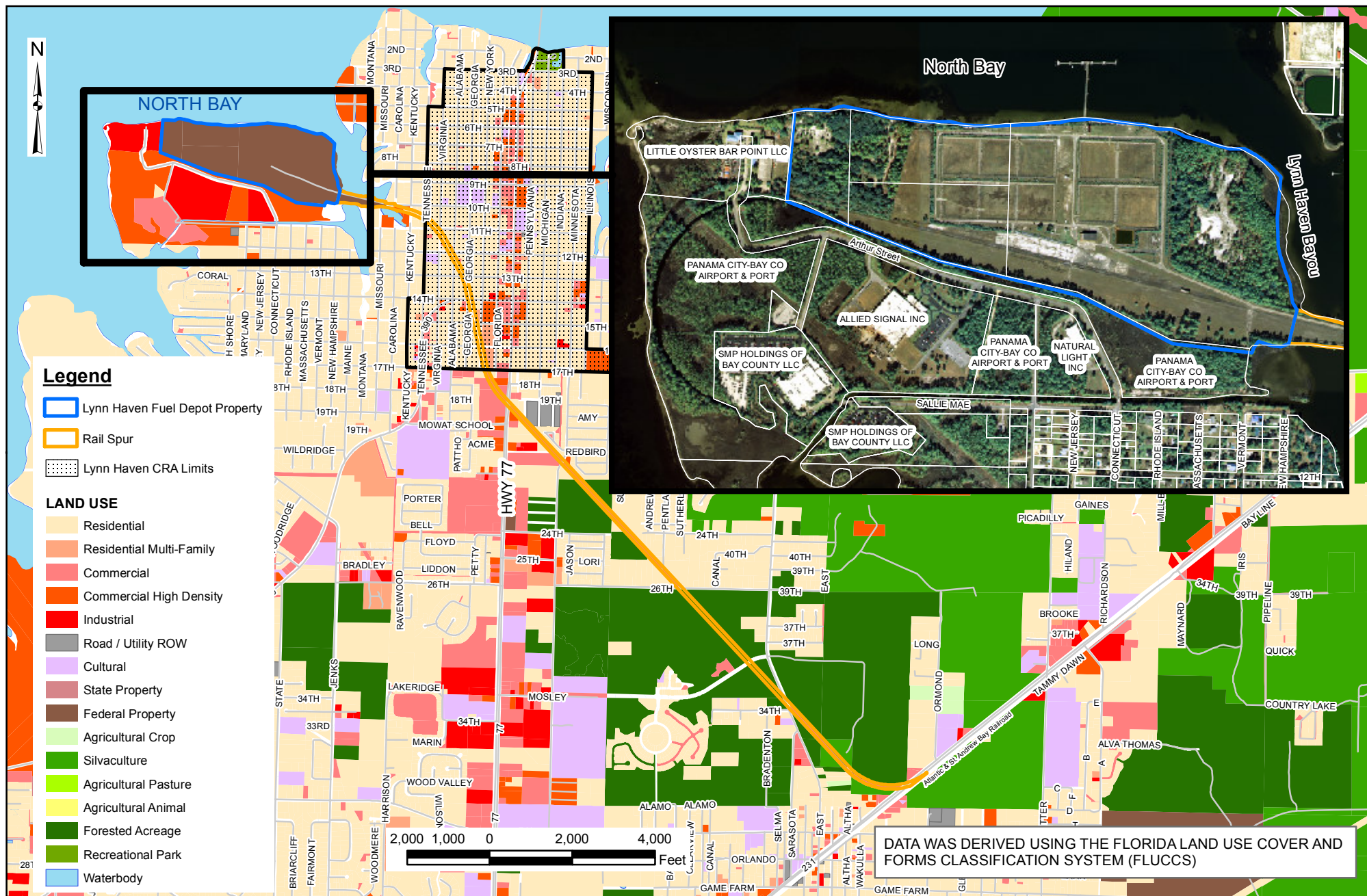
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was issued on 11 February 1994. The Executive Order requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

Socioeconomics comprises the basic attributes and resources associated with the human environment, particularly population characteristics and economic activity (e.g., employment, personal income, and economic

growth, etc.). Impacts on these socioeconomic components also influence other issues such as housing availability and the provision of public services (e.g., schools, roads, and other infrastructure). The project-related impacts would primarily affect the community of the City of Lynn Haven. The 2013 population of the City of Lynn Haven was estimated to be 19,360 people occupying 7,062 housing units at a density of 1,862 people per square mile. The 2013 data was the most up-to-date population data available for the City of Lynn Haven. The population in Lynn Haven is primarily nonminority Caucasians (80.7%) while minorities include African American (11.7%), Hispanic (4.2%), multi-racial (4.3%) and Native American (0.5%). The median income in Lynn Haven (\$58,412) is above the Florida median (\$46,956). Lynn Haven residents below the poverty level in 2013 comprised 10.8% of the population, which is significantly less than the State of Florida average of 16.3%. The LHFD contributes little to Lynn Haven's economic status due to the lack of operational employees and decreased land values associated with a non-operational facility.

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, states that each federal agency "(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks."

The redevelopment of the LHFD property and rail spur is not anticipated to disproportionately affect children. Lynn Haven is primarily a residential community and the distribution of children appears to be uniform across the City. Increased traffic during construction will temporally affect children since both the main entrance to the LHFD property and the Lynn Haven Elementary School are located on Tenth Street. The increased traffic during construction will likely result in temporarily increased congestion and travel times. However, this increase in traffic will be temporary since traffic routes will be adjusted as part of the redevelopment plan. Impacts from noise or dust during construction are not anticipated to affect children given the distance between the residential neighborhood and the LHFD property that lies across the Lynn Haven Bayou from the neighborhood.



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Land Use and Adjacent Properties Map

Figure 3-1
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Environmental Study Areas Map

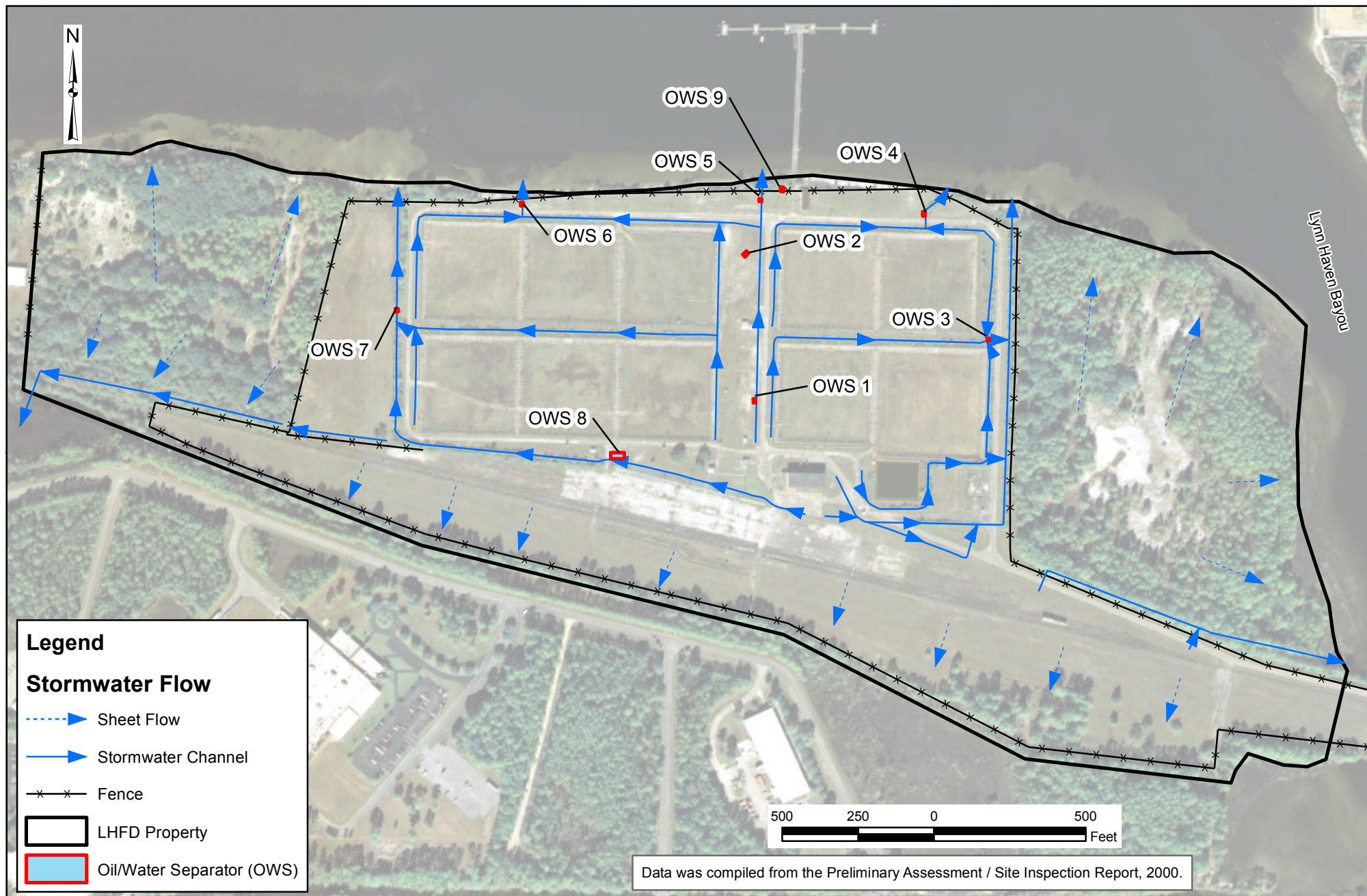
Figure 3-2
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Alternatives and Environmental Study Areas Map

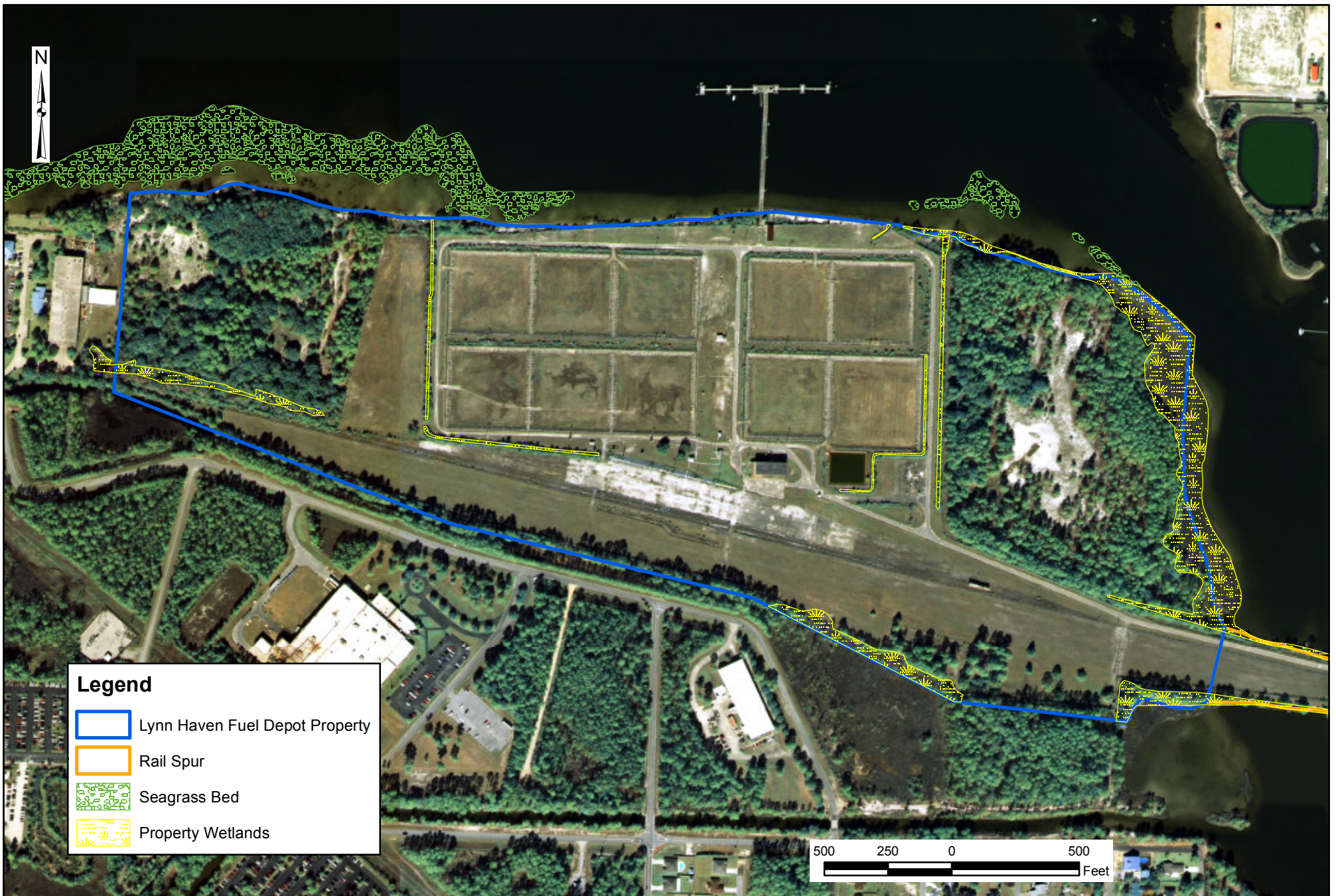
Figure 3-3
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Stormwater Drainage Map

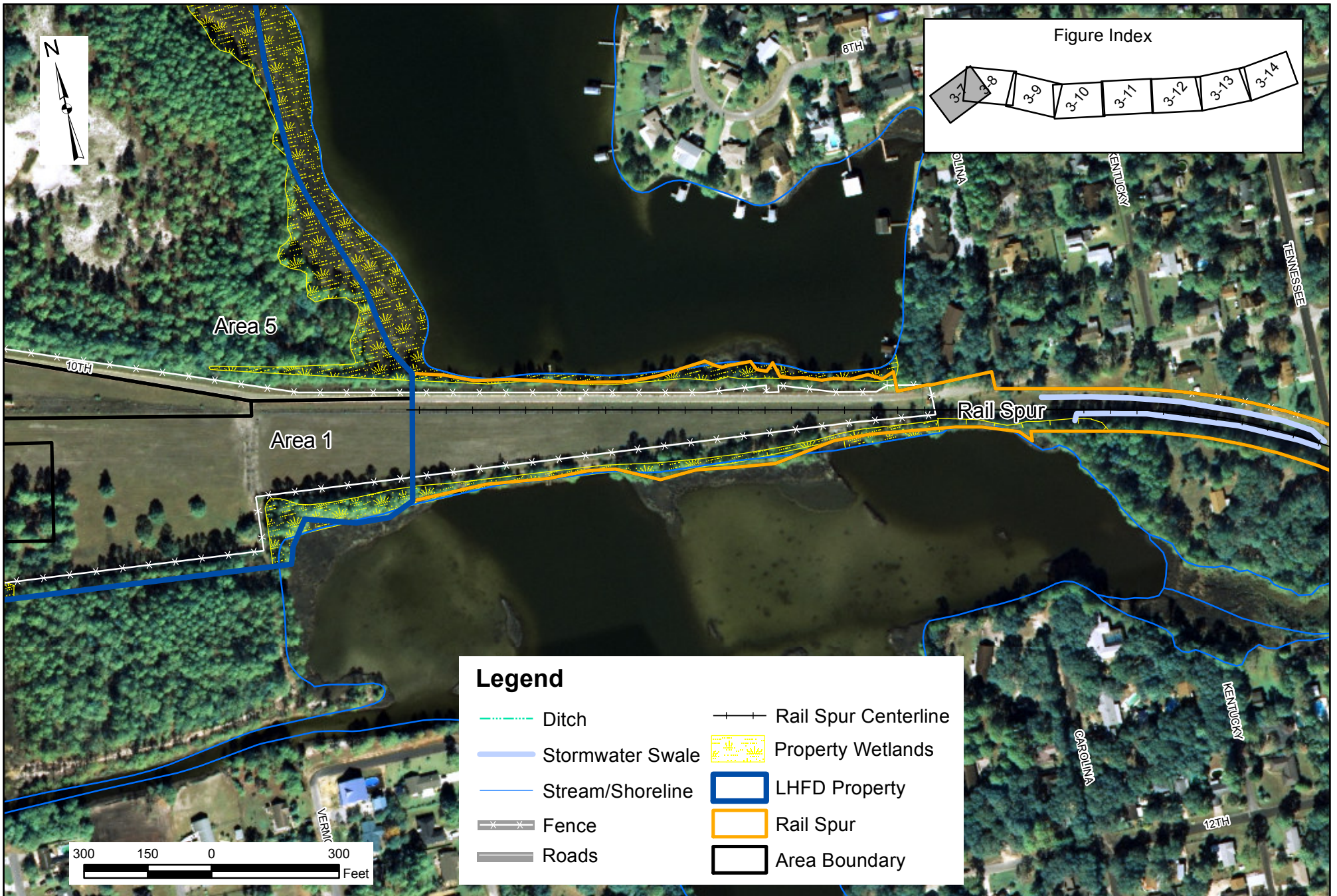
Figure 3-4
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
LHFD Property Wetland Location Map

