

N00213.AR.001536
NAS KEY WEST
5090.3a

ENVIRONMENTAL ASSESSMENT REPORT FOR CONSTRUCTION OF TWO 20,000
BARREL FUEL STORAGE TANKS BOCA CHICA NAS KEY WEST FL
10/01/1998
NAVFAC SOUTHERN

ENVIRONMENTAL ASSESSMENT



CONSTRUCTION OF TWO 20,000 BARREL FUEL STORAGE TANKS NAVAL AIR STATION BOCA CHICA KEY, FLORIDA

October 1998

SUMMARY

1. TYPE OF REPORT

Environmental Assessment (EA)

2. NAME OF ACTION

Construct two 20,000-barrel capacity, above ground fuel storage tanks at Naval Air Station (NAS) Key West, Boca Chica Key, FL.

3. PURPOSE AND NEED

The purpose of providing a fuel tank storage capacity of 40,000 barrels is to supply JP-5 aircraft fuel to meet peacetime operating stock as well as prepositioned war reserves at NAS Key West, Boca Chica Key. Currently there are only four fuel storage tanks available with a total storage capacity of 22,500 barrels. These tanks are about forty years old, require significant repairs, and lack adequate spill containment. New storage tanks will be needed to meet mission requirements.

4. PROPOSED ACTION

The proposed action is to construct two 20,000-barrel capacity tanks for the storage of JP-5 fuel. The design of the fuel storage tanks to meet the 40,000 barrel fuel storage requirement was based on NAVFAC Design Manual DM-22 "Petroleum Fuel Facilities" for construction on approximately 2 acres of available land within the 8.5 acre tank farm. Each tank will be above ground and constructed of welded steel plates with a fixed roof and floating pan. Each tank will be constructed on a pile supported concrete foundation. Impervious berms with spill and overflow protection, oil/water separators, security fences, and lighting will be provided.

5. ALTERNATIVES INCLUDING THE PROPOSED ACTION

The proposed action, one alternative, and the no action alternative are addressed. Areas, outside the fuel farm at Boca Chica Field, were considered for possible alternative sites. However restrictions from airfield safety zones adjacent to runways and taxiways, wetlands, threatened and endangered species habitat, and fire safety distance restrictions eliminated other feasible sites. A six-mile underground, pipeline from a fuel contractor's supply tanks, located at NAS Key West, Trumbo Point Annex, supplies JP-5 fuel to the Boca Chica Field tank farm. To either relocate or extend this pipeline to another site at Boca Chica Field would increase the project cost and pipeline relocation could impact wetlands and/or threatened and endangered species habitat. Therefore fuel tank alternatives at Boca Chica Field are limited to the existing tank farm location.

Alternative -Renovate and modernize the Existing Fuel Tanks and Build an Additional New Tank

This alternative would utilize the existing four JP-5 fuel tanks, with a total capacity of 22,500 barrels, and construct a new tank with a total capacity of 17,500 barrels. This combination would meet the total required capacity of 40,000 barrels of JP-5 fuel storage Boca Chica Field. A 1996 NAS Key West tank farm study (Greiner, Inc.) examined the feasibility of repairing the four existing fuel tanks. The study concluded that repair costs of the tanks would exceed 50% of the replacement costs and the repairs would extend the usable life of the tanks for about 10 additional years. This alternative is not economically viable.

Proposed Action -Construct Two 20,000 Barrel Fuel Storage Tanks

The proposed action is to construct two 20,000-barrel capacity tanks for the storage of JP-5 fuel. The design of the fuel storage tanks to meet the 40,000 barrel fuel storage requirement was base on NAVFAC Design Manual DM-22 "Petroleum Fuel Facilities" for construction on approximately 2 acres of available land within the 8.5 acre tank farm. Each tank will be aboveground and constructed of welded steel plates with a fixed roof and floating pan. Each tank will be constructed on a pile supported concrete foundation. Impervious berms with spill and overflow protection, oil/water separators, security fences, and lighting will be provided

No Action Alternative

The "No Action" alternative would not provide the required JP-5 fuel storage. The Navy's peacetime operating stock and pre-positioned war reserve requirements for Boca Chica Field will not be met. This will affect air mission readiness in the Key West area. The existing four fuel tanks are inadequate in capacity, condition, and do not meet federal and state spill prevention control countermeasures regulations. Further the current situation will violate the Fla. Admin Code ch 62.762(1997) if corrective action is not in place by December 31, 1999.

6. SUMMARY OF ENVIRONMENTAL IMPACTS

The impact analysis focuses on components of the physical, biological, and socioeconomic environments susceptible to direct or indirect impacts and addresses only those aspects that are necessary to understand and evaluate the potential effects of the proposed action. Topics examined include soils, surface and ground water, air quality, noise, biological environment, wetlands, threatened and endangered species habitat, and the socioeconomic environment including land use, utilities, and archaeological and historic resources. Other environmental components not discussed were not considered to have the potential to be significantly affected by the proposed action. The following impact summary focuses on the potential impacts of the proposed action to construction two new 20,000-barrel fuel storage tanks.

Physical Environment

The proposed action should not result in any long-term impacts to the physical and structural characteristics of the soils, geology, or topography. Stormwater runoff erosion and sediment controls will be implemented to minimize impacts from construction. Typical erosion control measures will include mulching over exposed soils, installing silt fences along the downstream boundaries of exposed soil areas, and placing hay bales in drainageways to prevent sediments from leaving the construction site. Site layout and design for stormwater runoff management will be in accordance with Fla. Stat. Ch 373 (1997). Modern methods of emission control and dust emission prevention will mitigate the effects of construction air emissions. Only short-term air quality impacts associated with the construction of the proposed facilities will occur. Exhaust from construction machinery and truck traffic will be a minor source of air pollutants since these exhaust emissions will be of relatively small quantities and of limited time to complete the construction. Air quality control rules of the State of Florida regarding fugitive dust emissions will be implemented. Noise from construction activities will have a short-term nuisance impact on the immediate vicinity, but permanent or long-term impacts related to operation of the proposed facilities are not expected. The closest sensitive receptor to the proposed construction site is the bald eagle nesting site, which is within approximately 165 feet. Construction will only begin after the bald eagle has vacated the nest and will be completed before the bald eagle begins nesting again.

Biological Environment

The proposed action will not significantly impact birds, mammals, reptiles, or amphibians on-site due to little or no habitat to harbor these species. Short-term impacts to species adjacent to the proposed site may include displacement of these species due to construction noise. No wetlands exist on-site. Silt fencing should be placed around the construction site to avoid impacts, such as soil erosion, to adjacent wetlands. State and federally listed threatened and endangered species will not be significantly impacted from the proposed construction. The bald eagle and the lower keys marsh rabbit are the only listed species found near the project area. Since the bald eagle nesting season, begins near the first of October and extends through the middle of May, construction of the fuel tanks could begin during the middle of May, providing no bald eagles are present, and extend through the first of October. The lower keys marsh rabbit and its habitat will not be impacted from the proposed project. Vegetative corridors, which are adjacent to the proposed site, will allow rabbits to travel between areas of critical habitat.

