FINAL
Environmental Assessment
for
Construction of a 20-Slip Boat Dock Structure
MacDill AFB, Florida

Headquarters Air Mobility Command

MacDill AFB, FL

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FINAL

FINDING OF NO SIGNIFICANT IMPACT
AND
FINDING OF NO PRACTICABLE ALTERNATIVE
CONSTRUCTION OF A 20-SLIP BOAT DOCK STRUCTURE

MACDILL AIR FORCE BASE, FLORIDA

Agency: United States Air Force (USAF), Headquarters, Air Mobility Command

Background: Pursuant to the President's Council on Environmental Quality (CEQ) regulations, Title 40, Code of Federal Regulations (CFR), Parts 1500-1508, as they implement the requirements of the National Environment Policy Act (NEPA) of 1969, 42 United State Code, § 4321, and the Air Force Environmental Impact Analysis Process, as promulgated in 32 CFR, Part 989, the USAF conducted an assessment of the potential environmental consequences associated with implementation of the following proposed action: Construction of a 20-slip boat dock structure. The environmental assessment (EA) considered all potential impacts of the proposed action and alternatives, both as solitary actions and in conjunction with other proposed activities. This finding of no significant Impact (FONSI) summarizes the results of the evaluation and the conclusions regarding the significance of impacts from the proposed action. The finding of no practicable alternative (FONPA) summarizes the conclusion reached regarding the location of the proposed action in a wetland and floodplain.

Proposed Action: The proposed action involves the construction of a 20-slip dock structure to meet the demand for additional wet slips at the base marina. The boat dock would be built as an expansion of the existing dock at the marina. The location of the proposed action is within the Raccoon Creek western marina located in the southern portion of MacDill Air Force Base (AFB), Florida.

Alternatives: Three alternatives to the proposed action were considered as part of this EA, including the Floating Dock Alternative, Expansion of the Southern Marina at Raccoon Creek Outdoor Recreation Area Alternative, and the no action alternative. However, only the proposed action and the no action alternatives were carried through the entire evaluation. The other alternatives were determined to be impractical based on a number of considerations, including financial, environmental and permitting.

Under the no action alternative, there would be no expansion of the existing dock structure at the Raccoon Creek western marina. If this alternative were implemented, the unmet demand for marina space would be expected to increase, as the popularity of recreational boating would likely continue to grow. The EA process identified the proposed action as the preferred course of action since it would best suit the needs of the base and would not result in any significant adverse environmental impacts.

Summary of Findings: The environmental consequences associated with implementation of the proposed action are summarized below and are discussed in detail in section 4.0 of the EA.

Air Quality: Construction vehicle exhaust would be generated during construction and an increase in recreational boating would potentially occur as a result of the proposed action; however, these

emissions would not constitute a major source of air pollutants. The construction and operational activities that would occur associated with the proposed action would have a negligible impact on the ambient air quality at MacDill AFB.

Noise: Noise levels would increase temporarily during construction, but potential impacts would be considered minor. The proposed action is not anticipated to create additional operational noise that would impact adjacent land uses.

Wastes, Hazardous Materials and Stored Fuels: All construction-related hazardous wastes and materials, including petroleum products, would be removed and disposed of according to base procedures, as well as applicable state and federal regulations. Appreciable amounts of hazardous wastes would not be generated by personnel during the construction activities performed under the proposed action or by individuals using the expanded boat dock constructed as part of the proposed action.

Physical Environment: Driving the pilings into the floor of the marina basin during construction of the boat dock is expected to cause only a temporary, adverse impact to water quality in the immediate vicinity of the proposed action due to a limited increase in turbidity. Using pressure-treated lumber as pilings also could affect water quality due to the potential for toxic metals or other chemicals to leach from the wood into the water. However, multiple studies have been conducted on the use of pressure-treated lumber as pilings in marine and fresh waters and indicate that the potential for leached chemicals to adversely impact water quality is limited. Water quality could also be affected through the washing of boats and related equipment at the boat dock, although the amount of pollutants washed into the water would most likely be minimal. Therefore, any changes in turbidity or chemical concentrations in surface water at the Raccoon Creek western marina associated with construction or operation of the proposed action would not result in significant adverse impacts on water quality.

Floodplains and Wetlands: Construction activities associated with the proposed action would take place inside of the 100-year coastal floodplain and within an area classified as wetlands, specifically, within the lagoon of the Raccoon Creek western marina. Implementation of the proposed action would not result in an increase of impervious surfaces within the floodplain. Significant adverse impacts to wetlands would not occur during the construction activities of the proposed action.

Land Use: The current land use of the Raccoon Creek western marina is outdoor recreation, and expansion of this boat dock would not change the land use in this area. Therefore, the proposed action would have no significant adverse impacts on land use at MacDill AFB.

Transportation: The increase in traffic along Marina Bay Drive during implementation and operation of the proposed action is expected to be negligible. Therefore, implementation of the proposed action would have no significant adverse impacts on transportation at MacDill AFB.

Safety and Occupational Health: The proposed construction activities for the project would pose safety hazards to the workers similar to those associated with typical industrial construction projects, such as falls, slips, heat stress and machinery injuries. Construction would not involve any unique hazards and all construction methods would comply with Occupational Safety and Health Administration (OSHA) requirements to ensure the protection of workers and the general public during construction.

The proposed action would involve construction activities near inactive Environmental Restoration Program site AOC 85/60. Because no investigations have been conducted at the AOC 85/60 site to date, it is unknown whether or not contamination exists in that area. However, in the event that contaminated media are encountered, appropriate measures have been included in the project to reduce the potential for contact with contaminated media and to protect workers from exposure.

Socioeconomic Resources: Implementation of the proposed action would have a minor short-term economic benefit for the MacDill AFB region.

Environmental Justice: The proposed action would not disproportionately affect minority or low-income populations, and the boat dock construction would have no adverse environmental effects on any off-base populations. Accordingly, there would be no environmental justice issues associated with the proposed action.

Biological Environment: Significant adverse impacts to wetlands, wildlife, aquatic life, or protected species would not occur during the construction and operation activities of the proposed action. Consultation with the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) confirmed their concurrence with this conclusion. Essential Fish Habitat (EFH) has been designated for nine species within the estuarine areas of Tampa Bay adjacent to MacDill AFB; however, the proposed action would not be located within the EFH footprint and there would be no significant adverse impacts to EFH species.

There would be no net loss of jurisdictional wetlands associated with the project. Because the new boat dock would be attached to the existing dock at the Raccoon Creek western marina and would be situated entirely within the lagoon of the marina, no mangroves growing along the banks would be affected. The proposed action would result in some shading of the bay bottom in the immediate vicinity of the dock structure. However, the lagoon does not currently support a notable community of submerged vegetation. Therefore, the effects from shading would not be significant.

A project that potentially increases boat traffic, such as a marina expansion, is scrutinized by the USFWS for its potential to impact the manatee. However, it is estimated that only two to three boats currently travel in and out of the western marina per weekend, and there have been no reports of manatee injuries in the area of Raccoon Creek or its mouth as a result of boat collisions. Furthermore, it is unlikely that the boating activity would increase significantly upon completion of the proposed action. Therefore, the limited increase in boat traffic resulting from expanding the boat dock would be unlikely to result in manatee injuries or to have a significant adverse impact on manatees in the vicinity of the western marina.

Cultural Resources: There would be no effect to cultural resources under the proposed action; the state historic preservation office has confirmed this determination.

Infrastructure: There would be a negligible amount of solid waste generated during construction activities for the proposed action, as no demolition would occur. Consequently, the proposed action would not have a significant adverse impact on infrastructure.

Cumulative Impacts: There are no site-specific direct, indirect, or cumulative impacts associated with the proposed action. The construction and operational activities of the proposed action were considered in conjunction with other on-going or planned construction projects, and together they do not constitute significant cumulative adverse impacts.

Environmental Management: The manatee is known to occur in Tampa Bay and may occasionally enter Raccoon Creek. The majority of the proposed construction work would be conducted in the water and could therefore potentially affect the manatee. Contractors completing construction activities in the water would be required to follow the State of Florida standard manatee construction conditions. Also, localized, temporary increases in turbidity occurring during construction activities would be controlled by implementation of best management practices.

Florida Coastal Zone Management: In accordance with the federal Coastal Zone Management Act (CZMA) and the Florida CZMA, this federal action must be consistent "to the maximum extent practicable" with the Florida Coastal Management Program (CMP). Appendix B to the EA contains the Air Force's Consistency Statement and finds that the conceptual proposed action and alternative plans presented in the EA are consistent with Florida's CMP. In accordance with Florida statutes, the Air Force submitted a copy of the attached EA to the State of Florida so they can perform a coastal zone consistency evaluation. The State of Florida determined that, at this stage, the proposed action is consistent with the Florida CMP. The state's final concurrence of the project's consistency with the CMP will be determined during the environmental permitting stage of the project.

Finding of No Significant Impact: Based upon my review of the facts and analyses contained in the attached EA, which is hereby incorporated by reference, I conclude that implementation of the proposed action will not have a significant environmental impact, either by itself or cumulatively with other projects at MacDill AFB. Accordingly, the requirements of NEPA and the regulations promulgated by the Council on Environmental Quality and the Air Force are fulfilled and an environmental impact statement is not required. The *Tampa Tribune* published a notice of availability on 10 April 2007. Copies of agency coordination letters, project correspondence and comments received from the agencies are included in appendix C of the EA. Public comments received are provided in appendix D of the EA.

Finding Of No Practicable Alternative: Pursuant to Executive Order 11988 and Executive Order 11990, the authority delegated in Secretary of the Air Force Order (SAFO) 791.1, and taking into consideration the findings of the EA, which is incorporated herein by reference, I find that there is no practicable alternative to the proposed action occurring in a wetland and floodplain. The proposed action includes all practicable measures to minimize harm to the environment. Based upon the environmental constraints and the nature of a boat dock construction project, there are no other available areas located on MacDill AFB that would satisfy the objectives of the proposed action. The proposed action, as designed, includes all practicable measures to minimize harm to the coastal wetland and floodplain. The Air Force has sent all required notices to federal agencies, single points of contact, the State of Florida, local government representatives and the local news media.

The signing of this combined finding of no significant impact and finding of no practicable alternative (FONSI/FONPA) completes the environmental impact analysis process under Air Force regulations.

JOHN H. BONAPART, JR, SES
Deputy Director, Installations &
Mission Support

14 FEB 08
DATE

Attachment: Environmental Assessment

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LIST OF ACRONYMS

AF	Air Force
AFB	Air Force Base
AICUZ	Air Installation Compatible Use Zone
AOC	Area of Concern
AQCR	Air Quality Control Region
AST	aboveground storage tank
BA	Biological Assessment
BE	Biological Evaluation
BMP	best management practice
CAA	Clean Air Act
CCA	chromated copper arsenate
CEQ	Council on Environmental Quality
CES	Civil Engineering Squadron
CEV	Environmental Management
CFR	Code of Federal Regulations
CO	carbon monoxide
COE	Corps of Engineers
CWA	Clean Water Act
cy	cubic yard
CZMA	Coastal Zone Management Act
dB	decibel
DFSP	Defense Fuel Supply Point
DNL	Day-Night Average Sound Level
DO	dissolved oxygen
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIAP	Environmental Impact Analysis Process
EIR	Economic Impact Region
EIS	Environmental Impact Statement
EO	Executive Order
EPCHC	Environmental Protection Commission of Hillsborough County
ERP	Environmental Resource Permit
ESA	Endangered Species Act
ETSC	Endangered, Threatened, or Special Concern Species
FDEP	Florida Department of Environmental Protection
FDNR	Florida Department of Natural Resources
FEMA	Federal Emergency Management Agency
FICUN	Federal Interagency Committee on Urban Noise
FMP	Fishery Management Plan
FNAI	Florida Natural Areas Inventory
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
HAPC	Habitat Areas of Particular Concern
INRMP	Integrated Natural Resources Management Plan
JP-8	Jet Propellant 8

LIST OF ACRONYMS (continued)

mgd	million gallons per day
mg/L	milligrams per liter
MMPA	Marine Mammal Protection Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NO_2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NTU	nephelometric turbidity unit
O_3	ozone
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
Pb	lead
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppt	parts per thousand
RCRA	Resource Conservation and Recovery Act
RHA	Rivers and Harbors Act
SHPO	State Historic Preservation Office
SO_x	sulfur oxides
SPCC	Spill Prevention Control and Countermeasures
SPGP	State Programmatic General Permit
SWDA	Safe Water Drinking Act
SWFWMD	Southwest Florida Water Management District
TBEP	Tampa Bay Estuary Program
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USC	United States Code
USCENTCOM	United States Central Command
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USSOCOM	United States Special Operations Command
UST	underground storage tank

1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

This Environmental Assessment (EA) identifies, describes, and evaluates potential environmental impacts associated with the construction of a 20-slip boat dock structure in the western marina at the Raccoon Creek Recreation Area on MacDill Air Force Base (AFB), Florida (Figure 1-1).

1.1 PURPOSE OF THE PROPOSED ACTION

The purpose of the Proposed Action is to construct a 20-slip dock structure to meet the demand for additional wet slips at the base marina. The new dock structure would be connected to the existing dock at the Raccoon Creek western marina located in the southern portion of MacDill AFB, Florida (Figure 1-1). The additional wet slips would be rented to authorized personnel on the base through the 6th Services Squadron. Constructing additional wet slips under the Proposed Action is consistent with the MacDill AFB *General Plan* (United States Air Force (USAF), 2006a) and would increase the quality of life for families living on base.

1.2 NEED FOR THE PROPOSED ACTION

Expansion of wet slips is required to meet the demand of military personnel desiring to berth their private boats at the MacDill AFB marina area. There are currently 38 people registered as waiting for slip space at MacDill AFB. Recreational boating in Tampa Bay has been steadily increasing over the years; however, there has been no corresponding increase in marina facilities or wet slips. Consequently, the demand for marina space around Tampa Bay has increased dramatically. The demand for marina space at MacDill AFB has further increased with the recent dredging of the marina channel. The deeper channel permits larger boats to access the Raccoon Creek western marina.

The activities included under the Proposed Action will meet the need for additional wet slips at the base. The need for this EA was originally outlined on Air Force (AF) Form 813, Request for Environmental Impact Analysis, a copy of which is included in Appendix A.

1.3 OBJECTIVE OF THE PROPOSED ACTION

The objective of the Proposed Action is the construction of 20 wet slips at the Raccoon Creek western marina to provide additional space for boats owned by military personnel at MacDill AFB. These additional recreational features would contribute to the enhancement of the quality of life of personnel assigned to MacDill AFB, which in turn would potentially improve the morale and productivity of personnel.

The Proposed Action would construct a 6-foot wide by approximately 400-foot long dock structure that can accommodate 20 boat slips that are each 12 feet wide. The proposed work would also include the construction of 11 boat access walkways that are each 18 inches wide by 30 feet long and extend out perpendicularly from the dock structure to create the wet slip spaces (Figure 1-2). Each of the access walkways would have water and electrical connections installed.

1.4 SCOPE OF THE ENVIRONMENTAL REVIEW

This EA examines the potential for impacts to the environment resulting from the construction of a 20-slip boat dock at the Raccoon Creek western marina at MacDill AFB, Florida. This environmental analysis has been conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 [Title 42, United States Code, Sections 4321-4347 (42 USC 4321-4347)]; the President's Council on Environmental Quality (CEQ) regulations for implementing NEPA [Title 40, Code of Federal Regulations Parts 1500-1508 (40 CFR 1500-1508)]; and the Air Force *Environmental Impact Analysis Process* (EIAP) promulgated in 32 CFR 989.

The Coastal Zone Management Act (CZMA) (16 USC 1451-1464), as amended, requires federal agencies carrying out activities subject to the Act to provide a "consistency determination" to the relevant state agency. The Air Force's consistency determination for the Proposed Action is contained in the Consistency Statement provided in Appendix B. This EA was submitted to the Florida State Clearinghouse for a multi-agency review. In addition, copies of the Draft EA were sent directly to the Florida Department of Environmental Protection (FDEP) Florida Coastal Management Program, the FDEP Bureau of Beaches and Coastal Systems, and the United States Army Corps of Engineers (USACE). Copies were also provided to the State Historic Preservation Office (SHPO) to obtain its consultation in regard to cultural resources and to the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric

Administration (NOAA) National Marine Fisheries Service (NMFS) for its consultation on biological resources (primarily for compliance with the Endangered Species Act [ESA]). Appendix C contains copies of the consultation letters that accompanied the Draft EA when it was sent by MacDill AFB to these agencies.

Copies of responses from state and federal agencies are provided in Appendix C. The SHPO concurred with the conclusions of this EA that the Proposed Action would not have adverse impacts on resources under their jurisdiction. The Florida Department of Community Affairs, with input from state and county agencies, determined that, at this stage, the Proposed Action is consistent with the Florida Coastal Management Program (State of Florida, 1981); however, the department noted some permitting issues and issues regarding an endangered species that potentially could be impacted by the Proposed Action. The department indicated that these issues must be addressed prior to project implementation. The USFWS and NMFS also responded with concerns of potential impacts to federally- and state-protected species. NMFS requested that a Biological Assessment (BA)/Biological Evaluation (BE) be conducted to evaluate the effects of the Proposed Action on NMFS trust species. USFWS indicated that a formal Section 7 consultation with the USFWS may be required as part of the 404(b) permit application process by the Jacksonville District USACE (see Section 1.5.2). However, subsequent coordination with these agencies determined that modification of the EA would be adequate and a formal BA/BE would not be required. A Revised Draft EA was subsequently submitted to USFWS and NMFS containing information that would typically be found in a Biological Evaluation (BE) or Biological Assessment (BA) regarding the project and the potential for impacts to listed species. This Revised Draft EA was accepted by both agencies in lieu of a BA/BE.

MacDill AFB published a newspaper advertisement in the April 10, 2007 edition of the *Tampa Tribune* announcing the availability of the Draft EA for public review at the John F. Germany Library in Tampa, Florida. The public comment period extended from April 12 through May 24, 2007. Comments on the Draft EA were received from a local resident and are provided in Appendix D.

1.5 ENVIRONMENTAL COMPLIANCE AND PERMIT REQUIREMENTS

Compliance with NEPA requires that the planning and decision-making process for actions proposed by federal agencies involve a study of other relevant environmental statutes and regulations. The NEPA process, however, does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA or Environmental Impact Statement (EIS), which enables the decision maker to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action. According to CEQ regulations the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively."

It is anticipated that the Proposed Action will have to comply with elements of several Federal regulations in addition to NEPA requirements, including the Clean Water Act (CWA), the Clean Air Act (CAA), Rivers and Harbors Act (RHA), CZMA, Fish and Wildlife Coordination Act of 1958, ESA, Marine Mammal Protection Act (MMPA), National Historic Preservation Act (NHPA), Safe Water Drinking Act (SWDA), Resource Conservation and Recovery Act (RCRA), Migratory Bird Treaty Act, Migratory Bird Conservation Act, Magnuson-Stevens Fishery Conservation and Management Act, and the Water Resource Development Act Sections 904, 307, and 601. The project must also consider issues related to protection of wetlands, environmental justice, and management of floodplains and invasive species.

Based on a review of the relevant federal, state, and local environmental regulations, several environmental permits may be required for the proposed project. The following sections provide a discussion of potentially required permits.

1.5.1 Environmental Resource Permit

The Proposed Action, construction a 20-slip boat dock in the surface waters of the Raccoon Creek western marina at MacDill AFB, will require an Environmental Resource Permit (ERP). The ERP Program regulates activities involving construction, alteration, maintenance, removal, modification, and operational activities in uplands, wetlands, and other surface waters that will alter, divert, impede, or otherwise change the flow of surface waters. Implementation of the ERP Program involves several Florida statutes and a number of rules of the FDEP, including certain

rules of the water management districts that have been adopted for use by the FDEP. ERP applications in Hillsborough County are processed by either the FDEP district office or by the Southwest Florida Water Management District (SWFWMD), in accordance with the division of responsibilities specified in the operating agreement between the FDEP and the SFWMD (1998). Under this agreement, the FDEP generally reviews and takes actions on applications involving docking facilities and attendant structures and dredging that are not part of a larger plan of residential or commercial development or that do not have a previously issued SFWMD permit.

Issuance of the ERP also constitutes a water quality certification (or waiver) under Section 401 of the CWA and a finding of consistency with the Florida Coastal Zone Management Program under Section 307 of the CZMA. Additionally, the issuance of a State Programmatic General Permit (SPGP) from the USACE allows the FDEP the ability to issue the federal dredge and fill permit under Section 404 of the CWA for certain activities (such as docks). For activities that do not qualify under the State Programmatic General Permit, the FDEP or SFWMD forward the ERP application directly to the USACE for concurrent federal permit processing.

1.5.2 Section 10, Rivers and Harbors Act, Section 404(b)(1) Clean Water Act Permit

The CWA Section 404(b) and the RHA, Section 10, govern the disposal of dredged material or fill in the nation's waters, including wetlands (CWA) and navigable waters of the United States (RHA). The Proposed Action involves dredging and filling within USACE jurisdictional wetlands, and most of Florida's waters are considered navigable. Therefore, permits fulfilling the requirements of Section 404(b) of the CWA and possibly Section 10 of the RHA will be required prior to the construction of the Proposed Action. The USACE Jacksonville District generally has regulatory authority for Section 404(b) of the CWA and Section 10 of the RHA for this type of project but, as discussed previously, has delegated authority under the SPGP to the FDEP to issue CWA Section 404(b) permits for certain types of projects. Projects that do not qualify for the SPGP are sent to the USACE for concurrent permit processing. If a 404(b) Dredge and Fill determination is required by the USACE, it cannot be issued until the ERP is approved, indicating issuance or waiver of water quality certification in accordance with Section 401 of the CWA and consistency with the CZMA.

1.5.3 Tampa Port Authority Permit

In accordance with Chapter 95-488, Laws of Florida, a Tampa Bay Marine Construction Permit is required to dredge, fill, build, or permanently moor any structure on submerged lands within the Port District. A permit would not be issued unless the Proposed Action would not violate any statute pertaining to environmental regulations, zoning laws, ordinances, other restrictions, or the adopted comprehensive plans of local governments. Additionally, no permit would be issued unless the proposed project would not harmfully obstruct the natural flow of waters, hinder navigation, erode channels or beaches, create stagnant water areas, damage adjoining lands, adversely affect the rights of riparian owners in the area, interfere with the recreational use of waters, adversely affect the public safety, adversely affect the quality of air and water, or adversely affect the protection and propagation of balanced indigenous biological communities, including, but not limited to, wetland and aquatic habitats, nursery or feeding grounds, and shellfish beds.

A minor marine construction permit is needed for projects meeting the following criteria:

- Docks less than 2,500 square feet structural area and less than 300 feet long;
- Dredge/fill less than 1,000 cubic yards (cy);
- Maintenance dredging less than 10,000 cy;
- Seawalls less than 400 feet long.

A standard marine construction permit is required for projects exceeding the above thresholds or for projects that may be expected to have significant environmental or hydrologic impact. Since the proposed project would involve the construction of a dock approximately 2,900 square feet in area and 400 feet long, a standard permit would be required.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This section provides a description of the Proposed Action and alternatives to the Proposed Action. The project area is the western marina in the Raccoon Creek Recreation Area on MacDill AFB (Figure 2-1).

The Proposed Action includes the construction of a 20-slip boat dock to increase the number of boat slips available to military personnel on base. The boat dock would be built as an expansion of the existing dock at the Raccoon Creek western marina (Figure 1-2).

Three alternatives to the Proposed Action were considered as part of this EA, including the Floating Dock Alternative, the Expansion of the Southern Marina at the Raccoon Creek Outdoor Recreation Area Alternative, and the No Action Alternative; however, only the Proposed Action and the No Action Alternatives were carried through the entire evaluation for reasons discussed in Section 2.2.1.

2.1 DETAILED DESCRIPTION OF THE PROPOSED ACTION

2.1.1 Background

Land on the southern tip of the Interbay Peninsula, south of Tampa, was selected for an Army airbase in 1939. The formal dedication of the airbase occurred in 1941, and the property became MacDill AFB in 1947.

The popularity of recreational boating in Tampa Bay has steadily increased over the past several years. However, there has been no corresponding increase in marina facilities or wet slips. Consequently, the demand for marina space around Tampa Bay has increased dramatically. There are currently 38 people registered as waiting for slip space at MacDill AFB. The demand for marina space at MacDill AFB has further increased with the recent dredging of the marina channel. The deeper channel permits larger boats to access the Raccoon Creek western marina.

2.1.2 Proposed Action

The Proposed Action is the construction of a 6-foot wide by approximately 400-foot long dock structure that can accommodate 20 boat slips that are each 12 feet wide. The project also would include the construction of 11 18-inch-wide by 30-foot-long, boat access walkways that extend out perpendicularly from the dock structure to create the wet slip spaces (Figure 1-2). The new dock structure would be similar in design to the existing 27-wet-slip dock structure at the Raccoon Creek western marina. It would be constructed utilizing Trex® (plastic wood) decking attached to pressure-treated timbers and 10-inch diameter, marine grade, pressure-treated pilings (Figure 2-2). Each of the 11 access walkways would have water and electrical connections installed.

Approximately 130 10-inch diameter marine-grade pilings would be installed to support the dock's decking. The pilings would be installed by driving each one into the substrate until refusal. It is estimated that the pilings would be driven 8 to 10 feet into the substrate. The pilings would be driven using a barge-mounted pile-driving apparatus. Pressure-treated timbers would be mounted to the pilings to create the substructure for the deck planking. Decking planks, made of Trex® plastic lumber, would be 6 inches across and 6 feet long with approximately a 1-inch spacing between the planks. Water and electric utilities would be run beneath the decking, mounted to the substructure, and stubbed up through the decking at the end of each 30-foot long access walkway. In total, the new dock structure would create approximately 2,900 square feet of surface area (deck) over the water.

2.2 DESCRIPTION OF ALTERNATIVE ACTIONS

The EIAP process requires the Air Force to analyze reasonable alternatives to the Proposed Action and the No Action Alternative. Reasonable alternatives are those that "meet the underlying purpose and need for the Proposed Action and that would cause a reasonable person to inquire further before choosing a particular course of action" (32 CFR 989). Alternatives may be eliminated from detailed analysis based on operational, technical, or environmental standards that are applicable to the project.