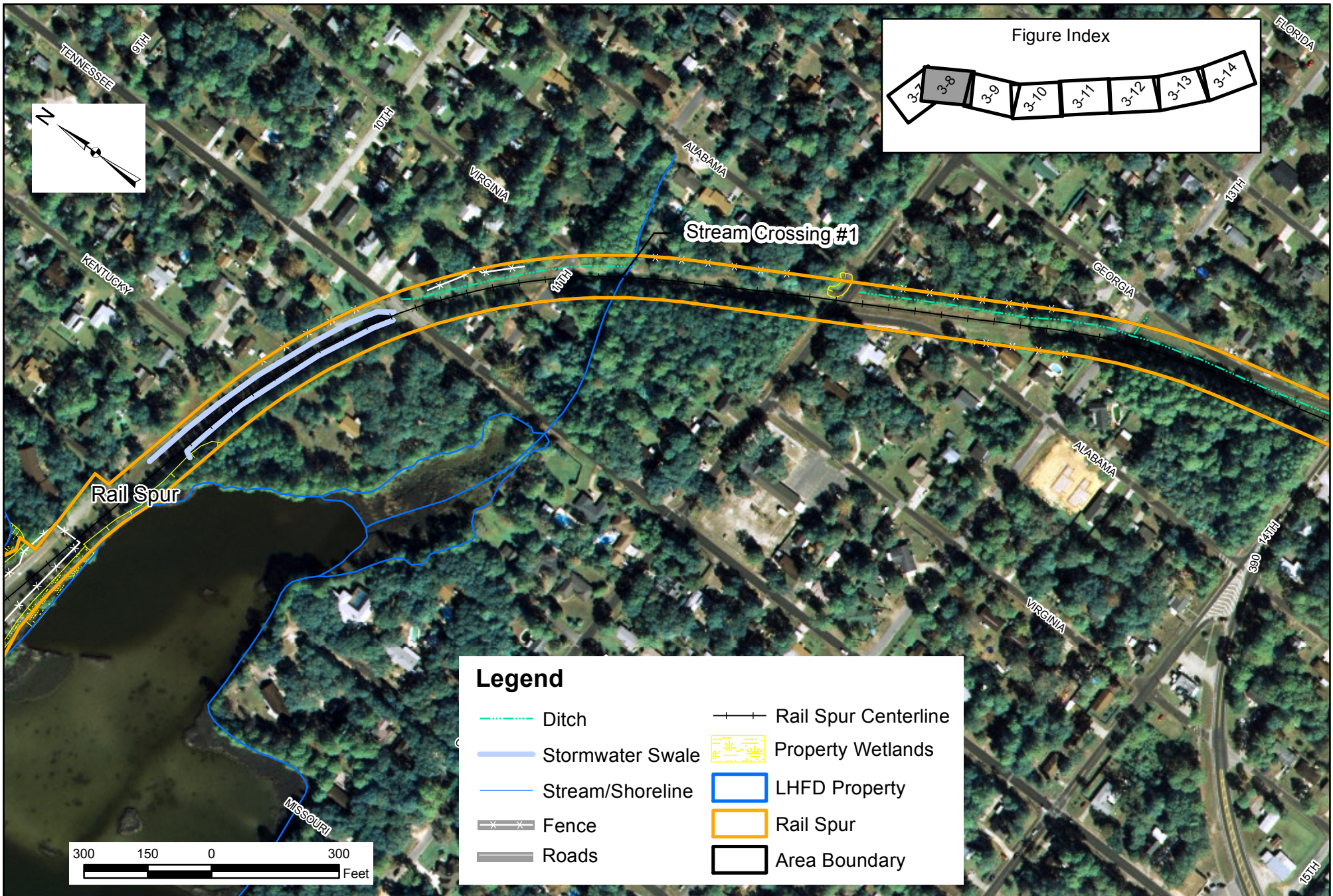
Figure 3-6
December 2015

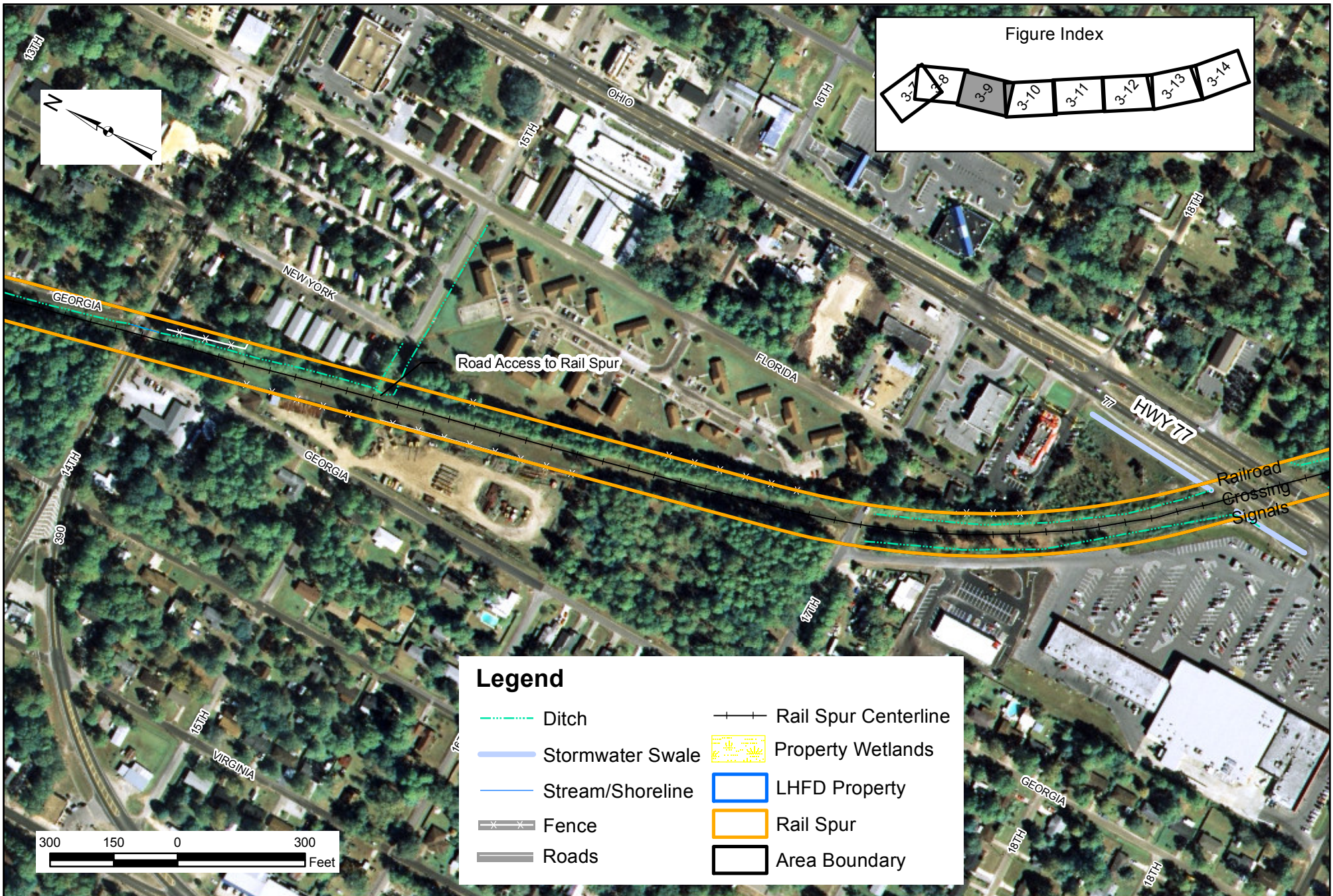


Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Rail Spur Details Map

Figure 3-7
December 2015

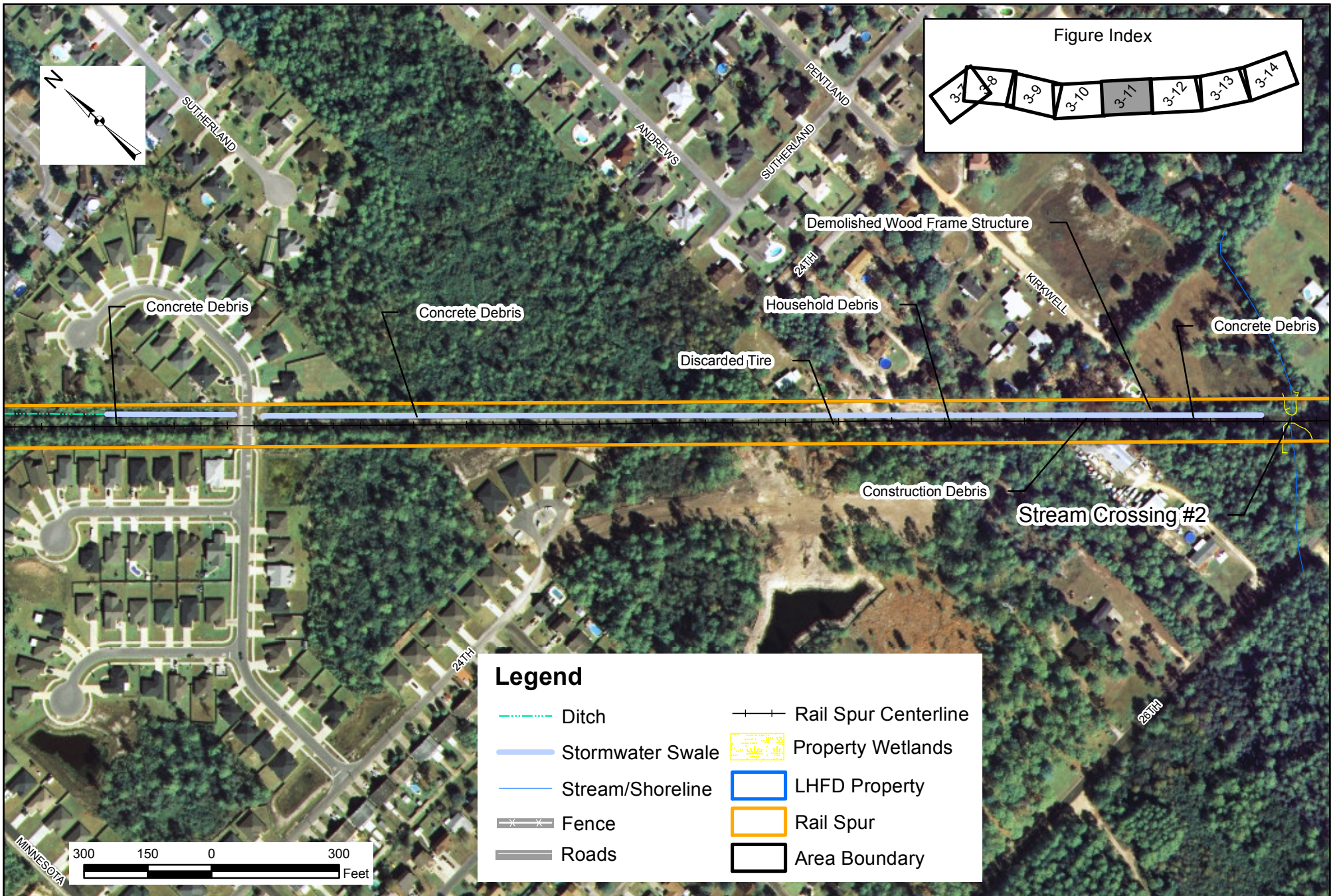




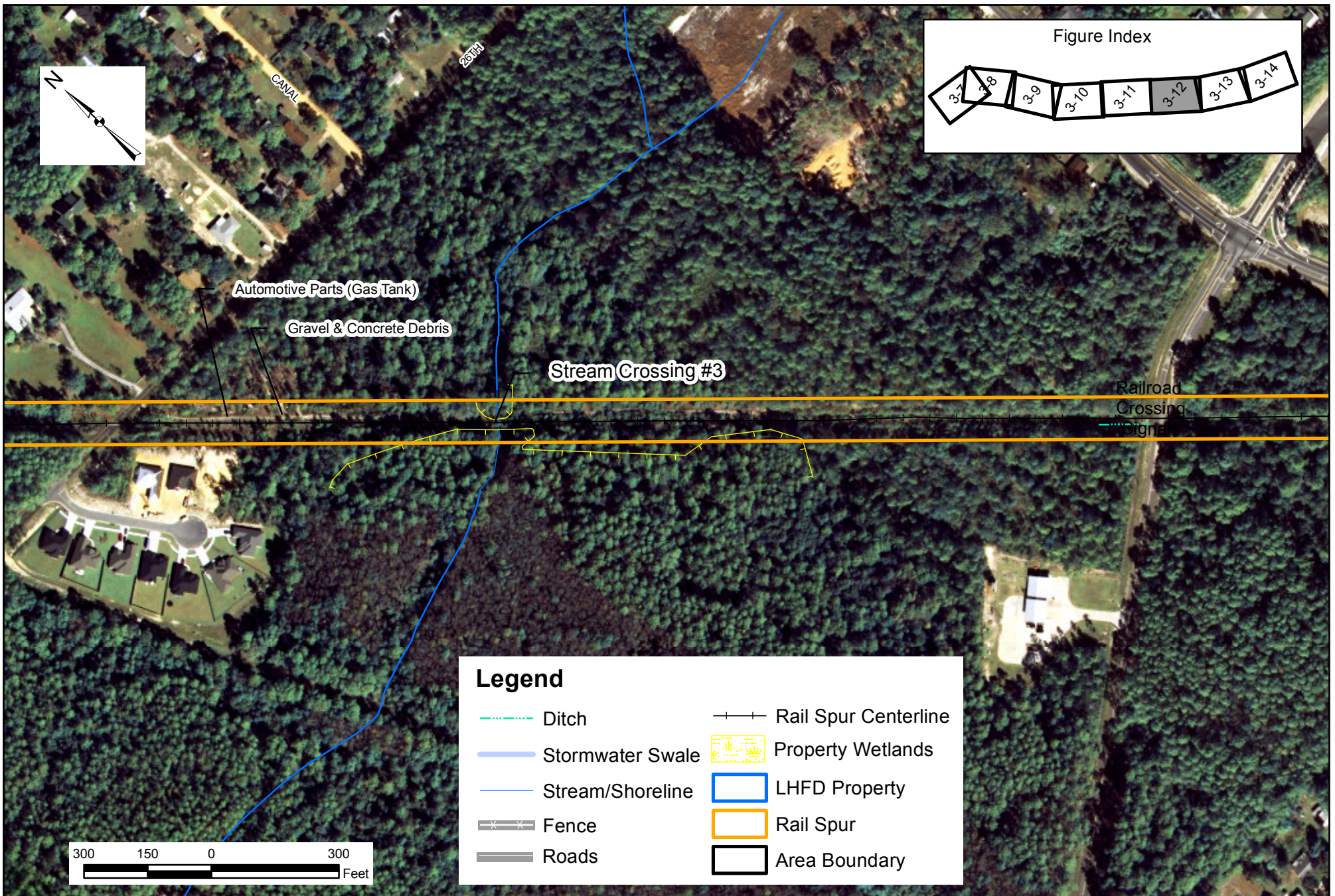
Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Rail Spur Details Map

Figure 3-9
December 2015



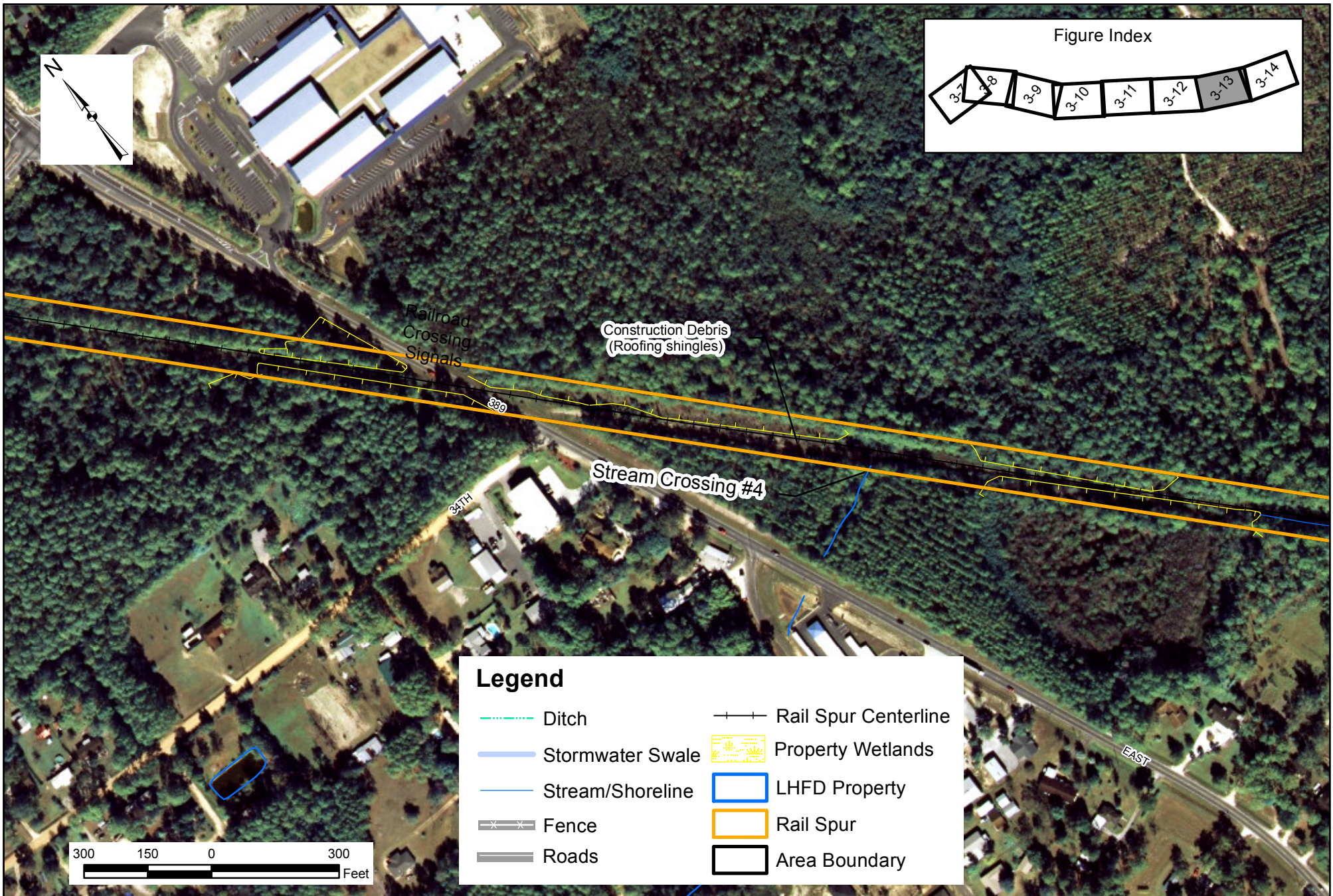
Lynn Haven Fuel Depot
Lynn Haven, Florida



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Rail Spur Details Map

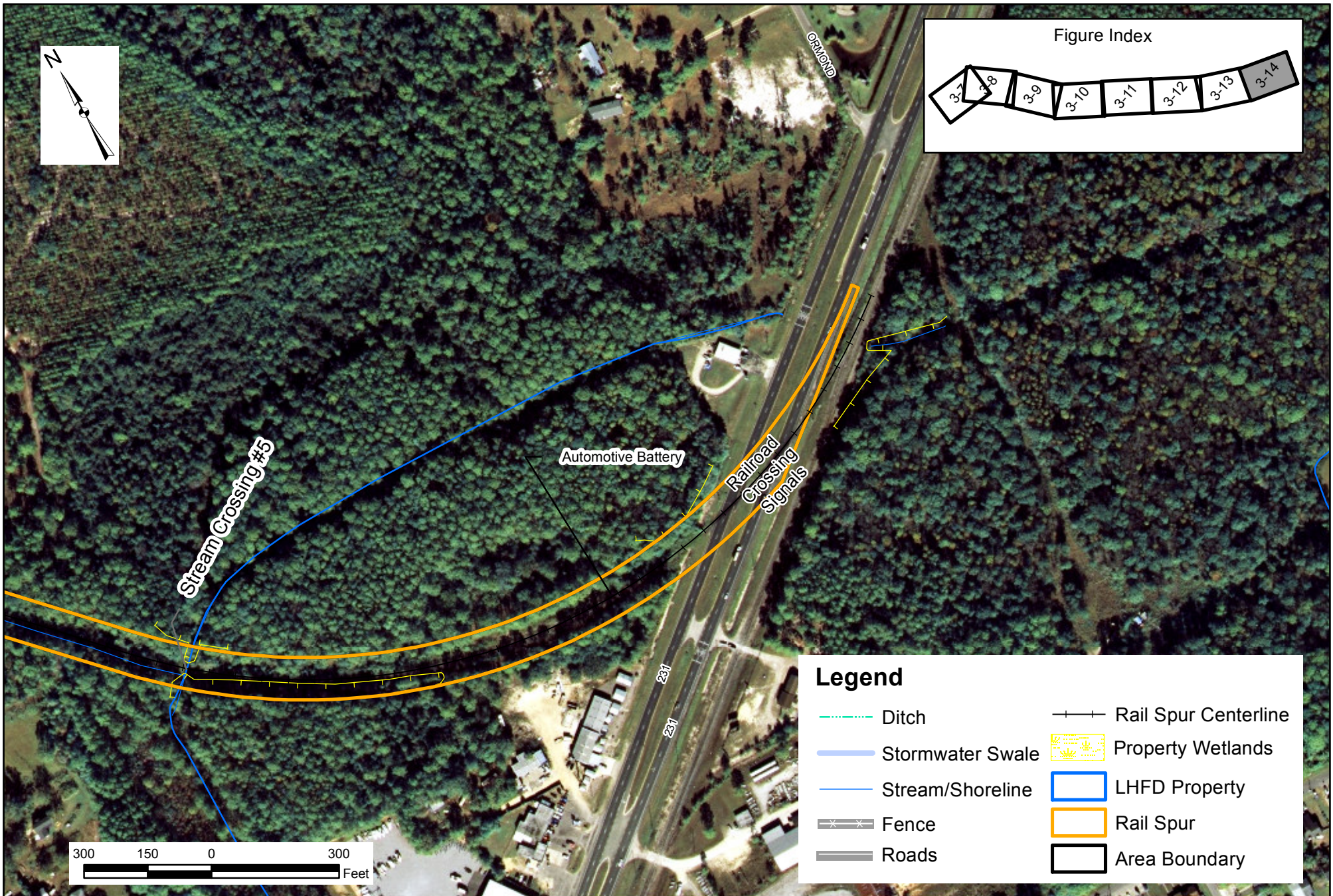
Figure 3-12
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Rail Spur Details Map

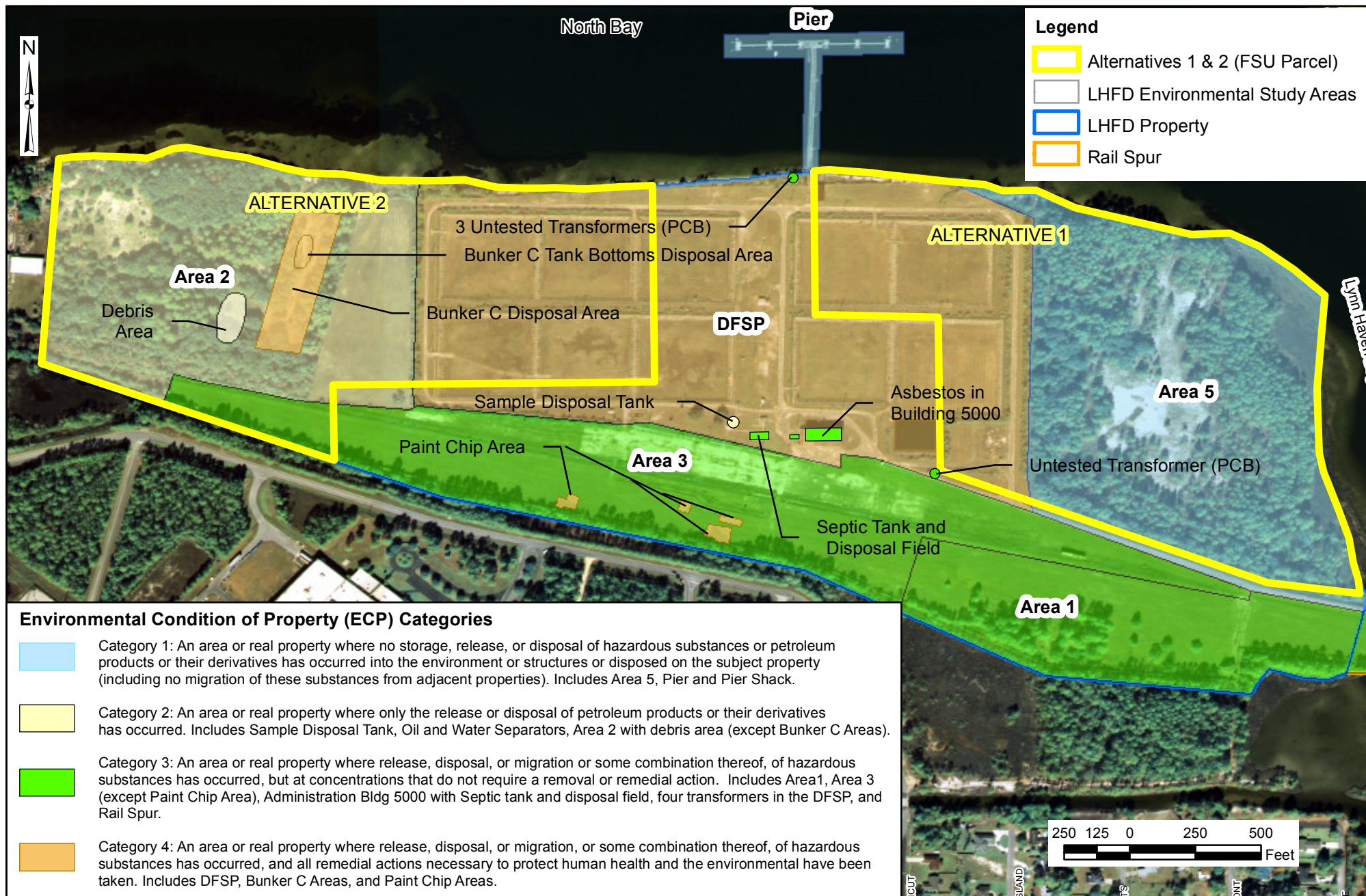
Figure 3-13
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Rail Spur Details Map

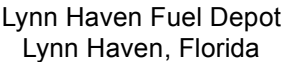
Figure 3-14
December 2015



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Environmental Study Area Findings Map

Figure 3-15
December 2015



CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter describes potential impacts that could occur if the Proposed Action is implemented by the Air Force. There two proposed siting alternatives, Proposed Action Alternative 1 and Alternative 2, within the LHFD property boundary. The Air Force's preferred siting alternative for the 40-acre property transfer to FSU is Proposed Action Alternative 1. Additionally, potential impacts are addressed for the No Action Alternative. Any resultant irreversible or irretrievable resource commitments are noted. Criteria used to evaluate potential impacts are discussed at the beginning of each resource area.

4.2 CHANGE IN CURRENT MISSION

The LHFD property and rail spur are not operational and do not serve a role in the Air Force's mission. This site was removed from operational status in the 1990s and, even under a No Action Alternative, the LHFD property and rail spur will not be returned to active mission status for the Air Force.

4.3 DESCRIPTION OF THE EFFECTS OF ALL ALTERNATIVES ON THE AFFECTED ENVIRONMENT

4.3.1 Aircraft Operations

4.3.1.1 Proposed Action Alternative 1

The Proposed Action Alternative 1 will have no effect on aircraft operations. This inactive and remote property has no relation to flight operations or the ability for Tyndall AFB to maintain ownership. Therefore, the preferred alternative would have no significant impact on the aircraft operations.