Socioeconomic Environment

The Florida Department of State, Division of Historical Resources has reviewed the proposed project site and indicates that no significant archaeological or historical sites are recorded or likely to be present within the project area. There will be no significant impacts to current land use, utilities, population, vehicular traffic, or the local economy.

TABLE OF CONTENTS

	DESCRIPTION	<u>PAGE</u>
1.0	PURPOSE AND NEED FOR ACTION.....	1
1.1	Purpose and Need.....	1
1.2	Site Location.....	1
2.0	ALTERNATIVES INCLUDING THE PROPOSED ACTION	1
2.1	Renovate & Modernize the Existing Fuel Tanks & Build Additional Tank	1
2.2	Construct Two 20,000 Barrel Fuel Storage Tanks.....	2
2.3	No Action.....	2
3.0	EXISTING ENVIRONMENT.....	3
3.1	Site Description.....	3
3.2	Site History.....	3
3.3	Surrounding Land Surface Features.....	6
3.4	Soils and Geology.....	6
3.5	Hydrology.....	6
3.6	Air Quality.....	7
3.7	Noise.....	7
3.8	Biological Resources.....	8
3.9	Cultural Resources.....	10
4.0	ENVIRONMENTAL CONSEQUENCES.....	11
4.1	Alternative Evaluation.....	11
4.2	Alternative – No Action.....	11
4.3	Alternative – Repair Existing Tanks and Construct New Tank.....	11
4.4	Proposed Action – Construct Two New Tanks.....	12
4.5	Direct Effects and Their Significance.....	12

4.6	Physical Resources.....	14
4.6.1	Soils, Geology, and Topography.....	14
4.6.2	Hydrology.....	14
4.6.3	Air Quality.....	14
4.6.4	Noise.....	15
4.6.5	Potential Existing Contamination.....	15
4.7	Biological Resources.....	15
4.8	Cultural Resources.....	16
4.9	Cumulative Impacts.....	16
4.10	Compliance with Various Land Use Policies and Controls.....	16
4.10.1	National Environmental Policy Act (NEPA).....	16
4.10.2	Clean Water Act.....	16
4.10.3	Clean Air Act.....	17
4.10.4	Fish and Wildlife Coordination Act.....	17
4.10.5	Bald Eagle Protection Act.....	17
4.10.6	Endangered Species Act.....	17
4.10.7	National Historic Preservation Act.....	18
4.10.8	Coastal Zone Management.....	18
4.10.9	Local Land Use Plans.....	18
4.10.10	Floodplains.....	18
4.10.11	Wetlands.....	19
4.10.12	Prime and Unique Farmland Soils.....	19
4.10.13	Pollution Prevention Act of 1990.....	19
4.10.14	Oil Pollution Act of 1990.....	19
4.10.15	Coastal Barrier Resources.....	19
4.10.16	Environmental Justice.....	20
4.10.17	Marine Protection, Research, and Sanctuaries Act.....	20
4.10.18	Resources Conservation and Recovery Act (RCRA).....	20

4.11	Irreversible and Irretrievable Commitment of Resources.....	20
4.12	Relationship Between Short-Term Uses and Long-Term Productivity.....	21
4.13	Adverse Environmental Impacts Which Cannot Be Avoided Should the Proposed Action Be Implemented.....	21
4.13.1	Physical Resources.....	21
4.13.2	Biological Resources.....	21
4.13.3	Socioeconomic Resources.....	21

5.0 REFERENCES

TABLES

1	Current and Past Fuel Storage Facilities at Boca Chica Tank Farm
2	Alternative Evaluation Matrix

FIGURES

1	Project Location Map
2	Project Site Map
3	Threatened and Endangered Plant Map
4	Threatened and Endangered Species Map
5	Historic and Archaeological Sites Map
6	Eagle Management Zones

APPENDIX

A	Federal & State Listed Threatened, Endangered and Candidate Species that Occur or Potentially Occur on the Naval Air Station, Key West, FL.
B	General Correspondence

1.0 PURPOSE AND NEED FOR ACTION

1.1 Purpose and Need

The purpose of providing a fuel tank storage capacity of 40,000 barrels is to supply JP-5 aircraft fuel to meet peacetime operating stock as well as prepositioned war reserves at NAS Key West, Boca Chica Field. Boca Chica Field currently has four inadequate JP-5 fuel storage tanks that provide only a total of 22,500 barrels of storage capacity. Two of these tanks are 37 years old and the other two 45 years old. All four tanks are in poor physical condition and lack adequate spill containment measures required by federal and state regulations. The Navy proposes to provide the required storage tanks at Boca Chica Field to meet this need.

1.2 Site Location

Naval Air Station, Boca Chica Field, Key West is located on Boca Chica Key, Monroe County, Florida, approximately 150 miles southwest of Miami. The primary mission of NAS Key West is to serve as a pilot training facility for transient tactical aviation squadrons. Users of NAS Key West include active and reserve Navy fighter/strike fighter communities and other military service users. NAS Key West comprises the Navy's largest unencumbered airspace for training on the East Coast. Figure 1 shows the location of the proposed site on a vicinity map and area site map.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

This section describes the proposed action, one alternative, and the No Action alternative. Alternatives considered were limited to the existing NAS Key West, Boca Chica Field tank farm area for the following reasons:

A six-mile underground, pipeline from a fuel contractor's supply tanks, located at NAS Key West, Trumbo Point Annex, supplies JP-5 fuel to the Boca Chica Field tank farm. To relocate or extent this pipeline to another site at Boca Chica Field would increase the project cost and could impact wetlands and/or threatened and endangered species habitat.

Areas, outside the Boca Chica Field fuel farm location were eliminated because of the presence of incompatible airfield safety zones, building fire/safety distances, wetlands, and threatened and endangered species habitat.

2.1 Renovate and Modernize the Existing Fuel Tanks and Build an Additional New Tank

This alternative would utilize the existing four JP-5 fuel tanks, with a total capacity of 22,500 barrels, and construct a new tank with a total capacity of 17,500 barrels. This combination would meet the total required capacity of 40,000 barrels of JP-5 fuel storage at Boca Chica Field. A 1996 NAS Key West tank farm study (Greiner, Inc.) examined the feasibility of repairing the four existing fuel tanks. The study

concluded that repair costs of the four tanks would exceed 50% of the replacement costs and the repairs would extend the usable life of the tanks for about 10 additional years. This alternative is not economically viable and does not meet the long-term requirement of providing the 40,000-barrel capacity storage for JP-5 fuel.