2.2.1 Alternatives Eliminated from Further Consideration

Two other alternatives to the Proposed Action were initially considered but determined to be impractical based on a number of considerations, including financial, environmental, and permitting considerations.

Alternative #1: Floating Dock – This alternative would construct a 20-slip floating dock at the Raccoon Creek western marina. The floating dock would have the same alignment and land connections as the proposed dock (Proposed Action). It would have the same number of pilings and also would have water and electricity running the length of the dock. The floating dock would be designed similarly to the existing floating dock at the southern marina. The dock structure would consist of lightweight concrete or aluminum affixed to the top of large Styrofoam® blocks that float on the water surface. The floating platforms would be secured to wood or galvanized steel pilings to hold them in position. The utility lines for the floating dock structure would be contained within a flexible conduit. This alternative was considered feasible but impractical due to the cost of implementation.

Alternative #2: Expansion of the Southern Marina at Raccoon Creek Outdoor Recreation Area – This alternative would expand the southern marina, the other existing marina in the Raccoon Creek Outdoor Recreation Area, in order to add 20 additional slips to the dock space there (Figure 2-1). It would require removing the sea walls on the north and east side of the existing marina and relocating Marina Bay Drive, a portion of the Family Camp, and a portion of the current marina dry land storage. Upon removal of the sea walls, soil and sediment would need to be removed and new sea walls would have to be installed. This alternative was eliminated from further consideration due to the cost of implementation and the potential environmental impacts associated with the removal and construction of seawalls . There is also uncertainty regarding the permitting of this alternative because the FDEP generally does not look favorably upon the installation of new sea walls.

2.2.2 Description of the No Action Alternative

Under the No Action Alternative, there would be no expansion of the existing dock structure at the Raccoon Creek western marina. If this alternative were implemented, the current unmet demand for marina space would be expected to increase, as the popularity of recreational boating

would likely continue to grow. The demand for marina space at MacDill AFB has increased recently due to the dredging of the marina channel, permitting larger boats to access the Raccoon Creek western marina. There are currently 38 people registered as waiting for slip space at MacDill AFB, and this waiting list would potentially grow longer. The No Action Alternative represents baseline conditions that can be compared to conditions that would exist under the Proposed Action.

2.2.3 Comparison of Environmental Effects of the Proposed Action and Alternatives

The purpose of this section is to summarize and compare the environmental impacts of each alternative, thereby defining the issues and providing a clear basis for choice among the alternatives by the decision-maker. The environmental resources potentially affected by the alternatives are described in Chapter 3, Affected Environment. The consequences for each of these environmental resources from the implementation of each alternative are described in Chapter 4, Environmental Consequences. The present section discusses and provides a tabular matrix (Table 2-1) that summarizes the conclusions reached in Chapter 4 regarding the environmental effects of each alternative on each resource evaluated.

In Chapter 4, impacts on each environmental resource are evaluated to determine whether the consequences of the alternatives would be beneficial or adverse. For adverse impacts, the level of impact on the resource is estimated (e.g., negligible, low, moderate, or high) and considered in conjunction with the context (e.g., local versus regional, short-term versus long-term) and intensity (based on ten criteria provided in the CEQ Regulations) of the effect in determining whether the impact is significant. As shown in Table 2-1, no potentially significant adverse impacts were identified for the Proposed Action, and one potentially significant adverse impact was identified for the No Action Alternative.

It is the conclusion of this EA that implementation of the Proposed Action would not result in a significant adverse effect on the environment. Therefore, preparation of a Finding of No Significant Impact (FONSI)/Finding of No Practicable Alternative (FONPA) is appropriate for this action, and preparation of an EIS is not required.

Table 2-1 Summary of Potential Environmental Consequences

Resources	***Proposed Action***	***No Action Alternative***
Air Quality	○	○
Noise	○	○
Wastes, Hazardous Materials, and Stored Fuel	○	○
Physical Environment	○	○
Land Use	○	○
Transportation	○	○
Safety and Occupational Health	○	○
Socioeconomics	+	○
Environmental Justice	○	○
Biological Environment	○	○
Cultural Resources	○	○
Infrastructure	○	○

Consequences:

+ = Beneficial.
○ = No net change or not discernible.
– = Adverse and potentially significant.

3.0 AFFECTED ENVIRONMENT

This section describes the characteristics of the existing natural and man-made environment that could potentially be affected by the Proposed Action or the No Action Alternative. This section establishes the basis for assessing the impacts of the alternatives on the affected environment in Section 4.0.

3.1 AIR QUALITY

The CAA, as amended in 1977 and 1990, provides the basis for regulating air pollution to the atmosphere. The United States Environmental Protection Agency (USEPA) has set air quality standards for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur oxides (SO_x), lead (Pb), and particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}) and 2.5 micrometers ($PM_{2.5}$). These standards are the cornerstone of the CAA. Although not directly enforceable, they are the benchmark for the establishment of emission limitations for the pollutants USEPA determines may endanger public health or welfare.

The Environmental Protection Commission of Hillsborough County (EPCHC) is responsible for issuing and enforcing the CAA Title V Air Operation Permit for MacDill AFB (Permit No. 0570141-001-AV; USAF, 1999). The 2003 air emission inventory at MacDill AFB found that the installation is a major source of nitrogen oxides, with potential emissions of 9.79 tons per year (MAFB, 2004).

The USEPA tracks compliance with the air quality standards through designation of a particular region as attainment or non-attainment. MacDill AFB is located in Hillsborough County within the West Central Florida Intrastate Air Quality Control Region (AQCR). Hillsborough County currently meets the USEPA air quality standards for all criteria pollutants (USEPA, 2006). The county was formerly non-attainment for ozone, but it currently is in maintenance for attainment for ozone.

3.2 NOISE

The meaning of noise for this analysis is undesirable sound that interferes with speech communication and hearing or is otherwise annoying (unwanted sound). In June 1980, the Federal Interagency Committee on Urban Noise published guidelines (FICUN, 1980) relating day-night average sound level (DNL) values to compatible land uses. Most federal agencies have identified 65 decibels (dB) DNL as a criterion that protects those most affected by noise and that can often be achieved on a practical basis. The primary source of noise at MacDill AFB is aircraft operations. The Air Installation Compatible Use Zone (AICUZ) Study for MacDill AFB (USAF, 1996) plotted the DNL from 65 to 80 dB for a typical busy day. The DNL contours reflect aircraft operations. The DNL 65 dB contour covers the main runway and extends about 1 mile southwest over Tampa Bay and about 1.5 miles northeast over Hillsborough Bay. A second, smaller DNL 65 dB contour is centered near the southeastern end of the inactive runway (taxiway).

These contours do not extend to the recreation areas on the southeast portion of the base. Construction activities for the project would be conducted approximately 4,000 feet south and outside of the 65 dB noise contour of the inactive runway.

3.3 WASTES, HAZARDOUS MATERIALS, AND STORED FUEL

Hazardous wastes generated at MacDill AFB include solvents, fuels, lubricants, stripping materials, used oils, waste paint-related materials, and other miscellaneous wastes. The responsibility for managing hazardous waste lies with the generating organization and 6th Civil Engineering Squadron (CES)/Environmental Management (CEV). Wastes come from approximately 50 locations throughout the base and are managed at satellite accumulation points base-wide.

Approximately 105 operations base-wide use hazardous materials. Hazardous materials on-base include various organic solvents, chlorine, freon, paints, thinners, oils, lubricants, compressed gases, pesticides, herbicides, nitrates, and chromates. A detailed tracking and accounting system is in place to identify potentially hazardous materials and to ensure that base organizations are approved to use specific hazardous materials.

The base receives jet fuel (JP-8) at the Defense Fuel Supply Point (DFSP) by pipeline from Port Tampa. JP-8 storage capacity at DFSP and MacDill AFB is over 7.5 million gallons. Diesel, gasoline, and heating oil are stored throughout MacDill AFB in small to medium-sized underground storage tanks (USTs) and aboveground storage tanks (ASTs) ranging in size from 50 to 12,000 gallons.

No environmentally-regulated areas are located in or immediately near the project area. However, one inactive Environmental Restoration Program site is located immediately north of the western marina project area: Area of Concern (AOC) 85/60 (Figure 3-1). AOC 85 is a collection of 28 septic tanks and their associated drain fields located across MacDill AFB. The septic systems were all removed from service on or before 1984. Prior to removal from service, all of the septic systems may have received industrial waste as well as sanitary waste. At the time of this EA, no site investigations had been completed for AOC85/60. Therefore, information regarding potential contamination at this site north of the project area is currently unavailable (Matty, January 2007).

3.4 PHYSICAL ENVIRONMENT

The Raccoon Creek Recreation Area is located in the southeastern portion of MacDill AFB. The western marina within the Raccoon Creek Recreation Area is part of a coastal wetland and is located in a tidally-influenced lagoon approximately 1,000 feet inland from Middle Tampa Bay. The lagoon is approximately 12 feet deep on average. Along the banks of the lagoon, mangroves are the dominant vegetation. The biological environment in this area is described further in Section 3.10 of this report.

3.4.1 Water Quality

Water quality data are not available for the Raccoon Creek western marina or surrounding area. As discussed in Section 3.3, no Environmental Restoration Program-sponsored investigations have been conducted to date in the vicinity of the Proposed Action. Water quality data exist for several points in the Tampa Bay area, however, and results are described below.

The Tampa Bay Estuary Program (TBEP) was founded in 1991 to facilitate the development of a comprehensive plan to restore and protect Tampa Bay. One of the initiatives of the TBEP is the

baywide monitoring program. The water quality of the Tampa Bay area is monitored on a regular basis by four main local agencies: the EPCHC, Pinellas County, Manatee County, and the City of Tampa (Squires, May 2003). EPCHC began monthly sampling of Tampa Bay in 1972 and has complete records of most of the 52 stations located in the Old Tampa Bay, Hillsborough Bay, Middle Tampa Bay, and Lower Tampa Bay segments dating back to 1974 (Janicki et al., March 2001). A Microsoft Access® database, currently available online at the TBEP website (http://www.tbeptech.org/html/wq_jun9.html), contains the water quality data collected by the local agencies.

There are currently 13 EPCHC water quality monitoring stations within Middle Tampa Bay. Of these, Station 11 is located approximately 0.5 mile south of the Raccoon Creek western marina and is the closest station to the project area (TBEP, 2006). In order to obtain and document the existing water quality conditions in the project area, the database was queried for the results of the following water quality parameters from Station 11: dissolved oxygen (DO), pH, salinity, and turbidity. These parameters were sampled monthly beginning in January 1974 through December 2005. For DO, pH, and salinity, data were available for three depths of the water column (surface, mid-depth, and bottom), and results from the three depths were combined to obtain overall minimum, maximum, and average values. Turbidity was sampled only at mid-depth, and minimum, maximum, and average values also were determined. The water quality data are shown in Table 3-1.

Table 3-1 Summary of Water Quality Data, Middle Tampa Bay, Station 11

Parameter	Minimum	Maximum	Average
DO (mg/L)	0.4	12.8	6.6
pH	6.3	9.2	8.0
Salinity (ppt)	8.7	40.2	25.5
Turbidity (NTU)	1	40	6.2

mg/L – milligrams per liter
NTU – Nephelometric turbidity unit
ppt – parts per thousand
From: Squires (May 2003), Janicki et al. (March 2001).

3.4.2 Stormwater

Stormwater on MacDill AFB from impervious surfaces is directed to drains and ditches that connect directly to Hillsborough Bay. Surface water flows at the base are primarily from stormwater runoff. Most of the base drains toward the southern tip of the Interbay Peninsula; however, the easternmost section of the base drains toward Hillsborough Bay.

The USEPA issued a National Pollutant Discharge Elimination System (NPDES) multi-sector stormwater general permit to MacDill AFB in July 2003. This permit authorizes the discharge of stormwater associated with industrial activity. In accordance with 40 CFR 112 and given the location of the base adjacent to navigable waters and shorelines as well as the amount of fuel storage capacity existing on-site, the base has developed a Spill Prevention Control and Countermeasures (SPCC) Plan and a Facility Response Plan.

3.4.3 Floodplains and Wetlands

According to information (Flood Insurance Rate Maps dated 1982 to 1991) provided by the Federal Emergency Management Agency (FEMA), 80 percent of MacDill AFB is within the 100-year floodplain. The maps indicate that all the residential, industrial, and institutional (medical and education) land uses on the base are within the 100-year floodplain, along with most of the commercial and aviation support areas. The majority of the land that is above the floodplain is designated for airfield operations. The extent of the floodplain is an important consideration for MacDill AFB because Executive Order (EO) 11988, *Floodplain Management* (May 1977) regulates the uses of these areas. The objective of this presidential order is to avoid, to the extent possible, the long- and short-term adverse impacts associated with occupancy and modification of floodplains. Activities under the Proposed Action are located within the 100-year coastal floodplain and within a Zone A special flood hazard area.

Additionally, the Raccoon Creek western marina is located in an area that has been mapped as wetlands (Figure 3-1). Wetlands are defined as areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. According to classification system of Cowardin

et al. (December 1979), deepwater habitats are permanently flooded lands lying below the deepwater boundary of wetlands. Given that the central area of the basin and the channel of Raccoon Creek are approximately 12 feet deep, permanently inundated, and do not support emergent vegetation, these areas are considered deepwater habitats with wetlands along their margins. In accordance with EO 11990, *Protection of Wetlands* (May 1977), the base is required to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

3.5 LAND USE

Land use categories at MacDill AFB include runway/taxiways, aircraft operations/maintenance, industrial, community commercial, community service, administrative, medical, accompanied housing, unaccompanied housing, outdoor recreation, water, and open space. The Raccoon Creek western marina that would be affected by the Proposed Action is located in an area currently designated as outdoor recreation. Two other land use categories are located near the project area: industrial to the north and open space to the west (USAF, 2006a).

3.6 TRANSPORTATION

MacDill AFB is served by four operating gates on the north side of the base: Dale Mabry Highway, Bayshore Boulevard, MacDill Avenue, and Tanker Gates. The Dale Mabry, Bayshore, and MacDill gates are used for government and personal vehicles (commuter traffic). The Tanker gate is used as the large vehicle (contractor trucks, delivery vehicles, and recreational vehicles) entry point. Large vehicles are inspected, and their credentials and destinations are confirmed before entering the base.

The transportation system on-base consists of arterials, collectors, and local streets that connect with the off-base network through the four gates. On-base arterial facilities include North and South Boundary Boulevards, Bayshore Boulevard, Marina Bay Drive, and Tampa Point Boulevard. The 1998 traffic study (USAF, 1998) determined that service levels for traffic on-base are generally acceptable.

Marina Bay Drive borders the Raccoon Creek western marina, which is the location of the Proposed Action. No other main roadways or gates are within the vicinity.

3.7 SAFETY AND OCCUPATIONAL HEALTH

Construction activities included under the Proposed Action would not involve any unique hazards, and all construction methods would comply with Occupational Safety and Health Administration (OSHA) requirements to ensure the protection of workers and the general public during construction.

3.8 SOCIOECONOMICS

The Economic Impact Region (EIR) for MacDill AFB is the geographic area within a 50-mile radius of the base subject to significant base-related economic impacts. According to the 2002 Economic Resource Impact Statement for MacDill AFB (USAF, 2003), the total economic impact of MacDill AFB on the EIR was $5.59 billion with over 133,000 jobs supported. Retiree income provides an economic impact of $2.13 billion. The direct impact on local income produced by base expenditures is $1.2 billion.

3.9 ENVIRONMENTAL JUSTICE

Environmental justice must be considered for federal actions under the NEPA review process and in accordance with the Air Force EIAP (32 CFR 989.33). Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (EO 12898, February, 1994) requires that each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high or adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

Environmental justice analysis focuses on residents living within the areas where there would be potentially adverse environmental impacts, which for the purposes of this EA are those areas bordering the site of the Proposed Action. No non-military residential communities are located adjacent to or in the vicinity of the Proposed Action. The Proposed Action would occur

completely within the boundary of MacDill AFB and does not include any off-base construction. Recreational fishing and boating occur, but are limited to Raccoon Creek and the main channel that extends from the mouth of Raccoon Creek south into Middle Tampa Bay. An Exclusionary Zone surrounding MacDill AFB prohibits recreational fishing and boating 1000 yards offshore from the base. Therefore, no minority and low-income populations exist that might be affected by implementation of the Proposed Action or the No Action Alternative.

3.10 BIOLOGICAL ENVIRONMENT

A description of the biological resources found at MacDill AFB is provided in the Integrated Natural Resources Management Plan (INRMP; USAF, 2005). The biological environment within and adjacent to the project area is described below based on the ecological communities present and the potential occurrence of endangered, threatened, or special concern (ETSC) species.

3.10.1 Ecological Communities

The riparian area surrounding the Raccoon Creek western marina is predominantly made up of an estuarine scrub-shrub wetland ecological community, which is one of the major vegetative communities present at MacDill AFB (USAF, 2005). Red mangroves (*Rhizophora mangle*), and to a lesser extent black mangroves (*Avicenna germinans*) and white mangroves (*Laguncularia racemosa*), dominate the shoreline of the western marina. Other salt-tolerant species that could potentially be present include wax myrtle (*Myrica cerifera*), saltbush (*Atriplex spp.*), Brazilian pepper (*Schinus terebinthifolius*), sea grape (*Coccoloba uvifera*), and various grasses (USAF, 2005). Scattered cabbage palms (*Sabal palmetto*) are present immediately inland of the shoreline vegetation (Figures 1-2 and 3-2).

The ecological community most likely to be impacted by the Proposed Action is the aquatic community of the lagoon, which is tidally-influenced, deepwater habitat with an average water depth of approximately 12 feet. The lagoon has an area of approximately 1.5 acres and is connected to Raccoon Creek by a channel approximately 150 feet long and 90 feet wide at its narrowest point (Figure 3-3). Based on community descriptions from the Florida Natural Areas Inventory (FNAI) and the Florida Department of Natural Resources (FDNR) *Guide to the Natural Communities of Florida* (FNAI and FDNR, 1990), this community may be categorized as a tidal

swamp, which occurs in flat intertidal and supratidal shorelines with low wave energy. Tidal swamp substrate composition often includes a combination of algae and seagrass beds or areas with patches of consolidated substrate (e.g., limerock or reef materials) or unconsolidated substrate (e.g., marl, mud, sand, and/or shell) (FNAI and FDNR, 1990). These types of communities typically support a large population of benthic organisms living on or within the substrate (e.g., tube worms, sand dollars, mollusks, isopods, amphipods, burrowing shrimp, and crabs), as well as a variety of transient planktonic and pelagic organisms. As a result, tidal swamps are attractive to a variety of fish species, such as the black-tipped shark (*Charcharhinus limbatus*), lemon shark (*Negaprion brevirostris*), bonefish (*Albula vulpes*), sardine (Clupeidae spp.), snapper (Lutjanidae spp.), pinfish (*Lagodon rhomboides*), and sheepshead (*Archosargus probatocephalus*) (FNAI and FDNR, 1990).

The western marina of the Raccoon Creek Recreation Area is part of the Tampa Bay Estuary and is therefore regulated under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The Magnuson-Stevens Act established immediate action to conserve and manage the fishery resources found off the coasts of the United States and the anadromous species and Continental Shelf fishery resources of the United States, and it provided support and encouragement for the implementation and enforcement of international fishery agreements for the conservation and management of highly migratory species. Found within the provisions of the Magnuson-Stevens Act is the requirement to prepare fishery management plans (FMPs) and to establish Regional Fishery Management Councils to exercise sound judgment in the stewardship of fishery resources through the preparation, monitoring, and revision of the FMPs. Part of the responsibility of the regional councils is to promote the protection of Essential Fish Habitat (EFH) in the review of projects conducted under Federal permits, licenses, or other authorities that affect or have the potential to affect such habitat.

Amendments by the Sustainable Fisheries Act in 1996 to the Magnuson-Stevens Act established a requirement for each FMP to describe and identify EFH. EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH includes all waters and substrates within estuarine boundaries, including the sub-tidal vegetation (seagrasses and algae) and adjacent tidal vegetation (marshes). Estuaries provide essential habitat for many species, serving as nursery areas for juveniles and also as seasonal habitat for adults. Habitat

Areas of Particular Concern (HAPCs) are discrete subsets of EFH that provide extremely important ecological functions or are especially vulnerable to degradation. Councils may designate a specific habitat area as an HAPC based on one or more of the following reasons:

- Importance of the ecological function provided by the habitat
- Extent to which the habitat is sensitive to human-induced environmental degradation
- Whether, and to what extent, development activities are, or will be, stressing the habitat
- Rarity of the habitat type.

The HAPC designation does not confer additional protection or restrictions upon an area but can help prioritize conservation efforts. Healthy populations of fish require not only the relatively small habitats identified as HAPCs, but also other areas that provide suitable habitat functions. HAPCs alone will not suffice in supporting the larger numbers of fish needed to maintain sustainable fisheries and a healthy ecosystem.

EFH has been designated for nine species within the estuarine areas of Tampa Bay adjacent to MacDill AFB, but no HAPCs have been designated for the waters adjacent to MacDill AFB (NOAA, January 2007). The EFH species common and scientific names and their occurrence in the project area by life stage are listed on Table 3-2. These species and their food base are protected as part of the Magnuson-Stevens Act.

Table 3-2 Summary of Essential Fish Habitat Species for the Tampa Bay Estuary

Species		**Occurrence in Project Area**	
Common Name	**Scientific Name**	**Juveniles**	**Adults**
Brown shrimp	*Penaeus aztecus*	not present	not present
White shrimp	*Penaeus setiferus*	not present	not present
Pink shrimp	*Penaeus duorarum*	highly abundant	not present-rare
Red Drum	*Scianops ocellatus*	common-highly abundant	common
Gulf stone Crab	*Menippe adina*	not present	not present
Stone crab	*Menippe mercenaria*	common	common
Spiny lobster	*Panulirus argus*	rare	rare
Gray snapper	*Lutjanus griseus*	common	not present
Spanish mackerel	*Scomberomorus maculatus*	rare	common

From: NOAA (January 2007)

Wading and shore birds are likely to use the aquatic and riparian habitats of the lagoon primarily for foraging. Species likely to occur along the margins of the lagoon include wading birds such as the great egret (*Ardea alba*), great blue heron (*Ardea herodias*), yellow-crowned night heron (*Nyctanassa violacea*), black-crowned night heron (*Nycticorax nycticorax*), and glossy ibis (*Plegadis falcinellus*), and water birds such as the white pelican (*Pelecanus erythrorhynchos*), laughing gull (*Larus atricilla*), herring gull (*Larus argentatus*), caspian tern (*Sterna caspia*), and royal tern (*Sterna maxima*). Many of the mammalian species inhabiting MacDill AFB [e.g., the raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), armadillo (*Dasypus novemcinctus*), and striped skunk (*Mephitis mephitis*)] are adapted to urban environments (USAF, 2005) and may forage around the existing marina and the shoreline of the lagoon. The raccoon is the most likely of these species to utilize the shoreline habitat.

Seagrass beds, which occur in the shallow subtidal zones of clear coastal waters with moderate wave action (FNAI and FDNR, 1990), are present in the nearshore area of Middle Tampa Bay adjacent to the project area and the mouth of Raccoon Creek. Seagrass beds are commonly submerged, but can be exposed for brief periods of time during extreme low tides (FNAI and FDNR, 1990). Seagrasses support attached epiphytic algae and invertebrates and serve as important food sources for manatees, sea turtles, and fish, including the spotted sea trout (*Cynoscion nebulosus*), spot (*Leiostomus xanthurus*), and redfish (*Sciaenops ocellatus*) (FNAI and FDNR, 1990). Dense seagrasses also serve as shelter or nursery grounds for many invertebrates and fish, including marine snails, clams, scallops, polychaete worms, pink shrimp, blue crab (*Callinectes sapidus*), seahorses (*Hippocampus* spp.), snapper, mullet (Mugilidae spp.), and bonefish (FNAI and FDNR, 1990).

The marina channel that connects the western marina to the southern marina and continues out into the bay has been historically dredged. Maintenance dredging of the channel was most recently accomplished in 2005. During the environmental permitting phase of the dredging project, the entire channel area including both marina basins were surveyed for the presence of seagrasses. On June 21, 2004, representatives from the Florida Department of Environmental Protection and MacDill AFB inspected sections of the channel using masks and snorkels to determine if sea grasses had established in the channel since the previous maintenance dredging event (circa 1984). No seagrass beds were identified in the marina channel or marina basins

during the survey. Furthermore, the western marina basin and the adjacent section of Raccoon Creek were determined to have sufficient depth and they were not dredged during the 2005 maintenance dredging event. Consequently, the western marina basin has not been maintenance-dredged or cleaned out in more than 20 years (Kirkpatrick, May 2007). The basin is an isolated area and is relatively deep (~12 feet) and acts as a catchment or settling area for materials. As a result, the sediments in the bottom of the basin primarily consist of silts, mud, and detritus that have washed-in, settled, and accumulated in the bottom of the basin. The thick layer of muck is not conducive to the establishment of sea grasses.

3.10.2 Endangered, Threatened, or Special Concern Species

Species listed and legally protected by federal or state agencies as ETSC species with the potential to occur at or near the Raccoon Creek western marina of MacDill AFB are shown in Table 3-3. The list of species identified was taken from Appendix E.5b of the INRMP (USAF, 2005) and cross-referenced with the current FNAI species-tracking list for the United States Geological Survey (USGS) topographic map that includes the project area, the Gibsonton Quadrangle. Consideration was also given to habitat preferences, so species whose preferred habitats were not consistent with the natural communities present in the project area were not included in Table 3-3.

During initial consultation for the project, NMFS identified a list of federally-protected species under the jurisdiction of NMFS for the Florida Gulf region. Theses species are designated as Endangered or Threatened and are included in Table 3-3. Additional NMFS species designated as Species of Concern are also included in Table 3-3. These species, however, are not legally protected under the Endangered Species Act, but could potentially be listed in the future.

MacDill AFB provides foraging habitat for many of the terrestrial species listed on Table 3-3, and several of these species have been documented on the Base, including the American alligator (*Alligator mississippiensis*), bald eagle (*Haliaeetus leucocephalus*), least tern (*Sterna antillarum*), snowy egret (*Egretta thula*), black skimmer (*Rynchops niger*), and white ibis (*Eudocimus albus*) (USAF, 2005). Additionally, several state-listed species of special concern, such as the gopher tortoise (*Gopherus polyphemus*) and burrowing owl (*Athene cunicularia floridana*), are known to nest on-base, although not in the vicinity of the Proposed Action. None of these ETSC species

are known to reproduce in the project area, all are mobile and able to avoid the area during construction, and it has not been demonstrated that MacDill AFB is critical to their survival. The Base has not been shown to have breeding populations of any federally-listed threatened or endangered species, with the exception of one pair of bald eagles nesting approximately one mile northwest of the western marina, and none of MacDill AFB is designated as Critical Habitat for these species (USAF, 2005).