4.3.1.1 Alternative 2

Alternative 2 will have no effect on aircraft operations. As explained above, this remote site has no relation to flight operations or the ability for Tyndall AFB to maintain ownership. Therefore, Alternative 2 would have no significant impact on the aircraft operations.

4.3.1.2 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.1.

4.3.2 Noise

4.3.2.1 Proposed Action Alternative 1

For the Proposed Action Alternative 1, the redevelopment and reuse in accordance with the current land use designations for the property would be expected to temporarily generate moderate levels of noise during construction phases, but permanent operations should not exceed prescribed land use noise levels for the mixed use development.

Based on the land use classifications, the noise levels (measured in decibels (dBs)) are not anticipated to significantly increase with redevelopment. According to summaries on land use noise levels (Fabos, 1985), the average noise level for a rail yard is 75 dBs. Industrial land use noise levels range from 60 to 65 dBs. Institutional land use noise levels average 55 dBs and residential land use noise levels range from 45 to 50 dBs. Given that the previous land uses for the LHFD property were rail yard and institutional, the property had higher noise levels than that for the proposed alternatives (i.e., institutional, residential land uses). As such, the proposed alternatives will reduce the overall noise levels from historical activities on the property. Although, with current Air Force inactivity on the property, noise levels from redevelopment and active institutional land use will slightly increase the noise levels on site in the future.

Noise levels for Proposed Action Alternative 1 would be comparable to the institutional value of 55 dBs. The allowable noise levels for the proposed development and FSU parcel, which are based on the land use code, do not differ significantly (i.e., are within 10 dBs) and, over distance, these low levels do not affect the surrounding community. The distance from the site will provide an attenuation buffer which will further dampen noise levels from the property limiting the ROI to a maximum of 400 ft. This should reduce the noise levels to below residential levels. The expectation is that no permanent impacts would be incurred due to the Proposed Action. In addition, the proposed land use would still provide a noise buffer for the surrounding residential areas.

4.3.2.2 Alternative 2

Impacts under Alternative 2 would be similar with the expectation that no permanent impacts would be incurred due to the Proposed Action. Furthermore, there would be no significant difference to the surrounding community between Alternatives 1 and 2 since the same type of

development is planned. Noise levels for the Alternative 2 location for the FSU parcel, however, would be higher than that for the Proposed Action Alternative 1 location due to its closer proximity to neighboring industrial activities.

4.3.2.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.2. Therefore, there would be no significant impact to the surrounding areas.

4.3.3 Air Quality

4.3.3.1 Proposed Action Alternative 1

For Proposed Action Alternative 1, it is expected that short-term increases in dust and smoke from land clearing and site preparation activities would occur, but would not be a significant source of air pollution within the ROI of Bay County. Additionally, other emissions during construction activities (e.g., emissions from heavy equipment, such as bulldozers, during earthwork at the site) are not expected to be a significant source of air pollution. These sources are anticipated to result in no significant impact due to the reasons described in the following paragraph.

The existing graded condition of the majority of the site (i.e., the relatively flat condition) will greatly reduce the need for earthwork. The limited number of existing buildings and structures at the site will limit the amount of demolition and debris hauling required for redevelopment. The land use classifications provide for density restrictions and specify the FAR; these will limit the building size(s) and height(s) and decrease the overall construction effort. FSU and the City will not likely redevelop the property at the same time due to different fiscal funding mechanisms. Thus, the anticipated construction schedule will be extended and would limit emissions over the period of redevelopment. Additionally, the property's location along North Bay will provide for increased air movement across the site. The sources of air pollutants associated with construction activities during site redevelopment have been determined to result in no significant impact since development would be done over an extended period of time and only a limited amount of emissions would occur on a daily basis. Adherence to the FDEP regulations in regards to air quality permitting and construction practices will serve to mitigate or eliminate any temporary impacts.

Based on the land use classification and planned development of the property as a satellite campus and research park, the need for a future emission source associated with the redeveloped property was not identified. The mixed use would most likely incorporate a limited number

of emergency power generators. However, these types of units would be small, intermittently operated units that would have a negligible effect on air quality. Permitting for this type of unit would be handled through the DEP ARM and would be acquired during the development permitting stages. Federal compliance with NEPA and the State Implementation Plan is met with no significant impacts through the enforcement of state-mandated permitting procedures. There would be no significant impact to the air quality due to the implementation of Proposed Action Alternative 1.

4.3.3.2 Alternative 2

Development limitations will be the same for both the Proposed Action Alternative 1 and Alternative 2. The results are that no significant impacts to air quality would be expected.

4.3.3.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.3 and, therefore, this alternative would have no significant impact to the air quality.

4.3.4 Safety and Occupational Health

4.3.4.1 Proposed Action Alternative 1

For the Proposed Action Alternative 1, the safety and occupational health issues are the same and no adverse effects are expected from the alternatives. The risk of exposure to known hazards is mitigated provided that FSU and the City follow state and federal safety and operational health requirements. Due to groundwater and soil containing arsenic and hydrocarbons below industrial cleanup levels but above residential cleanup levels, LUCs have been instituted to ensure protections for the developer and future property occupants. Surveys for lead based paint and asbestos would need to be performed as part of the redevelopment. There is confirmed asbestos in duct insulation in the Administration Building that has been properly labeled and maintained by the Air Force so it is currently not a hazard. Prior to redevelopment, ACMs, such as the insulation, would need to be surveyed for and removed. Verification that four transformers at the site are non-PCB containing would need to be completed prior to redevelopment.

4.3.4.2 Alternative 2

Development limitations will be the same for both the Proposed Action Alternative 1 and Alternative 2. The risk of exposure to known hazards will be mitigated provided that FSU and the City follow state and federal safety and occupational health requirements and remain in compliance

with and enforce the LUCs. As a result, there would be no significant impact to the safety and occupational health of residents or construction personnel.

4.3.4.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.3 and there would be no significant impact to the safety and occupational health of residents or construction personnel.

4.3.5 Earth Resources

4.3.5.1 Geology

Geology will not be affected by Alternatives 1, 2, or the No Action Alternative. Alternatives 1 and 2 do not include plans to utilize the subsurface resources or to dispose or store any materials in such a manner that the local geology would be impacted. As such, there will be no significant impact on geology by these proposed alternatives. Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.5.1.

4.3.5.2 Topography

4.3.5.2.1 *Proposed Action Alternative 1*

Because topography does not significantly differ between Areas 2 and 5 at the LHFD property, Alternatives 1 and 2 have similar outcomes. For the Proposed Action Alternative 1 (which incorporates Area 5), topography would not change throughout the DFSP portion of the property, including on the FSU parcel. Depending upon design needs for the proposed redevelopment (e.g., structure placement and stormwater plans), the dredge spoil areas (Area 5 for Alternative 1) that represent the property's highest elevations would likely be reduced to provide a level base for future structures. The features of the previous stormwater system would need to be redesigned to accommodate agency permitting regulations, changes in topography, and to address sediment and erosion control. The total elevation difference across the property is 15 feet. Because the site does not have a significant variation in topography, grading to match the rest of the site in the spoil areas or to reconfigure stormwater features will not have a significant impact on the site-wide topography. As such, no significant impact is anticipated for Proposed Action Alternative 1.

4.3.5.2.2 *Alternative 2*

Alternative 2 would have similar outcomes, as noted above for Alternative 1, since topography does not significantly differ between

Areas 2 (i.e., included in Alternative 2) and Area 5 (i.e., included in Alternative 1). For Alternative 2, Area 2 (the area with the highest elevation included in this alternative) would most likely be leveled to accommodate redevelopment. While this alternative could provide the FSU parcel with an extensive and pre-existing stormwater feature (SW3) that might be able to be incorporated into the redevelopment plans, it is likely that for both alternatives a complete redesign of the stormwater conveyance system, which would affect the topography of the site, would be needed to control surface drainage off the property. Because the site does not have a significant variation in topography (i.e., topography variation is 15 feet), any grading to match the rest of the site in Area 2 or grading for reconfiguring stormwater features will not have a significant impact on the site-wide topography. As such, no significant impact is anticipated for Alternative 2.

4.3.5.2.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.5.2.

4.3.5.3 Soils

4.3.5.3.1 Proposed Action Alternative 1 and Alternative 2

Soils on the property would be minimally impacted by both alternatives as described below. Soil changes are expected depending on fill material imported to support structure foundations. Grading heights/depths will be limited based on land use classifications.

Short-term minor impacts to soils within the project area could potentially result from erosion due to excavation, filling, grading, and/or relocating soils within the site during construction. Under the Proposed Action, FSU and the City would be required to obtain a Florida Environmental Resource Permit (FERP) that includes the preparation of a Stormwater Pollution Prevention Plan (SWPPP). Application of best management practices (i.e., infiltration of runoff on site, flow attenuation by vegetation or natural depressions, and temporary retention structures) developed in the SWPPP would mitigate impacts to soils by minimizing soil erosion at the project site and, thus, no significant impact is anticipated provided the City and FSU comply with SWPPP requirements and best management practices (BMPs).

4.3.5.3.2 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.5.3.

4.3.6 Water Resources

4.3.6.1 Surface Water

4.3.6.1.1 Proposed Action Alternative 1 and Alternative 2

Surface water on the LHFD property exists in stormwater features and wetland habitats. There are a number of stream habitats which intersect the rail spur, but these have been previously channelized using culverts under the rail bed. Alternative 1 does have more wetlands and shoreline areas than Alternative 2. However, impacts to surface water from either alternative would be temporary due to demolition and construction activities and would be minimized by the State's erosion control requirements. Development of the causeway or surface water input to the bypass canal will require further planning decisions for currently impeded flow.

Future stormwater management would be designed and implemented under the FERP program, which regulates activities involving the alteration of surface water flows. A SWPPP would be required to mitigate, reduce, or eliminate impacts to surface water. The FERP manages "new activities in uplands that generate stormwater runoff from upland construction, as well as dredging and filling in wetlands and other surface waters." The City and FSU would be responsible for the development of their plans under the FERP regulations and this could include changes to existing surface water conveyance structures at the causeway and the bypass canal to Upper Goose Bayou. Impacts to surface water resources will not be significant if the City and FSU comply with FERP and other state requirements.

4.3.6.1.2 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.6.1 and no significant impacts would be expected.

4.3.6.1 Floodplains

4.3.6.1.1 Proposed Action Alternative 1

Redevelopment of the LHFD property under Alternatives 1 will impact the 100-year floodplain (Zones AE), however the previous use of the property and development has already impacted these resources. Alternatives 1 would include reuse of the previously developed property within the floodplain but modernized protection measures will be incorporated into the development plan under the FERP process. These measures implemented under this system are in accordance with CZMA,

as delegated to the state under the Coastal Management Program (CMP), and will protect coastal zone resources. Although specific development plans are not available at the time of this EA, Alternatives 1 do not further impact the coastal zone. The reuse of the existing property and pier are consistent with the prior function of the existing property and pier facilities. Additional impacts to the coastal zone are not anticipated, but any additional impacts will be mitigated through the Florida CMP. Alternatives 1 will require a consistency statement from the FDEP with respect to Florida's CMP and the CZMA. These statements are provided through the coordination associated with the ERP process. Because the exact impact analysis of specific plans are typically necessary for the FDEP permit process to make these determinations, this determination will be obtained by FSU and the City during the state permitting process. As such, no significant impacts will result from redevelopment of the property, provided FSU and the City comply with state and federal requirements. For reference, the floodplains are shown on Figure 3-16, Natural Resources Map.

4.3.6.1.2 *Alternative 2*

Redevelopment of the LHFD property under Alternative 2 will impact the 100-year floodplain (Zones AE), however, the previous use of the property and development has already impacted these resources. Alternative 2 would include reuse of the previously developed property within the floodplain but modernized protection measures will be incorporated into the development plan under the FERP process. As such, no significant impacts will result from redevelopment of the property, provided FSU and the City comply with state and federal requirements.

4.3.6.1.3 *No Action Alternative*

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.9.5.

4.3.6.2 Groundwater

4.3.6.2.1 *Proposed Action Alternative 1*

LUCs restrict the use of groundwater at the LHFD property and they are currently enforced by the Air Force and FDEP. For both Alternatives 1 and 2, the FDEP would have sole jurisdiction for enforcement. There is no difference between Alternatives 1 and 2 in regards to the use of groundwater since that is limited by the LUCs. The operations associated with the proposed research park and FSU facility do not typically require the use of uncontained hazardous materials, storage of large quantities of hazardous materials or produce hazardous wastes that would have the potential for impacting the groundwater on the property in the future. Since LUCs restrict the use of groundwater at the LHFD property,

neither development alternative will have a significant impact on the supply of groundwater.

4.3.6.2.2 *Alternative 2*

There is no difference between Alternatives 1 and 2 in regards to the use of groundwater since that is limited by the LUCs. The operations associated with the proposed research park and FSU facility do not typically require the use of uncontained hazardous materials, storage of large quantities of hazardous materials or produce hazardous wastes that would have the potential for impacting the groundwater on the property in the future. Since LUCs restrict the use of groundwater at the LHFD property, development under Alternative 2 will have no significant impact on the supply of groundwater.

4.3.6.2.3 *No Action Alternative*

Under the No Action Alternative, the Air Force would retain partial jurisdiction for the enforcement of the LUCs and there would be no change in the baseline conditions described in Section 3.3.6.2.

4.3.7 Infrastructure / Utilities

An infrastructure and utilities assessment was made to evaluate the alternatives. The assessment was based upon build-out projections for the expected population at the site using the maximum Floor Area Ratios and density scenarios allowable under the land use code. Calculation acreage included in the developed area of the LHFD (94 acres) and includes the causeway (6 acres) which are shown as part of the rail spur property on Figure 2-3. In Table 4-1, population and utility usage are estimated using the Land Use Classifications and Floor Area Ratios allowable for the property as it is currently zoned. These projections apply to both Alternatives 1 and 2. Backup for these calculations has been included in Appendix C.

It is anticipated that the actual development of the LFHD property by both FSU and the City will be significantly less intense than the infrastructure usage projections described in Table 4-1. In response to comments from the Florida Department of Community Affairs received in April 2008 on the City of Lynn Haven's Amendment to its Comprehensive Plan that would re-designate the land use for the LHFD property, the City now projects that a reasonable maximum Floor-to-Area Ratio (FAR) for the property would not exceed 0.35. The reduction of the FAR from 0.5, as stated in the City's Comprehensive Plan Amendment, to a FAR that does not exceed 0.35 would significantly lessen the maximum allowable square footage of building space to be constructed on the LHFD property. This would also lessen the projected persons on site and traffic impacts associated with the total of number of people on site.

Table 4-1: Infrastructure Usage Projections

Population calculation	Development	FSU Parcel
Acreage Total	100	40
Percent Not Interior	25%	25%
Usable Acreage	75	30
Floor Area Ratio (FAR)	0.5	0.5
Acreage of building footprint	37.5	15
sqft/acre	43,560	43,560
Total Sqft	1,633,500	653,400
sqft/person	200	200
Total Persons	8167.5	3267
Sanitary Sewer	Development	FSU Parcel
Wastewater Production/Capita (gal)	106	106
Total Wastewater production/Property (gal)	865,755	346,302
Potable Water	Development	FSU Parcel
Water Usage/Capita (gal)	135	135
Total Water Usage Property (gal)	1,102,613	441,045
Solid Waste	Development	FSU Parcel
Solid Waste Production/Capita (gal)	6.5	6.5
Total Solid Waste volume/Property (gal)	53,089	21,236

4.3.7.1 Sanitary Sewer

4.3.7.1.1 Proposed Action Alternative 1

Proposed Action Alternative 1 would result in the removal of an abandoned septic system at the LHFD property. The Air Force is not maintaining the septic system since it is not in use. Projections made using a maximum residential population of approximately 11,000 persons would generate 1.1 million gallons per day (mgd) of wastewater between the FSU parcel and the remaining LHFD property. A new collection system would need to be designed by the developer and FSU. Designs for the collection system would require at least a 10 inch main to handle the capacity at peak flow. The collection system would need to extend from a connection point on the force main located approximately 500 feet east of the east gate on Tenth Street to the western end of the property, a distance of 6,200 feet. The system would require multiple lift stations and a pressure connection to the City's existing force main.

The system needed to serve development under Alternative 1 would provide offsite transmission of the wastewater and would replace the need for the existing septic system. This would eliminate the existing impacts from septic treatment on the property. The removal of the septic system would reduce fecal coliform and other biological loading to surficial groundwater, thereby increasing groundwater quality. Since the required

system would improve conditions at the site, it would not cause a significant impact.

4.3.7.1.2 Alternative 2

The different placement alternatives for the FSU parcel does not change the collection system requirements outlined in the previous section. The system would need to cover the same amount of area and extend the length of the property. As such, the outcome for Alternative 2 is the same as Alternative 1. As with Alternative 1, the system would provide offsite transmission of the wastewater and would replace the need for the existing septic system. This would eliminate the existing impacts from septic treatment on the property. The removal of the septic system would reduce fecal coliform and other biological loading to surficial groundwater, thereby increasing groundwater quality. Since the required system would improve conditions at the site, it would cause no significant impact.

4.3.7.1.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.7.1.

4.3.7.2 Potable Water

4.3.7.2.1 Proposed Action Alternative 1

Potable water to the site is supplied by the City of Lynn Haven Department of Public Works. Existing potable water supply and distribution systems (via a six inch pipeline) are not adequate to supply the anticipated required demand of the Proposed Action, under either Alternative 1 or 2. Redevelopment of the property would increase demand for potable water. Changes in potable water demand anticipated for the proposed alternatives would require increasing supply through a minimum of a 12-inch diameter pipe. Possible connection points exist within 1,000 feet of the east gate. Although multiple points and pipeline supplies may be necessary due to the demand, specific design requirements would depend on the final layout for the property. These requirements would be the same for both alternatives.

As explained above, the distribution system necessary for the development of the property will require that new pipelines be installed. The new connection and distribution pipelines projected for the development are expected to follow existing utility rights of way (ROWs) and possibly reuse the existing pipeline routes. The use of existing utility ROWs and infrastructure will reduce impacts, which would be temporary in nature. These temporary impacts would be mitigated by the FERP process. Provided FSU and the City comply with FERP and other state requirements, the installation of a new water distribution system will

have no significant impact on the LHFD property or surrounding resources under Alternative 1. Alternative 1 would result in the discontinued maintenance of the existing water distribution system at the LHFD property by the Air Force. The preferred alternative would have no significant impact to existing potable water sources.

4.3.7.2.2 Alternative 2

Alternative 2 does not differ significantly from Alternative 1 with regard to the necessary supply demand and proposed distribution system upgrades needed for the proposed development of the property. As explained in the previous section, the distribution system necessary for the development of the property will require that new pipelines be installed. The new connection and distribution pipelines projected for the development are expected to follow existing utility ROWs and possibly reuse the existing pipeline routes. The use of existing utility ROWs and infrastructure will reduce impacts, which would be temporary in nature. These temporary impacts would be mitigated by the FERP process. Provided FSU and the City comply with FERP and other state requirements, the installation of a new water distribution system will have no significant impact on the LHFD property or surrounding resources under Alternative 2. Alternative 2 would also result in the discontinued maintenance of the existing water distribution system at the LHFD property by the Air Force. Alternative 2 would have no significant impact to existing potable water sources.

4.3.7.2.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.7.2. The Air Force would continue to maintain the existing water distribution system.

4.3.7.3 Solid Waste Management

4.3.7.3.1 Proposed Action Alternative 1

The following factors were considered in evaluating potential impacts to solid waste management: (1) the degree to which the Proposed Action could affect the existing solid waste management program and (2) capacity of the area landfills. Both Alternatives 1 and 2 would increase the solid waste demand for the LHFD property and FSU parcel. Using the latest Bay County solid waste data (FDEP, 2008), it is projected that development under Alternative 1 would provide solid waste production estimated at 23,792 tons per year for a maximum capacity development supporting 11,435 people. This number of people equates to 7% of the permanent population of the county and the same proportion of the yearly solid waste demand is assumed.

It should be noted that an estimated eight million people visit Bay County each year (Panama City Beach, 2001), which equates to an additional 89,000 yearly residents. Given the large vacationing population (which is not included in the population used to calculate solid waste demand), solid waste generated per capita is artificially inflated at 7% (see Table 4-1). If the visiting population is added to the reported numbers, solid waste generated per capita decreases to 4.3%. As such, impacts from development are anticipated to be much less than estimated using the 7% figure.

Additionally, the longevity of existing landfill resources is estimated to be eighty years under current conditions. Although minor in context with the future capacity estimates from the Bay County Solid Waste Department, the solid waste demand from the LHFD property redevelopment will increase. Because the FAR will be reduced from 0.5 to 0.35 (refer to Section 4.3.7), the contribution of solid waste generated by the redevelopment will be reduced to 3.0% of the total Bay County solid waste demand. With this reduction in solid waste demand from the redevelopment by FSU and the City, Alternative 1 is not anticipated to have a significant impact on the lifespan of the current landfill operations in the Bay County.

4.3.7.3.2 *Alternative 2*

There is no difference between Alternatives 1 and 2 with regard to the use of solid waste management. As with Alternative 1, Alternative 2 is not anticipated to have a significant impact on the lifespan of the current landfill operations in Bay County.

4.3.7.3.3 *No Action Alternative*

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.7.3 and will not affect solid waste disposal operations in the county.

4.3.7.4 *Drainage*

4.3.7.4.1 *Proposed Action Alternative 1*

The redevelopment of the LHFD property is anticipated to affect drainage patterns. It is likely that stormwater, being totally redesigned through the FERP process with FDEP, will be detained on the property, with small amounts of runoff being discharged to the adjacent bayous. Alternative 1 would result in the transfer of maintenance and upkeep of existing drainage systems for the LHFD property from the Air Force to FSU and the City. The responsibility for redesigning the stormwater systems on each parcel would belong to FSU and the City. For Alternative 1, there will be increased stormwater volumes due to

increased impervious surfaces associated with the development, but it is anticipated that less of the runoff would flow off site. Changes in drainage due to redevelopment would be mitigated by the increased water quality resulting from implementation of SWPPP requirements and BMPs. If FSU and the City comply with FERP and other state requirements, mitigation will be satisfied and there will be no significant impact to the LHFD property, rail spur or surrounding areas under Alternative 1.