2.2 Construct Two 20,000 Barrel Fuel Storage Tanks

The proposed action is to construct two 20,000-barrel capacity tanks for the storage of JP-5 fuel. The design of the fuel storage tanks to meet the 40,000-barrel fuel storage requirement was based on the NAVFAC Design Manual DM-22 "Petroleum Fuel Facilities" for construction on approximately 2 acres of available land within the 8.5-acre tank farm. Each tank will be aboveground and constructed of welded steel plates with a fixed roof and floating pan. Each tank will be constructed on a pile supported concrete foundation. Impervious berms with spill and overflow protection, oil/water separators, security fences, and lighting will be provided. Once the new tanks are in place and in operation, the existing four tanks will be taken out of service and a project will be submitted to demolish these tanks. Figure 2 shows the location of the new fuel tanks.

2.3 No Action

The "No Action" alternative would not provide the required JP-5 fuel storage. The Navy's peacetime operating stock and pre-positioned war reserve requirements for Boca Chica Field will not be met. This will affect aircraft mission readiness in the Key West area. The operating condition of the existing fuel tanks would not federal and state spill prevention control measures requirements. Further the current situation will violate the Fla. Admin Code ch 62.762 (1997) if corrective action is not in place by December 31, 1999.

3.0 EXISTING ENVIRONMENT

3.1 Site Description

The construction site of the two 20,000 barrel, JP-5 fuel storage tanks is located at the NAS Key West, Boca Chica Field, tank farm. The Boca Chica Field tank farm occupies approximately 8.5 acres in the southwest portion of NAS Key West, Boca Chica Field. Presently, there are seven aboveground storage tanks (ASTs) at Boca Chica Field. Five of the tanks store JP-5 fuel and two small tanks store waste oil. Figure 2 is a site plan of the fuel farm at Boca Chica Field.

The ground surface of the tank farm is mostly flat, with the exception of 8-foot high earthen berms surrounding the large above ground tanks. The tank farm is unpaved area. Ground elevation at the site is less than 5 feet above mean sea level. Low-lying areas border the southern and western borders of the tank farm. A paved access road leads from the entrance to an asphalt parking area in the northeast corner of the tank farm. There is a gravel road along the southern side of the site outside the fence. Several buildings and other structures are located in the northeast portion of the site. Building A-930, located north of the asphalt parking lot, is used as a fuel farm office. Building A-933, located at the eastern side of the berms surrounding the JP-5 above ground storage tanks, is used to house fuel piping. Building A-4010, located approximately 15 feet southeast of Building A-930, is used for tool and other miscellaneous equipment storage. A filter storage building is located approximately 25 feet east of Building A-4010. A fuel circulation stand is located approximately 40 feet west of Building A-930. A fill stand is located in the east-central portion of the tank farm. There are three firewells within the site boundaries. One firewell is located along the west side of Building A-930; the other two are located along the eastern fence line.

3.2 Site History

The Boca Chica Field tank farm has been in operation since 1942. The tank farm has been used to store jet fuel, aviation gasoline (AVGAS), waste oil, diesel fuel, and unleaded gasoline. Information on former and current tanks is provided in Table 1.

There have been at least ten recorded spills at the tank farm since 1975. However the location of only six of these spills have been identified. Five of these six spills are shown on Figure 2. No documentation has been found to verify the number and types of spills, which occurred prior to 1975. Of the ten recorded spills, the largest occurred in 1975 when 39,000 gallons of aviation gas was released from tank A-959 but was contained within the fuel tank berm. Of the remaining nine recorded spills, all were approximately 50 gallons except for one in the 200 to 300 gallon range.

The Boca Chica Field tank farm has been the subject of two contamination assessment studies to determine the extent of past spills that occurred at the tank farm. In 1994 a preliminary contamination assessment (PCA) was performed at the Boca Chica Field tank farm to identify any areas of soil petroleum contamination. The PCA study was

based on analyses of soil samples from 89 soil borings. The PCA report indicated widespread soil petroleum contamination and recommended a follow on contamination assessment study of the tank farm soil and groundwater.

In 1996 a contamination assessment (CA) study was conducted to determine the degree and extent of soil and groundwater contamination by petroleum product resulting from the various discharges which occurred at the tank farm site between 1975 and 1993, and to determine the factors controlling contaminant migration. Fifty soil borings and 10 monitoring wells were constructed. Groundwater elevations in the monitoring wells were recorded to determine the groundwater flow directions. The CA study stated the following conclusions:

The tank farm had been contaminated by petroleum (Kerosene Analytical Group). However no free petroleum product was detected in any of the soil borings or monitoring wells at the tank farm.

Based on the findings of the CA study and applicable federal and state regulations, no remediation was required.

In August 1997 sections of obsolete underground fuel pipelines along the west side of the tank farm were removed. November 1997 Closure Assessment Report stated petroleum contaminants were detected in the soil at various locations along the removed pipeline route and at two valve areas. The contamination was intermittent and but high levels of petroleum contamination were measured. A Contamination Assessment Report will be prepared to address the need for remediation.

Table 1
Current and Past Fuel Storage Facilities
At Boca Chica Field Tank Farm, Naval Air Station Key West, FL.

TANK NO.	TANK CAPACITY	CONTENTS	INSTALL. DATE	TYPE CONSTR.	STATUS
A-4109	4,000 gal	Waste Oil	1987	Steel, Aboveground	Removed 1995
A-4010	185 gal	JP-5 Jet Fuel	Unknown	Steel Aboveground	In Use
A-924	24,600 gal	Waste Oil	1951	Steel Aboveground	Removed 1996
A-925	24,600 gal	Waste Oil	1951	Steel Aboveground	Removed 1996
A-929	560 gal	Unknown	Unknown	Steel Underground	Removed 1997
A-938	239,000 gal	JP-5 Jet Fuel	1953	Steel Aboveground	In Use
A-944	238,000 gal	JP-5 Jet Fuel	1953	Steel Aboveground	In Use
A-945	213,000 gal	JP-5 Jet Fuel	1957	Steel Aboveground	In Use
A-958	298,000 gal	JP-5 Jet Fuel	1961	Steel Aboveground	In Use
A-959	298,000 gal	JP-5 Jet Fuel	1961	Steel Aboveground	Removed 1996
A-902	500 gal	Diesel	Unknown	Steel Aboveground	In Use
A-926	50,000 gal	AVGAS	Unknown	Aboveground	Removed Early 1980's
A-927	50,000 gal	AVGAS	Unknown	Aboveground	Removed Early 1980's
A-928	100,000 gal	AVGAS	Unknown	Aboveground	Removed Early 1980's
924A	10,000 gal	Waste oil	1996	Steel/dbl wall Aboveground	In use
925A	10,000 gal	Waste oil	1996	Steel/dbl wall Aboveground	In use

3.3 Surrounding Land Surface Features

The fuel farm is bounded on the north and south by undeveloped land with mangroves, on the east by a paved aircraft taxiway, and on the west by undeveloped land and a building (Bldg. A-986) located approximately 200 feet west of the northwest corner of the tank farm. A lagoon is located within 50 feet of the southwest corner of the tank farm.