Among the protected aquatic species documented in the area of MacDill AFB or the Florida Gulf Coast region (Table 3-3), the manatee has the most potential to occur within the vicinity of the Proposed Action. The manatee is known to occur in Tampa Bay, has been documented on MacDill AFB (Beever, 1992 as cited in USAF, 2005), and may occasionally enter Raccoon Creek.

MacDill AFB records indicate that the remaining federally-listed aquatic species (listed species and species of concern under the jurisdiction of NMFS) are unlikely to occur in or near the lagoon at the western marina. A 1,000-foot marine buffer zone around MacDill AFB was established in 2003 to improve force protection at the base. Private water craft are not permitted in the exclusion zone. On May 10, 2005 representatives from the USFWS, Mote Marine Laboratory, and MacDill AFB conducted a marine survey of the shallow nearshore waters within the exclusion zone along MacDill's southern coastline. The effort surveyed the entire nearshore area between the runway extension to the west and MacDill's southern marina to the east, but focused attention on the outfalls for the three tidal creeks that flow out of the mangrove estuary. Gill nets were placed across the creek entrances on an outgoing tide to trap marine organisms that might be moving in and out of the tidal creeks. In addition, hook and line sampling at selected areas across the shallow shelf adjacent to the estuary was accomplished to survey for marine organisms. Visual survey methods used included low speed boat transects of the shallow waters adjacent to the estuary and a canoe survey into one of the tidal creeks. No federal- or state-listed species or species of concern were collected, observed or recorded during the survey (Kirkpatrick, May 2007).

Although MacDill AFB has approximately seven miles of coastline within Hillsborough and Tampa Bays, less than 10 percent of the coastline consists of sandy beach habitat suitable for nesting by sea turtles. In the past 10 years, there have been no documented sightings of sea

turtles nesting along MacDill's coastline nor have there been any reported sightings of sea turtles in the waters adjacent to the Base or within either of the Base's two marinas. The only recorded visual observation of a sea turtle in or around MacDill AFB occurred in September 2003 when the carcass of a sea turtle, which appeared to have been struck by a powerboat, washed up on the beach at the Family Campground and was reported to the Environmental Flight (Kirkpatrick, May 2007).

A review of available research data posted on the Internet confirmed that there have been no observed occurrences of the listed whale species identified in Table 3-3 in Tampa Bay or in the shallow waters adjacent to MacDill AFB.

3.11 CULTURAL RESOURCES

Cultural resources include prehistoric and historic sites. These resources consist of districts, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, or culture. Historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) are subject to protection or consideration by a federal agency in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (Advisory Council on Historic Preservation, 2004).

Five archaeological sites have been found on MacDill AFB, none of which are located in the vicinity of the Proposed Action. A total of 38 architectural properties on MacDill AFB, including two historic districts, have been determined to be eligible for NRHP listing (USAF, 2006b). In addition, two properties, the United States Special Operations Command (USSOCOM) Headquarters (Building 501) and the United States Central Command (USCENTCOM) Headquarters (Building 540), may be eligible for listing as Cold War Era resources. None of the properties or historic districts are located near the project area.

3.12 INFRASTRUCTURE

All wastewater generated is treated at the base wastewater treatment plant. The plant is permitted to treat a volume of 1.2 million gallons per day (mgd). Currently, the plant operates at an average

of approximately 0.6 mgd. All treated wastewater is currently reused on-base by reclamation, principally through spray application at the golf course located in the southeast area of the base.

TABLE 3-3
PROTECTED SPECIES POTENTIALLY OCCURRING AT THE SITE [A]
MACDILL AIR FORCE BASE, FLORIDA

Major Group	Scientific Name	Common Name	Federal Status [B]	State Status [C]	Occurrence on MAFB [D]	Preferred Habitat [E]
Bird	*Ajaia ajaja*	Roseate spoonbill		LS	Forages and roosts along shorelines and mangrove system.	Primarily nests in mixed-species colonies on coastal mangrove islands or in Brazilian pepper on man-made dredge spoil islands near suitable foraging habitat. Forages in shallow water of variable salinity, including marine tidal flats and ponds, coastal marshes, mangrove-dominated inlets and pools, and freshwater sloughs and marshes.
Bird	*Aramus guarauna*	Limpkin		LS	Potentially occurs along shores, ditches, and in mangroves.	Inhabits mangroves, freshwater marsh, swamps, springs, ponds, and river margins. Will forage in irrigation canals or ditches. Nests in a wide range of vegetation, including mounds of aquatic vegetation and marsh grasses, among cypress knees, and high in trees.
Bird	*Egretta caerulea*	Little blue heron		LS	Common along shorelines, ditches, and mangroves.	Feeds in shallow freshwater, brackish, and saltwater habitats. Largest nesting colonies occur in coastal areas, but prefers foraging in freshwater lakes, marshes, swamps, and streams. Nests in a variety of woody vegetation types, including cypress, willow, maple, black mangrove, and cabbage palm.
Bird	*Egretta rufescens*	Reddish egret		LS	Prefers shorelines, sandbars, and shallow salt ponds. Uncommon.	Almost exclusively coastal. In Florida, typically nests on coastal mangrove islands or in Brazilian pepper on manmade dredge spoil islands, near suitable foraging habitat. Generally forages in shallow water of variable salinity. Broad, open, marine tidal flats and shorelines with little vegetation are ideal feeding areas. Also important are salt evaporation pools and lagoons, often located inside mangrove keys or just inside shoreline on mainland.
Bird	*Egretta thula*	Snowy egret		LS	Common along shorelines, ditches, and mangroves.	Nests both inland and in coastal wetlands with nests placed in many types of woody shrubs, especially mangroves and willows. Almost all nesting is over shallow waters or on islands that are separated from shoreline by extensive open water. Feeds in many types of permanently and seasonally flooded wetlands, streams, lakes, and swamps, and in manmade impound-ments and ditches. Usually prefers calm waters. A wide variety of wetland types must be available within 5 - 7 miles to support breeding colonies. Breeding success is tied to water-level fluctuations.

TABLE 3-3
PROTECTED SPECIES POTENTIALLY OCCURRING AT THE SITE [A]
MACDILL AIR FORCE BASE, FLORIDA

Major Group	Scientific Name	Common Name	Federal Status [B]	State Status [C]	Occurrence on MAFB [D]	Preferred Habitat [E]
Bird	*Egretta tricolor*	Tricolored heron		LS	Common along shorelines, ditches, and mangroves.	Most nesting colonies occur on mangrove islands or in willow thickets in fresh water, but nesting sites include other woody thickets on islands or over standing water. Prefers coastal environments. Feeds in a variety of permanently and seasonally flooded wetlands, mangrove swamps, tidal creeks, ditches, and edges of ponds and lakes. Seasonal variation in water levels are particularly critical to nesting success, so alteration of wetlands used during breeding season can have negative consequences.
Bird	*Eudocimus albus*	White ibis		LS	Known to occur	Occurs in both salt and fresh marshes. Breeds within marshes or on coastal islands. Nesting occurs in trees, shrubs, or grass clumps.
Bird	*Grus canadensis pratensis*	Florida sandhill crane		LT	Visitor to open areas.	Prairies, freshwater marshes, and pasture lands. Avoids forests and deep marshes but uses transition zones and edges between these and prairies or pasture lands. Will frequent agricultural areas like feed lots and crop fields, and also golf courses and other open lawns, especially in winter and early spring.
Bird	*Haematopus palliates*	American oystercatcher		LS	Prefers coastal shorelines, sandbars, and tidal flats.	Oystercatchers require large areas of beach, sandbar, mud flat, and shellfish beds for foraging. They use sparsely vegetated, sandy areas for nesting, but also will use beach wrack and marsh grass. Again, large expanses of suitable nesting areas generally are needed.
Bird	*Haliaeetus leucocephalus*	Bald eagle	LT	LT	Documentation of one pair nesting on Base	Most commonly includes areas close to coastal areas, bays, rivers, lakes, or other bodies of water that provide concentrations of food sources, including fish, waterfowl, and wading birds. Usually nests in tall trees (mostly live pines) that provide clear views of surrounding area. In Florida Bay, where there are few predators and few tall emergent trees, eagles nest in crowns of mangroves and even on the ground.

TABLE 3-3
PROTECTED SPECIES POTENTIALLY OCCURRING AT THE SITE [A]
MACDILL AIR FORCE BASE, FLORIDA

Major Group	Scientific Name	Common Name	Federal Status [B]	State Status [C]	Occurrence on MAFB [D]	Preferred Habitat [E]
Bird	*Mycteria Americana*	Wood stork	LE	LE	Occurs regularly in coastal wetlands and open uplands on Base.	Nests in inundated forested wetlands, including mangroves. Forages in shallow water in marshes, swamps, lagoons, ponds, tidal creeks, and ditches, where they are attracted to falling water levels that concentrate food sources (mainly fish).
Bird	*Pelecanus occidentalis*	Brown pelican		LS	Common along waterfront and mangrove areas.	Mainly coastal, feeding in shallow estuarine waters, and (less often) far offshore. Makes extensive use of sand spits, sand bars, and islets for nocturnal roosting and daily loafing. Nests principally on small islands in bays and estuaries, in small bushes or trees, or on ground. Mangrove islands are used frequently for roosting and nesting in central and southern Florida.
Bird	*Rynchops niger*	Black skimmer		LS	Known to occur	Coastal waters, including beaches, bays, estuaries, sandbars, tidal creeks (foraging), and also inland waters of large lakes, phosphate pits, and flooded agricultural fields. Nests primarily on sandy beaches, small coastal islands, and dredge spoil islands, but also on gravel rooftops.
Bird	*Sterna antillarum*	Least tern		LT	Probably forages in drainage ditches and ponds on Base.	Coastal areas throughout Florida, including beaches, lagoons, bays, and estuaries. Increasingly use artificial nesting sites, including gravel rooftops, dredge spoil islands or other dredged material deposits, construction sites, causeways, and mining lands. Nesting areas have a substrate of well-drained sand or gravel and usually have little vegetation.
Mammal	*Trichechus manatus*	West Indian (FL) manatee	LE	LE	Summer range includes Tampa Bay and tributaries.	Coastal waters, bays, rivers, and (occasionally) lakes. Requires warm-water refugia such as springs or cooling effluent during cold weather. Sheltered coves are important for feeding, resting, and calving.
Reptile	*Alligator mississippiensis*	American alligator	SAT	LS	Found occasionally and relocated off Base.	Most permanent bodies of fresh water, including marshes, swamps, lakes, and rivers. Occasionally wanders into brackish and salt water but rarely remains there.
Reptile	*Caretta caretta*	Loggerhead Sea Turtle	LT	LT	May use beaches for nesting, but presence not confirmed.	Marine coastal and oceanic waters; nests on coastal sand beaches. Juveniles frequent coastal bays, inlets, and lagoons.

TABLE 3-3
PROTECTED SPECIES POTENTIALLY OCCURRING AT THE SITE [A]
MACDILL AIR FORCE BASE, FLORIDA

Major Group	Scientific Name	Common Name	Federal Status [B]	State Status [C]	Occurrence on MAFB [D]	Preferred Habitat [E]
Reptile	*Chelonia mydas*	Green Sea Turtle	LE	LE	Uses beaches for nesting.	Estuarine and marine coastal and oceanic waters; nests on coastal sand beaches. Large juveniles and adults feed on seagrasses and algae. Juveniles frequent coastal bays, inlets, and lagoons.
Reptile	*Lepidochelys kempii*	Kemp's Ridley Sea Turtle	LE	LE	Not known to occur.	Marine coastal waters, usually with sand or muddy bottoms; nests on coastal sand beaches. Juveniles frequent coastal bays, inlets, and lagoons.
Fish	*Centropomus undecimalis*	Common snook		LS	Uses mangroves for spawning.	Most common along continental shores in mangrove areas, brackish pools, and freshwater canals and rivers.
Fish	*Acipenser oxyrinchus desotoi*	Gulf Sturgeon	LT	LS	Non-breeding animals have been observed in Tampa Bay.	Forages in Gulf of Mexico and associated estuaries.
Plants	No State or Federally listed plant species are known to exist on MacDill AFB					

Notes:

A The list of species within this table was taken from Appendix E.5b of the Integrated Natural Resource Management Plan (INRMP), MacDill Air Force Base, 2005-2009. Appendix E.5b contains species that were noted as potentially being present on or near MacDill AFB. The list from the INRMP was cross-referenced with the current FNAI output for the USGS Gibsonton Quadrangle Map (includes the area of the Proposed Action). The FNAI output is a list of species tracked by FNAI and compiled from FNAI lists dated current to September 2006. Habitat preferences were gathered for each species from the FNAI website and INRMP information. Species whose habitat preferences were not consistent with natural communities present on the site were not included in this table. The FNAI tracking list was accessed through the Internet at www.fnai.org.
Species were selected for inclusion in this table if they met the following criteria:
(1) Federally listed as LE or LT; or
(2) State listed as LE, LT, or LS; and
(3) Habitat preferences are consistent with the natural communities present on the site.

B <u>Definitions of Federal Listed Species Status</u>

LE Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. An "Endangered Species" is defined as any species, which is in danger of extinction throughout all or a significant portion of its range.
LT Listed as Threatened Species. A "Threatened Species" is 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.
SAT Similarity of appearance to a threatened taxon.

TABLE 3-3
PROTECTED SPECIES POTENTIALLY OCCURRING AT THE SITE [A]
MACDILL AIR FORCE BASE, FLORIDA

[C] Definition of State Listed Species Status (Entries in bold indicate the listing status confers legal protection)

Animals

LE Listed as Endangered Species by the Florida Game and Fresh Water Fish Commission. An Endangered Species is defined as a species, subspecies, or isolated population which is resident in Florida during a substantial portion of its life cycle and so few or depleted in number or so restricted in range of habitat due to any manmade 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 unless it or its habitat are fully protected and managed in such a way as to enhance its survival potential; or migratory or occasional in Florida and included as endangered on the United States Endangered and Threatened Species List. This definition does not include the species occurring peripherally in Florida while common or under not threat outside the state.

LT Listed as Threatened Species by the Florida Game and Fresh Water Fish Commission. A Threatened Species is defined as a species, subspecies, or isolated population which is resident in Florida during a substantial potions of its life cycle and which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is declining in area at a rapid rate due to any man-made or natural factors and as a consequence is destined or very likely to become an endangered species within the foreseeable and predictable future unless appropriate protective measures or management techniques are initiated or maintained; or migratory or occasional in Florida and included as threatened on the United States Endangered and Threatened Species List. This definition does not include species occurring peripherally in Florida while common or under no threat outside the state.

LS Listed as Species of Special Concern by the Florida Game and Fresh Water Fish Commission. A Species of Special Concern is defined as a species, subspecies, or isolated population which warrants special protection, recognition, or consideration because it occurs disjunctly or continuously in Florida and has a unique and significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable and predictable future, may result in its becoming a threatened species unless appropriate protective or management techniques are initiated or maintained; may already meet certain criteria for consideration as a threatened species but for which conclusive data are limited or lacking; may occupy such an unusually vital and essential ecological niche that should it decline significantly in numbers or distribution other species would be adversely affected to a significant degree; or has not sufficiently recovered from past population depletion.

[D] Data provided in the Integrated Natural Resource Management Plan (INRMP) for MacDill AFB (2005-2009).

[E] Habitat information was gathered from www.fnai.org, and for the common snook from the *Peterson Field Guides – Atlantic Coast Fishes* (Robins et al., 1986).

INRMP – Integrated Natural Resources Management Plan
FNAI – Florida Natural Areas Inventory

REFERENCE

Robins, C. Richard, G. Carleton Ray, and John Douglass, 1986. Peterson Field Guides – Atlantic Coast Fishes. Houghton Mifflin Company, Boston, 354 pp.

4.0 ENVIRONMENTAL CONSEQUENCES

This section discusses the potential impacts the Proposed Action and the No Action Alternative may have on the affected environment. The effects of the Proposed Action are evaluated and presented in Sections 4.1 and 4.2. The environmental consequences of the No Action Alternative are summarized in Section 4.3.

4.1 PROPOSED ACTION

4.1.1 Air Quality

The Proposed Action would not substantially change existing operational emissions and, therefore, would not increase ambient concentrations of air pollutants in Hillsborough County. Expansion of the boat dock at the Raccoon Creek western marina would have no impact on the ambient air quality at MacDill AFB. The increase in recreational boating that would potentially occur as a result of the Proposed Action would have a negligible impact on the ambient air quality at MacDill AFB.

Construction activities performed and equipment used in order to complete the activities included under the Proposed Action are not expected to generate particulate matter at the marina because the boat dock would be constructed in the marina basin, with limited activities occurring in upland areas. Construction vehicle exhaust emissions would be generated during construction; however, these emissions would be produced only for a short period of time and levels would be negligible.

In summary, the operational and construction air emission effects of the Proposed Action would be negligible and would not result in significant adverse impacts on air quality.

4.1.2 Noise

The closest noise-sensitive receptors in the project area include the occupants of recreational vehicles parked at the Family Campground located to the east across Marina Bay Drive.

The Proposed Action is not anticipated to create additional operational noise that would impact adjacent land uses. The adjacent receptors would probably experience noise impacts from construction and/or construction-related vehicles. The magnitude of these impacts would be directly related to the proximity of the occupied facility to the construction site. In addition, the impacts vary according to the activity occurring on any particular day, and impacts would cease when construction is completed. Because the construction noise would occur only during the day for a short period of time and would occur at fairly low levels, campers at the Family Campground would not be adversely impacted. Noise from use of the new boat dock structure upon completion of the project would not adversely impact campers in the Family Campground or surrounding recreational facilities.

In summary, although some temporary adverse noise impacts are anticipated to occur, they are not considered significant, and the Proposed Action would have no significant adverse impact on the noise environment.

4.1.3 Wastes, Hazardous Materials, and Stored Fuel

Hazardous materials, such as paint, adhesives, and solvents are not expected to be on-site during the construction work under the Proposed Action. In addition, it is not anticipated that fuels will be stored at the western marina during construction activities. In the event that any construction-related hazardous wastes/materials are generated, all wastes/materials (including petroleum products) would be removed and disposed of according to base procedures and applicable state and federal regulations. Appreciable amounts of hazardous wastes are not anticipated to be generated by personnel during the construction activities performed under the Proposed Action or by individuals using the expanded boat dock constructed as part of the Proposed Action.

No environmentally regulated areas are contained in or adjacent to the project area. However, one inactive Environmental Restoration Program site, AOC 85/60, is located approximately 75 feet north of the project area within the Raccoon Creek Recreation Area (Figure 3-1). AOC 85 is a collection of 28 septic tanks and their associated drain fields located across MacDill AFB. Because no investigations have been conducted at the AOC 85/60 site to date, it is unknown whether or not contamination exists in that area. Implementation of the Proposed Action would, therefore, create the potential for encountering contaminated media present in the vicinity of the

Proposed Action at AOC 85/60. Consequently, the construction contractor would be required to prepare a site-specific health and safety plan that meets the requirements of 29 CFR 1910.120(b)(4), and this plan must be reviewed and approved by the Bioenvironmental Engineering Flight and the Environmental Restoration Program Manager. In addition, if any excavation or soil/sediment removal activities are required, the construction contractor must use workers that have received 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training with an 8-hour annual refresher in accordance with 29 CFR 1910.120. If contaminated media are encountered during construction work around the project area, the MacDill Environmental Restoration Program Manager would be contacted to ensure that the material is managed in accordance with Environmental Restoration Program guidelines.

In summary, the potential for exposure to hazardous material and waste would be prevented by planning and training, and the Proposed Action is not expected to have a significant adverse impact on the management and disposal of hazardous material and waste.

4.1.4 Physical Environment

Potential impacts to the physical environment are listed below. Overall, the Proposed Action is expected to have no significant adverse impacts to the physical environment located within the project area.

4.1.4.1 Water Quality

The construction of the boat dock may cause a temporary localized increase in turbidity due to the driving of the pilings into the floor of the marina basin. Approximately 130 marine-grade, pressure-treated pilings would be used to support the new boat dock. The pilings would be driven into the substrate until refusal (estimated to be 8 to 10 feet below the substrate surface) with a barge-mounted, pile-driving apparatus. Driving the piles would likely stir sediment off the bottom of the marina basin, increasing the turbidity of the water. This method (as opposed to jetting) would cause a temporary increase in turbidity in the immediate vicinity of each piling; however, driving the pilings would cause dramatically less impacts to water quality than would be expected by installing the piling using the jetting method.

Using pressure-treated lumber as pilings also could affect water quality due to the potential for toxic metals (e.g., chromium, copper, and arsenic) to leach from the wood into the water. The potential for leached chemicals to impact surface water is increased by the fact that approximately 130 pilings would be installed in a relatively small lagoon with limited circulation and flushing of surface water during tidal cycles. However, as discussed below, multiple studies that have been conducted on the use of pressure-treated lumber as pilings in marine and fresh waters indicate that the potential for leached chemicals to adversely impact water quality is limited.

In 1996, the U.S. Forest Service and Bureau of Land Management constructed a 1,800-foot long boardwalk system through the wetlands along an abandoned channel of the Salmon River at Mount Hood in Oregon (Forest Products Laboratory, 2000). The boardwalk was built with several types of preserved wood. To analyze the impacts of the preserved wood on the environment, soil, sediment, surface water, and invertebrate samples were collected near the boardwalk before construction began and periodically after completion of the project for one year. The environment at the site was considered to be extremely sensitive due to very slow-moving water, fine-grained sediments, and heavy rainfall. Results indicated that detectable concentrations of metals (arsenic, chromium, copper, and zinc) leached from chromated copper arsenate (CCA)-treated wood into the surrounding water and sediment. Concentrations in surface water peaked two weeks after construction, and metals in sediment had reached their maximum levels by the end of the study (one year after construction). The invertebrate community exhibited no evidence of toxicity from the treated wood, even one year after construction was complete. The authors concluded that pressure-treated lumber did not cause any significant adverse effects to the surrounding environment and can be safely used in sensitive wetland areas.

Another study examined the use of pressure-treated lumber for constructing timber bridges preserved with creosote, pentachlorophenol, or CCA. The bridges evaluated were located across the United States and included two bridges in Florida treated with CCA, two bridges in Indiana treated with creosote, and two bridges in New York treated with pentachlorophenol (Brooks, 2000). One of the bridges included in the investigation was a 160-foot long span in Sandestin, Florida over a pristine marine estuary at the entrance of Horseshoe Bayou. The investigation was conducted just as construction of the bridge ended. Results indicated that arsenic, chromium, and copper concentrations in the water and sediment remained below water quality and sediment

criteria. In addition, no adverse effects to the biological community at Horseshoe Bayou were documented within the vicinity of the bridge. Similar results were reported for the other bridges included in the study. Overall, no adverse effects were documented in association with the use of pressure-treated lumber in aquatic environments.

Use of the boat dock also could impact water quality in the immediate vicinity of the structure. Potable water would be supplied to each boat slip, allowing boat owners to wash their boats and equipment at the dock. As a result, oil and gasoline residues, detergents, and other cleaning products could be washed directly into the water. However, boat owners would likely wash boats and related equipment at the boat dock only on an infrequent basis, and the amount of pollutants actually entering the water at the western marina is expected to be minimal.

In summary, any changes in turbidity or chemical concentrations in surface water at the Raccoon Creek western marina associated with construction or operation of the Proposed Action would not result in significant adverse impacts on water quality.

4.1.4.2 Stormwater

Under the Proposed Action, construction and operation of the 20-slip boat dock at the western marina would not generate any additional stormwater runoff, and the existing stormwater drainage from upland areas of the Raccoon Creek Recreation Area would continue to drain toward the southern tip of the Interbay Peninsula and Tampa Bay. In summary, the Proposed Action would have no significant adverse impacts on stormwater at MacDill AFB.

4.1.4.3 Floodplains and Wetlands

The construction of the boat dock included under the Proposed Action would take place within the 100-year floodplain and in an area classified as wetlands.

In accordance with EO 11988, *Floodplain Management* (May, 1977), the Air Force must demonstrate that there is no practicable alternative to carrying out the Proposed Action within the floodplain. EO 11990, *Protection of Wetlands* (May, 1977), also requires the Air Force to demonstrate that there is no practicable alternative to construction and that "the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."

Since the primary purpose of the Proposed Action is to expand the existing boat dock at the Raccoon Creek western marina, there is no practicable alternative to the proposed location or activities.

Because the Proposed Action occurs within the floodplain, coordination with FEMA, the State of Florida Emergency Management Agency, and the Hillsborough County Emergency Agency may be required. Additionally, the CZMA (16 USC 1451-1464), as amended, requires federal agencies carrying out activities subject to the Act to provide a "consistency determination" to the relevant state agency. The Air Force's consistency determination for the Proposed Action is contained in the Consistency Statement provided in Appendix B. As discussed in Section 1.4, this EA was submitted to the Florida State Clearinghouse for a multi-agency review. The Florida Department of Community Affairs, with input from state and county agencies, determined that, at this stage, the Proposed Action is consistent with the Florida Coastal Management Program (State of Florida, 1981); however, the department noted some permitting issues and issues regarding an endangered species that potentially could be impacted by the Proposed Action. The department indicated that these issues must be addressed prior to project implementation.

During the permitting process of the Proposed Action, regulatory agencies will determine whether or not the Air Force would be required to mitigate any potential adverse impacts to wetlands. The floodplain and wetlands-related permitting requirements for the Proposed Action are discussed in Section 1.5.

The Proposed Action includes the construction of a boat dock that would be situated entirely within the marina basin. Thus, the Proposed Action would not create any impervious surfaces within the floodplain and would not contribute to any potential for flooding within the floodplain.

Under the Proposed Action, the dock structure would be built using construction equipment mounted on a barge. This construction would have a temporary adverse impact on the deepwater habitat within the project area due to the driving of the pilings into the substrate of the marina basin. However, mangrove wetlands that dominate the banks surrounding the lagoon would not be affected because no new entrance/exit ramps would be constructed in conjunction with the new dock. Therefore, the impacts to the wetlands as a result of the Proposed Action are not considered significant.