4.3.7.4.2 *Alternative 2*

For Alternative 2, the existing stormwater system includes a large drainage swale that could be incorporated into the redevelopment plans. However, it is anticipated that, as with Alternative 1, significant redesign of the stormwater system at the site would be needed. Changes in drainage due to redevelopment would be mitigated by the increased water quality resulting from implementation of SWPPP requirements and BMPs. If FSU and the City comply with FERP and other state requirements, mitigation will be satisfied and there will be no significant impact to the LHFD property, rail spur or surrounding areas under Alternative 2.

4.3.7.4.3 *No Action Alternative*

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.7.4.

4.3.7.5 *Transportation Systems*

4.3.7.5.1 *Proposed Action Alternative 1*

The Traffic Impact Study Report (Malcolm Pirnie, 2009) indicates that several intersections along major arterials (Highways 77 and 390) of roadways, which could be used to provide access to the site, currently experience elevated levels of delay and either are deficient or have deficient movements. The distribution analysis scenarios indicate that approximately 25 percent of the traffic, regardless of the access scenario, could be expected to come and go from the site along Highway 390. The remaining traffic would access the site from South Highway 77 and other minor roadway connections in the area. Although this study was completed in 2009; based on minimal changes in surrounding areas, this study conclusions are still valid.

With the project anticipated to generate approximately 1,900 trips in the a.m. peak hour and 1,650 trips in the p.m. peak hour, the existing roadway network surrounding the site cannot accommodate the increase in volumes. Additional roadway capacity, along with facilities providing access, is needed either along existing roadways or through the development of a new roadway. The existing roadway network will not be able to provide adequate access at build-out in year 2025. Additional

capacity improvements likely will be needed for other facilities, such as Highways 77 and 390. A specific access study, that includes the details of the development plan(s) and the schedule for build-out, would be completed by the FSU and the City as part of the concurrency application to the City of Lynn Haven.

Recognizing that the maximum allowable FAR would directly influence traffic load, the City has stated that a 0.35 FAR rather than a 0.50 FAR would be the reasonable maximum FAR for the development of the property. Additionally, the City anticipates that allowing residential use on the property would further lessen the traffic impact as there would be less commuting to and from the LHFD property from those who reside on the property.

To further alleviate the increased traffic load, FSU and the City have already begun discussions on the need for multiple entry/exit roads into the site with associated road improvements. The various traffic access alternatives are shown on Figure 4-1. The City has indicated that an entry/exit point to the south of the LHFD property at Maryland Street would be desirable. The Maryland Street traffic flow could also divert onto Connecticut Street or proceed south until it flows onto Highway 390. The City has also suggested converting a portion of the railroad right-of-way existing southeast of the LHFD property into a road that can connect to Tennessee Street to flow into Highway 390. The Tennessee Street access can also flow traffic east onto South Highway 77 on 12th Street. These discussions are preliminary in nature and will need more specific information for detailed mitigation planning. The cost for necessary road improvements and traffic signalization would be borne by the FSU and the City, and partially funded from any available road improvement grant funds that the City can assist in obtaining for redevelopment of the property. The preferred alternative would have no significant impact to existing transportation systems.

4.3.7.5.2 *Alternative 2*

As stated above for Alternative 1, the Proposed Action would result in impacts to the transportation system regardless of the placement of the FSU parcel (i.e., for Alternatives 1 and 2). A specific access study would be completed by the City and FSU as part of the concurrency application to address the anticipated impacts. The reduction in the maximum allowable FAR by the City from 0.50 to 0.35 (explained in more detail in the previous section) will reduce the traffic load under both alternatives. Residential use on the property will further lessen the traffic impacts, as will the addition of multiple entry/exit roads (also explained in detail in the previous section). As with Alternative 1, these steps will significantly reduce the impact increased traffic load from redevelopment of the LHFD property. Alternative 2 would have no significant impact to existing transportation systems.

4.3.7.5.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.7.5.

4.3.7.6 Electricity / Natural Gas

4.3.7.6.1 Proposed Action Alternative 1

Existing electric facilities are available in sufficient proximity to provide service to the property and to support Proposed Action Alternative 1 as described herein. The existing electrical utilities at the LHFD property are owned by the Air Force. The system connects to a Gulf Power meter at the east gate. The supply from Gulf Power is a 3-phase system and is sufficient to provide power to meet the increased demands of the proposed redevelopment of the property under Alternative 1 (Gulf Power, 2009). The existing electrical utilities on the property will need to be extended to fit detailed plans. Impacts from these extensions cannot be determined at this time due to the lack of detailed plans. However, any of the future development plan impacts will be addressed through the FERP and construction permit process. Significant impacts are not anticipated from the development of the electrical system to supply the proposed alternative, provided FSU and the City comply with FERP and other permit requirements.

Although there are no known plans for natural gas use for the proposed redevelopment, an existing supply is available to the LHFD property in the event FSU needs natural gas for laboratories at the satellite campus. There is an existing supply at the LHFD property that should be adequate to meet the natural gas demands for Alternative 1. As such, no significant impacts are anticipated from the use of natural gas in conjunction with redevelopment of the property.

4.3.7.6.2 Alternative 2

As stated above for Alternative 1, any of the future development plan impacts will be addressed through the FERP and construction permit process for Alternative 2. As such, significant impacts are not anticipated from the development of the electrical system to supply the proposed alternative, provided FSU and the City comply with FERP and other permit requirements. Additionally, no significant impacts are anticipated from the use of natural gas in conjunction with redevelopment of the property for Alternative 2.

4.3.7.6.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.7.6.

4.3.8 Hazardous Materials and Waste

4.3.8.1 Hazardous Materials

4.3.8.1.1 *Proposed Action Alternative 1*

Redevelopment and use of the property under Alternative 1 is not likely to result in a major change in the volume of hazardous material usage at the LHFD property, due to the current lack of use or storage on site.

Although arsenic has been identified in groundwater beneath the former rail line that transverses Area 1, Area 3 and the Rail Spur, LUCs have been identified as the remedy in place. . These controls apply to the entire LHFD property, including Areas 5 and the portions of Area 2 that were not historically used in conjunction with the site, due to the possible migration of arsenic in the groundwater.

It is expected that small amounts of hazardous materials would be used as a part of the construction and operation of the mixed use research park by FSU and the City. For example, the amount of hazardous materials use would increase from the present use of hazardous materials. Additionally, small amounts of hazardous waste may be generated. The use or generation of hazardous materials/waste is regulated under federal and state laws. Provided FSU and the City comply with all federal and state requirements regarding hazardous material usage and hazardous waste disposal, no significant impacts are anticipated from Alternative 1.

4.3.8.1.2 *Alternative 2*

As with Alternative 1, LUCs have been identified as the remedy in place for arsenic in the groundwater. . These controls apply to the entire LHFD property, including Areas 5 and the portions of Area 2 that were not historically used in conjunction with the site, due to the possible migration of arsenic in the groundwater.

Alternative 2 will also see an increase in the use of cleaning and maintenance supplies above that currently used at the site and the possible educational use of hazardous materials is anticipated. Additionally, small amounts of hazardous waste may be generated. The use of hazardous materials and the generation of hazardous waste are regulated under federal and state laws. Provided FSU and the City comply with all federal and state regulations regarding hazardous materials usage and hazardous waste disposal, no significant impacts are anticipated from Alternative 2.

4.3.8.1.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.8.1.

4.3.8.2 Hazardous Waste

4.3.8.2.1 Proposed Action Alternative 1 and Alternative 2

No significant impacts regarding hazardous waste are expected to occur as a result of Alternatives 1 or 2. There are no plans to have hazardous waste disposal on the property. All hazardous waste handling associated with the redevelopment of the property should be in compliance with federal and state requirements. Therefore, the alternatives will have no significant impact, provided compliance with federal and state requirements occurs.

4.3.8.2.2 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.7.

4.3.8.3 Environmental Restoration Program

4.3.8.3.1 Proposed Action Alternative 1 and Alternative 2

Tyndall AFB, under the Environmental Restoration Program (ERP), currently has responsibility for cleanup actions at the LHFD property. Under Alternatives 1 and 2, the Air Force would continue to be responsible as a matter of law under CERCLA for future site cleanup actions needed to address any past releases of contamination that threaten human health or the environment. Currently, three remediation areas are present at the LHFD. All actions have been completed and would not affect disposal and reuse of the property. The portion of the groundwater where contaminants (arsenic) are still of concern. A final plan for this site is still being coordinated with the FDEP. Based on the results of the coordination, the Air Force has placed limits on property use (LUCs) Restrictions on ground water usage has been imposed; however, because the property is connected to an off-site water supply, groundwater use restrictions would not affect reuse of the property. The site will remain the responsibility of the Air Force until regulator concurrence on a no further action decision has been obtained. The Air Force would retain rights-of-access to the sites to inspect monitoring wells or conduct other remedial activities, as necessary. The Air Force will comply with the provisions of CERCLA Section 120 (h) for transfer of the

property. No impacts are anticipated to ERP sites as a result of the Proposed Action.

Through the EBS process, all known contamination and subsequent cleanup will be fully disclosed to FSU and the City. There are a limited number of known or suspected areas that may not have been fully addressed. These areas are limited to lead-based paint and asbestos on or within existing structures, and a small number of transformers that have not been conclusively determined to be non-PCB containing. Figure 3-15, Environmental Study Area Findings Map, shows the areas at the LHFD property and associated environmental condition of property categories.

The property transfer instruments will contain requirements to ensure LUCs are followed and are in place. If the Proposed Action is implemented, these outstanding issues on the LHFD property would become the responsibility of the new owners. If the property owners fail to adequately address those conditions and the conditions fall within the responsibility of the Air Force under CERCLA, the Air Force will continue to have full legal responsibility for those conditions pursuant to the CERCLA covenants contained in the deeds. Tyndall AFB would be involved with closing all open investigations, but would not initiate further investigation of the septic system, underground sample collection tank, or address lead based paint, PCB-containing transformers, or the removal of the ACMs from the property.

As described in Section 3.3.7.2, several areas on the LHFD property will likely be subject to land use restrictions and controls so that development of the property does not conflict with the allowable land uses based on residual contamination that was allowed to remain onsite as part of the Air Force past remediation efforts. Those land use restrictions and controls will be documented in the property transfer documents, to include the deed, and the property owners will be required to comply with the restrictions and controls, except to the extent FDEP allows any deviation from such restrictions and controls. The property owners will be responsible for continued monitoring and implementation of the land use restrictions and controls, to include any reporting requirements levied by FDEP to ensure the effectiveness of the land use restrictions and controls. Both the Air Force and FDEP will have continuing jurisdiction to ensure that the land use restrictions and controls are complied with by the new property owners.

Provided FSU and the City comply with their legal obligation to continue with the required environmental restoration, the Proposed Action, under both Alternatives 1 and 2, will have no significant impact on the Air Force's ERP or the environmental restoration of the property.

4.3.8.3.2 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.8.3.

4.3.9 Biological Resources

4.3.9.1 Vegetation

4.3.9.1.1 Proposed Action Alternative 1

The redevelopment of the LHFD property will affect vegetation on the property, regardless of the placement of the FSU parcel. However, the majority of the existing vegetative communities are of low quality due to previous development and are heavily impacted by invasive and exotic species, as referenced in Section 3.3.8.1. The majority of the open areas of the LHFD property consist of bahia grass fields where previous structures have been removed. Considering the land use planned under Alternative 1 (and Alternative 2), bahia grass will still be the major vegetation community on the property after redevelopment.

The existing native grand oaks and other hardwood trees are protected, with exception for the pine species. These resources are located within the dredge spoil areas (Areas 2 and 5) and along the rail spur buffer. The City will be required, under the Bay County Planning and Zoning regulations (Bay County, 2009), to permit the removal of any hardwood trees over 18 inches in diameter. Mitigation under these regulations usually is in the form of new plantings, with the size and species required for mitigation dependent on those trees being removed. There are approximately 2.7 acres of hardwood trees in Alternative 1 (i.e., in Area 5). With adherence to replacement requirements for the removal of these trees, there will be no significant impact from redevelopment under Alternative 1.

4.3.9.1.2 Alternative 2

Alternative 2 has a greater probability of impacts to protected hardwoods due to the greater number (approximately 7.6 acres of hardwoods) and size of oaks within the FSU parcel proposed under Alternative 2 (i.e., redevelopment of Area 2 instead of Area 5). Mitigation options vary depending on the size of impacts, but could be performed by replanting similar species onsite and along the rail spur buffer. The mitigation efforts for this alternative will be substantially more than that for Alternative 1, but with adherence to mitigation requirements impacts would be compensated and no significant impact would result.

4.3.9.1.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.9.1.

4.3.9.2 Wildlife

4.3.9.2.1 Proposed Action Alternative 1

The habitats at the LHFD property and rail spur are not unique and are commonly found within the St. Andrews basin and throughout the Gulf coastal areas. The development of Alternative 1 would reduce the available wildlife habitat on the LHFD property. However, this habitat is a previously altered habitat that offers a lower value habitat to wildlife. The existing habitat consists primarily of pine forest, bahia grass fields, and areas of sparse vegetative cover for wildlife. Redevelopment of this habitat will displace and remove some upland foraging habitats for migratory birds. Even though no known nesting birds inhabit the property there are superior upland habitats in the vicinity and throughout the county. The temporary loss of upland forage should not be a significant impact to migratory birds.

The forested areas in Area 5 are significantly impaired due to the dredge spoils and arid nature of these well drained sands. This undoubtedly decreases the wildlife populations on the site. Area 5 does have wildlife value, as evidenced by the species noted during the field surveys for wetlands and protected species. However, the habitats supporting wildlife are small, geographically isolated areas that provide little population capacity. Physical barriers to movement by fencing and presence of surface water bodies provide insufficient habitat corridors to other viable terrestrial populations. Thus, most of the wildlife value is only available to transient bird species. Due to the low habitat value, restricted use due to geographic isolation and foraging limitations, this property is not considered to be useful as wildlife habitat. Therefore, the redevelopment of the property for Alternative 1 will not produce significant impacts to the wildlife populations.

4.3.9.2.2 Alternative 2

The redevelopment under Alternative 2 would also reduce the available wildlife habitat on the LHFD property. It is anticipated that impacts, though considered not significant, would be greater with this alternative given the higher density of hardwoods and evergreen tree species in the western portion of the property. The presence of the trees translates into higher potential population densities of wildlife. Thus, redevelopment of Area 2 would result in increased impacts to wildlife on the LHFD property over Alternative 1. However, the habitats supporting wildlife are small in Area 2 (as with Area 5 for Alternative 1). They are also geographically

isolated areas that provide little population capacity and physical barriers to movement (e.g., fencing and presence of surface water bodies) provide insufficient habitat corridors to other viable terrestrial populations. Thus, most of the habitat value on the property is specific to transient bird species. Due to the low overall habitat value, restricted use due to geographic isolation and foraging limitations, the redevelopment of the property under Alternative 2 will not produce significant impacts to the wildlife populations. As noted in previous sections, mitigation in the form of replanting for certain tree species will further off-set any temporary impacts from development.

4.3.9.2.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.9.2.

4.3.9.3 Threatened And Endangered Species

4.3.9.3.1 Proposed Action Alternative 1

The transfer of the LHFD property is not anticipated to affect threatened and endangered species. There are no listed species identified on the LHFD property and, therefore, the transfer of the property will not directly impact listed resources. There is habitat and documented burrow locations for the gopher tortoise, a state-listed species. Because of this, FSU and the City will need to comply with state and federal regulations regarding listed species and development of the site. Minimizing the reuse of the property within the areas where gopher tortoise burrows have been observed would reduce or possibly eliminate impacts to the gopher tortoise. Future relocation of gopher tortoise may be required if redevelopment is planned in areas where active burrows are identified at that time. Specific plans would need to be reviewed by the Florida Fish and Wildlife Conservation Commission.

Additionally, if in-water facilities, such as an additional pier facility, are considered as part of the redevelopment plan, losses to the seagrass habitats could have an adverse effect on the species that are dependent on those habitats. Such species include sea turtles and many fish. The proposed reuse of the existing pier facility would eliminate direct impacts to sea grass habitats and associated species.

Although migratory birds are known to forage near the site, due to the low habitat value and the distance to known nesting MBTA resources, it is anticipated that the threshold of potential effects on a population has a low probability of occurring.

The rail spur has potential habitat for the Panama City Crayfish and the City would need to comply with state and federal regulations pertaining to this species if redevelopment of the rail spur is planned.

4.3.9.3.2 *Alternative 2*

As with Alternative 1, the transfer of the LHFD property will not directly impact threatened and endangered species and no adverse impacts are expected. As noted above, there is habitat and documented burrow locations for the gopher tortoise, a state-listed species, as well as seagrass habitats along the shoreline. Because of this, FSU and the City will need to comply with state and federal regulations regarding listed species and development of the site. Minimizing the reuse of the property within the areas where gopher tortoise burrows have been observed and utilizing the existing pier facility would reduce or possibly eliminate impacts to protected species and habitats. This is relevant because Alternative 2 has the potential for more seagrass impacts, but use of the existing pier facility would eliminate these impacts. Although migratory birds are known to forage near the site, due to the low habitat value and the distance to known nesting MBTA resources, it is anticipated that the threshold of potential effects on a population has a low probability of occurring. As with Alternative 1, the rail spur has potential habitat for Panama City Crayfish and the City will need to comply with state and federal regulations if the area is redeveloped.

4.3.9.3.3 *No Action Alternative*

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.9.3. Documentation noting the lack of endangered and threatened species at the LHFD property and potential for the Panama City Crawfish habitat at the rail spur is included in Appendix A.

4.3.9.4 Wetlands

4.3.9.4.1 *Proposed Action Alternative 1*

The FSU parcel in Alternative 1 is adjacent to North Bay, Lynn Haven Bayou, and emergent estuarine marsh and contains approximately 5.6 acres of this wetlands habitat. The wetlands are shown on Figure 4-3, Natural Resources Map. Since the LHFD property and FSU parcel are proposed for use as a research facility and satellite campus for FSU, the development impacts were estimated based on land use classifications for evaluation of the alternative. The zoning regulations restrict impervious surfaces to 70% of the property, which leaves approximately 12 acres of pervious surface and open space or buffer. Wetland impacts can be avoided by incorporating the wetlands into this development plan for pervious areas. This will result in 6.5 acres of estuarine marsh and 1.5

acres of stormwater ditches, with suggested wetland setback areas of 30 feet and a total of eight acres of the available open space required being set aside for wetland conservation. The result would be four acres of open space on the remaining 28 developed acres. This alternative may not allow for the complete build out of the parcel because the use of protected wetland habitats is not allowed under NEPA without special circumstances. Since the FAR will be reduced from 0.50 to 0.35, this will effectively provide an additional 4.5 acres of open space for wetlands and buffer areas. With the reduction in the FAR and adherence with permitting and mitigation requirements, there should be no significant impact to the wetland resources on the property. While the Air Force cannot provide assurance that the avoidance and minimization steps will be abided by, the environmental permitting process in Florida is robustly defined for projects on public or privately held property.

The planned usage of the FSU parcel as a satellite campus for marine/oceanography facilities includes the need for marina facilities and shoreline access. If FSU decides to reuse the existing pier on the LHFD property, this would eliminate wetland impacts along the shoreline and effectively avoids the seagrass beds that exist in the near-shore zone. The seagrass beds do not extend into the area along the pier due to deepening from the original dredging project. FSU and the City will have to permit changes to the pier through the FERP process and the Florida office of sovereign submerged lands. Since the use of the pier reuses existing resources and the permit process will mitigate any additional changes that would affect the surrounding environment and resources, it is anticipated that these alternatives will have no significant impact on wetland resources at the LHFD property provided the permitting and mitigation requirements are followed for the pier reuse.

The rail spur is adjacent to wetland habitats and the City, under Alternative 1, would need to comply with state and federal regulations pertaining to use or impacts to these areas. The rail spur's previous development greatly reduces impacts for future projects which use the existing rail bed. Projects that will require work off the rail bed could have significant impacts on wetland and stream resources. The reuse of the rail spur would minimize, and maybe even avoid, wetland impacts by restricting the design to the existing rail bed only and providing protection against impacts to wetland and surface water habitats in the 100-foot-wide property encompassing the rail bed and rail. With such restrictions and with compliance with FERP process, there should be no significant impact to the wetland resources along the rail spur.

4.3.9.4.2 *Alternative 2*

As noted above in Section 4.3.9.4.1, the transfer of the LHFD property and subsequent redevelopment does not significantly affect wetland resources. However, it should be noted that the FSU parcel in Alternative

2 is adjacent to North Bay and has adjacent beach, marsh, and seagrass habitats. There are minimal wetland habitats that would limit the use of open space under the land use guidance. For example, there are approximately three acres of stormwater conveyance features that provide nine acres of open space that could be incorporated into the redevelopment scenario.

The option to reuse the existing pier facility under Alternative 2 eliminates the potential for wetland impacts along the North Bay shoreline from the construction and operation of boat facilities. Therefore, with regard to wetland resources, Alternative 2 does not significantly impacts wetland resources provided state and federal permitting requirements are followed, mitigation is implemented where needed, and reuse of existing facilities, such as the pier, are incorporated into the redevelopment as planned.

As noted in Section 4.3.9.4.1, the rail spur has wetland habitats and the City, under both Alternatives 1 and 2, would need to comply with state and federal regulations pertaining to use or impacts to these areas. With restrictions in the areas reused, as described in the previous section, and with compliance with FERP process, there should be no significant impact to the wetland resources along the rail spur.

4.3.9.4.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.9.4.

4.3.10 Cultural Resources

4.3.10.1 Historic Resources

4.3.10.1.1 Proposed Action Alternative 1

Based on the findings of the recent surveys, Proposed Action Alternative 1 does not present an adverse effect to the known historic resources because the resources identified on the property are ineligible for the NRHP. As a protective measure, the Air Force will include in the transaction paperwork a clause recommending that alteration or demolition of the built resources should not occur without concurrence from the SHPO and that FSU and/or the City should contact the Florida State Historic Preservation Office if unidentified historic properties or human remains are encountered on the property. Additional consultation by FSU and/or the City is required before altering or demolishing any historic properties determined eligible or potentially eligible for the NRHP. Provided these provisions are followed, Proposed Action Alternative 1 will have no significant impact on historic resources.

4.3.10.1.2 Alternative 2

The redevelopment restrictions and limitations delineated under the Proposed Action Alternative 1 apply to Alternative 2 and, therefore, provide the same provisions for protection of discovered resources during construction and the requirements for coordination with the SHPO. Provided these provisions are followed, there should be no significant impact to historic resources from Alternative 2.