3.4 Soils and Geology

The tank farm is situated on Miami Limestone (or Miami oolite) covering all the Lower Keys. The Miami Limestone formation is thinner in the south and thickens northward. In Key West the oolite is probably less than 20 feet thick. The greatest known thickness is 35 feet at Stock Island (north of Key West).

The geology of the tank farm site may be characterized from the data taken from soil borings and installation of monitoring wells during a 1996 CA study. The surficial aquifer material may be generally classified as a mixture of unconsolidated oolitic sand, light gray, non-plastic clay, and limestone gravel, to a depth of approximately 3 feet below land surface, and light gray oolitic limestone to a depth of 30 feet below land surface.

The residue soils have primarily accumulated as a result of chemical and physical weathering of the oolitic limestone.

There have been no recorded earthquakes of local origin within the Florida Keys although minor shocks have been felt from earthquakes in the Caribbean. The proposed project site lies within Zone 0 of the applicable building codes (National Building Code, Uniform Building Code, and South Florida Building Code). Zone 0 areas are those with no potential for earthquake damage.

3.5 Hydrology

Two aquifer systems are present beneath Monroe County, the surficial aquifer system and the Floridan aquifer system. The Hawthorn confining unit separates these aquifer systems from one another. The top of the Floridan aquifer is estimated to be at least 800 feet below land surface (BLS). However, in south Florida the Tamiami Formation acts as a confining unit. The Tamiami Formation is composed of limestone, clay, and marl, and forms the upper part of the basal confining unit of the surficial aquifer. The depth of the Tamiami Formation in the lower Keys is estimated to be approximately 200 feet BLS. The surficial aquifer system is present beneath all of the keys; however, on most of the keys the aquifer contains salt or brackish water. The water quality of the Floridan aquifer system is poor throughout all of Monroe County and decreases in quality to the south. There is no source of large quantities of potable groundwater in the Florida Keys. Drinking water to the Florida Keys is supplied by wellfields in Dade County and is delivered by the Florida Keys Aqueduct Authority pipeline that runs from Dade County

to Key West. Desalination plants that produce potable water from seawater provide backup capabilities. Small lenses of freshwater may exist beneath the larger keys, but these lenses can produce only very limited quantities of water.

Hydrology of the tank farm site, based on the results of the 1996 CA study, determined the groundwater table is generally encountered between 1.5 and 2.5 feet below land surface. The groundwater flow direction in the tank farm area is influenced by the tides and flows in a southwesterly direction, depending on the tidal cycle. A lagoon located within 50 feet of the southwest corner of the tank farm also indicates the groundwater flow to the southwest. Based on the hydrology of the fuel farm site, no wetlands are present. Drainage from the paved road and parking surfaces is by runoff into the unpaved areas where the run-off is absorbed through direct infiltration into the soil.

3.6 Air Quality

The Lower Keys are characterized as having a tropical maritime climate of relatively constant conditions. Annual rainfall at the Key West International Airport averages 39.7 inches, with 70 percent of it falling during May through October. The annual mean velocity for winds in this area is 11.5 mph, the lightest of which are generally between June and September. The highest wind speed on record is 122mph, which occurred during a hurricane. The Florida Keys has a greater probability of hurricane impact (one in seven) than any other Florida coastal area. The risk of hurricane force winds in any given year is calculated to be 13 to 16 percent, whereas the probability of a great hurricane with winds in excess of 125 mph is 2 percent.

Meteorological conditions that aggravates air pollution do not often occur at any one place in the state and are probably the least frequent in the Keys. The air over the Key West area is usually sufficiently unstable, a condition conducive to the development of cumulus clouds and thunderstorms, to disperse pollutants to higher levels. This fact, plus the relative consistency of the easterly trade winds, greatly reduces airborne pollutants.

Air quality is regulated by the Environmental Protection Agency (EPA). The standards of which have been documented in Title 40 Part 50 (Subchapter C-Air Programs) of the Code of Federal Regulations. On the state level, ambient air quality standards at least as stringent as the national standards have been adopted. Because of the excellent air dispersion characteristics and nonindustrialized nature of Monroe County, most pollutants are not routinely measured. Based on the 1997 ALLSUM Report of the Division of Air Resources Management, Florida Department of Environmental Protection, for Monroe County, Key West is not in violation of any of the six criteria air pollutants of the National Ambient Air Quality Standards as established by the Clean Air Act.

3.7 Noise

In 1992, an Air Installation Compatible Use Zones (AICUZ) study was completed for NAS Key West, Boca Chica Field. The AICUZ study provides details and factors used to

establish aircraft noise levels and accident potential zones. The preparation of an AICUZ study involves developing a series of noise level contours. The noise level contours are developed by a computerized simulation of aircraft activity at the installation and reflect site-specific operational data (e.g. flight tracks, type and mix of aircraft, frequency and time of flight operations). The level of sound or sound pressure levels is described in terms of A-weighted decibels (dBA). The term A-weighted means that the responses of a sound level meter has been filtered to simulate the overall response of the human ear. The proposed fuel tank project site is within the 75 dBA contour as indicated in the 1992 AICUZ study and outside the NAS Key West Fixed Wing Aircraft Clear Zone and Accident Potential Zone.

3.8 Biological Resources

The proposed site encompasses approximately 2 acres (ac) of disturbed land. The site previously included a 0.7 acre borrow pit, but since has been filled. A previous project was proposed to construct two 80,000-barrel JP-5 fuel tanks and one 40,000-barrel fuel tank on a larger project area. A permit was issued by the U.S. Army Corps of Engineers and the Florida Department of Environmental Regulation to fill 1.33 ac. of mangrove habitat, 1.78 ac. of high marsh habitat, and 0.70 ac. of open water habitat. The project was downsized to the present proposed project and only the 0.7 ac. borrow pit was filled. The accepted mitigation plan has been accomplished. Presently, no wetlands exist on the proposed site.