In summary, the Proposed Action would not result in significant adverse impacts on floodplains or wetlands.

4.1.5 Land Use

The current land use of the Raccoon Creek western marina at MacDill AFB is outdoor recreation. The Proposed Action would involve construction of a boat dock to provide 20 additional boat slips to the 27 that currently exist at the marina. Expansion of this boat dock would not change the land use in this area. No associated actions affecting land use such as paving areas for additional parking are planned. This improvement to the western marina is consistent with the base *General Plan* (USAF, 2006a). Therefore, the Proposed Action would have no significant adverse impacts on land use at MacDill AFB.

4.1.6 Transportation

A slight increase in traffic along Marina Bay Drive is possible during implementation of the Proposed Action due to the increase in construction-related activities. These negative impacts are considered to be minor and short-term. Upon completion, the Proposed Action could potentially result in a slight increase in the number of vehicles driving along Marina Bay Drive, as more people would be accessing the Raccoon Creek western marina and the parking area is located adjacent to Marina Bay Drive. However, this change in traffic is expected to be insignificant. Therefore, implementation of the Proposed Action would have no significant adverse impacts on transportation at MacDill AFB.

4.1.7 Safety and Occupational Health

The proposed construction activities for the project would pose safety hazards to the workers similar to those associated with typical industrial construction projects, such as falls, slips, heat stress, and machinery injuries. Construction would not involve any unique hazards, and would not involve construction activities within Environmental Restoration Program site boundaries. All construction methods would comply with OSHA requirements to ensure the protection of workers and the general public during construction. Consequently, no significant adverse impacts on safety and occupational health would result from implementation of the Proposed Action.

4.1.8 Socioeconomics

The Proposed Action would cost approximately $100,000 to $120,000 to complete. Economic activity associated with construction of the boat dock would result in an increase of approximately 0.01 percent of the nearly $1.2 billion in annual expenditures MacDill AFB provides to the local economy, constituting a minor short-term beneficial effect. Utilization of the newly-constructed dock would not provide an economic benefit to the MacDill AFB region; however, the quality of life is expected to increase for base personnel and their families using the facility. Therefore, the Proposed Action would have a beneficial impact on socioeconomic resources.

4.1.9 Environmental Justice

The Proposed Action would not disproportionately affect minority or low-income populations, given that there are no minority or low-income populations located within or adjacent to the project area. Similarly, the boat dock construction would have no adverse environmental effects on any off-base populations. Accordingly, there would be no environmental justice issues associated with the Proposed Action.

4.1.10 Biological Environment

Under the Proposed Action, a new boat dock would be attached to the existing dock at the Raccoon Creek western marina and would be situated entirely within the lagoon of the marina. No mangroves growing along the banks would be affected; therefore, no mangrove-related permits would be required. The Proposed Action would have no adverse impact to the mangrove community or banks of the western marina at MacDill AFB.

Construction activities related to the new dock structure may temporarily increase the turbidity of the water within the project area. Suspended materials can clog fish gills, lower growth rates, and affect egg and larval development (USEPA, August 2003). The relatively short construction period required to place the pilings and construct the dock along with best management practices should limit the impacts on aquatic species. Furthermore, although EFH exists throughout Tampa Bay, the Proposed Action would not be located within the EFH footprint. Therefore, no significant adverse impacts to EFH are anticipated from construction activities. Although the

potential for impacts to marine species appears low, a final determination on the potential for impacts to marine species will be made during the permitting stage of the project.

The use of pressure-treated lumber as pilings has the potential to affect sensitive estuary ecosystems due to the potential for toxic metals (e.g., chromium, copper, and arsenic) or other chemicals such as PAHs or pentachlorophenol to leach from the wood into the water. The potential for leaching chemicals to impact surface water is increased by the fact that approximately 130 pilings would be installed in a relatively small lagoon with limited circulation and flushing of surface water during tidal cycles. However, as previously discussed in Section 4.1.4.1 Water Quality, multiple studies have been conducted on the use of pressure-treated lumber as pilings in marine and fresh waters. These studies concluded that pressure-treated lumber did not cause any significant adverse effects to the surrounding environment and can be safely used in sensitive wetland areas.

The Proposed Action would result in some shading of the bay bottom in the immediate vicinity of the dock structure. The new dock structure would create approximately 2,900 square feet of additional surface area (shading) within the marina basin. If boats are anchored at all 20 slips, the total amount of surface area shaded could potentially be as much as 14,000 square feet (including the dock structure and all 20 boats). This could potentially affect submergent vegetation and the health of aquatic organisms that use the vegetation as habitat, such as the juvenile pink shrimp. However, the maximum amount of shading that would be potentially created in the marina was estimated based on some rather conservative assumptions: that all 20 boats are secured within the boat slips simultaneously for the majority of the time and that each boat is large and occupies the entire slip. It is unlikely that all 20 boat slips would be filled continuously, and there would likely be space around the boats where sunlight could penetrate through the water.

The area of the lagoon is approximately 75,000 square feet; thus, the amount of additional shading created by the Proposed Action would range from less than 4 percent (the area of the dock structure alone) to more than 18 percent (conservatively assuming that the entire space of each boat slip is filled) of the area of the lagoon. The actual percentage of additional shading within the marina basin would likely be some amount between 4 and 18 percent. Also, the deck board spacing would be at least 1 inch, which is recommended by the Gulf of Mexico Fishery Management Council (March 2005) to allow sunlight to penetrate to the water. In addition, the

lagoon does not currently support a notable community of submerged vegetation that could be impacted by shading. Therefore, Proposed Action would not have a significant adverse impact on the aquatic community within the lagoon at the western marina.

MacDill AFB provides foraging habitat for ETSC species (Section 3.10); however, the habitat provided by the Base is not critical to the survival of any of these species (USAF, 2005). The Base has not been shown to have breeding populations of any federally-listed threatened or endangered species, with the exception of one pair of bald eagles nesting approximately one mile northwest of the western marina (USAF, 2005). The ETSC species potentially occurring in the project area likely do not reproduce there. Of the terrestrial and aquatic species with the potential to be present in or near the lagoon at the western marina, the manatee is the most likely. The manatee is known to occur in Tampa Bay, has been documented on MacDill AFB (Beever, 1992 as cited in USAF, 2005), and may occasionally enter Raccoon Creek.

During the construction phase of the Proposed Action, the ETSC species potentially occurring in the project area are likely to avoid the area. After construction, the foraging habitat available to these species in the project area is expected to be similar to current conditions. Because the majority of the proposed construction work would be conducted in the water, it could potentially affect the manatee. Therefore, contractors performing construction activities in the lagoon would be required to follow the State of Florida standard manatee construction conditions (presented in Appendix E). While construction of the Proposed Action may cause the manatee and other ETSC animals to temporarily avoid the western marina basin, the boat dock construction is not expected to have a significant adverse effect on ETSC species. A final determination on potential impacts to manatees will be made through formal consultation with the USFWS in accordance with Section 7 of the Endangered Species Act during the permitting stage of the project.

After the completion of construction, the additional boat slips would likely cause a small increase in boat traffic in and out of the western marina basin and Raccoon Creek. The greater number of boats could potentially disturb wildlife species present in the area, and could pose a hazard to manatees that potentially may swim and forage in the vicinity of the Raccoon Creek Recreation Area and the seagrass beds in the bay near the mouth of the creek. According to the USFWS, "the most significant known cause of manatee deaths and injuries is collisions with watercraft" (USFWS, August 2006). Therefore, a project that likely causes a small increase in boat traffic,

such as a marina expansion, is scrutinized for its potential to impact the manatee. However, it is estimated that only two to three boats currently travel in and out of the western marina per weekend, and there have been no reports of manatee injuries in the area of Raccoon Creek or its mouth as a result of boat collisions. Although the Proposed Action would increase the number of boat slips from 27 to 47, if boat traffic increased proportionately, the number of boats traveling in and out of the marina per weekend would be six or less. Thus, while the number of boats trips resulting from expanding the boat dock will approximately double, the overall traffic would remain light and unlikely to result in manatee injuries or to have a significant adverse impact on manatees in the vicinity of the western marina.

In summary, the construction of the boat dock at the western marina would not affect the mangroves or other vegetation along the banks of the lagoon and no EFH species are anticipated to be affected. Based on a review of available scientific research, and the limited surveys that have been completed within the tidal creeks and nearshore waters of MacDill AFB, the AF finds that the Proposed Action would have no effect on federally-protected species under the jurisdiction of NMFS for the State of Florida. With regard to federally-protected species under the jurisdiction of the USFWS, specifically the Florida manatee, the AF finds that the Proposed Action may affect but is not likely to adversely affect listed species. This determination is made due to the potential for manatee to seek shelter in the tidal creek that leads to western marina. In general, implementation of the Proposed Action would not have a significant adverse impact on biological resources in the vicinity of the Raccoon Creek western marina.

4.1.11 Cultural Resources

No cultural resources are located in the vicinity of the Proposed Action. If unanticipated cultural resources were to be encountered during construction activities under the Proposed Action, procedures for managing unidentified resources, as outlined in the Integrated Cultural Resources Management Plan (USAF, 2006b), would be followed. Therefore, the Proposed Action would have no significant adverse impact on cultural resources.

4.1.12 Infrastructure

There would be a negligible amount of solid waste generated during construction activities for the Proposed Action, as no demolition would occur. Any solid waste generated during these activities would be limited to lumber scraps and waste from installing the plumbing and electrical utilities within each boat slip. The base has sufficient resources to manage the minimal increase in solid waste, and the local landfills have sufficient capacity to accept the additional solid waste. Consequently, the Proposed Action would not have a significant adverse impact on infrastructure.

4.2 CUMULATIVE IMPACTS

Cumulative effects are impacts that result from the incremental consequences of an action when added to other past and reasonably foreseeable future actions regardless of the agency (federal or non-federal) or person undertaking such actions. The area that would be potentially impacted by the construction of the boat dock is the Raccoon Creek western marina in the southeastern portion of MacDill AFB. Because the construction activities are relatively minor and there would be no ongoing operational impacts from the facility constructed as a result of the Proposed Action, the potential for significant cumulative impacts from the Proposed Action is small. As indicated in Table 2-1, the Proposed Action, when examined as a portion of the total proposed and/or ongoing construction projects on MacDill AFB, would result in a minor beneficial cumulative impact to socioeconomics. The Proposed Action would have minimal cumulative impacts to air quality, noise, waste and hazardous materials management, physical environment, land use, transportation, safety and occupational health, environmental justice, biological environment, cultural resources, or infrastructure.

4.3 NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be no significant adverse impacts to the air quality, noise, waste and hazardous materials management, physical environment, land use, transportation, safety and occupational health, environmental justice, biological environment, cultural resources, and infrastructure at MacDill AFB. However, the No Action Alternative would have a long-term negative impact on the socioeconomics at the base. Under the No Action Alternative, the unmet demand for marina space would be expected to increase, as the popularity

of recreational boating would likely continue to grow. There are currently 38 people registered as waiting for slip space at MacDill AFB, and this waiting list would potentially grow longer.

5.0 CONCLUSIONS

Based upon the analyses presented in this EA, the Proposed Action would not have any significant adverse impacts on existing environmental resources.

6.0 MANAGEMENT REQUIREMENTS

6.1 AIR QUALITY

Use reasonable precautions to control the emissions of unconfined particulate matter during construction activities in accordance with FAC Rule 62-296. Ensure that all hazardous materials used during construction comply with the MacDill AFB Hazardous Materials Management Program's requirements for low volatile organic compound content.

6.2 HAZARDOUS MATERIALS/WASTES

No appreciable hazardous materials or wastes are expected to be used or generated under the Proposed Action.

6.3 PHYSICAL ENVIRONMENT

Submit appropriate permit applications as described in Section 1.5. Ensure best management practices (BMPs), such as maintaining pile-driving equipment to keep it leak-free, are employed during construction to protect water quality and prevent significant increases in turbidity in the marina basin during construction activities.

6.4 SAFETY AND OCCUPATIONAL HEALTH

Ensure construction activities comply with OSHA standards or more stringent standards if applicable.

6.5 BIOLOGICAL ENVIRONMENT

Ensure that construction of the boat dock is performed within the guidelines of the standard manatee construction conditions (Appendix E) to protect any manatees that could potentially enter the marina basin during construction or after completion of the dock.

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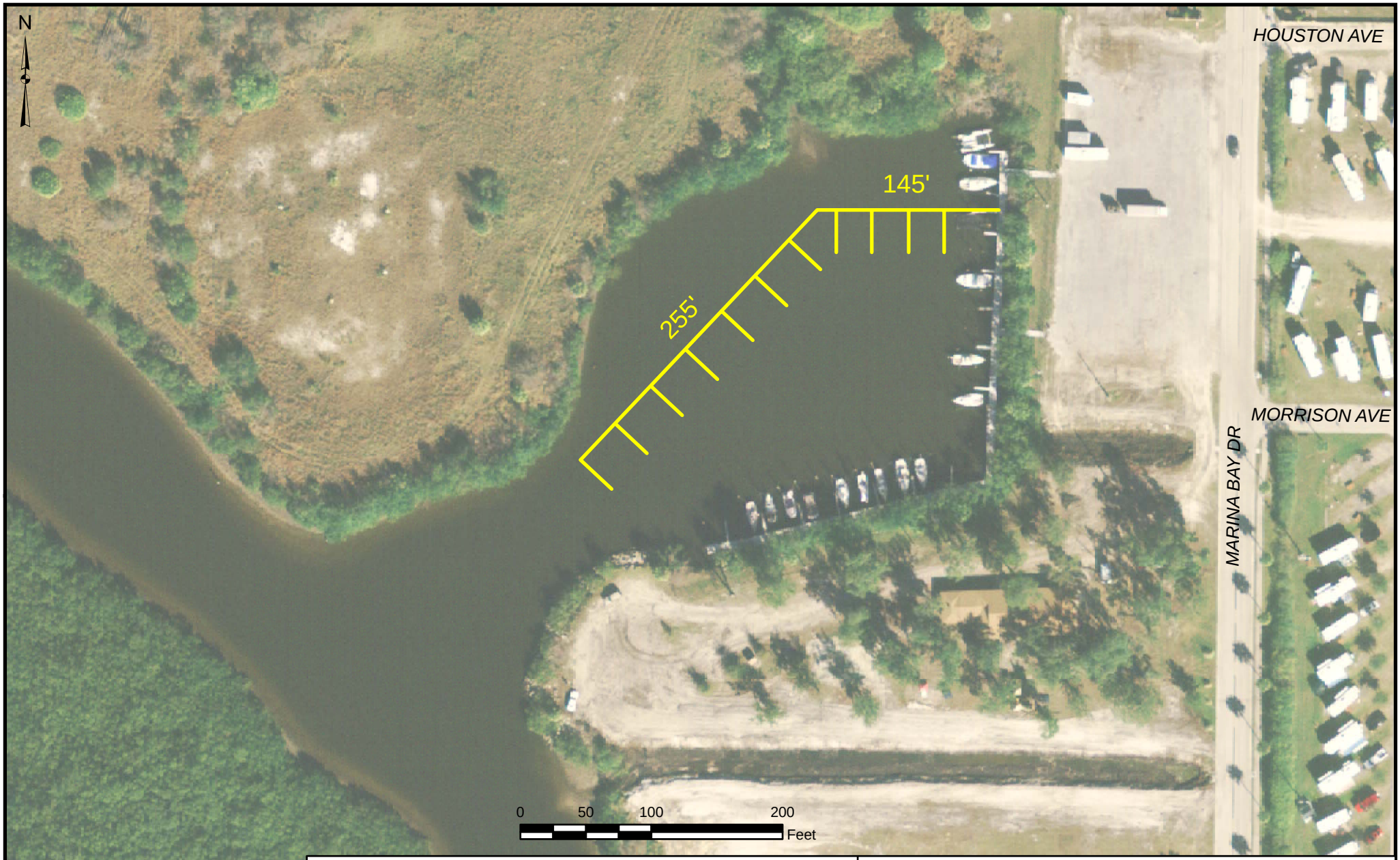
FIGURES

EA for Construction of a 20-Slip Boat Dock Structure
MacDill Air Force Base, Florida

Figure 1-1
Project Location and Vicinity Map

Printing Date: February 8, 2007
File: M:\IT\GIS Projects\MacDill\ArcMap\Basewide\Boat Construction\2007-Feb-08\Figure 1-1 Project Location and Vicinity.mxd



EA for Construction of a 20-Slip Boat Dock Structure
MacDill Air Force Base, Florida

Figure 1-2
Proposed Boat Dock Structure

Printing Date: February 8, 2007
File: M:\IT\GIS Projects\MacDill\ArcMap\Basewide\Boat Construction\2007-Feb-08\Figure 1-2 Proposed Boat Dock Structure.mxd

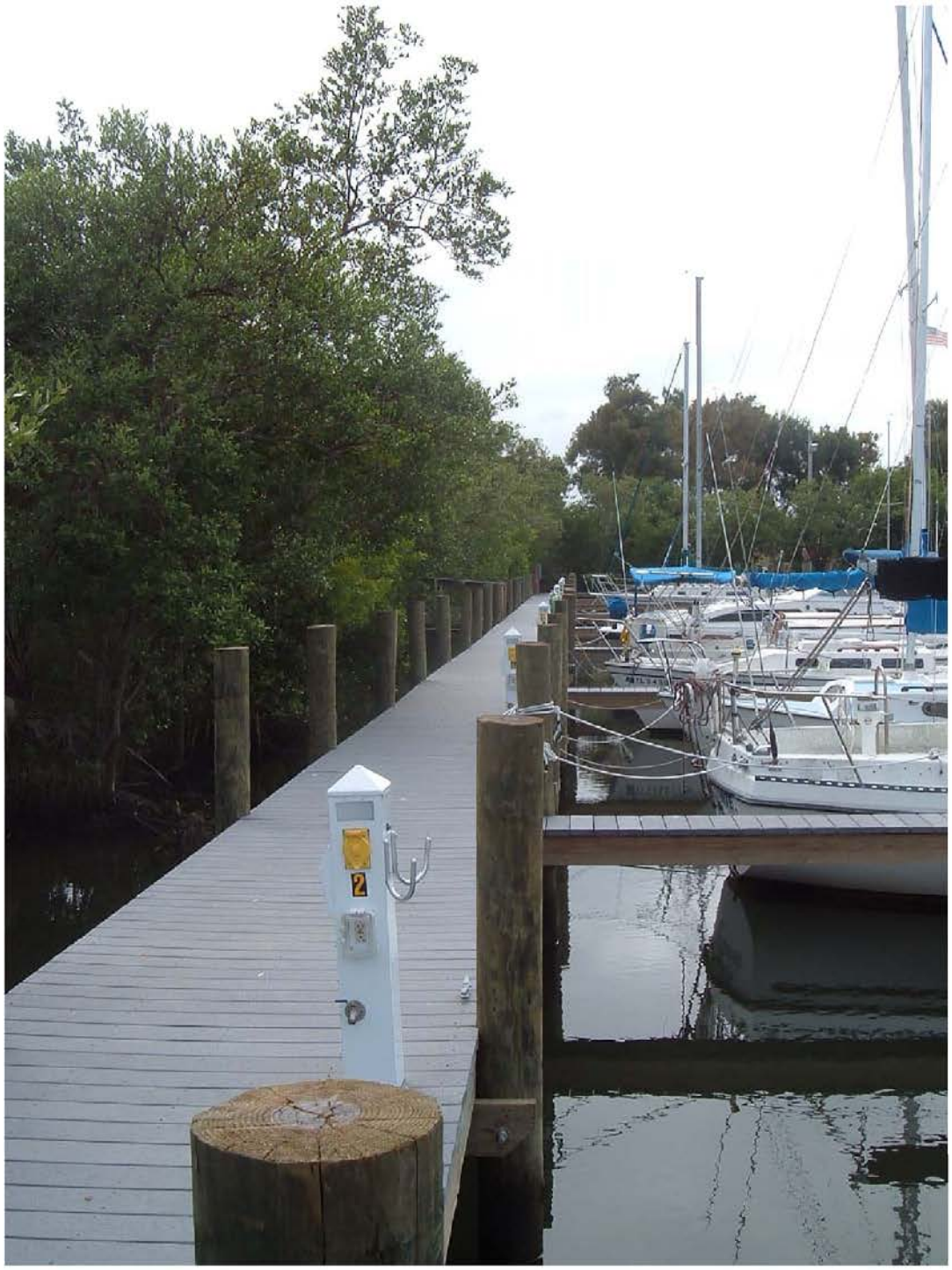
Source: June 2004, MacDill AFB Aerial Photo

0 150 300 600
Feet

EA for Construction of a 20-Slip Boat Dock Structure
MacDill Air Force Base, Florida

Figure 2-1
Raccoon Creek Recreation Area

Printing Date: February 8, 2007
File: M:\IT\GIS Projects\MacDill\ArcMap\Basewide\Boat Construction\2007-Feb-08\Figure 2-1 Raccoon Creek Recreation Area.mxd

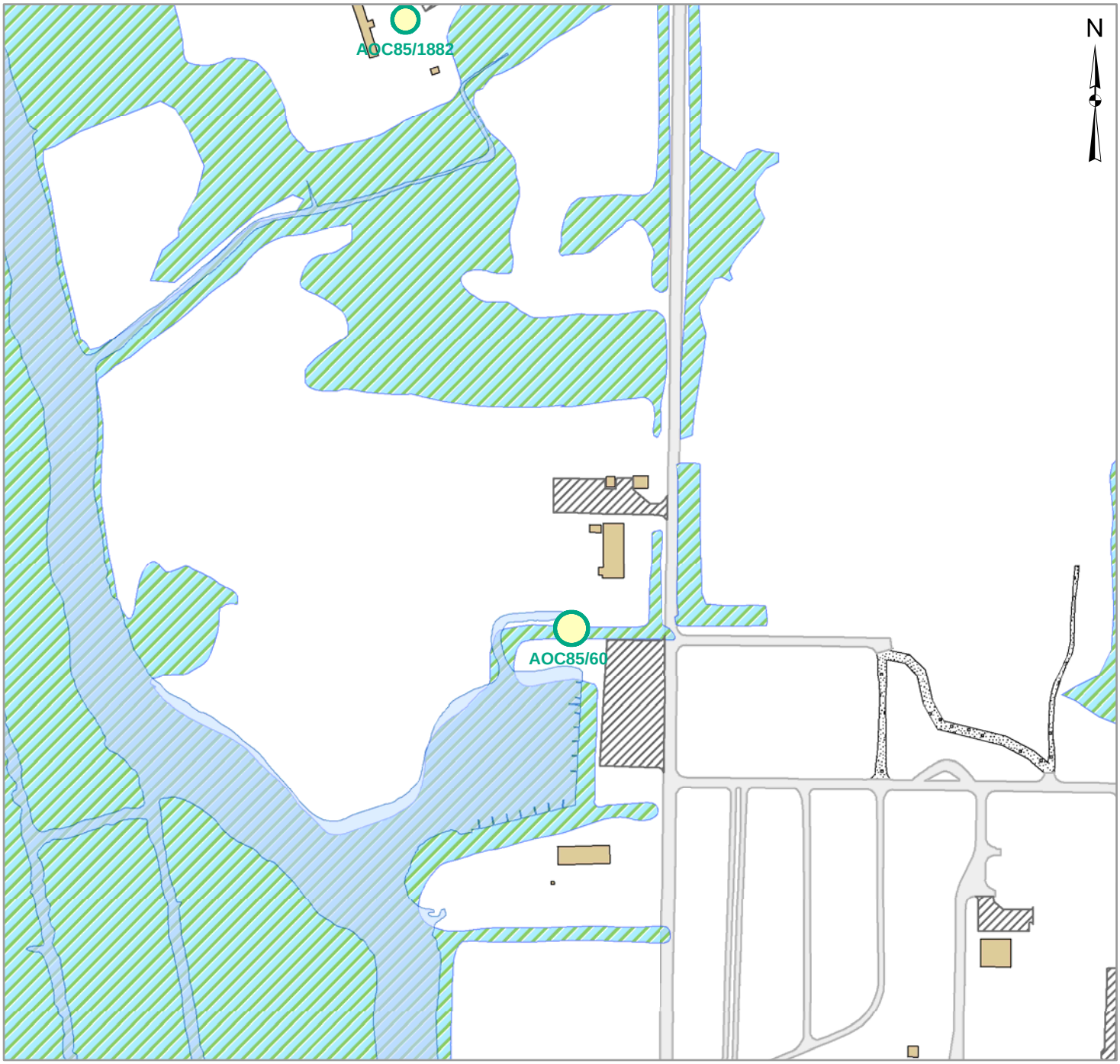


EA for Construction of a 20-Slip Boat Dock Structure

MacDill Air Force Base, Florida

Figure 2-2
Photo of Existing Dock in the Western Marina

Printing Date: February 8, 2007
File: M:\IT\GIS Projects\MacDill\ArcMap\Basewide\Boat Construction\2007-Feb-08\Figure 2-2 Photo of Existing Dock.mxd



Legend

- ERP Site Boundary
- Wetlands
- Paved Roads
- Surface Water
- Parking Areas
- Existing Building Locations

EA for Construction of a 20-Slip Boat Dock Structure

MacDill Air Force Base, Florida

Figure 3-1
Environmental Constraints in Vicinity Of Project Area

Printing Date: February 8, 2007
File: M:\IT\GIS Projects\MacDill\ArcMap\Basewide\Boat Construction\2007-Feb-08\Figure 3-1 Environmental Constraints.mxd

EA for Construction of a 20-Slip Boat Dock Structure

MacDill Air Force Base, Florida

Figure 3-2
Photo of North Shoreline of Western Marina Lagoon

Printing Date: February 8, 2007
File: M:\IT\GIS Projects\MacDill\ArcMap\Basewide\Boat Construction\2007-Feb-08\Figure 3-2 Photo of North Shoreline.mxd

EA for Construction of a 20-Slip Boat Dock Structure

MacDill Air Force Base, Florida

Figure 3-3
Photo of Western Marina Lagoon and Access Channel

Printing Date: February 8, 2007
File: M:\IT\GIS Projects\MacDill\ArcMap\Basewide\Boat Construction\2007-Feb-08\Figure 3-3 Photo of Western Marina Lagoon.mxd

APPENDIX A

AIR FORCE FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol RCS: 05107-06

INSTRUCTIONS: *Section I to be completed by Proponent. Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I – PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent Organization and functional address symbol)*	2a. TELEPHONE NO.
6 CES/CEV 2610 Pink Flamingo Avenue MacDill AFB, Florida 32621	6 CES/CEQ 7621 Hillsborough Loop Drive MacDill AFB, Florida 32621	(813) 828-0843 DSN 968-0843

3. TITLE OF PROPOSED ACTION

Construct a 20 Slip Dock Structure at Raccoon Creek Marina, MacDill AFB, FL

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*

(See attached)

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) *(Provide sufficient details for evaluation of the total action)*

(See attached)

6. PROPONENT APPROVAL (Name and Grade)	6a. SIGNATURE	6b. DATE
Mr. Michael L. Dansereau, Civ		27 June 2006

SECTION II – PRELIMINARY ENVIRONMENTAL SURVEY *(Check appropriate box and describe potential environmental effects including cumulative effects) (+=positive effect; 0=no effect; - = adverse effect; U=unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*				X
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity distance, bird/wildlife aircraft hazard, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, threatened or endangered species, etc.)*				X
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*				X
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*				

SECTION III – ENVIRONMENTAL ANALYSIS DETERMINATION

17.		
		PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) #_____; OR
	X	PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS

MacDill AFB is located in a maintenance area for the following criteria pollutants: Ozone. Direct emissions from construction and indirect emissions from visiting traffic and/or follow-on operations, when totaled are less than the *de minimus* amounts in 40 CFR 93.153; therefore, a conformity determination is not required.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade)	19 a. SIGNATURE	19 b. DATE
TIMOTHY S. SMITH, Colonel, USAF Vice Wing Commander, 6th AMW		31 May 07

4.0 PURPOSE AND NEED FOR ACTION:

4.1 PURPOSE: The proposed action would construct a 20 slip dock structure to meet the demand for additional wet slips at the base marina. The new dock structure would be connected to the existing dock at Raccoon Creek Marina on MacDill AFB, Florida. The additional wet slips at MacDill would be rented to authorized personnel on the base through the 6 Services Squadron.