4.3.10.1.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.10.1. Information documenting the historic resources on the property has been included in Appendix B for reference.

4.3.10.2 Cultural Resources

4.3.10.2.1 Proposed Action Alternative 1

Alternative 1 places the FSU parcel on the east side of the property (i.e., in Area 5) where the known archeological occurrences has been located. Because this was found in the dredge spoils, it is presumed that both spoil areas (Areas 2 and 5) could have similar resources. However, similar findings are not anticipated in other areas of the site. Because of the find, the Air Force conducted a Phase I study to rule out the occurrence of additional resources in Areas 2 and 5 at the site. This study determined a no effect ruling on resources found during the study given their lack of context and nature. This was confirmed by Florida DHR in a letter dated April 28, 2011. FSU and the City are required, under the FERP process, to coordinate with the SHPO and provide reasonable assurance of no significant impact before land clearing activities begin. Provided these requirements are followed by FSU and the City, no significant impact to cultural resources is anticipated. Additional information regarding the archeological find is included in Appendix B.

4.3.10.2.2 Alternative 2

The redevelopment of the LHFD would be the same for both alternatives and governed by the same requirements. Provided these requirements are followed by FSU and the City, no significant impact to cultural resources is anticipated under Alternative 2.

4.3.10.2.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.9.2.

4.3.11 Socioeconomic Resources and Environmental Justice Impact Analysis

4.3.11.1 Proposed Action Alternative 1

With implementation of Proposed Action Alternative 1 and the resulting land use changes with redevelopment, moderate revenue from increased property taxes in the vicinity of the LHFD property and rail spur is expected as property values are anticipated to increase. For example, it has been noted that greenways and trails slightly increase property values by providing desirable green space to home buyers (Los Angeles County MTA, 2007) and reducing crime rates on abandoned rail systems by increasing public traffic and visibility (Tracy & Morris, 1998). Construction jobs and, following redevelopment, more permanent positions created at the research park and satellite campus would also be a benefit to the community.

With Alternative 1 the property would be put into productive use and that would produce additional jobs, tax revenues, and increase property values. Because the area of Lynn Haven where the LHFD property and rail spur are located is considered to be above the State's poverty level and a minority population is not present within the area and Alternative 1 would not unduly affected the socioeconomic resources.

The redevelopment of the property and rail spur would benefit children within the immediate vicinity of the property. The process by which the Air Force must use to transfer the property also removed environmental health risk from the property soils and water and reducing the likelihood of off-site contamination in the residential areas adjacent to the rail spur and property gate. Children are expected to be a significant portion of the population within the nearby residential areas. With the location of a primary school on the main road leading to the entrance to the LHFD property, temporary impacts to school traffic patterns during construction and to a lesser degree after redevelopment would be anticipated. However there are alternative routes, identified in the traffic study to mitigate the possible effects. Thus, no significant impact to children are expected.

As described in Section 3.3.10, Bay County would be considered the regional area, or census area, within which the LHFD project would occur. However, the project-related impacts would primarily affect the community of the City of Lynn Haven, which for purposes of the Executive Order 12898 analysis, is the community specifically affected by the project. To determine whether the Proposed Action or alternatives would have a disproportionate impact on minority and low-income population, the Air Force compares the percent minority and percent low-income populations in the affected community (City of Lynn Haven) with the percentage of such populations in the general census area (Bay County). The City has an overall smaller percentage of minority

population than Bay County (14.8% versus 15.73%). The City also has an overall smaller percentage of low-income population than Bay County (6.1% versus 13%).

Proposed Action Alternative 1 will not have a disproportionate impact on minority and low-income populations and no significant impacts to socioeconomics or environmental justice are anticipated. Conveying the LHFD property would have no direct effect on socioeconomics and environmental justice. However, in executing the proposed transfer, the Air Force recognizes that positive indirect effects and cumulative impacts associated with its action may occur; these effects are described in Section 3.3.10.

4.3.11.2 Alternative 2

As with Proposed Action Alternative 1, no significant impacts to socioeconomics or environmental justice are anticipated from implementation of Alternative 2 for the same reasons noted in 4.3.11.1.

4.3.11.3 No-Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions described in Section 3.3.10. No significant impacts to socioeconomics or environmental justice are anticipated from implementation of the No-Action Alternative.

4.4 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

For either Alternative 1 or 2, minor impacts on noise, air quality, topography, soils, surface water, utilities, site drainage, transportation, vegetation, wildlife, floodplains, and, depending on the redevelopment configuration, on wetlands may occur.

All alternatives are affected equally by the following hazardous materials and waste issues because the sources of these issues are not located within either of the proposed FSU parcel locations (refer to Figure 3-15).

- LUCs have been instituted to reduce the risk of exposure to groundwater, which contains arsenic and hydrocarbons below industrial cleanup levels but above residential cleanup levels.
- LUCs have also been instituted to reduce the risk of exposure to soil, which contains hydrocarbons below industrial cleanup levels but above residential cleanup levels.
- Surveys for lead based paint and asbestos need to be performed prior to redevelopment.
- Testing for PCB-containing oils in four pole-mounted transformers would need to be completed prior to redevelopment.

- The former septic system and sample disposal tank need to be removed prior to redevelopment.

4.4.1 Proposed Action Alternative 1

Specifically for Alternative 1, the placement of the FSU parcel on the east side of the property in Area 5 would result in unavoidable, but not significant, adverse environmental impacts. The zoning restrictions based on the land use classifications and FAR calculations indicated that the available area for structures and impervious surface would be limited and pervious surfaces, such as wetlands, and buffer areas would be required. As mitigation, the reduction of the FAR would eliminate impacts to wetland habitats. The impacts to traffic and solid waste could also be mitigated by the reduction in the FAR. This would effectively reduce the capacity population and lower the proposed usage to designed levels and, thus, have no significant impact on these systems.

LUCs include soil restrictions that will prevent single story residential dwelling located within the areas that formerly had ERP sites within them and may have residual contamination below industrial target cleanup levels, but above residential target cleanup levels. This restriction applies to Area 2 (and thereby affects Alternative 2). This restriction further supports use of Area 5 for FSU residence dorms at ground surface. Placement of the residence in any other area (i.e., Area 2) will require the residence to be elevated from ground surface. The FAR restrictions effectively limit the height of the building and, thus, severely limit the residential capacity. However, in Area 5 which is part of the FSU parcel in Alternative 1, there is no such restriction and the residence facilities can be maximized to support the FSU proposed use.

The redevelopment of the LHFD property under Alternative 1 would minimally affect the vegetation and wildlife species that inhabit these areas. However, the areas to be developed under Alternative 1 include habitats of low value (e.g., slash pine) and are not unique within the St. Andrews basin. Compensation in the form of mitigation would be easily attainable through replanting as required under state and local regulations and with that no significant impacts would be expected.

4.4.2 Alternative 2

Alternative 2 places the FSU parcel on the western end of the property in Area 2. The redevelopment of the property under Alternative 2 would adversely impact the tree community in Area 2, which has greater numbers of hardwoods than in Area 5 (Alternative 1). As with Alternative 1, the FAR would need to be reduced (as proposed from 0.50 to 0.35) in order to reduce impacts to the wetlands, traffic and solid waste systems. The LUCs for Area 2 would also limit construction of residential facilities, with placement of residential units (e.g., dorms) in Area 2 in structures

that would be elevated from the ground surface. The reduced FAR, put in place to limit impacts to other systems, would add height restrictions for the building. Thus, residential capacity under Alternative 2 would be reduced. This reduction in student housing either reduces the usable capacity of the facility or subsequently increases traffic impacts by making the displaced FSU students commute to the facility from off-site. The reduction of usable capacity would likely make the FSU facility more expensive per student to operate and make Alternative 2 less practical to implement for FSU.

The development of the LHFD property under Alternative 2 would also affect the vegetation and wildlife species that inhabit Area 2. Area 2 includes mostly oak hammocks, rather than the slash pine found in Area 5, that would require mitigation if this area is redeveloped. While the oak hammocks are not unique within the St. Andrews basin, they receive higher priority for conservation under state and local regulations. Compensation in the form of mitigation would include replanting as required under state and local regulations. Mitigation of oak species typically is ten times or more the cost of that for pine species. Because Area 2 would be redeveloped under Alternative 2, the presence of more hardwoods and requirement for LUCs that would restrict reuse for residential purposes makes this alternative not practical since it has increased impacts, more costs for mitigation, as well as limits on the development and capacity for reuse.

4.4.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions.

4.5 COMPATIBILITY OF THE PROPOSED ACTION AND ALTERNATIVE WITH THE OBJECTIVES OF FEDERAL, REGIONAL, STATE, AND LOCAL LAND USE PLANS, POLICIES AND CONTROLS

4.5.1 Proposed Action Alternative 1

The Proposed Action Alternative 1 is compatible with the objectives of federal, state, and local land use plans, policies, and controls. The reuse of the LHFD property as a research park and satellite campus is compatible with the land use designation and controls enforced by FDEP. The plans for redevelopment are undefined and this provides the flexibility to minimize and avoid conflicting issues and to comply with agency mandates and limitations. The location of the FSU parcel under Alternative 1 would impact natural resources. However, these impacts can be minimized and, in some cases avoided, through site planning and permitting for redevelopment. Wetland impacts can be minimized

through proper design and siting of facilities, and may be avoided through the reuse of the existing pier facilities.

4.5.2 Alternative 2

Alternative 2 is also compatible with the objectives of federal, state, and local land use plans, policies, and controls. As with Alternative 1, the reuse of the LHFD property as a research park and satellite campus is compatible with the land use designation and controls enforced by FDEP. Since the plans for redevelopment under this alternative are also undefined, this provides an equal opportunity for flexibility to minimize and avoid conflicting issues and to comply with agency mandates and limitations. Under Alternative 2, the location of the FSU parcel would impact natural resources. The impacts to the oak hammock and seagrass beds could only be compensated through mitigation. The seagrass impacts could be avoided by the reuse of the existing pier facility. As such, impacts under Alternative 2 create a less desirable scenario for redevelopment.

4.5.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions.

4.6 RELATIONSHIP BETWEEN THE SHORT-TERM USE OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

This section evaluates the short-term benefits of the proposal compared to the long-term productivity derived from not pursuing the Proposed Action. The relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity has been analyzed where impacts that narrow the range of beneficial uses of the environment in the long-term or pose a long-term risk to human health or safety are depicted.

4.6.1 Proposed Action Alternative 1 and Alternative 2

The redevelopment of the LHFD property constitutes a long-term change in Areas 2 and 5 from naturalized areas to a mixed use development. However, the current habitat in Areas 2 and 5 represents habitat formed in the previously altered dredge spoil areas naturalized over 60 years and are not undisturbed, high-value habitats. The conversion of the remaining areas of the LHFD property from the fuel depot and associated rail spur constitutes a change from an industrial nature to the mixed use campus and research park type of land use.

The reuse of this former industrial property to a less intensive land use provides real benefits to the surrounding areas and habitats. Although Alternatives 1 and 2 do not provide for the direct productivity on site for long-term growth of terrestrial systems, the application of a marine science research facility will have a beneficial impact on the aquatic habitats of the surrounding estuary. The reuse of existing pier structures will not impact wetland resources. Terrestrial resource losses will be mitigation through the local and state permitting process and will offset any changes due to redevelopment. Therefore, the reuse of the LHFD property and rail spur will not result in a significant negative impact. Furthermore, the short-term benefits outweigh the long-term environmental productivity associated with not developing the site under the Proposed Action.

4.6.2 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions.

4.7 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Irreversible and irretrievable resource commitments are related to the use of non-renewable 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.

4.7.1 Proposed Action Alternative 1

The redevelopment will result in short term increases to noise and air emissions. Construction would use materials (e.g., wood, concrete, metal) and energy (e.g., fuel, electricity) that would be irretrievably lost. Redevelopment and reuse of the area would also increase traffic permanently that would increase consumption of fuel, oil, and lubricants. The increased use of the redeveloped LHFD property would also increase utility requirements (e.g., water and fuel). These increases would be considered minor and would result in only a minor loss of resources. This loss would be offset by the benefits of redevelopment, including creation of jobs, an improved tax base, and improved property values. Significant irreversible and irretrievable commitments of resources will not occur from the Proposed Action Alternative 1.

4.7.2 Alternative 2

The redevelopment limitations would be in place for both the Proposed Action Alternative 1 and Alternative 2. The temporary impacts would be considered minor and would result in only a minor loss of resources. This loss would be offset by the benefits of redevelopment, including creation of jobs, an improved tax base, and improved property values. Significant irreversible and irretrievable commitments of resources will not occur from Alternative 2.

4.7.3 No Action Alternative

Under the No Action Alternative, there would be no change in the baseline conditions.

4.8 CUMULATIVE IMPACTS

Cumulative impacts are defined as the combined, incremental effects of human activity. While the project impacts may be insignificant by themselves, cumulative impacts accumulate over time, from one or more sources, and can result in the degradation of important resources. Because federal projects cause or are affected by cumulative impacts, this type of impact must be assessed in documents prepared under NEPA.

The region of interest for impact assessment was defined as the immediate area on or adjacent to the LHFD property for direct impacts (wetland and historical resources). For indirect impacts such as on distribution systems (traffic and utilities) the City limits were generally used to assess the capacity and provisions.

During construction activities, small amounts of hazardous materials are expected to be utilized, and the potential for spills would exist. Any spills or releases of hazardous materials would be cleaned up by the contractor. Hazardous materials likely to be utilized during construction activities include adhesives; motor fuels; paints; thinners; solvents; POL, and household products. Small quantities of hazardous waste may be generated during construction activities. The contractor would be responsible for following applicable regulations for management of any hazardous waste generated. Any spills or releases of fuel or oil from equipment would be cleaned up by the contractor. The contractor would be responsible for the off-site disposal of any hazardous waste generated on the property in accordance with applicable regulations.

Operation of the FSU station would primarily involve the use of POL, hydraulic fluid, batteries, herbicides/pesticides, and commercial cleaning products. Most of the hazardous materials utilized would be consumed during use or recycled; as a result, only small amounts of wastes would likely be generated. Hazardous waste would be handled and disposed in

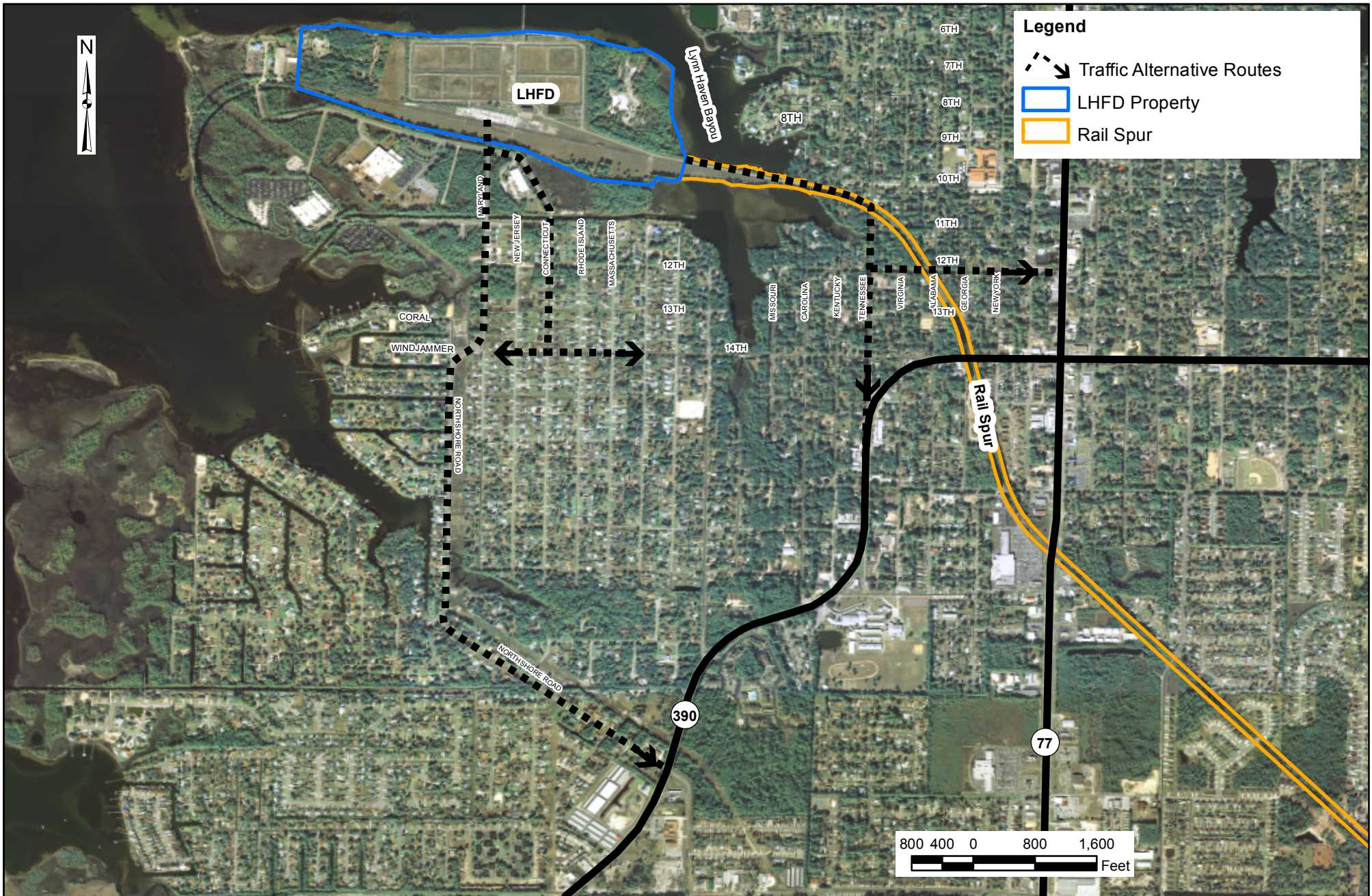
accordance with applicable federal, state, and local regulations. Because hazardous materials and hazardous waste would be managed in accordance with applicable regulations, no significant impacts are anticipated.

A number of plans would be developed and implemented to minimize impacts from construction activities and incorporated into construction contracts. These plans include:

- Temporary Erosion and Sediment Control Plan: Developed to contain and minimize sediment transport from upland construction areas.
- Spill Prevention, Control, and Countermeasures Plan: Developed to reduce the potential for accidental spills, minimize their quantity, provide direction for containment, and clean up any materials that could cause pollution to the water resources and surrounding environments.
- Dewatering Plan: Implemented to prevent groundwater contamination and to ensure appropriate treatment of water removed during dewatering.

Because required management practices would be implemented during demolition and construction activities, no significant impacts to water resources are anticipated from construction and operation.

The City of Lynn Haven and area near the LHFD property are primarily residential with very little undeveloped lands. According to the City of Lynn Haven, other large future land redevelopment projects in the Lynn Haven Bayou watershed are not planned or expected from private sector. Although some adjacent properties have changed ownership, operations at the properties are not expected to change nor cause significant impacts to area resources.



Lynn Haven Fuel Depot
Lynn Haven, Florida

Final
Environmental Assessment
Traffic Alternatives Map

Figure 4-1
December 2015

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CHAPTER 5. LIST OF PREPARERS

Table 5-1: List of Preparers

Name/Organization	Degree	Professional Discipline	Years of Experience
Mr. Stephen Rice ARCADIS U.S., Inc.	BS Biology MS Environmental Science	Environmental Science Aquatic Biology	27
Ms. Susan Burtnett ARCADIS U.S., Inc.	BS Civil Engineering MS Civil Engineering	Civil/Environmental Engineering	28

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CHAPTER 6. LIST OF PERSONS AND AGENCIES CONSULTED

FEDERAL AGENCIES

Tyndall AFB

Mr. Joseph McLernan, Chief, Environmental Restoration, AFCEC/CZO, Tyndall AFB, Florida

Mr. Jose Cintron, Lead Engineer, Environmental Planning, 325 CES/CEIEC, Tyndall AFB, Florida

Ms. Beth McPherson, Contractor Support, Environmental Restoration, AFCEC/CZO, Tyndall AFB, Florida

Ms. Wendy Jones, Wildlife Biologist, 325 CES/CEVN, Tyndall AFB, Florida

Mr. Jack Mobley, Former Wildlife Biologist, 325 CES/CEVN, Tyndall AFB, Florida

Mr. Wes Smith, Base Planner, 325 CES/CEV, Tyndall AFB, Florida

Mr. Wesley Westphal, Former Natural Resources Manager, 325 CES/CEVN, Tyndall AFB, Florida

Ms. Karen Jones, Real Property, 325 CES, Tyndall AFB, Florida

U.S. Department of the Interior

Ms. Patty Kelly, Listing Biologist, U. S. Fish & Wildlife Service, Panama City, Florida

STATE AGENCIES

State of Florida, State Clearing House

Florida State Clearinghouse, Florida Department of Environmental Protection, Tallahassee, Florida

State of Florida, Fish and Wildlife Conservation Commission, Tallahassee.

Mr. John Himes, State Biologist, FFWCC, Panama City Crayfish Biologist

State of Florida, State Historic Preservation Office

Ms. Celeste Ivory, Master File Administrator, Tallahassee, Florida

COUNTY AND LOCAL AGENCIES

Bay County Utilities, Bay County Water and Wastewater Division

Mr. Glen Ogborn, Superintendent, Bay County Solid Waste Division

LOCAL ENVIRONMENTAL GROUPS

Mr. Edwin Keppner, Keppner Biological, Lynn Haven, Florida

Ms. Lisa Keppner, Keppner Biological, Lynn Haven, Florida

Friends of Saint Andrews Bay

Friends of Lynn Haven Bayou

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APPENDIX A: Endangered Species Information

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Suite 200-C
Tallahassee, FL 32303
850-224-8207
fax 850-681-9364
www.fnai.org

August 1, 2007

Kristina Herz
Malcolm Pirnie, Inc.
1300 East 8th Avenue, Suite F100
Tampa, FL 33605

Dear Ms. Herz:

Thank you for your request for information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project: Lynn Haven Fuel Depot/Tyndall AFW
Date Received: July 31, 2007
Location: Bay County

Element Occurrences

A search of our maps and database indicates that currently we have several Element Occurrences mapped within the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

The Element Occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, Element Occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant.

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

FNAI habitat models indicate areas, which based on landcover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the most rare species tracked by the Inventory, including all federally listed species.