The dominant vegetation found on-site included railroad vine (*Ipomoea pes-caprae*), broom sedge (*Andropogon ssp.*), crowfoot grass (*Dactyloctenium aegyptium*), beggars tick (*Bidens pilosa*), and other species that reestablish on disturbed areas. No trees or shrubs exist on site. Transient birds, mammals, reptiles, and amphibians are the only species likely to be observed within the proposed project area.

The Nature Conservancy and the Florida Natural Areas Inventory (FNAI) from December 1992 through November 1993 conducted an extensive ecological survey on NAS Key West. The ecological survey included a survey for state and federally listed endangered, threatened and special concern plant and animal species. Appendix A gives a list of federal and state threatened and endangered species that occur or could occur at NAS Key West. Threatened and endangered faunal species known to occur on the installation include four federal and one state listed species. Five state listed floral species and one commercially exploited plant were also observed at NAS Key West on Boca Chica Key. Figure 3 shows the location of the state listed plant species found on Boca Chica Key. A study was conducted in 1986 to determine the presence of the silver rice rat (*Oryzomys argentatus*) on U.S. Naval property in the Lower Florida Keys. No rice rats were trapped on Boca Chica Key in 2,710 trap nights of effort, but potential habitat was delineated. Figure 4 shows the location of the threatened and endangered animal species that occur on the installation, where known habitat areas occur and where potential habitats occur. Protection of state listed rare and endangered species is not required by legal mandate; however, the Navy encourages cooperation with states and

territories to protect such species. The following are brief summaries of the federally listed species that occur on Boca Chica Key and their status.

Lower Keys Marsh Rabbit

The lower keys marsh rabbit (*Sylvilagus palustris hefneri*) is a distinct subspecies listed as endangered by the Florida Game and Fresh Water Fish in 1989 and by the U.S. Fish and Wildlife Service in 1990. The subspecies has a shorter molariform tooth row, a higher and more convex frontonasal profile, a broader cranium, and a longer dentary symphysis than the mainland and upper keys rabbits. Marsh rabbit habitat includes buttonwood transition zones (high marshes and grasslands between mangroves and upland hardwood hammocks) and fresh water marshes (Forys and Humphery 1993) A study was conducted to investigate the biology and status of the lower keys marsh rabbit on Boca Chica Key and other Navy owned land in the area. Live-trapping, radio-telemetry and fecal-pellet counts were used to determine the presence of the rabbits and the extent of habitat. Naval Air Station, Key West owns approximately 35% of the total occupied habitat. In June 1993 the population was estimated at between 150 and 400 rabbits.

Bald Eagle

The U.S. Fish and Wildlife Service reclassified the bald eagle in 1995 from endangered to threatened. The bald eagle has made a strong recovery from once being fewer than 450 nesting to pairs to now comprising approximately 4,000 adult nesting pairs within the U.S. The familiar adult bald eagle is a large brown bird with a white tail and head. Immature eagles are most easily recognized by their large size and wing span. In the southeast, the bald eagle nesting period is usually from October to May. Individual pairs return to their same territories year after year, and often territories are inherited by subsequent generations. Adult pairs lay two to three eggs once a year. Incubation extends from 31 to 45 days and eaglets usually fly within 3 months after hatching.

A pair of bald eagles is currently nesting approximately 165 ft. from the proposed project site. In 1992, this eagle nest was relocated from an old fuel tank approximately 500 ft. from its current location on a platform atop two telephone poles. No eagles nested that year or the next. Three years ago, a pair of breeding eagles nested one month late into the nesting season, leaving in July. Two years ago, the eagles nested one-month late, leaving in mid-June. In 1998 the eagles nested on schedule with two eggs hatching in December. Their departure should coincide with the conclusion of the breeding season, which is approximately mid-May.

Florida Manatee

The Florida manatee (*Trichechus manatus*) is state and federally listed as endangered. The manatee is a large, almost hairless, aquatic mammal with flippers for forelimbs and no hind limbs but has a laterally flattened tail. Manatees are occasional visitors to the extreme western Lower Keys. The Public Works Office gets several calls each year with

sightings of manatees. The marina harbor, west of Boca Chica Key, is the closest site to the proposed project site where manatees have been observed.

Roseate Tern

The roseate tern (*Sterna dougallii dougallii*) is listed as threatened by both the federal government and the state. The roseate is a slender black-capped, white tern with a pearl-gray back and mantle merging into a long, pure white, deeply forked tail. Unlike the least tern, it does not have the white forehead and is larger. The rosy tint on the breast is seldom visible. Roseate terns nest on pebbly beaches and other areas similar to the least tern, but are not found on rooftops. Nesting occurs from April to June in south Florida. Roseate terns have been observed on base, but no nests or nesting pairs have been observed on Boca Chica Key.

3.9 Cultural Resources

A 1998 Historic and Archaeological Resources Protection (HARP) Plan has been completed for NAS Key West. The HARP provides guidance for compliance with the National Historic Preservation Act (NHPA) and Federal archaeological protection legislation. The HARP identifies three archaeological sites at NAS Key West, Boca Chica Key that are eligible or potentially eligible for inclusion in the National Register of Historic Places. Figure 5 shows the location of these three sites.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Alternative Evaluation

The proposed action, one alternative, and the no action alternative were considered in determining which best met the best balance of project need, physical impact, biological impact, and socioeconomic impact. Table 2 outlines the parameters considered in determining the selection of the proposed action. The following discussion summarizes the evaluation of the proposed action, one alternative, and the no action alternative.

4.2 Alternative – No Action

If the No Action Alternative is implemented, the proposed fuel farm site will remain in its present condition. No changes to site topography, soils, vegetation, or cultural resources will occur. In addition, no disturbance to birds, mammals, reptiles, and amphibians will take place. The failure to either repair the existing tanks or build an additional tank or build new replacement tanks will prevent NAS Key West from fulfilling the mission requirement of having a capacity of 40,000 barrels of JP-5 fuel storage. The current storage capacity (22,500 barrels) can only fulfill half of the required fuel storage capacity. The existing four JP-5 fuel tanks and associated underground pipelines do not meet Federal Spill Prevention Control Countermeasures (SPCC) requirements as published in 40 CFR 112. and the Fla. Admin Code 62.762 (1997), which become effective 31 December 1999. Tank berms and spill containment areas are not impervious and tanks have experienced minor leaks. Eventual fuel spills may migrate to the adjacent wetlands and eventually to the outstanding waters of the Florida Keys. Adjacent areas to the tank farm are habitat areas for animals on the national list of threatened and endangered species. Contamination of these areas would result in violations of state and federal law. The current fuel farm does not have tank-to-tank fuel transfer capabilities, truck off-load facilities, and tank stripping and fuel filtering capabilities. Over time, it can be expected that day-to-day operation and maintenance costs plus costs to clean up contamination problems will increase.