4.2 NEED FOR ACTION: Expansion of wet slips is required to meet the demand of military personnel desiring to berth their private boats at the MacDill AFB marina area. There are currently 38 people registered as waiting for slip space at MacDill. Recreational boating in Tampa Bay has been steadily increasing over the years but there has been no corresponding increase in marina facilities or wet slips. Consequently the demand for marina space around Tampa Bay has increased dramatically. The demand for marina space at MacDill has further increased with the recent dredging of the marina channel. The deeper channel permits larger boats to access the Raccoon Creek marina.

5.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

5.1 Proposed Action: The Proposed Action would construct a six foot wide by approximately 400 foot long dock structure that can accommodate 20 boat slips that are each 12 feet wide. The proposed work would also include the construction of eleven 18-inch wide by 30 feet long boat access walkways that extend out perpendicular from the dock structure to create the wet slip spaces. In addition, two four foot wide by approximately 30 foot long dock access ramps would be constructed that connect the dock structure to the adjacent land. Trimming or limited removal of mangroves may be required to create an opening to connect the access ramp to land. The new dock structure would be similar in design to the existing 27 wet slip dock structure at the Raccoon Creek marina utilizing Trex (plastic wood) decking and 10-inch diameter marine grade pressure treated pilings. Each of the eleven access walkways would have water and electrical connections installed. All construction activities would be performed in accordance with Federal, state, and local permits, agreements, licenses, and certificates.

5.1.1 Piling Installation: Approximately 130 10-inch diameter marine grade pilings would be installed to support the docks decking. The piling would be installed by driving the piles into the substrate until refusal. It is estimated that the piling would be driven 8 to 10 feet into the substrate. The piling would be driven using a barge-mounted pile driving apparatus.

5.1.2 Deck Installation: Pressure treated timbers would be mounted to the pilings to create the substructure for the deck planking. Decking planks, made of Trex plastic lumber, would be 6-inches across and six feet long with about a 1-inch spacing between the planks. Water and electric utilities would be run beneath the decking mounted to the substructure and stubbed up through the decking at the end of each 18-inch access walkway. The decking would result in some shading of the bay bottom in the immediate vicinity of the dock structure. The new dock structure would create approximately 3,100 square feet of additional surface area (shading) within the marina basin.

5.1.3 Mangrove trimming and removal: The banks of the marina basin have mangroves and other trees established on them. In order to connect the two proposed access ramps to the dock structure, some limited trimming or possibly the removal of mangroves may be required. The cleared access points would be roughly eight feet wide each. Every effort would be made to connect the access ramps to the land at a point where mangroves are not present. In the worst case scenario, only one mangrove at each location would be removed.

5.1.4 Permitting: The construction contractor would prepare applications for any permits required for installation of the wet slips. The Tampa Port Authority would require a permit application which will be reviewed by the Environmental Protection Commission (EPC) of Hillsborough County for environmental concerns. Consultation with the EPC indicated that no mitigation would be required for the permit provided the removal of mangroves is not required. Their primary concerns are water quality impacts associated with installation of the pilings and increased boat traffic in the marina basin as well as shading of sea grasses or other vegetation in the water. These issues would be addressed during the environmental permitting stage of the project. An Environmental Resource Permit (ERP) would also be required. The ERP is a joint permit application that goes to the Florida Department of Environmental Protection (FDEP) and the US Corps of Engineers (USCOE) for review and approval.

5.1.5 Endangered Species and Wildlife: The Florida Manatee may occasionally enter Raccoon Creek and steps to insure protection of this Federally-listed species must be taken during construction of the dock. The construction contractor would be required to follow the standard manatee construction conditions which include; use of siltation barrier that won't entangle manatees, posting of manatee notification signage, operation of all construction vessels at idle speeds, posting a manatee watch, and stoppage of all work activities if manatees are sighted within 100 yards of the work area. Construction of the new docks would temporarily disrupt wildlife in the vicinity of the marina basin. Animals disturbed by the construction activities would likely vacate the area of disturbance during construction but are anticipated to return once construction activities are complete. The new docks would provide additional perches for resting or feeding for avian species. The new docks would also provide additional aquatic 'structure' for fish and other aquatic organisms.

5.1.6 Water Quality: The potential for impacts to water quality is a concern with this project. The installation of approximately 130 pressure-treated (wood) pilings increases the potential for chemicals to impact surface water in the vicinity of the new docks. This situation is compounded by the relatively small size and isolated location of the marina basin which reduces the potential for good circulation and flushing of surface water during tidal cycles. Additional water quality impacts could result from turbidity generated during installation of the pilings. It is proposed that the pilings would be driven into place using a barge-mounted pile driver. Driving the piles would temporarily increase turbidity in the water in the immediate vicinity of each pile. Sediment stirred up during installation should quickly settle out of suspension, so turbidity impacts would only be temporary. Driving the piles, as opposed to jetting, would dramatically reduce turbidity impacts.

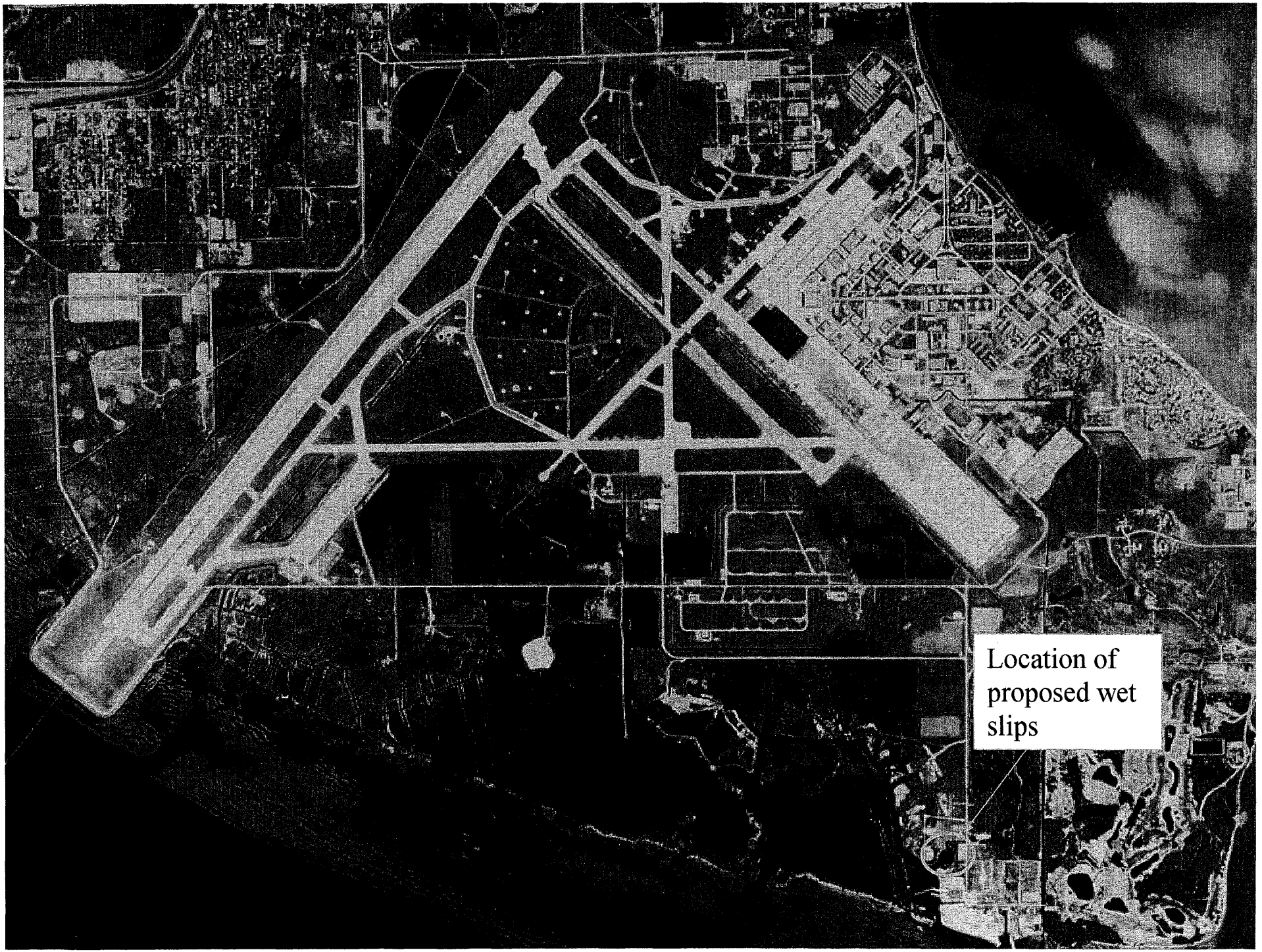
5.2 Construct Floating Dock Alternative – This alternative would construct a metal/styrafoam floating dock structure similar to the dock system at the Services Marina basin.

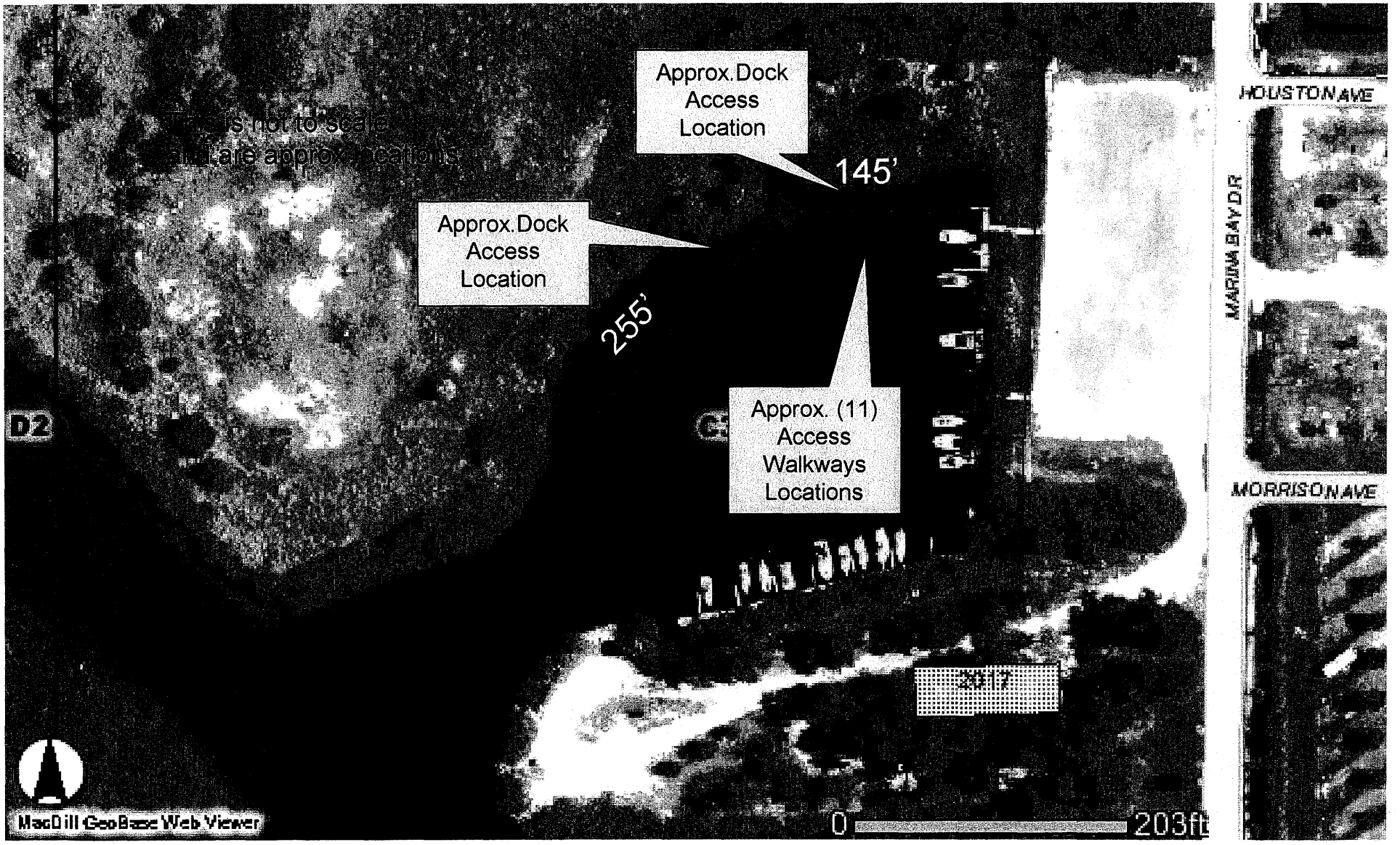
5.3 Expand Services Marina Basin Alternative – This alternative would dredge/excavate land area and construct seawall in order to make the existing Services Marina basin larger to accommodate the additional boat slip needs.

5.4 No Action Alternative – This alternative would not expand the existing dock structure at the Marina.

6.0 **CATEGORICAL EXCLUSION:** This project is not applicable for a Categorical Exclusion and requires further environmental impact analysis.

7.0 **EXECUTIVE ORDER 11988 – FLOODPLAIN MANAGEMENT and EXECUTIVE ORDER 11990 - PROTECTION OF WETLANDS:** The location of the proposed project is in the 100-year coastal floodplain and could affect coastal wetlands. Executive Order 11988, Floodplain Management, seeks to avoid construction of facilities or structures within floodplains "to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains". Executive Order 11990, Protection of Wetlands, seeks to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. As part of the environmental impact analysis process, this project shall be evaluated for compliance with Executive Orders 11988 and 11990 to ensure that the above referenced goals are met and to determine that there is no practicable alternative to locating the proposed action in the floodplain.


Location of proposed wet slips


Approx. Dock Access Location
145'
Approx. Dock Access Location
255'
Approx. (11) Access Walkways Locations
D2
MacDill GeoBase Web Viewer
0
203ft
HOUSTON AVE
MARINA BAY DR
MORRISON AVE

APPENDIX B

CONSISTENCY STATEMENT

APPENDIX B
CONSISTENCY STATEMENT

This consistency statement will examine the potential environmental consequences of the Proposed Action and ascertain the extent to which the consequences of the Proposed Action are consistent with the objectives of Florida Coastal Management Program (CMP).

Of the Florida Statutory Authorities included in the CMP, impacts in the following areas are addressed in the EA: beach and shore preservation (Chapter 161), historic preservation (Chapter 267), economic development and tourism (Chapter 288), public transportation (Chapters 334 and 339), saltwater living resources (Chapter 370), living land and freshwater resources (Chapter 372), water resources (Chapter 373), environmental control (Chapter 403), and soil and water conservation (Chapter 582). This consistency statement discusses how the proposed options may meet the CMP objectives.

CONSISTENCY DETERMINATION

Chapter 161: Beach and Shore Preservation

No disturbances to the banks of the Raccoon Creek western marina are foreseen under the Proposed Action or the No Action Alternative.

Chapter 267: Historic Preservation

Consultation between the Air Force and State Historical Preservation Officer was completed to ensure that the Proposed Action would have no significant adverse effect on historic properties associated with the Base.

Chapter 288: Economic Development and Tourism

The EA presents the new employment impact and net income impact of the Proposed Action and alternative, which would not have significant adverse effects on any key Florida industries or economic diversification efforts.

Chapter 370: Saltwater Living Resources

The EA addresses potential impacts to local water bodies. Water quality impacts from the Proposed Action and alternative were considered. Results indicate that no significant impacts would result from the Proposed Action or alternative.

Chapter 372: Living Land and Freshwater Resources

Threatened and endangered species, major plant communities, conservation of native habitat, and mitigation of potential impacts to the resources are addressed in the EA. The

Proposed Action and alternative would not result in permanent disturbance to native habitat and should not significantly impact threatened or endangered species.

Chapter 373: Water Resources

There would be no significant impacts to surface water quality under the Proposed Action or alternative as discussed in the EA.

Chapter 403: Environmental Control

The EA addresses the issues of conservation and protection of environmentally sensitive living resources; protection of surface water quality and quantity; protection of air quality; protection of endangered or threatened species; solid, sanitary, and hazardous waste disposal; and protection of floodplains and wetlands. Where impacts to these resources could be identified, possible mitigation measures are suggested. Implementation of mitigation would, for the most part, be the responsibility of MacDill AFB.

Chapter 582: Soil and Water Conservation

The EA addresses the potential of the Proposed Action and alternative to impact surface water resources and presents possible measures to prevent or minimize adverse effects on water quality.

CONCLUSION

The Air Force finds that the conceptual Proposed Action and the No Action Alternative presented in the EA are consistent with Florida's CMP.

APPENDIX C

AGENCY COORDINATION LETTERS AND COMMENTS

DEPARTMENT OF THE AIR FORCE
6TH AIR MOBILITY WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

27 Jan 07

MEMORANDUM FOR NOAA FISHERIES SERVICE
Attn: Mr. Mark Sramek
Southeast Regional Office
263 13th Avenue South
St Petersburg Florida 33701

FROM: 6 CES/CC
7621 Hillsborough Loop Drive
MacDill AFB FL 33621-5323

SUBJECT: NOAA Fisheries Service Coordination on the Boat Slip Construction at MacDill Air Force Base (AFB)

1. The U.S. Air Force intends to construct a 20-slip dock at Raccoon Creek Marina located at MacDill AFB (Figure 1). This new structure would be built as an extension of the existing 27-slip dock at Raccoon Creek Marina (Photographs 1-2). The new dock would be similar in design to the existing dock, i.e., would be built using Trex (plastic wood) decking and 10-inch diameter marine grade pressure treated pilings. The proposed action (Figure 2) includes the construction of a dock that is six feet wide by approximately 400 feet long and would have 20 boat slips that are each 12 feet wide. Eleven boat access walkways (18 inches wide and 30 feet long) would extend perpendicular from the dock to create the wet slip spaces. Each walkway would have water and electrical connections available to boaters. The new dock would be accessed by the ramp at the north end of the existing dock (Figure 2).

2. The dock would be supported using approximately 130 10-inch diameter marine grade pilings. The pilings would be installed by driving them into the seabed until refusal, which is estimated to be eight to ten feet below the floor of the bay. The pilings would be installed using a barge-mounted pile driving apparatus.

3. The dock substructure would be constructed with pressure treated lumber. Trex deck planking, six inches wide by six feet long would be attached to the substructure with approximately a one-inch space between each plank. Water and electrical utilities would be run below the decking and stubbed up through the decking at the end of each walkway. The new dock would create approximately 3,100 square feet of additional surface area, and would result in some shading of the bay bottom.

4. A representative from the MacDill AFB Natural Resources staff surveyed the construction site to determine if any threatened or endangered species would be affected. The Florida manatee, Federally-listed as endangered, is known to occasionally enter Raccoon Creek. Consequently, steps must be taken to ensure that the proposed action would not adversely impact this species.

The construction contractor would be required to follow the standard manatee construction conditions that include use of a siltation barrier that avoids manatee entanglement, posting of manatee notification signage, posting a manatee watch, operation of all construction vessels at idle speeds, and stoppage of all work activities if manatees are sighted within 100 yards of the project site. Although the proposed action would temporarily disrupt wildlife in the vicinity of the marina dock, animals that vacate the area during construction are anticipated to return upon project completion. Furthermore, the new dock would provide additional perches for avian species to rest or feed, and would provide additional habitat (aquatic 'structure') for fish and other aquatic organisms.

5. If NOAA Fisheries Service agrees with this assessment, please document your concurrence by signing where indicated below. If you would like to inspect the proposed construction site, please contact the MacDill AFB Natural Resources staff. If you have any questions or require additional information on the proposed action, please contact Mr. Jason Kirkpatrick at (813) 828-0459.

JUSTIN C. DAVEY, Lt Col, USAF, P.E.
Commander, 6th Civil Engineer Squadron

Attachments:
Figure 1: Project Location and Vicinity Map
Figure 2: Proposed Boat Dock Structure
Photograph 1: Location of Boat Dock Construction
Photograph 2: Location of Boat Dock Construction

MEMORANDUM FOR 6 CES/CC

NOAA Fisheries Service concurs with MacDill Air Force Base's finding that the proposed action, construction of a new boat dock at Raccoon Creek Marina on MacDill Air Force Base, would not adversely impact threatened or endangered species including the Florida manatee as long as the standard manatee construction conditions are enforced.

_____ _____

NOAA Fisheries Service Representative Date

DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

Photograph 1

Location of Boat Dock Construction, MacDill Air Force Base, Florida

Photograph 2

Location of Boat Dock Construction, MacDill Air Force Base, Florida

Construction of a 20-Slip Boat Dock Structure EA MacDill Air Force Base, Florida	**Figure 1 Project Location and Vicinity Map**

Construction of a 20-Slip Boat Dock Structure EA **MacDill Air Force Base, Florida**	**Figure 2** **Proposed Boat Dock Structure**

DEPARTMENT OF THE AIR FORCE
6TH AIR MOBILITY WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

30JaN07

MEMORANDUM FOR DIVISION OF HISTORIC RESOURCES
Attn: Ms. Laura Kammerer
500 South Bronough Street
Tallahassee FL 32399-0250

FROM: 6 CES/CC
7621 Hillsborough Loop Drive
MacDill AFB FL 33621-5323

SUBJECT: State Historic Preservation Office Coordination on the Boat Slip Construction at MacDill Air Force Base (AFB)

1. The U.S. Air Force intends to construct a 20-slip dock at Raccoon Creek Marina located at MacDill AFB (Figure 1). This new structure would be built as an extension of the existing 27-slip dock at Raccoon Creek Marina (Photographs 1-2). The new dock would be similar in design to the existing dock, i.e., would be built using Trex (plastic wood) decking and 10-inch diameter marine grade pressure treated pilings. The proposed action (Figure 2) includes the construction of a dock that is six feet wide by approximately 400 feet long and would have 20 boat slips that are each 12 feet wide. Eleven boat access walkways (18 inches wide and 30 feet long) would extend perpendicular from the dock to create the wet slip spaces. Each walkway would have water and electrical connections available to boaters. The new dock would be accessed by the ramp at the north end of the existing dock (Figure 2).

2. The dock would be supported using approximately 130 10-inch diameter marine grade pilings. The pilings would be installed by driving them into the seabed until refusal, which is estimated to be eight to ten feet below the floor of the bay. The pilings would be installed using a barge-mounted pile driving apparatus.

3. The dock substructure would be constructed with pressure treated lumber. Trex deck planking, six inches wide by six feet long would be attached to the substructure with approximately a one-inch space between each plank. Water and electrical utilities would be run below the decking and stubbed up through the decking at the end of each walkway. The new dock would create approximately 3,100 square feet of additional surface area, and would result in some shading of the bay bottom.

4. A representative from the MacDill AFB Natural Resources staff surveyed the construction site to determine if any threatened or endangered species would be affected. The Florida manatee, Federally-listed as endangered, is known to occasionally enter Raccoon Creek. Consequently, steps must be taken to ensure that the proposed action would not adversely impact this species.

The construction contractor would be required to follow the standard manatee construction conditions that include use of a siltation barrier that avoids manatee entanglement, posting of manatee notification signage, posting a manatee watch, operation of all construction vessels at idle speeds, and stoppage of all work activities if manatees are sighted within 100 yards of the project site. Although the proposed action would temporarily disrupt wildlife in the vicinity of the marina dock, animals that vacate the area during construction are anticipated to return upon project completion. Furthermore, the new dock would provide additional perches for avian species to rest or feed, and would provide additional habitat (aquatic 'structure') for fish and other aquatic organisms.

5. If State Historic Preservation Office agrees with this assessment, please document your concurrence by signing where indicated below. If you would like to inspect the proposed construction site, please contact the MacDill AFB Natural Resources staff. If you have any questions or require additional information on the proposed action, please contact Mr. Jason Kirkpatrick at (813) 828-0459.

JUSTIN C. DAVEY, Lt Col, USAF, P.E.
Commander, 6th Civil Engineer Squadron

Attachments:
Figure 1: Project Location and Vicinity Map
Figure 2: Proposed Boat Dock Structure
Photograph 1: Location of Boat Dock Construction
Photograph 2: Location of Boat Dock Construction

MEMORANDUM FOR 6 CES/CC

The State Historic Preservation Office concurs with MacDill Air Force Base's finding that the Proposed Action, construction of a new boat dock at Raccoon Creek Marina on MacDill Air Force Base, would have no adverse impact on historic resources at MacDill Air Force Base.