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Tracking Florida's Biodiversity

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

The Inventory always recommends that professionals familiar with Florida's flora and fauna should conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

Thank you for your use of FNAI services. If I can be of further assistance, please give me a call at (850) 224-8207.

Sincerely,



Jason A. Griffin
Data Services Coordinator

encl



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FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive

Point Indicates General Vicinity of Element

U.S. Fish & Wildlife Service
Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever
- Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

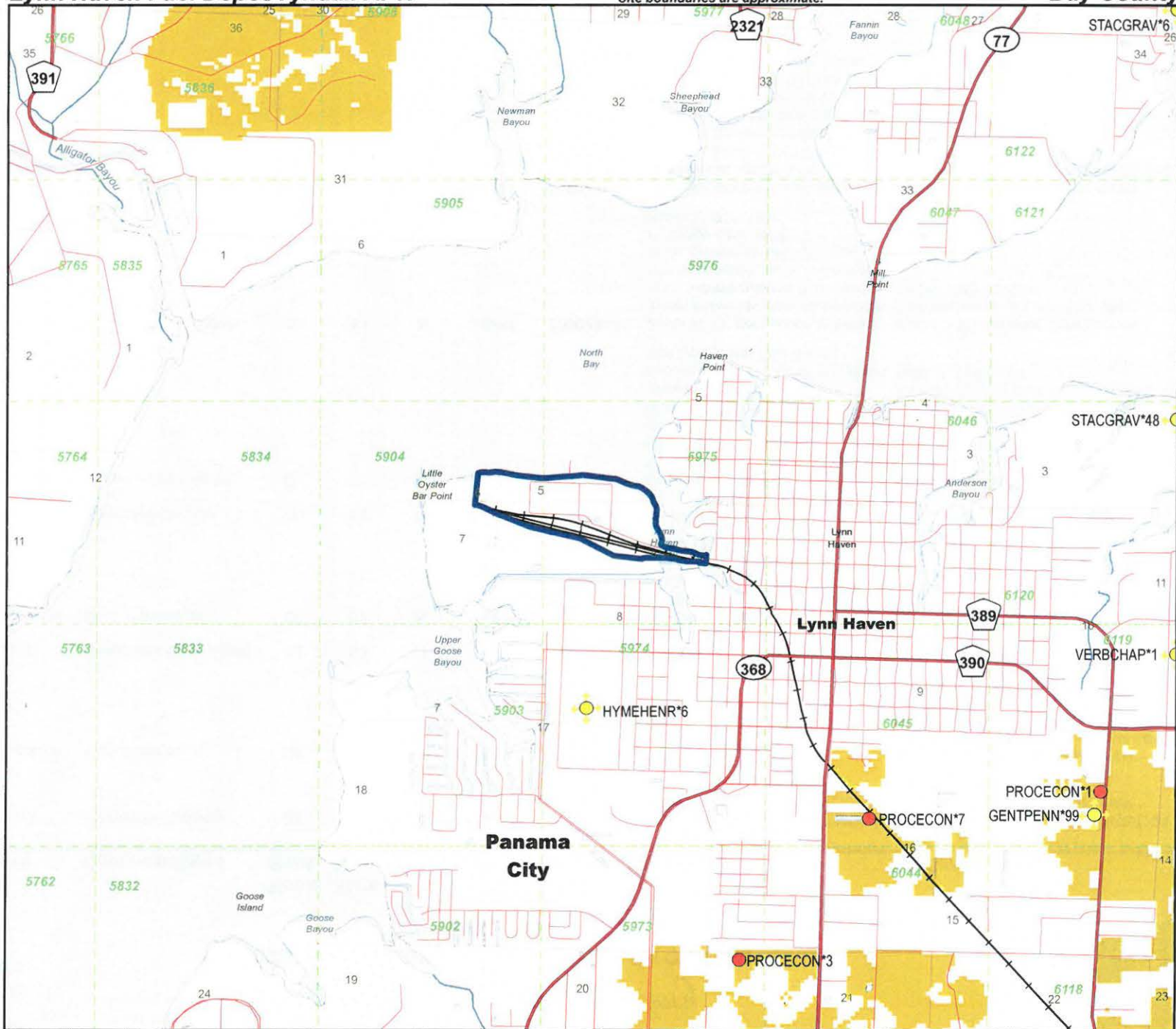
- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water



Lynn Haven Fuel Depot/Tyndall AFW

Site boundaries are approximate.

Bay County



NOTE
Map should not be interpreted without accompanying documents.

Map produced by JAG
Map Date: 01 AUG 2007



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FLORIDA
Natural Areas
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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR PROJECT SITE



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
HYMEHENR*6	Hymenocallis henryae	Panhandle Spiderlily	G2	S2	N	LE	1940-05-21	NO INFO ON LABEL, BUT MOST CERTAINLY PINE FLATWOODS.	COLLECTED BY ROBERT KNIGHT, 21 MAY 1940, IN LYNN HAVEN, BAY COUNTY.
STACGRAV*48	Stachydeoma graveolens	Mock Pennyroyal	G2	S2	N	LE	1966-05-24	MARGIN (SANDY) OF BAYSWAMP.	COMMON; COROLLA PINK WITH PURPLE MOTTLING ON LOWER LIP; SIDNEY MCDANIEL SPEC. #7576, COLLECTED 24 MAY 1966, FSU SPEC. #140641. FLAS #118445.
VERBCHAP*1	Verbesina chapmanii	Chapman's Crownbeard	G3	S3	N	LT	1982-05-01	PITCHER PLANT BOG.	1982-05-01: FLOWERING.
STACGRAV*6	Stachydeoma graveolens	Mock Pennyroyal	G2	S2	N	LE	1981-07-25	PINE-PALMETTO FLATWOODS (LONGLEAF-WIREGRASS); SLIGHTLY ELEVATED PARTS OF GENERAL TERRAIN. PINE OAK SAND RIDGE.	IN FLOWER IN AUGUST 1976 & 1962 IN FRUIT IN JULY 1981.
GENTPENN*99	Gentiana pennelliana	Wiregrass Gentian	G3	S3	N	LE	1989-12-01	STANDING WATER.	No EO data given
PROCECON*1	Procambarus econfinae	Panama City Crayfish	G1	S1	N	LS/PT	2001-08-03	Occasionally flooded (dry to 1.5 feet of water) grassy, roadside ditches adjacent to pine flatwoods; grass is probably torpedograss (PANICUM REPENS). Subdivision (Mowat Highlands) was built subsequent to the Moler collection. Soil type: Osier Fine Sand (Keppners collected specimens here on the following dates: 2001-08-03 (one male, many juveniles), 2000-09-04 (42 males, females, and juveniles, plus 126 burrows), 2000-03-07 (63 juveniles), and 2000-01-13 (two males, four females). Ca. 1980: P. Moler coll
PROCECON*7	Procambarus econfinae	Panama City Crayfish	G1	S1	N	LS/PT	2000-09-11	2000-09-11: depression in former mesic flatwoods, now 15 feet from road; vehicle ruts ran from road into depression; water six inches deep, greater in ruts. Soil type: Rutledge sand (#29) (U02KEP02FLUS).	2000-09-11: Keppner dipnet survey produced one male from this site (U02KEP02FLUS).
PROCECON*3	Procambarus econfinae	Panama City Crayfish	G1	S1	N	LS/PT	2000-09-11	2001-08: site had been dredged and box-cut, which is not conducive to P. ECONFINEAE. 2000-09: ditches and swale along 26th Street. North side consists of broad swale with central trench; vegetation includes torpedo grass, some SAGITTARIA, and other wetlan	2000-09-11: Keppner dipnet survey produced 1 male, 5 females (north) and 1 male (south) from this site (U02KEP02FLUS).



Technical Assistance Provided by:

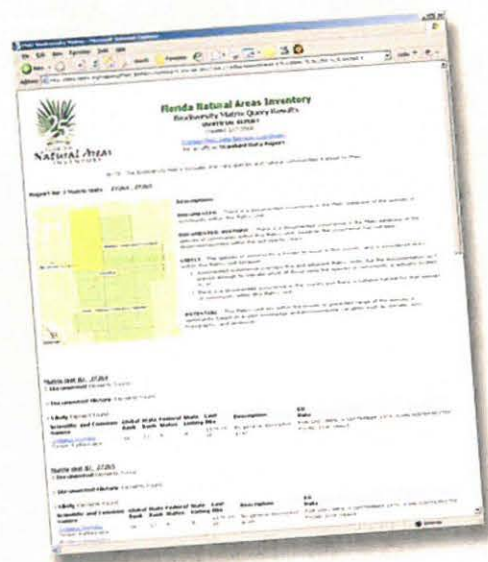


FOR IMMEDIATE RELEASE

FNAI's Biodiversity Matrix Online



The Biodiversity Matrix Map Server is a new **screening tool** from FNAI that provides **immediate, free access** to rare species occurrence information statewide. This tool allows you to zoom to your site of interest and create a report listing documented, likely, and potential occurrences of rare species and natural communities.



The FNAI Biodiversity Matrix offers **built-in interpretation** of the likelihood of species occurrence for each 1-square-mile Matrix Unit across the state. The report includes a site map and list of species and natural communities by occurrence status: Documented, Documented-Historic, Likely, and Potential.

Try it today:

www.fnai.org/biointro.cfm

Please note: FNAI will continue to offer our Standard Data Report service as always. The Standard Data Report offers the most comprehensive information available on rare species, natural communities, conservation lands, and other natural resources.

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Florida Natural Areas Inventory

Biodiversity Matrix Report



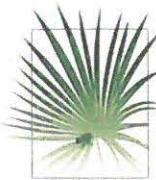
Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 5904					
Likely					
<i>Hymenocallis henryae</i>	Panhandle Spiderlily	G2	S2	N	LE
Matrix Unit ID: 5975					
Likely					
<i>Hymenocallis henryae</i>	Panhandle Spiderlily	G2	S2	N	LE
Potential from any/all selected units					
<i>Acipenser oxyrinchus desotoi</i>	Gulf Sturgeon	G3T2	S2	LT	LS
<i>Ammodramus maritimus peninsulae</i>	Scott's Seaside Sparrow	G4T3Q	S3	N	LS
<i>Amphiuma pholeter</i>	One-toed Amphiuma	G3	S3	N	N
<i>Asclepias viridula</i>	Southern Milkweed	G2	S2	N	LT
<i>Aster spinulosus</i>	Pine-woods Aster	G1	S1	N	LE
<i>Calamintha dentata</i>	Toothed Savory	G3	S3	N	LT
<i>Calamovilfa curtissii</i>	Curtiss' Sandgrass	G3	S3	N	LT
<i>Charadrius melodus</i>	Piping Plover	G3	S2	LT	LT
<i>Cuphea aspera</i>	Florida Waxweed	G1	S1	N	LE
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	LT	LT
<i>Gentiana pennelliana</i>	Wiregrass Gentian	G3	S3	N	LE
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	LS
<i>Lachnocaulon digynum</i>	Bog Button	G3	S3	N	LT
<i>Lupinus westianus</i>	Gulf Coast Lupine	G3	S3	N	LT
<i>Macbridea alba</i>	White Birds-in-a-nest	G2	S2	LT	LE
<i>Macranthera flammea</i>	Hummingbird Flower	G3	S2	N	LE
<i>Magnolia ashei</i>	Ashe's Magnolia	G2	S2	N	LE
Mesic flatwoods		G4	S4	N	N
<i>Nerodia clarkii clarkii</i>	Gulf Salt Marsh Snake	G4T4	S3?	N	N
<i>Nuphar lutea ssp. ulvacea</i>	West Florida Cowli	G5T2	S2	N	N
<i>Nyssa ursina</i>	Bog Tupelo	G2	S2	N	N
<i>Oxypolis greenmanii</i>	Giant Water-dropwort	G3	S3	N	LE
<i>Panicum nudicaule</i>	Naked-stemmed Panic Grass	G3Q	S3	N	LT
<i>Physostegia godfreyi</i>	Apalachicola Dragon-head	G3	S3	N	LT
<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	S2	LE	LS
<i>Pinguicula ionantha</i>	Godfrey's Butterwort	G2	S2	LT	LE
<i>Platanthera integra</i>	Yellow Fringeless Orchid	G3G4	S3	N	LE
<i>Polygonella macrophylla</i>	Large-leaved Jointweed	G3	S3	N	LT
<i>Rallus longirostris scottii</i>	Florida Clapper Rail	G5T3?	S3?	N	N
<i>Rana capito</i>	Gopher Frog	G3	S3	N	LS
<i>Rhexia parviflora</i>	Small-flowered Meadowbeauty	G2	S2	N	LE
<i>Rhexia salicifolia</i>	Panhandle Meadowbeauty	G2	S2	N	LT
<i>Ruellia noctiflora</i>	White-flowered Wild Petunia	G2	S2	N	LE
<i>Sarracenia leucophylla</i>	White-top Pitcherplant	G3	S3	N	LE
<i>Scutellaria floridana</i>	Florida Skullcap	G2	S2	LT	LE
<i>Stachydeoma graveolens</i>	Mock Pennyroyal	G2	S2	N	LE
<i>Verbesina chapmanii</i>	Chapman's Crownbeard	G3	S3	N	LT
<i>Xyris isoetifolia</i>	Quillwort Yellow-eyed Grass	G1	S1	N	LE

Definitions: Documented - Rare species and natural communities documented on or near this site.

Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.

Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.

Potential - This site lies within the known or predicted range of the species listed.



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Florida Natural Areas Inventory

Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Xyris scabrifolia</i>	Harper's Yellow-eyed Grass	G3	S3	N	LT

Definitions: Documented - Rare species and natural communities documented on or near this site.
Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
Potential - This site lies within the known or predicted range of the species listed.

GLOBAL AND STATE RANKS

Florida Natural Areas Inventory (FNAI) defines an **element** as any rare or exemplary component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature. FNAI assigns two ranks to each element found in Florida: the **global rank**, which is based on an element's worldwide status, and the **state rank**, which is based on the status of the element within Florida. Element ranks are based on many factors, including estimated number of occurrences, estimated abundance (for species and populations) or area (for natural communities), estimated number of adequately protected occurrences, range, threats, and ecological fragility.

GLOBAL RANK DEFINITIONS

- G1** Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2** Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3** Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4** Apparently secure globally (may be rare in parts of range).
- G5** Demonstrably secure globally.
- G#?** Tentative rank (e.g., G2?)
- G#G#** Range of rank; insufficient data to assign specific global rank (e.g., G2G3)
- G#T#** Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)
- G#Q** Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q)
- G#T#Q** Same as above, but validity as subspecies or variety is questioned.
- GH** Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
- GNA** Ranking is not applicable because element is not a suitable target for conservation (e.g. as for hybrid species)
- GNR** Not yet ranked (temporary)
- GNRTNR** Neither the full species nor the taxonomic subgroup has yet been ranked (temporary)
- GX** Believed to be extinct throughout range
- GXC** Extirpated from the wild but still known from captivity/cultivation
- GU** Unrankable. Due to lack of information, no rank or range can be assigned (e.g., GUT2).

STATE RANK DEFINITIONS

Definition parallels global element rank: substitute "S" for "G" in above global ranks, and "in Florida" for "globally" in above global rank definitions.

**FEDERAL AND STATE LEGAL STATUSES (U.S. Fish and Wildlife Service – USFWS)
PROVIDED BY FNAI FOR INFORMATION ONLY.**

For official definitions and lists of protected species, consult the relevant state or federal agency.

FEDERAL LEGAL STATUS

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

- LE** Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species which is in danger of extinction throughout all or a significant portion of its range.
- LE,XN** A non essential experimental population of a species otherwise Listed as an Endangered Species in the List of Endangered and Threatened Wildlife and Plants. LE,XN for *Grus americana* (Whooping crane), Federally listed as XN (Non essential experimental population) refers to the Florida experimental population only. Federal listing elsewhere for *Grus americana* is LE.
- PE** Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.
- LT** Listed as Threatened Species, defined as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
- LT,PDL** Species currently listed Threatened but has been proposed for delisting.
- PT** Proposed for listing as Threatened Species.
- C** Candidate Species for addition to the list of Endangered and Threatened Wildlife and Plants, Category 1. Federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
- SAT** Threatened due to similarity of appearance to a threatened species.
- SC** Species of Concern, species is not currently listed but is of management concern to USFWS.
- N** Not currently listed, nor currently being considered for addition to the List of Endangered and Threatened Wildlife and Plants.

**FLORIDA LEGAL STATUSES (Florida Fish and Wildlife Conservation Commission – FFWCC/
Florida Department of Agriculture and Consumer Services – FDACS)**

Animals: Definitions derived from “Florida’s Endangered Species and Species of Special Concern, Official Lists” published by Florida Fish and Wildlife Conservation Commission - FFWCC, 1 August 1997, and subsequent updates.

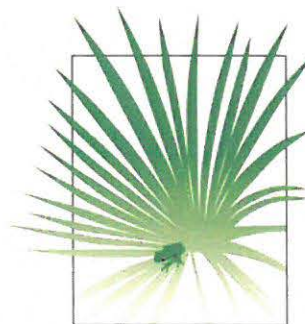
- LE** Listed as Endangered Species by the FFWCC. Defined as a species, subspecies, or isolated population which is so rare or depleted in number or so restricted in range of habitat due to any man-made or natural factors that it is in immediate danger of extinction or extirpation from the state, or which may attain such a status within the immediate future.
- LT** Listed as Threatened Species by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.
- LT*** Indicates that a species has LT status only in selected portions of its range in Florida. LT* for *Ursus americanus floridanus* (Florida black bear) indicates that LT status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. LT* for *Neovison vison* pop. 1 (Southern mink, South Florida population) state listed as Threatened refers to the Everglades population only (Note: species formerly listed as *Mustela vison* mink pop. 1. Also, priorly listed as *Mustela evergladensis*).
- LS** Listed as Species of Special Concern by the FFWCC, defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification,

environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species.

- LS*** Indicates that a species has LS status only in selected portions of its range in Florida. LS* for *Pandion haliaetus* (Osprey) state listed as LS (Species of Special Concern) in Monroe County only.
- PE** Proposed for listing as Endangered.
- PT** Proposed for listing as Threatened.
- PS** Proposed for listing as a Species of Special Concern.
- N** Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or please visit: <http://DOACS.State.FL.US/PI/Images/Rule05b.pdf>

- LE** Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.
- PE** Proposed by the FDACS for listing as Endangered Plants.
- LT** Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered. LT* indicates that a species has LT status only in selected portions of its range in Florida.
- PT** Proposed by the FDACS for listing as Threatened Plants.
- N** Not currently listed, nor currently being considered for listing.



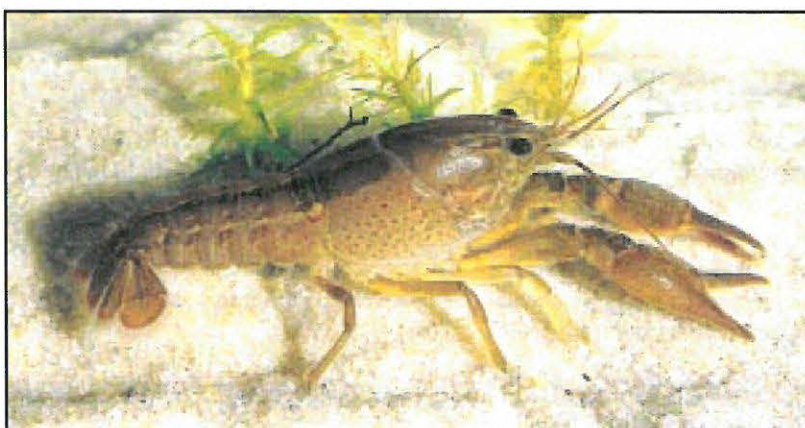
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PANAMA CITY CRAYFISH

Procambarus econfinae

Order: Decapoda
Family: Cambaridae
FNAI Ranks: G1/S1
U.S. Status: None
FL Status: Species of Special Concern



© Barry Mansell

Description: A small crayfish (to about 2 in. = 48 mm total length) with a distinctive brown stripe down middle of back, and spots on sides. Specific identification is based on adult male reproductive structures and other body structures and ornamentation. The rostrum (forward projection of shell in front of eyes) is broadly lanceolate and lacks lateral spines, and the areola (rear portion of carapace) is broad and short. In reproductive (form I) males, the palm of the chela (claw) is naked, not bearded, along its inner margin.

Similar Species: The back stripe and spots are shared locally by only one other crayfish, the closely related *Procambarus apalachicola*. Distinguishing this species from *P. econfinae* requires examination by an expert.

Habitat: In dry periods, the species inhabits simple burrows that it constructs in wet pine flatwoods soils; burrows are marked by short chimneys of stacked mud balls. During times of higher water, crayfish

PANAMA CITY CRAYFISH

Procambarus econfinae

leave the burrows and inhabit the flooded flatwoods as well as adjacent drainage ditches.

Seasonal Occurrence: Occupies sites year-round, but its seasonal presence above ground is tied to periods of high water. Females are known to reproduce in late spring and early summer.

Florida Distribution: Known only from two localities on the small peninsula on which Panama City, Bay County, is located.

Range-wide Distribution: Same as Florida distribution.

Conservation Status: Wetland drainage and urban and residential development have greatly reduced and continue to threaten the remaining habitat of this species.

Protection and Management: There is a dire need to protect from development and drainage any wet flatwoods habitat that is known to or which may harbor this species.

Selected References: Deyrup and Franz (eds.) 1994, Hobbs 1942, Keppner and Keppner 2000.