The No Action Alternative was dismissed from further evaluation because of its noncompliance with federal and state regulations regarding the storage tanks and because potential significant impacts to the environment could result.

4.3 Alternative – Repair Existing Tanks and Construct New Tank

If this alternative were implemented the existing four JP-5 fuel storage tanks, with a total capacity of 22,500 barrels, would be repaired and a new 17,500 barrel capacity fuel tank would be built to fulfill the total storage requirement of 40,000 barrels of JP-5 fuel at Boca Chica Field. This alternative would correct spill containment deficiencies to comply with all applicable federal and state regulations. However because of the advanced age and deteriorated condition of the four existing tanks, the repair cost would exceed 50 % of the replacement cost and would only extend the usable life of these four tanks for 10 years. Some short-term disturbance of birds, mammals, reptiles, and amphibians would

result during construction activities; however long-term impacts should not result. Since a bald eagle nesting area is approximately 165 feet from the fuel farm, all construction activity would take place during the bald eagle non-nesting season. Short term impacts to topography and soils will result during construction activities only.

This alternative was dismissed from further evaluation because of the significant cost to repair the current four tanks with only a relative short life span of 10 years as a result of these repairs.

4.4 3 Proposed Action – Construct Two New Tanks

If the proposed action were implemented, two new 20,000-barrel capacity tanks would be constructed to meet the mission requirement of 40,000-barrel storage capacity of JP-5 fuel. The existing four inadequate storage tanks could be removed from service and then would be demolished by a future project. The proposed action would correct all spill containment deficiencies and comply with all applicable federal and state regulations. Some short-term disturbance of birds, mammals, reptiles, and amphibians would result during construction activities; however no long-term impacts should result. Since a bald eagle nesting area is approximately 165 feet from the fuel farm, all construction activity would take place during the bald eagle non-nesting season. Short term impacts to topography and soils will result during construction activities only.

Based on the parameters used to examine the proposed action, one alternative, and the no action alternative, as shown in Table 2, the proposed action best meets the mission requirements and the environmental concerns. The proposed action, construction of two fuel tanks, is selected for further detail evaluation.

4.5 Direct Effects and Their Significance

Direct effects are those environmental impacts that would directly be attributable to implementing the proposed action. The action proposed is the construction of two new 20,000 barrel fuel storage tanks along with piping, pumphouse, pumps, and a truck fill stand to replace existing inadequate fueling facilities. The new facilities will enable NAS Key West to adequately provide a total storage capacity of 40,000 barrels of JP-5 jet fuel storage to meet peacetime operating stock as well as propositioned war reserves. The new fuel tanks would be in compliance with Federal Spill Prevention Control Countermeasures (SPCC) requirements as published in 40 CFR 112 and the Fla Admin Code 62-762(1997). The two new tanks will be built on 2 acres of cleared land within the 8.5 acres of the tank farm. An established elevated Bald Eagle nesting site is located within 165 feet of the fuel farm. Demolition of the four existing fuel tanks is not part of the proposed action. Once the two new tanks are built, these four existing tanks would be taken out of service. A project would be submitted for the demolition of these tanks and the associated clean up.

Table 2
ALTERNATIVE EVALUATION MATRIX

CRITERIA	NO ACTION	REPAIR EXISTING TANKS & CONSTRUCT NEW TANK	CONSTRUCT TWO NEW TANKS
DESIGN-Adequate to meet mission requirements	Not Met. Existing tanks provides only half-required capacity & violates state & federal spill containment regulations.	Repaired tanks would extend tank life 10 years & cost more than 50% replacement cost. An additional 17,500 barrel capacity tank is needed to meet requirements. Not economically. feasible	Fully Met
Meets state & federal spill control measures	Not Met. Current fuel tanks in violation of state & federal spill contain measures	Fully Met. However after 10 years repaired tanks need to be replaced.	Fully Met
Minimize contamination to soil/groundwater	No Met. Tanks lack adequate spill containment. High potential for soil/groundwater contamination.	Fully Met. After 10 years repaired tanks need to be replaced.	Fully Met
Air Quality	No Significant Impact	No Significant Impact. Probably less than 500 lbs. of emissions of JP-5 fuel per year	No Significant Impact. Probably less than 500 lbs. of emissions of JP-5 fuel per year.
Noise	No impact	Short term impact during construction & repair of tanks. Construction to occur during non-nesting season of adjacent Bald Eagle nest.	Short term impact during construction of tanks. Construction to occur during non-nesting season of adjacent Bald Eagle nest.
Birds	Major spill from tanks could impact habitat of adjacent Bald Eagle nesting area.	Short term impact during construction & repair of tanks. Construction to occur during non-nesting season of adjacent Bald Eagle nest.	Short term impact during construction of tanks. Construction to occur during non-nesting season of adjacent Bald Eagle nest.
Mammals, Reptiles, & Amphibian species	Major spill from tanks could impact habitat.	Short term impact during repair & construction of tanks. Construction activity could disturb species in the immediate work area.	Short term impact during construction of tanks. Construction activity could disturb species in the immediate work area.
Threatened & Endangered Species	Major spill from tanks could impact habitat of adjacent Bald Eagle nesting area.	Short term impact during construction & repair of tanks. Construction to occur during non-nesting season of adjacent Bald Eagle nest.	Short term impact during construction of tanks. Construction to occur during non-nesting season of adjacent Bald Eagle nest.
Wetlands	Potential impacts to adjacent wetlands from inadequate spill containment from existing tanks.	No impacts-repair of existing tanks & construction of new tank will avoid wetlands. Spill containment to protect adjacent wetlands	No impacts-construction of new tanks will avoid wetlands. Spill containment to protect adjacent wetlands
Cultural Resources	No Impact	No Impact	No Impact
Local Economy	None	Short term effects attributed to construction activity only	Short term effects attributed to construction activity only

4.6 Physical Resources

4.6.1 Soils, Geology, and Topography

There should be no long-term impacts to the physical and structural characteristics of the soils, geology, or topography of the proposed site resulting from the construction of the two new fuel tanks.

4.6.2 Hydrology

Although the construction of the two fuel tanks may have some minor short term impacts to the groundwater during construction activities, no long term impacts to the quantity, quality, or direction of flow of groundwater is expected. Although no surface water bodies are adjacent to the fuel farm site, there are wetlands nearby. Stormwater runoff from the tank construction area potentially could carry sediments and other pollutants to these nearby wetlands and possibly to the more distant coastal waters. Erosion and sediment controls implemented by the construction contractor would minimize these potential impacts. Typical erosion control measures include mulching over exposed soils, installing silt fences along the downstream boundaries of exposed soil areas, and placing hay bales in drainageways to prevent sediments from leaving the construction site. Site layout and design of the two new fuel tanks for stormwater runoff management purposes must be in accordance with Chapter 373, Florida Statutes. The South Florida Water Management District has delegated the administration of stormwater design approval to the City of Key West.