_____ _____

State Historic Preservation Office Representative Date

DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

Photograph 1

Location of Boat Dock Construction, MacDill Air Force Base, Florida

Photograph 2

Location of Boat Dock Construction, MacDill Air Force Base, Florida

Construction of a 20-Slip Boat Dock Structure EA MacDill Air Force Base, Florida	**Figure 1 Project Location and Vicinity Map**

Construction of a 20-Slip Boat Dock Structure EA	**Figure 2**
MacDill Air Force Base, Florida	**Proposed Boat Dock Structure**

DEPARTMENT OF THE AIR FORCE
6TH AIR MOBILITY WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

27 Jan 07

MEMORANDUM FOR U.S. FISH AND WILDLIFE SERVICE
Attn: Linda S. Smith
Fish & Wildlife Biologist
9720 Executive Center Drive, Suite 101
St. Petersburg FL 33702

FROM: 6 CES/CC
7621 Hillsborough Loop Drive
MacDill AFB FL 33621-5323

SUBJECT: U.S. Fish and Wildlife Service Coordination on the Boat Slip Construction at MacDill Air Force Base (AFB)

1. The U.S. Air Force intends to construct a 20-slip dock at Raccoon Creek Marina located at MacDill AFB (Figure 1). This new structure would be built as an extension of the existing 27-slip dock at Raccoon Creek Marina (Photographs 1-2). The new dock would be similar in design to the existing dock, i.e., would be built using Trex (plastic wood) decking and 10-inch diameter marine grade pressure treated pilings. The proposed action (Figure 2) includes the construction of a dock that is six feet wide by approximately 400 feet long and would have 20 boat slips that are each 12 feet wide. Eleven boat access walkways (18 inches wide and 30 feet long) would extend perpendicular from the dock to create the wet slip spaces. Each walkway would have water and electrical connections available to boaters. The new dock would be accessed by the ramp at the north end of the existing dock (Figure 2).

2. The dock would be supported using approximately 130 10-inch diameter marine grade pilings. The pilings would be installed by driving them into the seabed until refusal, which is estimated to be eight to ten feet below the floor of the bay. The pilings would be installed using a barge-mounted pile driving apparatus.

3. The dock substructure would be constructed with pressure treated lumber. Trex deck planking, six inches wide by six feet long would be attached to the substructure with approximately a one-inch space between each plank. Water and electrical utilities would be run below the decking and stubbed up through the decking at the end of each walkway. The new dock would create approximately 3,100 square feet of additional surface area, and would result in some shading of the bay bottom.

4. A representative from the MacDill AFB Natural Resources staff surveyed the construction site to determine if any threatened or endangered species would be affected. The Florida manatee, Federally-listed as endangered, is known to occasionally enter Raccoon Creek. Consequently,

steps must be taken to ensure that the proposed action would not adversely impact this species. The construction contractor would be required to follow the standard manatee construction conditions that include use of a siltation barrier that avoids manatee entanglement, posting of manatee notification signage, posting a manatee watch, operation of all construction vessels at idle speeds, and stoppage of all work activities if manatees are sighted within 100 yards of the project site. Although the proposed action would temporarily disrupt wildlife in the vicinity of the marina dock, animals that vacate the area during construction are anticipated to return upon project completion. Furthermore, the new dock would provide additional perches for avian species to rest or feed, and would provide additional habitat (aquatic structure) for fish and other aquatic organisms.

5. If the U.S. Fish and Wildlife Service agrees with this assessment, please document your concurrence by signing where indicated below. If you would like to inspect the proposed construction site, please contact the MacDill AFB Natural Resources staff. If you have any questions or require additional information on the proposed action, please contact Mr. Jason Kirkpatrick at (813) 828-0459.

JUSTIN C. DAVEY, Lt Col, USAF, P.E.
Commander, 6th Civil Engineer Squadron

Attachments:
Figure 1: Project Location and Vicinity Map
Figure 2: Proposed Boat Dock Structure
Photograph 1: Location of Boat Dock Construction
Photograph 2: Location of Boat Dock Construction

MEMORANDUM FOR 6 CES/CC

The U.S. Fish and Wildlife Service concurs with MacDill Air Force Base's finding that the proposed action, construction of a new boat dock at Raccoon Creek Marina on MacDill Air Force Base, would not adversely impact threatened or endangered species including the Florida manatee as long as the standard manatee construction conditions are enforced.

_____ _____

U.S. Fish and Wildlife Service Representative Date

DEPARTMENT OF THE AIR FORCE
6TH AIR REFUELING WING (AMC)
MACDILL AIR FORCE BASE, FLORIDA

Photograph 1

Location of Boat Dock Construction, MacDill Air Force Base, Florida

Photograph 2

Location of Boat Dock Construction, MacDill Air Force Base, Florida

Construction of a 20-Slip Boat Dock Structure EA MacDill Air Force Base, Florida	**Figure 1 Project Location and Vicinity Map**

Construction of a 20-Slip Boat Dock Structure EA	**Figure 2**
MacDill Air Force Base, Florida	**Proposed Boat Dock Structure**

United States Department of the Interior

FISH AND WILDLIFE SERVICE
6620 Southpoint Drive, South
Suite 310
Jacksonville, Florida 32216-0912

IN REPLY REFER TO:

FWS Log No: 07-F-0269

February 14, 2007

Mr. Jason Kirkpatrick
Department of the Air Force
6th Air Mobility Wing (AMC)
7621 Hillsborough Loop Drive
MacDill AFB, Florida 33621-5323

FWS Log No: 07-F-0269

Dear Mr. Kirkpatrick:

We received you letter on February 8, 2007 proposing adding 20 slips to the Raccoon Creek Marina at MacDill AFB, Florida. We are aware that the Corps of Engineers will request formal consultation for this proposal under section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) for the endangered Florida manatee (*Trichechus manatus).* We will provide you a copy of our consultation letter with the Corps in response to your January 27, 2007 letter asking for our assessment of this project.

If you have any questions, please contact Ms. Linda Smith, of our St. Petersburg branch office, at (727)570-5400, ext. 222 or at 9720 Executive Center Drive, Suite 101, St. Petersburg, Florida 33704.

Sincerely,

David L. Hankla
Field Supervisor

EarthTech
A tyco International Ltd. Company

10 Patewood Drive
Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

April 9, 2007

Hillsborough County Public Library
Attn: Mr. Jim Shelton
900 North Ashley Drive
Tampa, FL 33602

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Mr. Shelton:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for you to make available in the Humanities Section of the library for public review.

We respectfully request that you make the Draft EA and FONSI/FONPA available to the public during the time period of April 12, 2007 through May 24, 2007. Once the availability period is closed, we will consider all public comments received and include them in the Final EA and FONSI/FONPA documents. Please find attached a copy of the public notice and notice of availability that were published in the Tampa Tribune in order to notify the public of the availability of the documents. The attached advertisement provides the address where comments can be submitted.

If you have any questions or concerns about this submittal, please call me at (864) 234-3595 or Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Gretchen Jamison For Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

EarthTech
A tyco International Ltd. Company

10 Patewood Drive
Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

April 9, 2007

Ms. Laura Kammerer
Division of Historical Resources
Compliance Review Section
500 South Bronough Street
Tallahassee, FL 32399-0250

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Ms. Kammerer:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Draft EA and FONSI/FONPA by May 24, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Hutchen Jamison for Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

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10 Patewood Drive
Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

April 9, 2007

Mr. Steve West
Florida Department of Environmental Protection
Bureau of Beaches and Coastal Systems
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3000

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Mr. West:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Draft EA and FONSI/FONPA by May 24, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Gretchen Jamesson For Steve Duda
Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

EarthTech
A tyco International Ltd. Company

10 Patewood Drive
Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

April 9, 2007

Florida Coastal Management Program
Attn: Ms. Lynn Griffin
3900 Commonwealth Blvd. MS 47
Tallahassee, Florida 32399-3000

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Ms. Griffin:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Draft EA and FONSI/FONPA by May 24, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Hutchen Jameson For Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

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Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

April 9, 2007

Florida State Clearinghouse
Attn: Ms. Lauren P. Milligan, Environmental Consultant
Florida Department of Environmental Protection
3900 Commonwealth Blvd. MS 47
Tallahassee, Florida 32399-3000

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Ms. Milligan:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Draft EA and FONSI/FONPA by May 24, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Hutchin Jameson For Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

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Greenville, SC 29615

P 864.234.3000
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April 9, 2007

National Marine Fisheries Service
Attn: Mr. Mark Sramek
263 13th Avenue, South
St. Petersburg, FL 33701

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Mr. Sramek:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

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Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Kristchen Jameson for Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

EarthTech
A tyco International Ltd. Company

10 Patewood Drive
Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

April 9, 2007

Mr. Doug Allbright
HQ AMC/A75
507 Symington Drive
Scott AFB, IL 62225-5022

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Mr. Allbright:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Draft EA and FONSI/FONPA by May 24, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Gretchen Jameson For Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

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April 9, 2007

Mr. Art Bagley
University of Tampa
Macdonald-Kelce Library
401 West Kennedy Boulevard
Tampa, FL 33606

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Mr. Bagley:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for you to make available for public review.

We respectfully request that you make the Draft EA and FONSI/FONPA available to the public during the time period of April 12, 2005 through May 24, 2007. Once the availability period is closed, we will consider all public comments received and include them in the Final EA and FONSI/FONPA documents. Please find attached a copy of the public notice and notice of availability that were published in the Tampa Tribune in order to notify the public of the availability of the documents. The attached advertisement provides the address where comments can be submitted.

If you have any questions or concerns about this submittal, please call me at (864) 234-3595 or Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Gretchen Jamieson for Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

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Greenville, SC 29615

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www.earthtech.com

April 9, 2007

U.S. Army Corps of Engineers
Mobile District
Florida Area Office
Attn: Mr. Jeffrey Agee
P.O. Box 6230
MacDill AFB, FL 33608-6230

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Mr. Agee:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Draft EA and FONSI/FONPA by May 24, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Gretchen Jamison For Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

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Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

April 9, 2007

U.S Fish and Wildlife Service
Attn: Linda Smith
9720 Executive Center Drive, Suite 101
St. Petersburg, FL 33704

Subject: Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Ms. Smith:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Draft EA and FONSI/FONPA are being submitted to you for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Draft EA and FONSI/FONPA by May 24, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Stephen Jameson For Steve Duda

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

PUBLIC NOTICE UNITED STATES AIR FORCE

MacDill Air Force Base (AFB) is inviting public review and comment on the Draft Finding of No Significant Impact (FONSI)/Finding of No Practical Alternative (FONPA) and the supporting Environmental Assessment (EA). The project is entitled Construction of a 20-Slip Boat Dock Structure. The proposed action calls for the construction of a 20-slip boat dock in the western marina at the Raccoon Creek Recreation Area on MacDill Air Force Base. The new dock structure would be connected to the existing dock at the Raccoon Creek western marina to meet the demand for additional wet slips. The additional wet slips would be rented to authorized personnel on the base through the 6th Services Squadron. Constructing additional wet slips under the proposed action would contribute to the enhancement of the quality of life of personnel assigned to MacDill AFB, which in turn would potentially improve the morale and productivity of personnel.

NOTICE OF AVAILABILITY

The document is part of the Air Force environmental impact analysis process to satisfy requirements under the National Environmental Protection Act (NEPA). The FONSI/FONPA and supporting EA draft is available for public review and comment beginning April 12, 2007 at the John F. Germany Library, located at 900 N. Ashley Drive, Tampa, FL 33606. The documents may be found in the Humanities Section of the Main Library. The comment period will close on May 24, 2007. Address written comments to the 6 AMW Public Affairs, 8209 Hangar Loop Drive, Suite 14, MacDill AFB, FL 33621-5502. The telephone number is (813) 828-2215.

The Tampa Tribune

Published Daily

Tampa, Hillsborough County, Florida

State of Florida }
County of Hillsborough } SS.

Before the undersigned authority personally appeared C. Pugh , who on oath says that she is the Advertising Billing Supervisor of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of the

Legal Notices ROP IN THE Tampa Tribune

In the matter of Legal Notices

was published in said newspaper in the issues of

04/10/2007

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first

person,

PUBLIC NOTICE UNITED STATES AIR FORCE

MacDill Air Force Base (AFB) is inviting public review and comment on the Draft Finding of No Significant Impact (FONSI)/Finding of No Practical Alternative (FONPA) and the supporting Environmental Assessment (EA). The project is entitled Construction of a 20-Slip Boat Dock Structure. The proposed action calls for the construction of a 20-slip boat dock in the western marina at the Raccoon Creek Recreation Area on MacDill Air Force Base. The new dock structure would be connected to the existing dock at the Raccoon Creek western marina to meet the demand for additional wet slips. The additional wet slips would be rented to authorized personnel on the base through the 6th Services Squadron. Constructing additional wet slips under the proposed action would contribute to the enhancement of the quality of life of personnel assigned to MacDill AFB, which in turn would potentially improve the morale and productivity of personnel.

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7660 April 10, 2007

a Hodel
#DD551367
AY 11, 2010
NOTARY.com

Order # 0002089668

1206320 -- EARTH TECH, INC.

The Tampa Tribune

Published Daily

Tampa, Hillsborough County, Florida

State of Florida }
County of Hillsborough } SS.

Before the undersigned authority personally appeared C. Pugh , who on oath says that she is the Advertising Billing Supervisor of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of the

Legal Notices ROP IN THE Tampa Tribune

In the matter of Legal Notices

was published in said newspaper in the issues of

04/10/2007

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

Sworn to and subscribed by me, this 10 day
of April, A.D. 2007

Personally Known ✓ or Produced Identification ___
Type of Identification Produced _____

Ana Maria Hodel
Commission #DD551367
Expires: MAY 11, 2010
www.AaronNotary.com

Order # 0002089668

1206320 -- EARTH TECH, INC.

cc JCD (11)
CD MC (12)
CEV _____
CEQ _____

Mike, Work w/CEV to satisfy req.'s

received 11 Apr 07 AM

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5312, Fax 824-5309
http://sero.nmfs.noaa.gov

APR - 9 2007

Dear Colleague:

Pursuant to section 7(a)(2) of the Endangered Species Act (ESA), the Protected Resources Division of NOAA's National Marine Fisheries Service (NMFS) has reviewed your letter dated January 27, 2007, concerning the proposed construction of a 20-slip boat dock structure at Raccoon Creek Marina, MacDill Air Force Base, in Hillsborough County, Florida.

___ **There are no ESA-listed species** or designated critical habitat under our purview in the action area.

___**We cannot determine** impacts to threatened or endangered species, or designated critical habitat, under NOAA Fisheries purview because the letter lacks sufficient information to evaluate the project.

___**Please provide a letter** from the lead federal action agency designating you to conduct ESA section 7 consultation with this office.

_X_**Enclosed is a list** of federally-protected species under the jurisdiction of NMFS for the state of Florida. Biological information on federally-protected species and candidate species can be found at the following website addresses: http://www.nmfs.noaa.gov/prot_res/prot_res.html; http://www.cccturtle.org;. http://noflorida.fws.gov/SeaTurtles/seaturtle-info.htm); http://endangered.fws.gov/wildlife.html#Species; http://www.cmc-ocean.org/main.php3; http://floridaconservation.org/psm/turtles/turtle.htm; http://obis.env.duke.edu/data/sp_profiles.php; www.mote.org/~colins/Sawfish/SawfishHomePage.html; www.floridasawfish.com; www.flmnh.ufl.edu/fish/sharks/InNews/sawprop.htm;.Gulf sturgeon critical habitat rule and maps (http://alabama.fws.gov/gs/). **Enclosed are guidelines** to conduct a proper biological evaluation.

___ **It is NMFS' opinion that the project will have no effect** on listed species or critical habitat protected by the ESA under NOAA Fisheries purview. No further consultation with NOAA Fisheries pursuant to section 7(a)(2) of the ESA is required unless the project description changes.

Consultation with NMFS' Habitat Conservation Division (HCD), pursuant to the Magnuson-Stevens Fishery Conservation and Management Acts requirements for essential fish habitat consultation, may be required. Please contact HCD at (727) 824-5317. If you have any ESA questions, please contact Eric Hawk, Fishery Biologist, at (727) 824-5312 or by e-mail at Eric.Hawk@noaa.gov.

Sincerely,

Teletha Mincey
Administrative Support Assistant
Protected Resources Division

Enclosures

File: 1514-22.S USAF

Florida-Gulf

Candidate Species[2]	Scientific Name
None	

Species of Concern[3]	Scientific Name
Fish	
Alabama shad	*Alosa alabamae*
dusky shark	*Carcharhinus obscurus*
largetooth sawfish	*Pristis pristis*
night shark	*Carcharinus signatus*
saltmarsh topminnow	*Fundulus jenkinsi*
sand tiger shark	*Carcharias taurus*
speckled hind	*Epinephelus drummondhayi*
Warsaw grouper	*Epinephelus nigritus*
white marlin	*Tetrapturus albidus*
Invertebrates	
ivory bush coral	*Oculina varicosa*

[2] The Candidate Species List has been renamed the Species of Concern List. The term "candidate species" is limited to species that are the subject of a petition to list and for which NOAA Fisheries Service has determined that listing may be warranted (69 FR 19975).

[3] Species of Concern are not protected under the Endangered Species Act, but concerns about their status indicate that they may warrant listing in the future. Federal agencies and the public are encouraged to consider these species during project planning so that future listings may be avoided.

Endangered and Threatened Species and Critical Habitats
under the Jurisdiction of the NOAA Fisheries Service

Florida-Gulf

Listed Species	Scientific Name	Status	Date Listed
Marine Mammals			
blue whale	*Balaenoptera musculus*	Endangered	12/02/70
finback whale	*Balaenoptera physalus*	Endangered	12/02/70
humpback whale	*Megaptera novaeangliae*	Endangered	12/02/70
sei whale	*Balaenoptera borealis*	Endangered	12/02/70
sperm whale	*Physeter macrocephalus*	Endangered	12/02/70
Turtles			
green sea turtle	*Chelonia mydas*	Threatened[1]	07/28/78
hawksbill sea turtle	*Eretmochelys imbricata*	Endangered	06/02/70
Kemp's ridley sea turtle	*Lepidochelys kempii*	Endangered	12/02/70
leatherback sea turtle	*Dermochelys coriacea*	Endangered	06/02/70
loggerhead sea turtle	*Caretta caretta*	Threatened	07/28/78
Fish			
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	Threatened	09/30/91
smalltooth sawfish	*Pristis pectinata*	Endangered	04/01/03
Invertebrates			
elkhorn coral	*Acropora palmata*	Threatened	5/9/06
staghorn coral	*Acropora cervicornis*	Threatened	5/9/06

Designated Critical Habitat
Gulf Sturgeon: A final rule designating Gulf sturgeon critical habitat was published on March 19, 2003 (68 FR 13370) and 14 geographic areas (units) among the Gulf of Mexico Rivers and tributaries were identified. Maps and details regarding the final rule can be found at alabama.fws.gov/gs

Species Proposed for Listing
None

Proposed Critical Habitat
None

[1] Green turtles are listed as threatened, except for breeding populations of green turtles in Florida and on the Pacific Coast of Mexico, which are listed as endangered.

National Marine Fisheries Service
Recommendations for the Contents of
Biological Assessments and Biological Evaluations

When preparing a Biological Assessment (BA) or Biological Evaluation (BE), keep in mind that the people who read or review this document may not be familiar with the project area or what is proposed by the project. Therefore your BA or BE should present a clear line of reasoning that explains the proposed project and how you determined the effects of the project on each threatened or endangered species, or critical habitat, in the project area. Try to avoid technical jargon not readily understandable to people outside your agency or area of expertise. Remember, this is a **public document**. Some things to consider and, if appropriate, to include in your BA or BE, follow.

1. What is the difference between a Biological Evaluation and a Biological Assessment?

By regulation, a Biological Assessment is prepared for "major construction activities" — defined as "a construction project (or other undertaking having similar physical effects) which is a major Federal action significantly affecting the quality of the human environment (as referred to in the National Environmental Policy Act of 1969 (NEPA) [(42 U.S.C. 4332(2)(C)])." A BA is required if listed species or critical habitat may be present in the action area. A BA also may be recommended for other activities to ensure the agency's early involvement and increase the chances for resolution during informal consultation. Recommended contents for a BA are described in 50 CFR 402.12(f).

Biological Evaluation is a generic term for all other types of analyses in support of consultations. Although agencies are not required to prepare a Biological Assessment for non-major construction activities, **if a listed species or critical habitat is likely to be affected, the agency must provide the Service with an evaluation on the likely effects of the action.** Often this information is referred to as a BE. The Service uses this documentation along with any other available information to decide if concurrence with the agency's determination is warranted. Recommended contents are the same as for a BA, as referenced above.

The BAs and BEs should not be confused with Environmental Assessments (EA) or Environmental Impact Statements (EIS) which may be required for NEPA projects. These EAs and EISs are designed to provide an analysis of multiple possible alternative actions on a variety of environmental, cultural, and social resources, and often use different definitions or standards. However, if an EA or EIS contains the information otherwise found in a BE or BA regarding the project and the potential impacts to listed species, it may be submitted in lieu of a BE or BA.

2. What are you proposing to do?

Describe the project. A project description will vary, depending on the complexity of the project. For example, describing the construction or removal of a fixed aid-to-navigation in the Intracoastal Waterway, or the abandonment/dismantling of an oil-producing-platform may be relatively simple, but describing a the extent and amplitude of potential impacts of military training exercises involving different military assets, combinations of weaponry, locations, and seasons would necessarily be more detailed and complex. Include figures and tables if they will help others understand your proposed action and its relationship with the species' habitat.

How are you (or the project proponent) planning on carrying out the project? What tools or methods may

be used? How will the site be accessed? When will the project begin, and how long will it last?

Describe the "action area" (all areas to be affected directly or indirectly by the Federal action and not merely the immediate areas involved in the action [50 CFR 402.02]). Always include a map (topographic maps are particularly helpful). Provide photographs including aerials, if available. Describe the project area (i.e., topography, vegetation, condition/trend).

Describe current management or activities relevant to the project area. How will your project change the area?

Supporting documents are very helpful. If you have a blasting plan, best management practices document, sawfish/sea turtle/sturgeon conservation construction guidelines, research proposal, NEPA or other planning document or any other documents regarding the project, attach them to the BA or BE.

3. What threatened or endangered species, or critical habitat, may occur in the project area?

A request for a species list may be submitted to the Service, or the Federal action agency or its designated representative may develop the list. If you have information to develop your own lists, the Service should be contacted periodically to ensure that changes in species' status or additions/deletions to the list are included. Sources of biological information on federally-protected sea turtles, sturgeon, Gulf sturgeon (and Gulf sturgeon critical habitat), and other listed species and candidate species can be found at the following website addresses: NMFS Southeast Regional Office, Protected Resources Division (http://sero.nmfs.noaa.gov/pr/protres.htm); NMFS Office of Protected Resources (http://www.nmfs.noaa.gov/pr/species); U.S. Fish and Wildlife Service (http://noflorida.fws.gov/SeaTurtles/seaturtle-info.htm); http://www.nmfs.noaa.gov/pr/; http://www.sad.usace.army.mil/protected%20resources/turtles.htm; http://endangered.fws.gov/wildlife.html#Species; the Ocean Conservancy (http://www.cmc-ocean.org/main.php3); the Caribbean Conservation Corporation (http://www.cccturtle.org/); Florida Fish and Wildlife Conservation Commission (http://floridaconservation.org/psm/turtles/turtle.htm); http://www.turtles.org; http://www/seaturtle.org; http://alabama.fws.gov/gs/; http://obis.env.duke.edu/data/sp_profiles.php; www.mote.org/~colins/Sawfish/SawfishHomePage.html; www.floridasawfish.com; http://www.flmnh.ufl.edu/fish/Sharks/sawfish/srt/srt.htm; www.flmnh.ufl.edu/fish/sharks/InNews/sawprop.htm; also, from members of the public or academic community, and from books and various informational booklets. Due to budget constraints and staff shortages, we are only able to provide general, state-wide, or country-wide (territory-wide) species lists.

Use your familiarity with the project area when you develop your species lists. Sometimes a species may occur in the larger regional area near your project, but the habitat necessary to support the species is not in the project area (including areas that may be beyond the immediate project boundaries, but within the area of influence of the project. If, for example, you know that the specific habitat type used by a species does not occur in the project area, it does not need to appear on the species list for the project. However, documentation of your reasoning is helpful for Service biologists or anyone else that may review the document.

4. Have you surveyed for species that are known to occur or have potential habitat in the proposed project area?

The "not known to occur here" approach is a common flaw in many BA/BEs. The operative word here is "known." Unless adequate surveys have been conducted or adequate information sources have been

referenced, this statement is difficult to interpret. It begs the questions "Have you looked?" and "How have you looked?" Always reference your information sources.

Include a clear description of your survey methods so the reader can have confidence in your results. Answer such questions as:

- How intensive was the survey? Did you look for suitable habitat or did you look for individuals? Did the survey cover the entire project area or only part of it? Include maps of areas surveyed if appropriate.

- Who did the surveys and when? Was the survey done during the time of year/day when the plant is growing or when the animal can be found (its active period)? Did the survey follow accepted protocols?

If you are not sure how to do a good survey for the species, the Service recommends contacting species experts. Specialized training is required before you can obtain a permit to survey for some species.

Remember that your evaluation of potential impacts from a project does not end if the species is/are not found in the project area. You must still evaluate what effects would be expected to the habitat, even if it is not known to be occupied, because impacts to habitat that may result indirectly in death or injury to individuals of listed species would constitute "take".

5. Provide background information on the threatened or endangered species in the project area.

Describe the species in terms of overall range and population status. How many populations are known? How many occur in the project area? What part of the population will be affected by this project? Will the population's viability be affected? What is the current habitat condition and population size and status? Describe related items of past management for the species, such as stocking programs, habitat improvements, or loss of habitat or individuals caused by previous projects.

6. **How will the project affect the threatened or endangered species or critical habitat that occur in the project area?**

If you believe the project will not affect the species, explain why. Effects analyses must include evaluating whether adverse impacts to species' habitats, whether designated or not, could indirectly harm or kill listed species.

If you think the project may affect the species, explain what the effects might be. The Endangered Species Act requires you consider <u>all</u> effects when determining if an action funded, permitted, or carried out by a Federal agency may affect listed species. Effects you must consider include direct, indirect, and cumulative effects. Effects include those caused by interrelated and interdependent actions, not just the proposed action. Direct effects are those caused by the action and occur at the same time and place as the action. Indirect effects are caused by the action and are later in time but are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no significant independent utility apart from the action under consideration. Interrelated or interdependent actions can include actions under the jurisdiction of other federal agencies, state agencies, or private parties. Cumulative effects are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal actions subject to consultation.