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Florida Natural Areas Inventory

Biodiversity Matrix Query Results

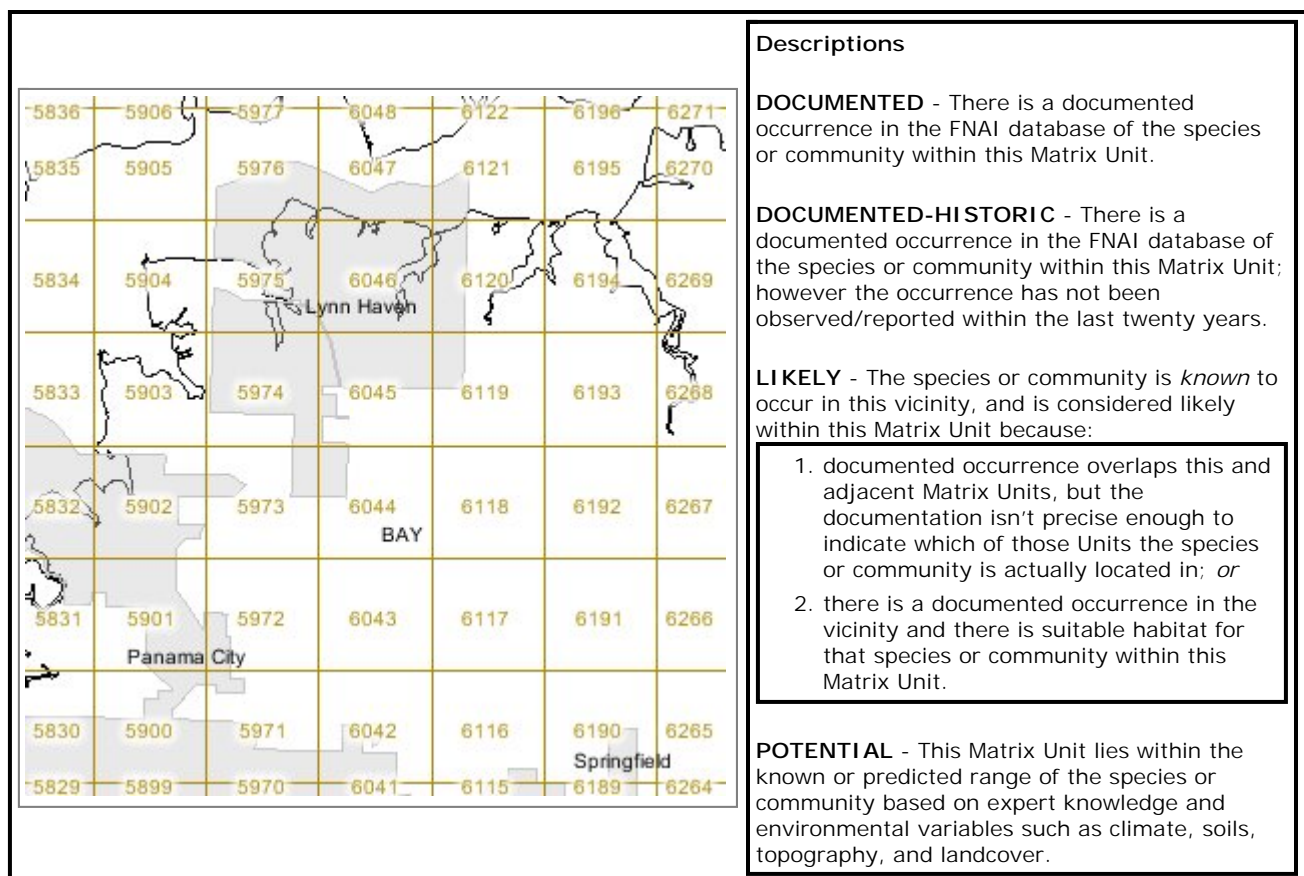
UNOFFICIAL REPORT

Created 6/8/2015

(Contact the FNAI Data Services Coordinator at 850.224.8207 for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 10 Matrix Units: 5904 , 5974 , 5975 , 6044 , 6045 , 6117 , 6118 , 6119 , 6191 , 6192



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 5904

0 Documented Elements Found

0 Documented-Historic Elements Found

1 Likely Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N

Matrix Unit ID: 5974

0 Documented Elements Found

0 Documented-Historic Elements Found

2 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC

Matrix Unit ID: 5975

0 Documented Elements Found

0 Documented-Historic Elements Found

1 Likely Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N

Matrix Unit ID: 6044

1 Documented Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC

0 Documented-Historic Elements Found

2 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N
Ursus americanus floridanus Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 6045

1 Documented Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC

0 Documented-Historic Elements Found

1 Likely Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N

Matrix Unit ID: 6117

0 Documented Elements Found

0 Documented-Historic Elements Found

3 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC
Ursus americanus floridanus Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 6118

1 Documented Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC

0 Documented-Historic Elements Found

2 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N
Ursus americanus floridanus Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 6119

1 Documented Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC

0 Documented-Historic Elements Found

2 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N
Ursus americanus floridanus Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 6191

0 Documented Elements Found

0 Documented-Historic Elements Found

3 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC
Ursus americanus floridanus Florida Black Bear	G5T2	S2	N	N

Matrix Unit ID: 6192

1 Documented Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Procambarus econfinae Panama City Crayfish	G1G2	S1S2	N	SSC

0 Documented-Historic Elements Found

2 Likely Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<i>Mesic flatwoods</i>	G4	S4	N	N
Ursus americanus floridanus Florida Black Bear	G5T2	S2	N	N

Matrix Unit IDs: 5904 , 5974 , 5975 , 6044 , 6045 , 6117 , 6118 , 6119 , 6191 , 6192

42 Potential Elements Common to Any of the 10 Matrix Units

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Acipenser oxyrinchus desotoi Gulf Sturgeon	G3T2	S2	LT	FT
Ammodramus maritimus peninsulae Scott's Seaside Sparrow	G4T3Q	S3	N	SSC
<i>Amphiuma pholeter</i> One-toed Amphiuma	G3	S3	N	N
<i>Andropogon arctatus</i> Pine-woods Bluestem	G3	S3	N	LT
Asclepias viridula Southern Milkweed	G2	S2	N	LT
Aster spinulosus Pine-woods Aster	G1	S1	N	LE
<i>Calamintha dentata</i> Toothed Savory	G3	S3	N	LT
<i>Calamovilfa curtissii</i> Curtiss' Sandgrass	G3	S3	N	LT
Charadrius melodus Piping Plover	G3	S2	LT	FT
Cuphea aspera Florida Waxweed	G2	S2	N	LE

<i>Drymarchon couperi</i> Eastern Indigo Snake	G3	S3	LT	FT
<i>Gentiana pennelliana</i> Wiregrass Gentian	G3	S3	N	LE
<i>Gopherus polyphemus</i> Gopher Tortoise	G3	S3	C	ST
<i>Hymenocallis henryae</i> Panhandle Spiderlily	G2	S2	N	LE
<i>Lachnocaulon digynum</i> Bog Button	G3	S3	N	LT
<i>Lithobates capito</i> Carolina Gopher Frog	G3	S3	N	SSC
<i>Lupinus westianus</i> Gulf Coast Lupine	G3	S3	N	LT
<i>Macbridea alba</i> White Birds-in-a-nest	G2	S2	LT	LE
<i>Macranthera flammea</i> Hummingbird Flower	G3	S2	N	LE
<i>Magnolia ashei</i> Ashe's Magnolia	G2	S2	N	LE
<i>Nerodia clarkii clarkii</i> Gulf Salt Marsh Snake	G4T3	S2	N	N
<i>Nuphar advena</i> ssp. <i>ulvacea</i> West Florida Cowlily	G5T2	S2	N	N
<i>Nyssa ursina</i> Bog Tupelo	G2	S2	N	N
<i>Oxypolis greenmanii</i> Giant Water-dropwort	G3	S3	N	LE
<i>Panicum nudicaule</i> Naked-stemmed Panicgrass	G3Q	S3	N	LT
<i>Peucaea aestivalis</i> Bachman's Sparrow	G3	S3	N	N
<i>Physostegia godfreyi</i> Apalachicola Dragon-head	G3	S3	N	LT
<i>Picoides borealis</i> Red-cockaded Woodpecker	G3	S2	LE	FE
<i>Pinguicula ionantha</i> Godfrey's Butterwort	G2	S2	LT	LE
<i>Pinguicula primuliflora</i> Primrose-flowered Butterwort	G3G4	S3	N	LE
<i>Platanthera integra</i> Yellow Fringeless Orchid	G3G4	S3	N	LE
<i>Polygonella macrophylla</i> Large-leaved Jointweed	G3	S3	N	LT
<i>Rallus longirostris scottii</i> Florida Clapper Rail	G5T3?	S3?	N	N
<i>Rhexia parviflora</i> Small-flowered Meadowbeauty	G2	S2	N	LE
<i>Rhexia salicifolia</i> Panhandle Meadowbeauty	G2	S2	N	LT
<i>Ruellia noctiflora</i> Nightflowering Wild Petunia	G2	S2	N	LE
<i>Sarracenia leucophylla</i> White-top Pitcherplant	G3	S3	N	LE
<i>Scutellaria floridana</i> Florida Skullcap	G2	S2	LT	LE
<i>Stachydeoma graveolens</i> Mock Pennyroyal	G2G3	S2S3	N	LE
<i>Xyris isoetifolia</i> Quillwort Yellow-eyed Grass	G1	S1	N	LE
	G3	S3	N	LT

<i>Xyris scabrifolia</i> Harper's Yellow-eyed Grass				
<i>Xyris stricta</i> var. <i>obscura</i> Kral's Yellow-eyed Grass	G3T3	S1	N	N

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a [Standard Data Request](#) option for those needing certifiable data.

Keppner Biological Services
4406 Garrison Road
Panama City, FL 32404
(850) 769-6247
lkeppner@bellsouth.net

February 20, 2008

Mr. Stephen Rice, CE
Malcolm Pirnie, Inc.
Suite 244
Maitland, Florida 32751

Dear Mr. Rice,

In accordance with our conversation this morning, I have re-visited the Tyndall Fuel Depot site in Lynn Haven on this afternoon. Standing water was present in the depressions along the south fence where crayfish burrows were located during the first survey. The standing water was netted thoroughly and the area around the standing water was searched for burrows. Crayfish were not collected during netting and burrows were not observed.

The Panama City Crayfish Management Plan approved by the Executive Director of the Florida Fish and Wildlife Conservation Commission on October 31, 2003 requires a minimum of three surveys (two of which must be performed during wet/inundated conditions) before a site is considered vacant. However, there is doubt as to whether or not this plan is currently in effect. An initial survey of the site identified the presence of crayfish burrows of an unknown species. This second survey during a period of inundation did not yield any species of crayfish. It is my opinion, given the soil type and other factors at the site that the Panama City crayfish is not present on the site and that the burrows observed under the dry conditions of the first survey were constructed by a primary burrower or the occupants of the burrows were eliminated by the long period of drought.

If you have questions, please contact me at 850/769-6247.

Sincerely yours,
Lisa A. Keppner
Keppner Biological Services

Rice, Stephen

From: Ikeppner [Ikeppner@bellsouth.net]
Sent: Thursday, February 21, 2008 3:04 PM
To: Rice, Stephen
Subject: Re: Lynn Haven

Steve,

OK, that PC *7 on the map in the FNAI letter was ***not*** in the railway ROW but was about 150 yards away in a pothole in the dirt road leading to a little fishing hole on the lot. That site has now been filled & is supposed to have a Super Wal-Mart built on it.

I am going to be faxing my invoice within the hour. Thanks.

Lisa

Rice, Stephen wrote:

Stephen Rice

Direct (407) 659-5553 Cell (407) 409-5256 Email: srice@pirnie.com

Green Thinking: Potable Water for Lawns? Why use potable water on a crop that we don't eat?

APPENDIX B: Historic Resources Information

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**FLORIDA MASTER SITE FILE**

R. A. Gray Building
500 South Bronough
Tallahassee, Florida 32399-0250

Office Number (850) 245-6440 (FAX) Number (850) 245-6439

FAX Cover Page

To: (Fax Number) - 813 - 248 - 8085

Date 10 / 30 / 07 Pages 4 (including this sheet)

Please deliver these pages to:

Name:

Scott Lehman

Company:

Malcolm Pirnie

Sender Name:

Celeste Ivory

Message:

In case of a problem with any portion of this transmission, please call (850) 245-6440

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



FLORIDA DEPARTMENT of STATE

CHARLIE CRIST
Governor

KURT S. BROWNING
Secretary of State

October 30, 2007

*Scott Lehman
Malcolm Pirnie
1300 E. 8th Avenue, Suite F100
Tampa, FL 33605
Fax: 813-248-8085*

In response to your inquiry of October 30, 2007, the Florida Master Site File lists two previously recorded archaeological sites, and no standing structures in the following parcels of Bay County:

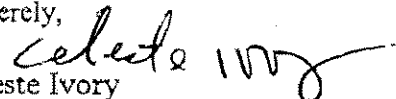
T03S, R14W, Sections 5, 6, 7 & 8

In interpreting the results of our search, please remember the following points:

- Areas which have not been completely surveyed, such as yours, may contain unrecorded archaeological sites or historical structures.
- While many of our records relate to historically significant properties, the entry of an archaeological site or an historical structure on the Florida Master Site File does not necessarily mean that the structure is significant.
- Since vandalism is common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- As you may know, federal and state laws require formal environmental review for some projects. Record searches by the staff of the Florida Master Site File do not constitute such a review. If your project falls under these laws, you should contact the Compliance Review Section of the Bureau of Historic Preservation at 850-245-6333 or at this address.

If you have any further questions concerning the Florida Master Site File, please contact us as below.

Sincerely,


Celeste Ivory

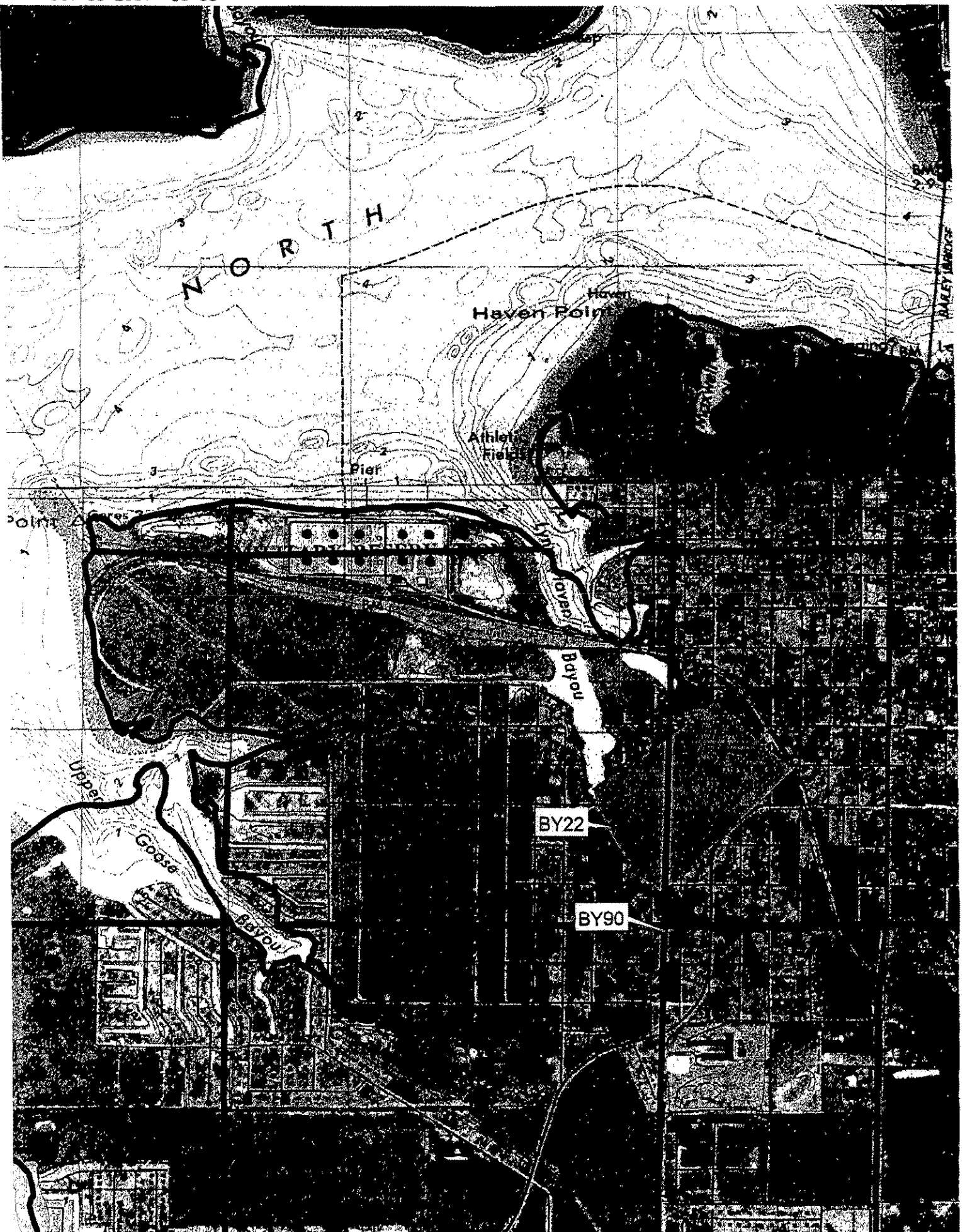
Administrative Assistant II/Assistant Supervisor
Florida Master Site File
500 South Bronough Street
Tallahassee, FL 32399-0250
850-245-6440 ph
850-245-6439 fax
mcivory@dos.state.fl.us

CULTURAL RESOURCES REPORT

SITEID	FORMNO	T-R-S	CR	SITENAME	NRLIST SURVEY	LOCATION	OTHER
BY00022	MELD	03S/14W/8	AR	LARGE BAYOU		Map: PANC	Culture: WB Sitetype: MDBU
BY00090	197604	03S/14W/8	AR	NN		Map: PANC	Culture: SWF Sitetype: MDSR

2 site(s) evaluated; 2 form(s) evaluated. (2 AR)

Print date: 10/30/2007 11:03:23 AM





FLORIDA DEPARTMENT OF STATE

Kurt S. Browning

Secretary of State

DIVISION OF HISTORICAL RESOURCES

Mr. David O'Brien III
Cultural Resources Manager
325th Civil Engineer Squadron
119 Alabama Ave
Tyndall AFB, Florida 32403-5014

April 28, 2011

Re: DHR Project File No.: 2011-01185 / Received by DHR: March 28, 2011
Cultural Resources Survey of Lynn Haven Defense Fuel Support Point (Contract FA4890-04-D-0009-DK13), Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida

Dear Mr. O'Brien:

Our office received and reviewed the above referenced survey report 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*, and Chapter 267, *Florida Statutes*, for assessment of possible adverse impact to cultural resources (any prehistoric or historic district, site, building, structure, or object) listed, or eligible for listing, in the National Register of Historic Places (NRHP).

In February 2011, Prentice Thomas and Associates, Inc. (PTA) conducted an archaeological and historical Phase I survey of the Lynn Haven Defense Fuel Support Point (DFSP) on Tyndall Air Force Base. The survey was conducted on behalf of the US Air Force. PTA identified two previously unrecorded redeposited archaeological sites (8BY1490 and 8BY1495) within the project area during the investigation.

PTA determined that because both sites are redeposited dredge spoil material lacking context, they are ineligible for listing in the NRHP. PTA recommends no further investigation of the parcels.

Based on the information provided, our office concurs with the determinations of the US Air Force and finds the submitted report complete and sufficient in accordance with Chapter 1A-46, *Florida Administrative Code*. It is our opinion that any mission activities within the parcels will have no effect on cultural resources listed, or eligible for listing, in the NRHP or otherwise of archaeological, historical, or architectural significance.

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

☐ Director's Office
850.245.6300 • FAX: 245.6436

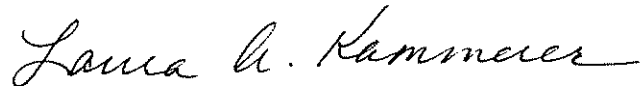
☐ Archaeological Research
850.245.6444 • FAX: 245.6452

☒ Historic Preservation
850.245.6333 • FAX: 245.6437

Mr. O'Brien
April 28, 2011
Page 2

For any questions concerning our comments, please contact Rudy Westerman, Historic Preservationist, by electronic mail at rjwesterman@dos.state.fl.us, or by phone at 850.245.6333. We appreciate your continued interest in protecting Florida's historic properties.

Sincerely,

A handwritten signature in cursive script that reads "Laura A. Kammerer". The signature is written in black ink and is positioned above the printed name and title.

Laura A. Kammerer
Deputy State Historic Preservation Officer
For Review and Compliance

Pc: Prentice Thomas and Associates, Inc. – Ft. Walton Beach

APPENDIX C: Capacity Calculations based on Land Use

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Appendix C - Capacity Calculation Table (Infrastructure Usage Projections)

Population calculation	Development	FSU Parcel
Acreage Total	100	40
Percent Not Interior	25%	25%
Usable Acreage	75	30
Floor Area Ratio (FAR)	0.5	0.5
Acreage of building footprint	37.5	15
sqft/acre	43,560	43,560
Total Sqft	1,633,500	653,400
sqft/person	200	200
Total Persons	8167.5	3267

Potable Water	Development	FSU Parcel
Water Usage/Capita (gal)	135	135
Total Water Usage Property (gal)	1,102,613	441,045

Sanitary Sewer	Development	FSU Parcel
Wastewater Production/Capita (gal)	106	106
Total Wastewater production/Property (gal)	865,755	346,302

Solid Waste	Development	FSU Parcel
Solid Waste Production/Capita (gal)	6.5	6.5
Total Solid Waste volume/Property (gal)	53,089	21,236

Capacity Calculations (Data for Table)

Development (Research Park) assume 100 acres; FSU Parcel assume 40 acres

Impervious surface shall not exceed 70%.

The floor area ratio shall not exceed .50.

Assumption 100% Development (most conservative)

Assume 100 acres. 25% roads, utilities, site roads, set back, stormwater etc.

75 acres of usable property

.50 floor area ratio

37.5 acres

43,560 sqft/acreage

1,633,500

200 sqft/person

8,167.50 person

@ 8,000 person

1. Sanitary Sewage:

8,000 persons X 106 gal/capita Day =
848,000 gal/Day

2. Potable Water:

8,000 persons X 135 gal/capita Day =
1,080,000 gal/Day

3. Solid Waste:

8,000 persons X 6.5 gal/capita Day =
52,000 gal/Day

Assumption 100% FSU (most conservative)

Assume 40 acres. 25% roads, utilities, site roads, set back, stormwater etc.

30 acres of usable property

.50 floor area ratio

15 acres

43,560 sqft/acreage

653,400

200 sqft/person

3267 person

@ 3,000 person

1. Sanitary Sewage:

3,000 persons X 106 gal/capita Day =
346,302 gal/Day

2. Potable Water:

3,000 persons X 135 gal/capita Day =
441,045 gal/Day

3. Solid Waste:

3,000 persons X 6.5 gal/capita Day =
21,236 gal/Day

APPENDIX D: LHFD Property and Rail Spur Parcel Descriptions

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DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2288
MOBILE, ALABAMA 36628-0001
MAY 1 1994

MAY 16 1994

REPLY TO
ATTENTION OF:

Plan Development Section
Planning and Environmental
Division

Honorable Pete Peterson
Representative in Congress
930 Thomasville Road, Suite 101
Tallahassee, Florida 32303

Dear Mr. Peterson:

This is in response to your letter of April 19, 1994, enclosing a letter dated April 12, 1994, from Mr. H. A. Simmons, concerning the Lynn Haven Bayou located in Panama City, Florida. A copy of that correspondence is enclosed for your ready reference.