After construction of the two new tanks, each tank will be filled with water to hydrostatically test for leaks. The discharge of the test wastewater may require a discharge permit from the Environmental Protection Agency and the Florida Department of Environmental Protection. However application for an exemption from each of the permits is permissible.

4.6.3 Air Quality

Air pollution associated with the proposed action will originate from construction, including welding, heavy machinery operation, and vehicular traffic to and from the tank farm site. However, exhaust from heavy machinery and truck traffic will be a minor source of air pollutants, mainly consisting of carbon monoxide, particulate matter, nitrogen oxides, hydrocarbons, and sulfur oxides. Vehicular exhaust emissions will be of relatively small quantities because of the limited amount of construction traffic expected. Emission control and dust emission prevention measures required by the state would mitigate effects the construction will have on air quality. Construction of the two new fuel tanks will require an air emissions permit from the Florida Department of Environmental Protection. No air quality permits are required for operation of the new fuel tanks. Construction activities will have a short-term nuisance impact on the immediate vicinity, but permanent or long-term impacts related to construction or operation of the proposed facilities are not expected. Since NAS Key West is in an

attainment area for criteria pollutants, a Clean Air Act Conformity Determination is not required for the construction of the proposed fuel tanks.

4.6.4 Noise

Construction of the proposed facilities is expected to involve the use of heavy machinery for earth moving, materials handling, and erection of the fuel tanks. The closest sensitive receptor to the proposed construction is the bald eagle nesting site, which is within 165 feet. The fuel tank construction will begin after the bald eagle has vacated the nest and construction will be completed before the bald eagle begins nesting again.

Construction activities will have a short-term effect on noise levels within the project area. Permanent or long-term impacts related to operation of the proposed facilities are not expected.

4.6.5 Potential Existing Contamination

Based on the 1996 CA study of the fuel farm, the potential of encountering contaminated soil or groundwater requiring remediation at the proposed project site is minimal. Further site testing will determine if any remediation is required during the construction of the new fuel storage tanks.

4.7 Biological Resources

The construction of the two JP-5 fuel tanks will not significantly impact birds, mammals, reptiles, or amphibians on-site due to there being little or no habitat to harbor these species. Short-term impacts to species adjacent to the proposed site may include displacement of these species due to construction noise. No wetlands exist on-site. Silt fencing should be placed around the construction site to avoid impacts, such as soil erosion, to adjacent wetlands. State and federally listed threatened and endangered species will not be significantly impacted from the proposed construction. The bald eagle and the lower keys marsh rabbit are the only listed species found near the project area. Upon request, the U.S. Fish and Wildlife Service established management zones for a bald eagle nest in the vicinity of the project site. The primary zone will extend 170 feet outward from the nest and the secondary zone will extend an additional 230 feet from boundary of the primary zone for a total distance of 400 feet (See Figure 6). These zones have been designated in order to comply with management recommendations outlined in the *Habitat Management Guidelines for the Bald Eagle in the Southeast Region* published by the U.S. Fish and Wildlife Service. The bald eagle nesting season begins near the first of October and extends through the middle of May. The Navy will comply with U.S. Fish and Wildlife Service requirements (USFW 12 March 98) by starting construction of the fuel tanks during the middle of May, providing no bald eagles are present, and working through the first of October to avoid the bald eagle nesting season. The lower keys marsh rabbit or its habitat will not be impacted from the proposed project. Vegetative corridors, which are adjacent to the proposed site, allow rabbits to travel

between areas of critical habitat. Personnel involved in the construction of the fuel tanks shall not disturb in any way these areas adjacent to the project site.

4.8 Cultural Resources

A 1998 Historic and Archaeological Resources Protection (HARP) Plan has been completed for the Naval Air Station (NAS) Key West. The HARP identifies three archaeological sites at NAS Key West, Boca Chica that are eligible or potentially eligible for inclusion in the National Register of Historic Places. The Florida Department of State, Division of Historical Resources has reviewed the proposed project site and indicates that no significant archaeological or historical sites are recorded for or likely to be present within the project area. Therefore in the opinion the Florida Department of State, Division of Historical Resources, the proposed site will have no effect on historic properties listed, or eligible for listing, in the *National Register of Historic Places*.

4.9 Cumulative Impacts

Cumulative impacts are those changes to the physical, biological, and socioeconomic environments which would result from the effects of a proposed action when added to the other past, present, and reasonably foreseeable actions, regardless of what agency of government or person undertakes such other actions. Projects completed before 1997 are considered to be part of the existing condition environmental baseline presented in this environmental assessment. Included within the concept of past projects are roadways, utilities, building construction, and other actions that occurred before the study was initiated. There are no applicable on-going actions which, when combined with the proposed action of building the two fuel tanks that will result in any cumulative impacts.

4.10 Compliance with Various Land Use Policies and Controls

4.10.1 National Environmental Policy Act (NEPA)

NEPA, 42 U.S.C. §§ 4321-4370(d)(1994) directs that “to the fullest extent possible ... all agencies of the federal government shall ... insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations ... “ This EA has been prepared in order to comply with the NEPA.

4.10.2 Clean Water Act

The Clean Water Act, 33 U.S.C. §§ 1344(a-r)(1994) regulates discharges to the waters of the United States. Compliance with the specific requirements of the Clean Water Act will be accomplished by coordination with the appropriate resource agencies, submittal of a permit application, if required, and response to agency review. Coordination is ongoing between the Navy’s design team and the various permitting agencies to determine appropriate measures to meet all applicable federal/state/local regulations. The final plans

and specifications on the project will be submitted for approval and permitting, as necessary.

4.10.3 Clean Air Act

The Clean Air Act, 42 U.S.C. §§ 7401-7671q, *as amended* (1994) provides for protection and enhancement of the nation's air resources. Operation of the proposed two fuel tanks will produce an insignificant amount of air emissions and would not require any operating permits. Construction activities will have a short-term nuisance impact on the immediate vicinity, but permanent or long-term impacts related to the construction would not result. Modern methods of emission control and dust emission prevention will be mitigate the effects of construction at the NAS Key West area .Air quality control rules of the Division of Air Resources Management, Florida Department of Environmental Protection, regarding fugitive dust emissions will be complied with.

4.10.4 Fish and Wildlife Coordination Act

Section 10 of the Fish and Wildlife Coordination Act 16 U.S.C. §§ 661-666 *et seq*(1996) directs federal agencies to consult with the United States Fish and Wildlife Service, National Marine Fisheries Service, and state agencies before authorizing alteration to water bodies. The purpose of the Act is to assure that wildlife conservation receives equal consideration, and that it be coordinated with other features of water resource programs. These agencies have commented and submitted recommendations concerning the proposed action to the Navy, which have been included in this document.