Describe measures that have or will be taken to avoid or eliminate adverse effects or enhance beneficial

effects to the species. Refer to conversations you had with species experts to achieve these results.

Consider recovery potential if the project area contains historic range for a species.

Evaluate impacts to designated critical habitat areas by reviewing any project effects to the physical or biological features essential to the conservation of the species.

7. What is your decision? The Federal action agency must make a determination of effect.

Quite frequently, effect determinations are not necessarily *wrong;* they simply are not justified in the assessment. The assessment should lead the reviewer through a discussion of effects to a logical, well-supported conclusion. Do not assume that the Service biologist is familiar with the project and/or its location and that there is no need to fully explain the impact the project may have on listed species. If there is little or no connection or rationale provided to lead the reader from the project description to the effect determination, we cannot assume conditions that are not presented in the assessment. Decisions must be justified biologically. The responsibility for making and supporting the determination of effect falls on the Federal action agency; however, the Service cannot merely "rubber stamp" the action agency's determination and may ask the agency to revisit its decision or provide more data if the conclusion is not adequately supported by biological information.

You have three choices for each listed species or area of critical habitat:

1. "No effect" is the appropriate conclusion when a listed species will not be affected, either because the species will not be present or because the project does not have any elements with the potential to affect the species. "No effect" does not include a *small* effect or an effect that is *unlikely* to occur: if effects are insignificant (in size) or discountable (extremely unlikely), a "may affect, but not likely to adversely affect" determination is appropriate. A "no effect" determination does **not** require written concurrence from the Service and ends ESA consultation requirements unless the project is subsequently modified in such manner that effects may ensue.

2. "May affect - is not likely to adversely affect" (NLAA) means that all effects are either beneficial, insignificant, or discountable. Beneficial effects have concurrent positive effects without any adverse effects to the species or habitat (i.e., there cannot be "balancing," wherein the benefits of the project would be expected to outweigh the adverse effects - see #3 below). Insignificant effects relate to the magnitude or extent of the impact (i.e., they must be small and would not rise to the level of a take of a species). Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur. A "NLAA" determination by the action agency requires **written** concurrence from the Service.

3. "May affect - is likely to adversely affect" means that all adverse effects cannot be avoided. A combination of beneficial and adverse effects is still "likely to adversely affect," even if the net effect is neutral or positive. Adverse effects do not qualify as discountable simply because we are not certain they will occur. The probability of occurrence must be extremely small to achieve discountability. Likewise, adverse effects do not meet the definition of insignificant because they are less than major. If the adverse effect can be detected in any way or if it can be meaningfully articulated in a discussion of the results, then it is not insignificant, it is likely to adversely affect. This requires formal consultation with the Service.

A fourth finding is possible for proposed species or proposed critical habitat:

4. "Is likely to jeopardize/destroy or adversely modify proposed species/critical habitat" is the appropriate

conclusion when the action agency identifies situations in which the proposed action is likely to jeopardize a species proposed for listing, or destroy or adversely modify critical habitat proposed for designation. If this conclusion is reached, conference is required.

List the species experts you contacted when preparing the BE or BA but avoid statements that place the responsibility for the decision of "may affect" or "no effect" on the shoulders of the species experts. Remember, this decision is made by the Federal action agency.

Provide supporting documentation, especially any agency reports or data that may not be available to the Service. Include a list of literature cited.

Originally prepared: January 1997
U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office

Revised: January 2006
National Marine Fisheries Service
Protected Resources Division
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5312

OUTLINE EXAMPLE FOR A BIOLOGICAL ASSESSMENT OR BIOLOGICAL EVALUATION

Cover Letter - **VERY IMPORTANT** - Include purpose of consultation, project title, and consultation number (if available). A determination needs to be made for each species and for each area of critical habitat. You have three options: 1) a "no effect" determination; 2) request concurrence with an "is not likely to adversely affect" determination; 3) make a "may affect, is likely to adversely affect" determination, and request "formal" consultation. If proposed species or critical habitat are included, state whether the project is likely to result in jeopardy to proposed species, or the destruction or adverse modification of proposed critical habitat. If the critical habitat is divided into units, specify which critical habitat unit(s) will be affected.

Attached to Cover Letter: Biological Assessment or Biological Evaluation document, broken down as follows:

Title: e.g., BA (or BE) for "Project X"; date prepared, and by whom.

A. Project Description - Describe the proposed action and the action area. Be specific and quantify whenever possible.

For Each Species:

1. Description of affected environment (quantify whenever possible)
2. Description of species biology
3. Describe current conditions for each species
    a. Range-wide
    b. In the project area
    c. Cumulative effects of State and private actions in the project area
    d. Other consultations of the Federal action agency in the area to date
4. Describe critical habitat (if applicable)
5. Fully describe effects of proposed action on each species and/or critical habitat, and species' response to the proposed action.
    a. Direct effects
    b. Indirect effects
    c. Interrelated and interdependent actions
    d. Potential incidental take resulting from project activities

Factors to be considered/included/discussed when analyzing the effects of the proposed action on each species and/or critical habitat include: 1) Proximity of the action to the species, management units, or designated critical habitat units; 2) geographic area(s) where the disturbance/action occurs); timing (relationship to sensitive periods of a species' lifecycle; 3) duration (the effects of a proposed action on listed species or critical habitat depend largely on the duration of its effects); 4) disturbance frequency (the mean number of events per unit of time affects a species differently depending on its recovery rate); 5) disturbance intensity (the effect of the disturbance on a population or species as a function of the population or species' state after the disturbance); 6) disturbance severity (the effect of a disturbance on a population or species or habitat as a function of recovery rate – i.e., how long will it take to recover)

6. Conservation Measures (protective measures to avoid or minimize effects for each species)
7. Conclusions (effects determination for each species and critical habitat)
8. Literature Cited
9. Lists of Contacts Made/Preparers
10. Maps/Photographs

Guidance on Preparing an Initiation Package for Endangered Species Consultation

This document is intended to provide general guidance on the type and detail of information that should be provided to initiate consultation with U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS). This is not intended to be an exhaustive document as specific projects may require more or less information in order to initiate consultation. Also, note that this contains guidance on the information required to initiate formal consultation procedures with USFWS and/or NMFS. Additional information needs may be identified during consultation. Texts in italics below are examples. Normal text is guidance. A glossary of terms is appended.

INTRODUCTION

Here is an example of introductory language:

The purpose of this initiation package is to review the proposed [project name] in sufficient detail to determine to what extent the proposed action may affect any of the threatened, endangered, proposed species and designated or proposed critical habitats listed below. In addition, the following information is provided to comply with statutory requirements to use the best scientific and commercial information available when assessing the risks posed to listed and/or proposed species and designated and/or proposed critical habitat by proposed federal actions. This initiation package is prepared in accordance with legal requirements set forth under regulations implementing Section 7 of the Endangered Species Act (50 CFR 402; 16 U.S.C. 1536 (c)).

Threatened, Endangered, Proposed Threatened or Proposed Endangered Species

Example language:

The following listed and proposed species may be affected by the proposed action:

common name (Scientific name) ***T***

common name (Scientific name) ***E***

common name (Scientific name) ***PT***

common name (Scientific name) ***PE***

This list should include all of the species from the species lists you obtained from USFWS and NMFS. If it doesn't, include a brief explanation here and a more detailed explanation in your record to help USFWS, NMFS and future staff understand your thought process for excluding a species from consideration.

Critical Habitat

Example language:

The action addressed within this document falls within Critical Habitat for [identify species].

CONSULTATION TO DATE

"Consultation" under the ESA consists of discussions between the action agency, the applicant (if any), and USFWS and/or NMFS. It is the sharing of information about the proposed action and related actions, the species and environments affected, and means of achieving project purposes while conserving the species and their habitats. Under the ESA, consultation can be either informal or formal. Both processes are similar, but informal consultation may result in formal consultation if there is a likelihood of

unavoidable take. Formal consultation has statutory timeframes and other requirements (such as the submission of the information in this package and a written biological opinion by USFWS or NMFS).

Summarize any consultation that has occurred thus far. Identify when consultation was requested (if not concurrent with this document). Be sure to summarize meetings, site visits and correspondence that were important to the decision-making process.

DESCRIPTION OF THE PROPOSED ACTION

The purpose of this section is to provide a clear and concise description of the proposed activity and any interrelated or interdependent actions.

The following information is necessary for the consultation process on an action:

1. The action agency proposing the action.

2. The authority(ies) the action agency will use to undertake, approve, or fund the action.

3. The applicant, if any.

4. The action to be authorized, funded, or carried out.

5. The location of the action.

5. When the action will occur, and how long it will last.

6. How the action will be carried out

7. The purpose of the action.

8. Any interrelated or interdependent actions, or that none exist to the best of your knowledge.

Describe and specify: **WHO** is going to do the action and under what authority, include the name and office of the action agency and the name and address of the applicant; **WHAT** the project or action is; **WHERE** the project is (refer to attached maps); **WHEN** the action is going to take place, including time line and implementation schedules; **HOW** the action will be accomplished, including the various activities that comprise the whole action, the methods, and the types of equipment used; **WHY** the action is proposed, including its purpose and need; and **WHAT OTHER** interrelated and interdependent actions are known. This combination of actions are what is being consulted on for the 7(a)(2) analysis.

Include a clear description of all conservation measures and project mitigation such as avoidance measures, seasonal restrictions, compensation, restoration/creation (on-site and in-kind, off-site and in-kind, on-site and out-of-kind, off-site and out-of-kind), and use of mitigation or conservation banks.

Here are some examples of commonly overlooked items to include in your project description:

Type of project

Project location

Project footprint

Avoidance areas

Start and end times

Construction access

Staging/laydown areas

Construction equipment and techniques

Habitat status on site

Habitat between work areas and endangered species locations

Permanent vs. temporary impacts

Surrounding land-use

Hydrology and drainage patterns

Duration of "temporary" impacts

Prevailing winds and expected seasonal shifts

Restoration areas

Conservation measures

Compensation and set-asides

Bank ratios and amounts

Mitigation: what kind and who is responsible?

Dust, erosion, and sedimentation controls

Whether the project is growth-inducing or facilitates growth

Whether the project is part of a larger project or plan

What permits will need to be obtained

Action Area

Describe all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. This includes any interrelated and interdependent actions. Remember that the action area is not based simply on the Federal action and should not be limited to the location of the Federal action. The same applies to the applicant's action. The action area is defined by measurable or detectable changes in land, air and water, or to other measurable factors that may elicit a response in the species or critical habitat.

To determine the action area, we recommend that you first break the action down into its components (*e.g.,* vegetation clearing, construction of cofferdams, storage areas, borrow areas, operations, maintenance, etc.,) to assess the potential impacts resulting from each component.

Determine the impacts that are expected to result from each component. For example, instream actions may mobilize sediments that travel downstream as increased turbidity and then settle out as sediments on the stream substrate. Sound levels from machinery may be detectable hundreds of feet, thousands of feet, or even miles away. Use these distances when delineating the extent of your action area. Note: don't forget to subsequently reconstruct the action to assess the combined stressors of the components. You may find that some stressors are synergistically minimized or avoided, whereas other stressors may increase.

Finally, describe the action area, including features and habitat types. Include photographs and an area map as well as a vicinity map. The vicinity map for terrestrial projects should be at a 1:24,000 scale with the USGS quad name included.

SPECIES ACCOUNTS AND STATUS OF THE SPECIES IN THE ACTION AREA

Provide local information on affected individuals and populations, such as presence, numbers, life history, etc. Identify which threats to the species' persistence identified at the time of listing are likely to be present in the action area. Identify any additional threats that are likely to be present in the action area.

If the species has a distribution that is constrained by limiting factors, identify where in the action area factors are present that could support the species and where they are absent or limiting. For example, if a

species is limited to a narrow thermal range and a narrow humidity range, show where in the action area the temperatures are sufficient to support the species, where the humidity is sufficient to support the species, and where those areas overlap.

Include aspects of the species' biology that relate to the impact of the action, such as sensitivity to or tolerance of: noise, light, heat, cold, inundation, smoke, sediments, dust, etc. For example, if the species is sensitive to loud sounds or vibration, and your project involves loud tools or equipment, reference that aspect of their biology. Include citations for all sources of information

Describe habitat use in terms of breeding, feeding, and sheltering. Describe habitat condition and habitat designations such as: critical habitat (provide unit name or number, if applicable), essential habitat, important habitat, recovery area, recovery unit (provide unit name or number, if applicable). Also discuss habitat use patterns, including seasonal use and migration (if relevant), and identify habitat needs.

Identify and quantify the listed-species habitat remaining in the action area. GIS layers are useful here, as are land ownership patterns--especially local land trusts and open space designations.

Identify any recovery plan implementation that is occurring in the action area, especially priority one action items from recovery plans.

Include survey information. For all monitoring and survey reports, please clearly identify how it was done, when, where, and by whom. If survey protocols were followed, reference the name and date of the protocol. If survey protocols were modified, provide an explanation of how the surveying occurred and the reasoning for modifying the protocol.

Keep it relevant. It is unnecessary to discuss biology that is totally unrelated to project impacts--*e.g.*, discussion of pelage color, teat number, and number of digits fore and aft when the project is a seasonal wetland establishment.

Utilize the best scientific and commercial information available. Use and cite recent publications/journal articles/agency data and technical reports. Include local information, relative to the action area, views of recognized experts, results from recent studies, and information on life history, population dynamics, trends and distribution. Reference field notes, unpublished data, research in progress, etc.

Things to consider:

Existing threats to species

Fragmentation

Urban growth area

Drainage patterns

Information on local sightings and populations

Population trends

Home range and dispersal

Sensitivity of endangered species to: dust, noise, head, desiccation, etc.

Trap stress/mortality

Predators

ENVIRONMENTAL BASELINE AND CUMULATIVE EFFECTS

Provide information on past, present and future state, local, private, or tribal activities in the action area: specifically, the positive or negative impacts those activities have had on the species or habitat in the area in terms of abundance, reproduction, distribution, diversity, and habitat quality or function. Include the impacts of past and present federal actions as well. Don't forget to describe the impacts of past existence and operation of the action under consultation (for continuing actions).

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area. Future Federal actions that are unrelated (*i.e.,* not interrelated or interdependent) to the proposed action are not considered in this analysis because they will be subject to separate consultation pursuant to section 7 of the Act. (Note: Cumulative effects under ESA are ***not*** the same as the definition under NEPA. Be careful not to mix them up.) Describe the impacts of these cumulative effects in terms of abundance, reproduction, distribution, diversity, and habitat quality or function.

Present all known and relative effects to population, *e.g.,* fish stocking, fishing, hunting, other recreation, illegal collecting, private wells, development, grazing, local trust programs, etc. Include impacts to the listed and proposed species in the area that you know are occurring and that are unrelated to your action--*e.g.,* road kills from off-road vehicle use, poaching, trespass, etc.

EFFECTS OF THE ACTION

The purpose of this section is to document your analysis of the potential impacts the proposed action will have on species and/or critical habitats. This analysis has two possible conclusions for listed species and designated critical habitat:

(1) May Affect, Not Likely to Adversely Affect – the appropriate conclusion when effects on a listed species are expected to be *discountable, insignificant,* or completely *beneficial.*

Beneficial effects – contemporaneous positive effects without any adverse effects

Insignificant effects – relate to the size of the impact and should never reach the scale where take would occur.

Discountable effects – those that are extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

(2) May Affect, Likely to Adversely Affect – the appropriate finding if *any* adverse effect may occur to listed species or critical habitat as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.

A finding of "may affect" is the primary trigger for initiating section 7 consultation. Further analysis leads to one of the two conclusions above. In the case of a determination that an action is "not likely to adversely affect" a species or critical habitat, you can request USFWS and/or NMFS concurrence with this determination and consultation can be concluded upon receipt of our concurrence. Determinations of "likely to adversely affect" require further consultation between the action agency and USFWS and NMFS. These consultations typically lead to the preparation of a biological opinion, although they can also lead to incorporation of additional protective measures that render the project "not likely to adversely affect" listed species or designated critical habitat. Any actions that are likely to result in the incidental take of a listed species are automatically considered "likely to adversely affect."

In the case of proposed species or proposed critical habitat, the possible conclusions are:

Species

Likely to Jeopardize the Continued Existence

Not Likely to Jeopardize the Continued Existence

Critical Habitat

Likely to Destroy or Adversely Modify

Not Likely to Destroy or Adversely Modify

The effects analysis includes assessment of:

Direct and indirect effects (stressors) of Federal action

Direct and indirect effects (stressors) of applicant's action

Direct and indirect effects (stressors) of interrelated or interdependent actions

Direct and indirect effects (stressors) of conservation and minimization measures

Remember: Direct and indirect effects under ESA are **not** the same as direct and indirect effects under NEPA. Be careful not to mix them up. Under ESA, direct effects are those that are caused by the action(s) and occur at the time of the action(s), and indirect effects are those that are caused by the action(s) and are later in time, but are still reasonably certain to occur.

Based on the various components of your action that you used to determine the extent of the action area, this analysis assesses the potential stressors resulting from each component and predicts the likely responses species and critical habitat will have. Note: don't forget to subsequently reconstruct the action to assess the combined stressors of the components. You may find that some stressors are synergistically minimized or avoided, whereas other stressors may increase.

Describe the stressors that are expected to result from each component. For example, instream actions may mobilize sediments that travel downstream as increased turbidity and then settle out as sediments on the stream substrate. Sound levels from machinery may be detectable hundreds of feet, thousands of feet, or even miles away. Describe these stressors in terms of their intensity, frequency, and duration.

Once you have determined the expected stressors resulting from an activity, the next step is to assess the overlap between those stressors and individuals of the species or components of critical habitat. The purpose of determining this overlap is to accurately and completely assess the potential exposure of species and habitat to the stressors resulting from the action. This exposure is the necessary precursor to any possible response those species and habitat may have. Your conclusions of "not likely to adverse affect" or "likely to adversely affect" are based in large part on this response.

To determine exposure, here is a basic set of questions you might answer:

- What are the specific stressors causing the exposure
- Where the exposure to the stressors would occur
- When the exposure to stressors would occur
- How long the exposure to stressors would occur
- What is the frequency of exposure to stressor
- What is the intensity of exposure to stressor
- How many individuals would be exposed
- Which populations those individuals represent
- What life stage would be exposed

For critical habitat, the questions would be similar but would focus on constituent elements of critical habitat.

Remember that exposure to a stressor is not always direct. For example, in some cases individuals of a species may be directly exposed to the sediment mobilized during construction. However, in other cases, individuals of the species would be exposed indirectly when sediment mobilized during construction settles out in downstream areas, rendering those areas unusable for later spawning or foraging.

Here are some examples of stressors you should address:

Exposure to abiotic factors affecting land, air, or water

Exposure to biotic factors affecting species behavior

Spatial or temporal changes in primary constituent elements of critical habitat

Loss or gain of habitat--direct and indirect

Fragmentation of habitat

Loss or gain of forage and/or foraging potential

Loss or gain of shelter/cover

Loss or gain of access through adjacent habitat/loss of corridors

Once you have determined that a species or critical habitat will be exposed to an action, the next step is to determine the potential response or range of responses the exposed individuals or components of critical habitat will have to those levels and types of exposure.

This is where the use of the best scientific and commercial information available becomes crucial. Your analysis must take this information into consideration and the resulting document must reflect the use of this information and your reasoning and inference based on that information. Bear in mind that this analysis may not be the final word on the expected responses as further consultation with USFWS or NMFS may refine this analysis.

Be sure to describe the expected responses clearly and focus your analysis towards determining if any of the possible responses will result in the death or injury of individuals, reduced reproductive success or capacity, or the temporary or permanent blockage or destruction of biologically significant habitats (*e.g.*, foraging, spawning, or lekking grounds; migratory corridors, etc.,). Any of these above responses are likely to qualify as adverse effects. If the available information indicates that no observable response is expected from the levels and types of exposure, the action may be unlikely to adversely affect a species or critical habitat. However, remember that no observable response may actually mask an invisible internal response such as increased stress hormone levels, elevated heart rate, etc. Depending on the fitness of the exposed individual and the surrounding environment (including other threats), these "invisible" responses may lead to more serious consequences. We recommend working with your NMFS or USFWS contact to determine the appropriate conclusion.

Don't forget to consider:

Individual responses based on the species biology and sensitivity to exposure

The combined effects of existing threats and new exposure

The combined effects of limiting factors and new exposure

Disrupted reproduction and/or loss of reproduction

Exposure and response of species and critical habitat to interrelated and interdependent actions

Understanding and avoiding the common flaws in developing an effect determination will save you considerable time. These common flaws are: the "Displacement" Approach (*i.e.*, the species will move out of the way; there are plenty of places for them to go); the "Not Known to Occur Here" Approach (*i.e.*, looking at survey results, or lack of results, instead of the Recovery Plan for the species); the "We'll Tell You Later" Approach (*i.e.*, if we find any, then we'll let you know and that is when we will consult); or the "Leap of Faith" Approach (*i.e.*, the agency wants the USFWS or NMFS to accept a determination based on trust, rather than the best scientific and commercially available information.). Sticking to flawed determinations will cost everyone time, money, and aggravation.

Analysis of alternate actions

This analysis is required for actions that involve preparation of an EIS. For all other actions, a summary of alternatives discussed in other environmental documents is useful.

OTHER RELEVANT INFORMATION

Provide any other relevant available information the action, the affected listed species, or critical habitat. This could include local research, studies on the species that have preliminary results, and scientific and commercial information on aspects of the project.

CONCLUSION

This is where you put your overall effect determination after you have analyzed the exposure and response of species and habitat to the stressors resulting from the proposed action and interrelated or interdependent actions. Effect determinations must be based on a sound reasoning from exposure to response and must be consistent with types of actions in the project description, the biology in the species accounts, the habitat status and condition, changes to the existing environment, and the best scientific and commercial information available.

Again, the two potential conclusions for **listed species** are:

Not likely to adversely affect species

Likely to adversely affect species

The two potential conclusions for **designated critical habitat** are:

Not likely to adversely affect critical habitat

Likely to adversely affect critical habitat

The two potential conclusions for **proposed species** are:

Not likely to jeopardize species

Likely to adversely jeopardize species

The potential conclusions for **proposed critical habitat** are, under informal and formal consultation respectively:

Not likely to adversely affect species

Likely to adversely affect species

Not likely to destroy or adversely modify critical habitat

Likely to destroy or adversely modify critical habitat

Include the basis for the conclusion, such as discussion of any specific measures or features of the project that support the conclusion and discussion of species expected response, status, biology, or baseline conditions that also support conclusion.

If you make a "no effect" determination, it doesn't need to be in the assessment, but you might have to defend it. Keep the documentation for your administrative record.

LIST OF DOCUMENTS

Provide a list of the documents that have bearing on the project or the consultation, this includes relevant reports, including any environmental impact statements, environmental assessment, or biological

assessment prepared for the project. Include all planning documents as well as the documents prepared in conformance with state environmental laws

IMPORTANT NOTE: Each of these documents must be provided with the initiation package consultation for the Services to be able to proceed with formal consultation.

LITERATURE CITED

We are all charged with using the best scientific and commercial information available. To demonstrate you did this, it is a good idea to keep copies of search requests in your record. If you used a personal communication as a reference, include the contact information (name, address, phone number, affiliation) in your record.

LIST OF CONTACTS/CONTRIBUTORS/PREPARERS

Please include contact information for contributors and preparers as well as local experts contacted for species or habitat information.

GLOSSARY

Action Area - all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

Beneficial Effects – contemporaneous positive effects without any adverse effects.

Cumulative Effects – are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur in the action area of the Federal action subject to consultation.

Discountable Effects – those that are extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

Effects of the Action – refers to the direct and *indirect effects* of an action on the species or critical habitat, together with the effects of other activities that are *interrelated* or *interdependent* with that action, that will be added to the environmental baseline.

Environmental Baseline – includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions that are contemporaneous with the consultation in process.

Indirect Effects - Indirect effects are those that are caused by the action(s) and are later in time, but are still reasonably certain to occur.

Insignificant Effects – relate to the size of the impact and should never reach the scale where take would occur.

Interdependent Actions - Interdependent actions are those that have no significant independent utility apart from the action that is under consideration, *i.e.* other actions would not occur "but for" this action.

Interrelated Actions - Interrelated actions are those that are part of a larger action and depend on the larger action for their justification, *i.e.* this action would not occur "but for" a larger action.

Likely to Jeopardize the Continued Existence of – to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

May Affect, Likely to Adversely Affect – the appropriate finding if any adverse effect may occur to listed species or critical habitat as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. Requires that a biological opinion be prepared by the Service.

May Affect, Not Likely to Adversely Affect – the appropriate conclusion when effects on a listed species are expected to be *discountable*, *insignificant*, or completely *beneficial*. Requires written concurrence from the Service.

No Effect – the appropriate conclusion when a listed species will not be affected, either because the species will not be present or because the project does not have any elements with the potential to affect the species. A "no effect" determination does **not** require written concurrence from the Service and ends ESA consultation requirements. Action agency should document their reasoning for this conclusion in their file.

From: Mark Sramek [Mark.Sramek@noaa.gov]
Sent: Wednesday, April 25, 2007 1:44 PM
To: Kirkpatrick, Jason W CTR 6 CES/CEVN
Cc: HCD Panama City
Subject: 20-slip boat dock structure at MacDill AFB

NOAA's National Marine Fisheries Service, Southeast Region, Habitat Conservation Division, has reviewed the April 9, 2007, Finding of No Significant Impact and Finding of No Practicable Alternative for the United States Air Force's proposed 20-slip dock structure at the Raccoon Creek Marina on MacDill Air Force Base in Tampa Bay, in Hillsborough County, Florida. Based upon our review of the information provided, we anticipate that any adverse effects that might occur on marine and anadromous fishery resources would be minimal as a result of the project. Thank you for our opportunity to review this project and your effort to comply with the essential fish habitat provisions of the Magnuson-Stevens Conservation and Management Act.