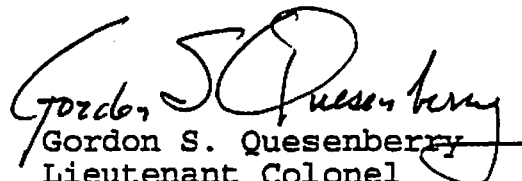
During World War II, a causeway was constructed across Lynn Haven Bayou which provided rail and highway access for a Defense Logistics Agency (DLA) fuel storage terminal. Since the causeway blocked navigation, a by-pass canal was excavated through government property. A map of this facility is enclosed. The oil terminal, causeway and by-pass canal were constructed under the supervision of the U.S. Army Corps of Engineers. In November 1961, the by-pass canal was restored to its original dimensions by the Corps in accordance with the authority contained in Section 3 of the 1945 River and Harbor Act, which provides continuing authority for limited emergency clearing of navigation channels. Under that authority the City of Lynn Haven was required and agreed to maintain the canal. Today the canal has shoaled significantly which prevents usage. The DLA fuel storage terminal has been closed and clean-up operations progress. We understand that there are no plans at this time to remove the causeway.

Prior investigations performed in November 1965, June 1966 and May 1973 all concluded that no further action be taken by the Federal government toward improvement of Lynn Haven Bayou, Florida, for

use by commercial navigation. The May 1973 Survey Report indicated the primary benefit categories were recreational navigation and environmental water quality. We will research our authorities further to determine whether we may be able to assist in restoring the environmental quality of Lynn Haven Bayou and will reply to you by the end of June.

If I can be of further assistance, please let me know.

Sincerely,


Gordon S. Quesenberry
Lieutenant Colonel
Corps of Engineers
Acting District Engineer

Enclosures

Copy Furnished:

Honorable Pete Peterson
House of Representatives
1415 Longworth Building
Washington, DC 20515-0902

APPENDIX E: Agency Comments and Responses to Comments

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Response to Comments Table
Draft Final EA/FONSI/FONPA
Lynn Haven Fuel Depot
Lynn Haven, Florida

Comment Number	Reviewer	Document / Section / Page Number	Comment	Response to Comment
1.	Florida Department of State (DOS)	General	The Florida Department of State (DOS) reports that there are several historical sites located on the proposed project site and may be eligible for listing in the National Register of Historic Places. DOS staff note that the Draft EIS findings may not be sufficient for identification of all historic properties and that further identification and avoidance/minimization efforts are needed to avoid adverse impacts. Please refer to the enclosed DOS letters for further details.	Comment noted. As indicated in Section 4.3.10 of the Final EA, the Air Force will include a clause stating that “alteration or demolition of the built resources should not occur without concurrence from the State Historic Preservation Officer and that the Florida State University and/or the City of Lynn Haven should contact the Florida State Historic Preservation Office if unidentified historic properties or human remains are encountered on the property” in the transaction paperwork. The clause will also note that “Additional consultation by Florida State University and/or the City of Lynn Haven will be required before altering or demolishing any historic properties determined eligible or potentially eligible for the National Register of Historic Places.”
2.	Florida State Clearinghouse, Office of Inter-governmental Programs, Florida Department of Environmental Protection	General	Based on the information contained in the Draft EIS and enclosed state agency comments, the state has determined that, at this stage, the proposed federal activities are consistent with the Florida Coastal Management Program (FCMP). To ensure the project’s continued consistency with the FCMP, the concerns identified by our reviewing agencies must be addressed prior to project implementation. The state’s continued concurrence will be based on the activities’ compliance with FCMP authorities, including federal and state monitoring of the activities to ensure their continued conformance, and the adequate resolution of issues identified during this and subsequent reviews.	Comment noted. Following property transfer/disposal, Florida State University and the City of Lynn Haven will be responsible for coordination with federal and state agencies. This is noted in several places throughout the Final EA.

Comment Number	Reviewer	Document / Section / Page Number	Comment	Response to Comment
3.	United States Fish and Wildlife Service (USFWS)	General	<p>Upon review, it appears that there are wetland areas within your proposed project area. The U.S. Army Corps of Engineers (COE) recommends that project managers contact them if any amount of fill material may be placed in waters of the U.S., including any wetland. If your land transfer projects involve a discharge of fill material into water of the U.S., the project managers will be required to apply for a Department of the Army permit. For very small impacts, the project could possibly be authorized under one the COE's Nationwide Permits or Regional Permits (with verification by the COE). However, projects impacting more than 0.5 acres of wetlands or 300 feet of stream will likely require an Individual Department of the Army Permit. The COE will work with the new landowners to assess and minimize the impacts and determine possible mitigation requirements to compensate for wetland or other losses and protect water quality for fish and wildlife.</p> <p>Based on the information provided in your EA, we accept your survey findings that no listed species occur in the project area. Therefore, no further endangered species consultation will be required for this phase of your project unless: 1) the identified action is subsequently modified in a manner that causes an effect on listed species or a designated Critical Habitat; 2) new information reveals the identified action may affect Federally protected species or designated Critical Habitat in a manner or to an extent not previously considered; or 3) a new species is listed or Critical Habitat is designated under the Endangered Species Act that may be affected by the identified action.</p>	Comment noted. Following property transfer/disposal, Florida State University and the City of Lynn Haven will be responsible for coordination with federal and state agencies. This is noted in several places throughout the Final EA.
4.	Seminole Tribe of Florida, Tribal Historic Preservation Office	General	<p>Thank you for contacting the Seminole Tribe of Florida's Tribal Historic Preservation Office (STOF-THPO) regarding your proposed transfer of the Lynn Haven Fuel Depot, Bay County, Florida. This letter is to acknowledge that the STOF-THPO has reviewed the Draft Final Environmental Assessment for the Disposal of the Former Lynn Haven Fuel Depot, Lynn Haven, Florida and has no objection to your finding of no significant impact / no practicable alternative (FONSI/FONPA) at this time. However, the STOF-THPO would like to be informed in the event that any archaeological, historical, or burial resources are inadvertently discovered during execution of the undertaking.</p>	Comment noted. Following property transfer/disposal, Florida State University and the City of Lynn Haven will be responsible for coordination; this is noted in several places throughout the Final EA.



Florida Department of Environmental Protection

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

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

December 15, 2015

Mr. Jose J. Cintron
325 CES/CEIE
Department of the Air Force
119 Alabama Avenue, Stop 42
Tyndall AFB, FL 32403

RE: Department of the Air Force - Draft Final Environmental Assessment for Lynn Haven
Fuel Depot, Tyndall Air Force Base - Lynn Haven, Bay County, Florida.
SAI # FL201510297480C

Dear Mr. Cintron:

The Florida State Clearinghouse has coordinated a review of the subject Draft Environmental Impact Statement (EIS) under the following authorities: Presidential Executive Order 12372; § 403.061(42), *Florida Statutes*; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4347, as amended.

The Florida Department of State (DOS) reports that there are several historical sites located on the proposed project site and may be eligible for listing in the National Register of Historic Places. DOS staff notes that the Draft EIS finding may not be sufficient for identification of all historic properties and that further identification and avoidance/minimization efforts are needed to avoid adverse impacts. Please refer to the enclosed DOS letters for further details.

Based on the information contained in the Draft EIS and enclosed state agency comments, the state has determined that, at this stage, the proposed federal activities are consistent with the Florida Coastal Management Program (FCMP). To ensure the project's continued consistency with the FCMP, the concerns identified by our reviewing agencies must be addressed prior to project implementation. The state's continued concurrence will be based on the activities' compliance with FCMP authorities, including federal and state monitoring of the activities to ensure their continued conformance, and the adequate resolution of issues identified during this and subsequent reviews.

Mr. Jose J. Cintron
FL201510297480C
Page 2 of 2
December 15, 2015

Thank you for the opportunity to review the draft document. Should you have any questions regarding our letter, please don't hesitate to contact me at Chris.Stahl@dep.state.fl.us or (850) 245-2169.

Yours sincerely,

A handwritten signature in cursive script that reads "Chris Stahl".

Chris Stahl, Coordinator
Florida State Clearinghouse
Office of Intergovernmental Programs

Enclosures

cc: Timothy Parsons, DOS



FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

Chris Stahl
Agency Contact and Coordinator (SCH)
3900 Commonwealth Boulevard MS-47
Tallahassee, Florida 32399-3000

November 25, 2015

RE: DHR Project File No.: 2015-5198, Received by DHR: October 27, 2015
SAI# FL201510297480C (Refer to FL200909094940C)
Project: *Draft Final Environmental Assessment for the Disposal of the Former Lynn Haven Fuel Depot*
County: Bay

Dear Mr. Stahl:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places*. The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties*.

Thank you for providing our office with a copy of the *Draft Final Environmental Assessment for the Disposal of the Former Lynn Haven Fuel Depot*. The proposed undertaking includes the transfer of 40 acres of the Lynn Haven Fuel Depot (LHFD) property in Lynn Haven, Florida to Florida State University for use as a satellite research campus, and the disposal of the remaining 144 acres of the LHFD property and associated rail spur, through special federal legislation, to the City of Lynn Haven, Florida.

We note that a cultural resource assessment survey (CRAS) of the LHFD was completed in 2011 by Prentice Thomas and Associates, Inc. for archaeological resources (Survey No. 18196). Two archaeological resources, 8BY1490 and 8BY1495, were identified during the survey. Our office concurred that neither site was eligible for listing on the National Register of Historic Places (DHR Project File No. 2011-1185).

In July 2015 AMEC-Foster Wheeler, Inc. conducted an architectural survey of the area of potential effect (APE) on behalf of Tyndall Air Force Base. This survey identified fifteen (15) historic properties. At this time our office has only had an opportunity to review the management summary report, but we anticipate submission of a final survey report for review.

The Draft Final Environmental Assessment, Section 4.3.10-Cultural Resources states that "the Air Force will include in the transaction paperwork a clause recommending that alteration or demolition of the built resources should not occur without concurrence from the SHPO and that FSU and/or the City should contact the Florida



Division of Historical Resources
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399
850.245.6300 • 850.245.6436 (Fax) flheritage.com
Promoting Florida's History and Culture VivaFlorida.org



Mr. Stahl
DHR Project File No.: 2015-5198
November 25, 2015
Page 2

State Historic Preservation Office if unidentified historic properties or human remains are encountered on the property. Additional consultation by FSU and/or the City is required before altering or demolishing any historic properties determined eligible or potentially eligible for the NRHP." (page 4-25)

In regards to archaeological resources, our office concurs that no additional archaeological testing is required within the APE, provided that a condition is included in the sale and transfer agreement regarding the treatment of potential unanticipated archaeological discoveries during ground disturbing activities. We recommend that the condition includes the following:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the project shall cease all activities involving subsurface disturbance in the immediate vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

In regards to built resources, our office concurs that the proposed stipulations requiring consultation between our office and Florida State University and/or the City of Lynn Haven if structures are modified or demolished may be sufficient to avoid an adverse effect. However, as previously noted, our office anticipates submission of a final architectural survey and requests an opportunity to review the survey prior to providing final comments for the Draft Final Environmental Assessment. This will allow any necessary stipulations in the transfer agreement to be appropriate for the historic properties identified within the APE.

If you have any questions, please contact Jason Aldridge, Historic Sites Specialist, by email at Jason.Aldridge@dos.myflorida.com, or by telephone at 850.245.6333 or 800.847.7278.

Sincerely



Robert F. Bendus, Director
Division of Historical Resources
& State Historic Preservation Officer



FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

Donna L. Barber
Chief, Installation Management Flight
325th Civil Engineer Squadron
119 Alabama Ave, Mail Stop 42
Tyndall AFB, FL 32403-5014

January 8, 2016

RE: DHR Project File No.: 2015-5198B, Additional Information Received by DHR: December 10, 2015
Project: *Draft Final Environmental Assessment for the Disposal of the Former Lynn Haven Fuel Depot – Additional Comments Following Receipt of the Final Draft of the Inventory of Historic Properties for the Lynn Haven Fuel Depot, Lynn Haven, Bay County, Florida (Task Order TY-15-0020)*
County: Bay

Dear Ms. Barber:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places*. The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties*.

As noted in our previous letter (DHR Project #2015-5198) sent November 25, 2015, our office requested an opportunity to review the final draft of the architectural survey of the area of potential effect (APE) for the disposal of the former Lynn Haven Fuel Depot (LHFD). Our office received this report on December 10, 2015 and provides the following comments per our review of the additional information.

Our office reviewed the report titled, *Inventory of Historic Properties for the Lynn Haven Fuel Depot, Lynn Haven, Bay County, Florida (Task Order TY-15-0020)*. This report was completed by Amec Foster Wheeler in October 2015.

Amec Foster Wheeler located fourteen historic properties (8BY1897-8BY1910) associated with the construction and use of the Lynn Haven Fuel Depot (LHFD) and recommends all historic properties as not eligible for listing on the *National Register of Historic Places*. Based on the information provided, our office concurs with these determinations and finds the submitted report to be complete and sufficient in accordance with Chapter 1A-46, *Florida Administrative Code*.

As noted in our previous letter (2015-5198), no additional archaeological survey is necessary within the APE, provided that a condition is included in the sale and transfer agreement regarding the treatment of potential



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unanticipated archaeological discoveries during ground disturbing activities on the property. We recommend the following conditional statement:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the property, the project shall cease all activities involving subsurface disturbance in the immediate vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

Based on inclusion of this condition, or equivalent language, in the sale and transfer agreement and our determination of the fourteen historic properties (8BY1897-8BY1910) as not eligible for listing on the *National Register*, it is the opinion of this office that the sale and transfer of the property will have no adverse effect on historic properties listed, or eligible for listing, on the *National Register of Historic Places*.

If you have any questions, please contact Jason Aldridge, Historic Sites Specialist, by email at Jason.Aldridge@dos.myflorida.com, or by telephone at 850.245.6333 or 800.847.7278.

Sincerely



Robert F. Bendus, Director
Division of Historical Resources
& State Historic Preservation Officer



FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

Jose Cintron
Chief, Environmental Element
325th Civil Engineer Squadron
119 Alabama Ave, Mail Stop 42
Tyndall AFB, FL 32403-5014

January 8, 2016

RE: DHR Project File No.: 2015-5045B, Additional Information Received by DHR: December 10, 2015
Project: *Proposed Transfer and Sale of Lynn Haven Fuel Depot (LHFD) by Tyndall Air Force Base (AFB):
Architectural Resources Inventory Report for Lynn Haven Fuel Depot (LHFD) Tyndall Air Force Base (AFB)*
County: Bay

Dear Mr. Cintron:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places*. The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties*.

Our office reviewed the report titled, *Inventory of Historic Properties for the Lynn Haven Fuel Depot, Lynn Haven, Bay County, Florida (Task Order TY-15-0020)*. This report was completed by Amec Foster Wheeler in October 2015.

Amec Foster Wheeler located fourteen historic properties (8BY1897-8BY1910) associated with the construction and use of the Lynn Haven Fuel Depot (LHFD) and recommends all historic properties as not eligible for listing on the *National Register of Historic Places*. Based on the information provided, our office concurs with these determinations and finds the submitted report to be complete and sufficient in accordance with Chapter 1A-46, *Florida Administrative Code*.

As noted in our previous letter (2015-5045), no additional archaeological survey is necessary within the APE, provided that a condition is included in the sale and transfer agreement regarding the treatment of potential unanticipated archaeological discoveries during ground disturbing activities on the property. We recommend the following conditional statement:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any



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Mr. Cintron
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time within the property, the project shall cease all activities involving subsurface disturbance in the immediate vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

Based on inclusion of this condition, or equivalent language, in the sale and transfer agreement and our determination of the fourteen historic properties (8BY1897-8BY1910) as not eligible for listing on the *National Register*, it is the opinion of this office that the sale and transfer of the property will have no adverse effect on historic properties listed, or eligible for listing, on the *National Register of Historic Places*.

If you have any questions, please contact Jason Aldridge, Historic Sites Specialist, by email at Jason.Aldridge@dos.myflorida.com, or by telephone at 850.245.6333 or 800.847.7278.

Sincerely

A handwritten signature in blue ink, appearing to read "Timothy A. Parsons", with a large, stylized loop at the end.

Timothy A Parsons, Ph.D.,
Interim Director, Division of Historical Resources
& Deputy State Historic Preservation Officer



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

November 16, 2015

Mr. Jose J. Cintron
Department of the Air Force
325 CES/CEANC
119 Alabama Avenue Stop 42
Tyndall AFB, FL 32403

Re: USFWS #04EF3000-2016-TA-0037
Draft Final EA for Lynn Haven Fuel Depot
Bay County, Florida

Dear Mr. Jose J. Cintron:

This letter acknowledges the U.S. Fish and Wildlife Service's (Service) receipt of your October 2015 Department of the Air Force, Tyndall Air Force Base (AFB) - Draft Final Environmental Assessment (EA) and Proposed Finding of No Significant Impact and No Practicable Alternative for the Lynn Haven Fuel Depot, Lynn Haven, Florida. The proposed action will transfer 40 acres of the Lynn Haven Fuel Depot (LHFD) property to Florida State University (FSU) for use as a satellite campus and the remaining 144 acres of the LHFD property and associated rail spur, through special federal legislation, to the City of Lynn Haven, Florida. Tyndall AFB Lynn Haven Fuel Depot is located at approximate latitude 30° 14' 52.59" N and longitude -85° 40' 10.87" W. The following comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e), and section 7 of the Endangered Species Act (ESA), as amended (16 U.S.C. 1531-1543).

The LHFD property includes the former 70-acres bulk fuel storage facility referred to as the Lynn Haven Defense Fuel Supply Point (DFSP). The site has been owned and managed by the Department of Defense (DoD) since the early 1940s, at which time the bulk fuel storage facility was constructed by the U.S. Navy. The DFSP was deactivated in the early 1990s. During deactivation, the fuels were transferred to other terminals, the tanks were de-gassed and cleaned, and the delivery lines were purged. The bulk storage tanks were removed from the site in 1992. Investigation and remediation have been performed at the site by the Defense Logistics Agency (DLA) and under Tyndall AFB's Environmental Restoration Program (ERP). As such, the site has been evaluated and former impacts from the use of the site as a bulk fuel storage facility and supply center have been addressed. The rail spur is a linear property comprised of an elevated rock rail bed and rails located within a 100 foot wide buffer. The rail spur property extends from the DFSP to the active rail line at U.S. Route 231 and has no other facilities other than signal equipment. The rail spur is inactive and there are no plans for further use by the Air Force. The Draft Final EA states that the Proposed Action will have no significant adverse effects on federally listed species and would have minor impacts on wetlands and wildlife. Field surveys of the LHFD property and rail spur reported the absence of federally listed or protected species.

There were buildings, structures, or study areas where only the storage of hazardous substances or petroleum products or their derivatives have occurred, but the EA states that no release, disposal or mitigation from adjacent areas occurred. Arsenic has been identified in groundwater beneath the rail line that transverses Area 1, Area 3 and the rail spur, land use controls (LUCs) have been identified as the remedy in place. These controls apply to the entire LHFD property, including Areas 5 and the portions of Area 2 that were not historically used in conjunction with the site, due to the possible mitigation of arsenic in the groundwater. Land use restrictions and controls may be necessary for portions of Area 2 that were historically used for tank bottoms disposal and portions of Area 3 historically used for drum reconditioning. The Environmental Baseline Survey (EBS) will be submitted to FDEP and EPA Region IV for review and comments prior to any property transfer.

Upon review, it appears that there are wetland areas within your proposed project area. The U.S. Army Corps of Engineers (COE) recommends that project managers contact them if any amount of fill material may be placed in waters of the U.S., including any wetland. If your land transfer projects involve a discharge of fill material into water of the U.S., the project managers will be required to apply for a Department of the Army permit. For very small impacts, the project could possibly be authorized under one the COE's Nationwide Permits or Regional Permits (with verification by the COE). However, projects impacting more than 0.5 acres of wetlands or 300 feet of stream will likely require an Individual Department of the Army Permit. The COE will work with the new landowners to assess and minimize the impacts and determine possible mitigation requirements to compensate for wetland or other losses and protect water quality for fish and wildlife.

Based on the information provided in your EA, we accept your survey findings that no listed species occur in the project area. Therefore, no further endangered species consultation will be required for this phase of your project unless: 1) the identified action is subsequently modified in a manner that causes an effect on listed species or a designated Critical Habitat; 2) new information reveals the identified action may affect Federally protected species or designated Critical Habitat in a manner or to an extent not previously considered; or 3) a new species is listed or Critical Habitat is designated under the Endangered Species Act that may be affected by the identified action.

Thank you for the opportunity to comment on your Draft EA Draft Final EA for Lynn Haven Fuel Depot. If you have any questions or need additional information, please contact Lisa Lehnhoff at 850-769-0552 (ext. 225).

Sincerely,



Dr. Sean Blomquist
Ecological Services Chief

Location: C:\Users\llehnhoff\Documents\Military Lands\Tyndall AFB\Disposal of the Former Lynn Haven Fuel Depot

**SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE
AH-TAH-THI-KI MUSEUM**

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November 25, 2015

Mr. Jose J. Cintron
325 CES/CEIE
119 Alabama Ave., Stop 42
Tyndall AFB, Florida 32403
Phone: (850) 283-4341
Email: jose.cintron.1@us.af.mil

Subject: Lynn Haven Fuel Depot Land Transfer, Bay County, Florida
THPO#: 0028945

Dear Mr. Cintron:

Thank you for contacting the Seminole Tribe of Florida's Tribal Historic Preservation Office (STOF-THPO) regarding your proposed transfer of the Lynn Haven Fuel Depot, Bay County, Florida. This letter is to acknowledge that the STOF-THPO has reviewed the *Draft Final Environmental Assessment for the Disposal of the Former Lynn Haven Fuel Depot, Lynn Haven, Florida* and has no objection to your finding of no significant impact / no practicable alternative (FONSI/FONPA) at this time. However, the STOF-THPO would like to be informed in the event that any archaeological, historical, or burial resources are inadvertently discovered during execution of the undertaking. Thank you and we look forward to working with you in the future.

Respectfully,

Andrew J. Weidman, MA, RPA
STOF-THPO, Compliance Review Section
30290 Josie Billie Hwy, PMB 1004
Clewiston, FL 33440
Office: 863-983-6549 x12216
Email: andrewweidman@semtribe.com