Florida Department of
Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

May 22, 2007

Mr. Jason W. Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Drive
MacDill AFB, FL 33621-5207

RE: Department of the Air Force – Draft Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base – Hillsborough County, Florida.
SAI # FL200704113226C

Dear Mr. Kirkpatrick:

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

The Florida Department of Environmental Protection (DEP), Southwest District office notes that the proposed project will require issuance of an Environmental Resource Permit (ERP) by the DEP and a submerged lands authorization from the Tampa Port Authority, in conjunction with the Hillsborough County Environmental Protection Commission. Staff advises the applicant to request a pre-application meeting with the DEP District to work through ERP application details and issues. Additionally, the project has the potential to impact Florida manatees – all in-water construction activities will be subject to the standard manatee protection conditions to reduce potential impacts to this species.

Based on the information contained in the DEA and the enclosed state agency comments, state has determined that, at this stage, the proposed activity is consistent with the Florida Coastal Management Program (FCMP). The federal agency must, however, address the concerns identified by our reviewing agencies prior to project implementation. The state's continued concurrence with the project will be based, in part, on the adequate resolution of the issues identified during this and subsequent

reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting stage.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Mr. Robin Branda at (850) 245-2182.

Yours sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/rb
Enclosures

cc: Mike Farley, DEP, Southwest District

Categories

Project Information	
Project:	FL200704113226C
Comments Due:	05/11/2007
Letter Due:	05/24/2007
Description:	DEPARTMENT OF THE AIR FORCE - DRAFT ENVIRONMENTAL ASSESSMENT FOR CONSTRUCTION OF A 20-SLIP BOAT DOCK STRUCTURE, MACDILL AIR FORCE BASE - HILLSBOROUGH COUNTY, FLORIDA.
Keywords:	USAF - 20-SLIP BOAT DOCK STRUCTURE - MACDILL AFB, HILLSBOROUGH CO.
CFDA #:	12.200

Agency Comments:
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
The DEP Southwest District office notes that the proposed project will require issuance of an Environmental Resource Permit (ERP) by the DEP and a submerged lands authorization from the Tampa Port Authority, in conjunction with the Hillsborough County Environmental Protection Commission. Staff advises the applicant to request a pre-application meeting with the DEP District to work through ERP application details and issues. Additionally, the project has the potential to impact Florida manatees - all in-water construction activities will be subject to the standard manatee protection conditions to reduce potential impacts to this species.
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
No Final Comments Received
STATE - FLORIDA DEPARTMENT OF STATE
No Comments Received
SOUTHWEST FLORIDA WMD - SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Consistent/No Comment
TAMPA BAY RPC - TAMPA BAY REGIONAL PLANNING COUNCIL
No Comment
HILLSBOROUGH - HILLSBOROUGH COUNTY

For more information or to submit comments, please contact the Clearinghouse Office at:

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

Visit the Clearinghouse Home Page to query other projects.

RB

Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)
On the Internet at: WaterMatters.org

An Equal Opportunity Employer

Bartow Service Office
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)
SUNCOM 572-6200

Lecanto Service Office
Suite 226
3600 West Sovereign Path
Lecanto, Florida 34461-8070
(352) 527-8131

Sarasota Service Office
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)
SUNCOM 531-6900

Tampa Service Office
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)
SUNCOM 578-2070

May 10, 2007

RECEIVED
MAY 14 2007
OIP / OLGA

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

Subject: **Department of the Air Force-Draft Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base-Hillsborough County, Florida**
SAI#: **FL200704113226C**

Dear Ms. Milligan:

The staff of the Southwest Florida Water Management District (District) has conducted a consistency evaluation for the referenced project. Consistency findings are divided into four categories and are based solely on the information provided in the subject application.

FINDING	CATEGORY
X	Consistent/No Comment
	Consistent/Comments Attached
	Inconsistent/Comments Attached
	Consistency Cannot be Determined Without an Environmental Assessment Report/Comments Attached

The District appreciates the opportunity to participate in the review of this application. Please be advised that our review does not constitute permit approval under Chapter 373, Florida Statutes, or any rules promulgated thereunder, nor does it stand in lieu of normal permitting procedures in accordance with Florida Statutes and District rules.

If you have any questions or if I can be of further assistance, please contact me in the District's Planning Department.

Sincerely,

Trisha Neasman

Trisha Neasman, AICP
Government Planning Coordinator

FLORIDA DEPARTMENT OF STATE
Kurt S. Browning
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Stephen Duda
EarthTech
10 Patewood Drive
Building VI, Suite 500
Greenville, SC 29615

May 29, 2007

RE: DHR Project File Number: 2007-2518
Received by DHR: April 16, 2007
Contract Number: F41624-03-D8597
Construction of a 20-Slip Dock at Raccoon Creek Marina at MacDill Air Force Base, Hillsborough County

Dear Mr. Duda:

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

Based on the information provided, it is the opinion of this office that the above referenced action will have no effect on historic properties, and concurs with EarthTech that it should have no significant impact to historic resources.

If you have any questions, **please contact James Toner, Historic Sites Specialist, by electronic mail at *jetoner@dos.state.fl.us*, or at 850-245-6333**.

Sincerely,

Frederick P. Gaske, Director, and
State Historic Preservation Officer

XC: Mr. Jason Kirkpatrick

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
☐ Historical Museums (850) 245-6400 • FAX: 245-6433
☐ Southeast Regional Office (561) 416-2115 • FAX: 416-2149
☐ Northeast Regional Office (904) 825-5045 • FAX: 825-5044
☐ Central Florida Regional Office (813) 272-3843 • FAX: 272-2340

EarthTech
A tyco International Ltd. Company

10 Patewood Drive
Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

June 13, 2007

National Marine Fisheries Service
Attn: Mr. Mark Sramek
263 13th Avenue, South
St. Petersburg, FL 33701

Subject: Revised Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Mr. Sramek:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Revised Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Revised Draft EA has been updated to provide the information that would typically be found in a Biological Evaluation (BE) or Biological Assessment (BA) regarding the project and the potential for impacts to listed species. The EA and FONSI/FONPA are therefore being submitted in lieu of a BE or BA for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Revised Draft EA and FONSI/FONPA by July 25, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

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10 Patewood Drive
Bldg. VI, Suite 500
Greenville, SC 29615

P 864.234.3000
F 864.234.3069
www.earthtech.com

June 13, 2007

U.S Fish and Wildlife Service
Attn: Linda Smith
9720 Executive Center Drive, Suite 101
St. Petersburg, FL 33704

Subject: Revised Draft *Environmental Assessment for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and *Finding of No Significant Impact* and *Finding of No Practicable Alternative*
Contract Number: F41624-03-D8597
Task Order Number: 0209
Task Order Customer: NAF, MacDill AFB, Florida
CDRL Sequence Number: A001c

Dear Ms. Smith:

Earth Tech, on behalf of MacDill Air Force Base, is pleased to submit this Revised Draft *Environmental Assessment (EA) for Construction of a 20-Slip Boat Dock Structure, MacDill Air Force Base, Florida* and the associated *Finding of No Significant Impact (FONSI)* and *Finding of No Practicable Alternative (FONPA)* documents. This Revised Draft EA has been updated to provide the information that would typically be found in a Biological Evaluation (BE) or Biological Assessment (BA) regarding the project and the potential for impacts to listed species. The EA and FONSI/FONPA are therefore being submitted in lieu of a BE or BA for your agency's compliance review.

We respectfully request that you provide us with any comments, edits, or changes to this Revised Draft EA and FONSI/FONPA by July 25, 2007, at which time we will modify the EA and FONSI/FONPA based on any comments received to produce the Final. Please send any comments, edits, or changes you may have, along with a letter stating that you have reviewed the enclosed documents to:

Mr. Jason Kirkpatrick
6 CES/CEVN
7621 Hillsborough Loop Dr.
MacDill AFB, FL 33621-5207

If you have any questions or concerns about this submittal, please call Jason Kirkpatrick at (813) 828-0459.

Best Regards,

Stephen Duda
Project Manager

Enclosures

c: Jason Kirkpatrick, 6 CES/CEVN; Master File 97847

-----Original Message-----
From: Mark.Sramek@noaa.gov [mailto:Mark.Sramek@noaa.gov]
Sent: Thursday, July 05, 2007 8:52 AM
To: Kirkpatrick, Jason W CTR 6 CES/CEVN
Cc: HCD Panama City Field Office
Subject: MacDill AFB 20-slip Boat Dock Revised Draft EA

NOAA's National Marine Fisheries Service, Southeast Region, Habitat Conservation Division, has reviewed the June 13, 2007, Revised Draft Environmental Assessment for Construction of a 20-slip Boat Dock Structure, Finding of No Significant Impact and Finding of No Practicable Alternative documents for the United States Air Force's proposed dock structure at the Raccoon Creek Marina on MacDill Air Force Base in Tampa Bay, in Hillsborough County, Florida. Based upon our review of the information provided, we anticipate that any adverse effects that might occur on marine and anadromous fishery resources would be minimal as a result of the project. Thank you for our opportunity to review this project and your effort to comply with the essential fish habitat provisions of the Magnuson-Stevens Conservation and Management Act.

Re:From: Robert Hoffman [Robert.Hoffman@noaa.gov]
Sent: Thursday, August 30, 2007 6:58 AM
To: Kirkpatrick, Jason W CTR 6 CES/CEVN
Subject: Re:

Yea this looks fine, you are right the COE will do the consultation as part of the permitting process; therefore, I see no need for you to consult at this time.

Kirkpatrick, Jason W CTR 6 CES/CEVN wrote:
> Bob/Linda; We are working to finalize our EA for the Marina Boat Slips
> project. Our JA (legal) office generally requires that we recieve some
> type of documentation with input or consultation from the USFWS and
> NOAA. As I believe you both know, we revised our Environmental
> Assessment to address NOAA resources' concerns regarding the presence of
> T&E species (as outlined in the 9 Apr 07 letter from Teletha Mincey).
> As suggested in the 9 Apr 07 letter package from NOAA, we revised the EA
> in-leu of completing a Biological Assessment or Biological Evaluation.
>
> I am going to send you a .pdf version of the EA under a seperate e-mail
> (since the file is rather large) but have attached the Word version to
> this message since it is much smaller. The Word version contains all
> the text that we enhanced to address T&E species. All of the edits were
> primarily made in Section 4.1.10.
>
> If possible, could you please review the attached and shoot me back a
> quick e-mail by the end of next week (7 Sept 07) to let me know that you
> are OK with the EA's evaluation. The EA basically states that any
> issues with T&E species will be addressed in full during the permitting
> stage of the project. Furthermore, I believe the USCOE will engage both
> of your offices in consultation as part of the permitting process....so
> T&E species issues will not be overlooked.
>
> Jason K
>
>
> JASON W. KIRKPATRICK, Contractor, Del-Jen Inc.
>
> Env. Program Manager, 6th Civil Engineer Squadron
>
>
>
> 6 CES/CEVN
>
> 2610 Pink Flamingo Ave
>
> MacDill AFB FL 33621
>
>
>
> (813) 828-0459   Phone
>
> DSN 968-0459
>
> (813) 828-2212   FAX
>
>
>

APPENDIX D

PUBLIC COMMENTS

May 22, 2007

Attn: 6 AMW Public Affairs, 8209 Hangar Loop Drive, Suite 17, Macdill AFB, FL 33621-5502

RE: Construction of a 20-Slip Boat Dock Structure / PUBLIC COMMENT

I "**STRONGLY OPPOSE**," any Dock adage changes to the inlet basin of Raccoon Creek as described in your petition for the following reasons that would cause a "MAJOR IMPACT" on a protected natural resource and environment. Your claims for the need are not supported nor substantiated.

My reasons are as follows:

1. The public notice is deficient in scope. It does not relate the true size, meaning Alternative #1, as 3100 square feet of surface area dockage over water, at 400 feet of floating dockage in length at 6 feet wide, and then 11 fingers of additional dockage at 30 foot in length at 1-1/2 feet wide, extending perpendicular with full electric and water through out the dock. This is "not" a minor construction project which limits 300 feet of dock. This is a large standard construction full service dock project with MAJOR IMPACT that covers nearly 30% more of the surface water inlet basin. This petition fails to prove or contain any real substance or necessity needed for a change other than, as described over and over in the full petition for the pleasure of Base personnel as "38 Base personnel on the waiting list to place their "PERSONAL" watercraft at dockage" which would be constructed at Tax Payers Expense. Alternative #2 is just as destructive, as ripping up seawalls or adding more causing natural erosion.

2. This 1st Alternative plan fails to fully estimate or disclose the full cost associated with full construction of a floating dock. At this time the DOD is spending in excess of $2 Billion dollars a week on the War in Iraq, and this is another example of Waste and Abuse of Tax Payer Federal Funding by our military. The military continues to squander tax payer monies on personal pleasures. We do support this action, of a proposed 400 ft floating dock /Yacht Club with full utilities for the select privileged.

3. In the first place, I find the Base's actions illegal for dredging Raccoon Basin inlet just a year ago, for reasons the base claims in the full petition,

that were needed because of increased boat activity. It is a MAJOR IMPACT to carve out a protected inlet / wetlands to facilitate a full service marina as you are proposing. This is a violation as described in EO / 1990 "Protection of Wetlands 1977. In this policy, "the Base is required to avoid long and short term adverse impacts or destruction or modifications of wetlands and to avoid direct or indirect support of new construction in wetlands where ever there is a practical alternative." This area is not large enough to support your dock proposal and you do have other alternatives such as Port Tampa area, Ballast Point Park ramp, Davis Island boat ramps and private storage facilities in the entire bay area. This proposal would be in violation, as the Base has not thought through or exercised many other alternatives. Your proposed dock project is too large in scope for this small of an inlet area to support. Such proposed activity would cause "MAJOR DESTRUCTION and IMPACT to the environment, wildlife and sea creatures and habitat in the entire water basin. Sea life including manatees, sea turtles, spiny lobsters, scallops, stone crabs, sea shell, snails, shrimp, red drum, grey snapper, Spanish mackerel, mullet, redfish, bone fish and snook.

But ironically now, because of the previous Base dredging as mentioned of the creek channel and basin, the Base now claims in the petition that, "since the basin bottom is so deep now approximately 12 feet and permanently inundated and no longer supports emergent vegetation, that the area is now a deep water habitats with wetlands along the margins." I find this Base action as a "planned execution and systematic destruction of natural wetlands and sea grass bottoms for your personal pleasures." But now the Base claims that it would not impede any shallow grass bottoms. Of course not, you already destroyed them with your dredging in the last few years. The Base should immediately restore this natural habitat as it once was.

Your continued systematic destruction of natural wetlands in the Raccoon Creek Basin causes more unnatural drainage for supporting mangroves in shallow waters that will impede the natural water flow and tidal currents for sea life to flourish. The shoreline will continue to deteriorate and erode with increased boat traffic and boat wake destruction. Plus this project increases "MAJOR" increased power boat activity that would create increased murky water quality that would in turn destroy more natural breeding grounds in sea beds, which need sunlight to flourish. These are natural habitats for sea life. One gallon of spilled gasoline would destroy 1 million gallons of water habitat.

I am astonished, that in this public document at 4.1.10 page 34, the Base claims, that by adding a floating 400 ft dock and 20 more boat slips from 27 to 47, the total boat activity would still only be "6 boats total for an entire weekend." I find this GROSSLY MISLEADING and an UNDERSTATEMENT of the projected facts. Just ask the 38 people on the waiting list how often they will be going boating. Your minimal claims of 6 boats on a weekend are contradictory for any additional need to increase more dock space other than a place for boats to park. Unused boats in wet slips are a hazardous disaster in waiting. Keep them dry docked. Your needs are not valid according to your own claims and language in your petition.

4. This proposed action of driving dozens and dozens of 10 inch diameter pilings into shellfish seabed's as deep as 10 feet, would cause a "MAJOR IMPACT" to the small area described. Driving pilings into this area would destroy sea bottoms, a natural habitat for many fish spawning, crabs, breeding, feeding or areas for habitat for growth. This is a natural estuary, which Raccoon Creek is part of the Tampa Bay Estuary, regulated under Magnuson- Stevens Fishery Conservation and Management Act. Neither destroying more habitats for Base Personnel's personal pleasure is not practical nor a smart ecological plan. This would also violate the Environmental Justice Management of Flood Plains Act.

5. This size of 400 linear feet of dock at 6 feet wide, then 11 fingers stretching 30 feet long perpendicular from the 400' dock, only encourages larger water craft and power boat usage, including, live aboard activity, because this proposal includes water and electricity extended out to each finger. The plan does not describe how that activity, which includes large holding tanks on boats for human waste will be disposed of. The plan fails to prove how it is going to handle human waste and discharge from the larger watercraft. The Plan also fails to mention the left / west side of the dock which does not have fingers, would accommodate larger boats in excess of 30 feet, but fails to describe a full details the description of the real boat activities that would occur.

6. Over and over the draft falsely claims "No Significant Impact," but in reality the size of the dock and enhancements tells a different story. This dock of 400 feet at 6 feet wide and adding 11 finger docks at 30 feet by 1-1/2 feet is so large it covers 3100 square feet as stated in the document. By looking at the map, the proposed dockage appears to take up as much as

30% more of the entire available inlet Raccoon water basin. The proposed dock is nearly stretched out into the opening of the Raccoon Creek Basin. As a boater with many years of experience, this would only cause more boat congestion, and possible boat accidents, hazardous spills, safety factors for human and nature. Increased power boat activity will also cause muddy & murky water, as props churn up the muddy bottom and continue to scar sea grass areas as well as injure protected manatees. This murky water will confuse or trap manatees, in and around the entire basin and dockage areas. Calves may lose track of their mothers. You need to focus on what a structural monstrosity the under water view of the pilings would look like in this only 12 feet of depth. Besides, watercraft on every dock point with drafts 3 feet or more deep for power boats plus added and exposed propellers and props, and 4 to 6 feet more for drafts by sailboats. This is a "MANATEE NIGHTMARE" where Manatees could become trapped and entangled in boat lines, dangling bait buckets, and fishing line from dock usage. The proposed dockage only encourages increased fishing from the dock and more lost lures and tackle, which we know are harmful to marine life. This study fails to mention preventative measures to protect this sea life. Besides this plan is located on Base property, law enforcement by public officials will be hampered or eliminated. The base fails to mention any law enforcement coordination, or oversight of Marine enforcement activities.

7. Manatees are an endangered species, and protected under the Endangered Species Act (ESA.) This dock proposal upsets the balance of nature, causing more seabed erosion, mangrove erosion due to boat wake and boat hazardous materials such as oils and gasoline, bottom paint deterioration and flaking which settles on the bottom where sea life feeds. This would have a "MAJOR IMPACT" of the water quality and clarity, and disrupt normal breeding, calving patterns and feeding since the water would become murky, and there would be a greater impedance of natural steady water flows into the basin to clear this problem up.

8. This location of Raccoon Creek Basin is located on the southern tip of the peninsula which is located in the flood plain of only 4 ft storm surge Flood Level A. This area would be the first hit in a natural disaster of a CAT 1 Hurricane which would cause storm surge up to 7 feet as described by Hillsborough County Evacuation Zones. This plan fails to describe the maximum height of the driven pilings, which could handle even a CAT 1 storm surge of up to 7 feet and where this floating dock would be floating

off to, with boats tangles and attached. This would be a MAJOR DISASTER for this small area. CAT 2 is described as much as a 13 ft storm surge, Cat 3 as an 18 ft surge. This proposed plan fails to mention any plan involving any storm surge, or disaster plan to handle boat evacuation and placement if a storm or Hurricane would occur. Besides the handling of hazardous waste and chemical spills of boats sinking or damage from high winds, this plan fails to predict how the dock would handle this many large boats in high winds or surge. This is an open area highly exposed to the bay and winds. This study claims in 6.2 page 37 that regarding hazardous materials, "That no appreciable materials or wastes are expected to be generated under proper action." But the Base fails to provide procedures to handle this waste and hazardous materials.

The entire parameter around the base has a water buffer of 1000 yards perpendicular to the shoreline, as described in actions after 9-11-2001 to eliminate any regular public boat traffic coming close to the base. This study fails to mention if any boat traffic from this marina area is subject to the same scrutiny, as civilian boaters. Many Tampa area boaters used to fish in these areas, and lost all of this access after 9-11. As a good faith effort by the MAFB, I would encourage this entire parameter area of 1000 yards buffer to be officially designated as a "Conservation Easement." We are all interested in the health of the bay, Florida's largest natural estuary, and the sea grass areas that are a vital part of marine life spawning, breeding and feeding. This area is very sensitive and protection would only encourage more nature and water foul to the area. It's time to do the right thing.

Summary,

I STRONGLY OPPOSE any changes to this Proposed Draft to install any more dockage, as described above and especially this large grand scale of 400 feet project. The cumulative impact is a MAJOR IMPACT causing more environmental stress. Increased boat activity means more problems. The base has failed to give any real data to support such actions other than 38 people need a place to park their boats, and at Tax payer's expense. I think not. The hazards of increased boat activity and chemical spills in this small protected area would totally destroy the area if an incident would occur. The proposed dockage pilings are destructive; lessen the surface area for sunshine to support marine grasses and vegetation to grow. This translates into a mass reduction in marine life protection breeding and feeding. The Raccoon Basin is a natural resource and should remain the

same. It seems that the Base has violated EO / 1990, Protection of Wetlands May 1977 policy. Where as "the Base is required to avoid long and short term adverse impacts or destruction or modifications of wetlands and to avoid direct or indirect support of new construction in wetlands where ever there is a practical alternative." The Base has failed to explore many other alternatives as I've described in point # 3. Any increased urban noise, boat congestion and traffic including human and hazardous wastes would only deteriorate this inlet basin further. I would encourage the base to restore the basin to the natural state that it was originally found. This natural estuary is essential to support habitat of many species, spawning, breeding, nursing, feeding, and create a protection area for juvenile fish and seasonal habitat for Adult species. This proposed action would impede, alter, and divert the change in water flows and water surface area exposures to necessary sunlight for natural sea grasses. It would create stagnant water areas, and damage water quality, by engine exhaust and oils spilling on water surface areas washing up into protected mangroves where fiddler crabs habitat and fish such as snook breed and feed. It is already a know fact that many fish in the Tampa Bay are not edible, but filled with many toxins. We need to protect the remaining natural areas to support the life of the bay. We need to protect the aquatic habitats and balance of indigenous biological communities of sea life and nature. The survival of the bay begins at the shoreline. We have the ability control most human actions by what we today and to restore the destruction from yesterday.

I do "NOT SUPPORT" an additional 20 wet slip floating dock for Raccoon Creek Inlet Basin. And I encourage all other local, county and federal, EPA, wildlife, fishery and waterway management agencies to closely look at this proposal, and scrutinize this proposed plan.

In addition to this summary, MAFB is currently under a cloud of suspicion and investigation for accepting Federal Funding last fall in excessive of $444 Million dollars for infrastructure construction. The Base's current Mission of the KC-135RRefueling Wing, is running in violation of excessive 65dB DNL over residential neighborhoods as described in the 2006 City of Tampa/ MAFB JLUS (Joint Land Use Study) noise contour maps. In order to receive federal funding the Base's current mission must be compatible and in 100% compliant, and currently it is not. So accepting or using more Federal Funding for construction projects in violation of Federal laws, will also be subject to additional investigation and scrutiny. I would advise your committee to see MAFB Rex A. Temple, MSgt, USAF Deputy Inspector

General at 813-828-4961, for these details in internal document Acts Case # ???.

Thank- You,

Michael Waite
6213 South Kelly Road
Tampa, Florida 33611

Massacre at MacDill

Monday, July 10th, 2006

60 years ago...

July 10, 1946 – MacDill Field declares war against large, swarming mosquitoes when a specially outfitted C-47 transport plane is sent carrying a 20% DDT solution mixed with diesel oil to spray the field. An additional plane also arrived loaded with 650 gallons of the spray, which would be poured over more than 550 acres. The last time DDT was sprayed over MacDill, in 1945, a storm of protest was raised when it appeared that waterfowl were killed. An Army investigation, however, resulted in a finding that DDT did not factor into the death of these birds.

Courtesy of the Tampa Bay History Center.

This historical activity described above here, reminds us living here in South Tampa, that attitudes and lack of respect of our land areas have not changed much since then, as it relates to the Base and it's attempt to "Do What Ever it Takes Attitude for MacDill to survive. Even at the expense of man and nature. MacDill is just one Air Force Base that is NOT exempt from the laws of our constitution or given special privilege. The Base has a long history of changing missions and purposes. The personnel working at MacDill are fine dedicated employees of the armed forces. They typically do not have a personal stake as to the matters or outcome in this case, as they are rotated in and out, or where ever their military careers take them. And that also goes for the Base Commanders which are regularly rotated in and out. However, we living in Ballast Point do have a personal and financial stake of the outcome by the actions of the Base, and it is our concern that we continue to exercise our opportunity to address important environmental issues such as these.

Michael Waite / Ballast Point / Flight Path Resident

APPENDIX E

STANDARD MANATEE CONSTRUCTION CONDITIONS

STANDARD MANATEE CONSTRUCTION CONDITIONS

1. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).

2. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. The permittee and/or contractor may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.

3. Siltation barriers shall be installed and shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be monitored regularly to avoid manatee entrapment. Barriers shall not block manatee entry to or exit from essential habitat.

4. All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in water where the draft of the vessel provides less than four feet clearance from the bottom and that vessels shall follow routes of deep water whenever possible.

5. If a manatee is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the permittee/contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

6. Any collision with and/or injury to a manatee shall be reported immediately to the "Manatee Hotline" at 1-888-404-FWCC (1-800-404-3922). Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) in south Florida.

7. Temporary signs concerning manatees shall be posted prior to and during construction/dredging activities. All signs are to be removed by the lessee/grantee upon completion of the project. A sign measuring at least 3 feet by 4 feet which reads Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8 1/2 inches by 11 inches, which reads:

Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of the operation. A collision with and/or injury to a manatee shall be reported immediately to the Florida Marine Patrol an 1-888-404-FWCC (1-800-404-3922) and the U.S. Fish and Wildlife Service at (1-904-232-2580) for north Florida or (1-561-562-3909) for South Florida.

8. 0 permanent manatee awareness sign(s) shall be installed and maintained at the docking facility. The sign shall be three feet by four feet, 125 gauge 61TS aluminum, covered with white, engineer grade, reflective sheeting; black, painted lettering; black screened design; and orange, engineer grade, reflective tape border. The 3 feet wide by 4 feet long sign shall conform to the Florida Uniform Waterway Marking System in accordance with F.S. 327.40-1. The installation of the sign shall be made in accordance with DEP specification for such signs.