4.10.5 Bald Eagle Protection Act

The Bald Eagle Protection Act 16 U.S.C. §§ 668-668d (1996), and the regulations derived therefrom (50 CFR 22), state, in part, that no person "...shall take...any bald eagle...or any golden eagle, alive or dead, or any part, nest, or egg thereof..." with 'take' meaning "...to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, disturb..." Construction of the fuel tanks will occur outside the nesting season. Bald eagle management zones have been established through coordination with the U.S. Fish and Wildlife Service.

4.10.6 Endangered Species Act

The Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544(1996) requires that action authorized by a federal agency shall not jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. The Navy will comply with the provisions of the Bald Eagle Protection Act.

Section 7 of the Act requires that the responsible federal agency consult with the United States Fish and Wildlife Service and the National Marine Fisheries Service concerning endangered and threatened species under their jurisdiction. This document has been

prepared in order to comply with Section 7 requirements and concludes that the construction of the fuel tanks will not adversely impact threatened and endangered species located at NAS Key West, Boca Chica Field.

4.10.7 National Historic Preservation Act

In accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. §§ 470(f) and (h-2)(1994) potential impacts to historic and archeological resources have been evaluated. No known archeological or historic sites are documented in the construction area. However if sites were encountered, construction operations would cease and an inspection would be performed.

4.10.8 Coastal Zone Management

The Coastal Zone Management Act, of 1972, 16 U.S.C. §§ 1451-1467(1996) provides for the preservation, protection, development, and where feasible, restoration or enhancement of the resources of the nation's coastal zone. The Navy will ensure that activities directly affecting or conducted in the coastal zone will be carried out in a manner which is, to the maximum extent practicable, consistent with approved Florida Coastal Zone Management programs. Additionally, the Florida Department of Community Affairs must certify any project in coastal counties that require state or federal permits. This environmental assessment is intended to serve as the consistency determination for the Department of Community Affairs. It is consistent with state guidelines to the maximum extent possible. The State of Florida, Department of Community Affairs (FDCA Dec 1997) concurs the proposed project is consistent with the Florida Coastal Management Program. Ongoing coordination and permitting, if required, with the Florida Department of Community Affairs will satisfy any future consistency requirements.

4.10.9 Local Land Use Plans

The potential construction, operation, and maintenance activities are consistent with the land-use plans outlined in the NAS Key West Master Plan.

4.10.10 Floodplains

Executive Order 11988 – Floodplain Management requires that federal agencies avoid activities, which directly or indirectly result in development in floodplain areas. The proposed site is within the 100-year tidal surge limits with a 100-year still-water flood elevation determined to be 10 feet, National Geodetic Vertical Datum (NGVD). The entire island of Boca Chica Key is in the floodplain, the Navy acknowledges this and accepts the risks of building facilities at Boca Chica Key.

4.10.11 Wetlands

Executive Order 11990 – Protection of Wetlands directs federal agencies to take actions to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands on federal property. The proposed action would not affect wetlands at NAS Key West, Boca Chica Field. The siting of the two new fuel tanks have been selected to avoid destruction or degradation of wetlands.

4.10.12 Prime and Unique Farmland Soils

The purpose of the Farmland Protection Policy Act, 7 U.S.C. §§ 4201-4209 is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. There are no soils classified by the Natural Resources Conservation Service as prime farmland at the proposed construction site.

4.10.13 Pollution Prevention Act of 1990

The Pollution Prevention Act of 1990, 42 U.S.C. §§ 1301, *et seq* establishes a national policy of pollution control including pollution prevention and reduction at the sources; environmentally safe recycling or treatment; and disposal or release of pollutants as a last resort. The Navy will comply with all applicable environmental regulations.

4.10.14 Oil Pollution Act of 1990

The Oil Pollution Act of 1990, 33 U.S.C. §§ 2701, *et seq* establishes liability for cleanup costs and damages associated with oil spills. It also establishes oil prevention regulations and contingency planning and response requirements. All Navy ships and operations conform to and strictly observe the provisions of this Act. The Navy will comply with all the following applicable environmental regulations and guidelines:

40 CFR 112, Oil Pollution Prevention, Section 112.7

MIL-HDBK-1022, Petroleum Fuel Facilities

Florida Administrative Code, Aboveground Storage Tank Systems, Chapter 62-762

NFPA 30, Flammable and Combustible Liquids Code,

4.10.15 Coastal Barrier Resources

The Coastal Barrier Resources Act of 1982, 16 U.S.C. §§ 3501 *et seq* requires that no new expenditures or financial assistance be made available for various construction projects within the boundaries of the Coastal Barrier Resources System. The Department of Interior, Fish and Wildlife Service designates coastal barrier resources. The potential construction would not affect any designated coastal barrier resources.

4.10.16 Environmental Justice

Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (issued February 11, 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 populations and low-income populations. The proposed fuel tank construction is located on NAS Key West, Boca Chica Key and would not affect minority and low-income populations living in the vicinity of the base.

4.10.17 Marine Protection, Research, and Sanctuaries Act

Section 103 of The Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. §§ 1401, Section 103 specifies that all proposed operations involving the transportation and dumping of dredged material into ocean waters must be evaluated to determine potential environmental impacts of such activities. No offshore disposal of dredged materials is proposed for this project.

4.10.18 Resources Conservation and Recovery Act (RCRA)

The proposed action will comply with RCRA, 40 C.F.R. Part 265 (1997) policies including solid waste recycling and reclamation, and hazardous waste generation, transportation, treatment, storage, disposal, and recycling. The Navy will comply with all applicable environmental regulations.

4.11 Irreversible and Irrecoverable Commitment of Resources

The proposed facilities and associated construction, operation, and maintenance will require the commitment of various resources. These include the commitment of labor, capital, energy, biological resources, building materials and land. Approximately 2.0 acres will be utilized for the construction of the two fuel tanks.

Short-term commitments of labor, capital, and fossil fuels will result directly from construction of the proposed facilities and indirectly from the provisions of services to the proposed site during construction. Long-term commitments of resources will result directly from the operation and maintenance of the facilities and indirectly from the provision of water, sewage, electricity, and solid waste services to the facilities during operation. Building materials also will be long-term commitments.

The length of the commitment of land resources to the project for the new fuel tanks and support facilities will depend on the ultimate life of the fuel storage tanks. Since the proposed fuel storage facilities are permanent facilities, the commitment of land is long-term. Land resources could be converted to alternative use after operation of the proposed facilities is completed; however, this would not occur in the foreseeable future.

4.12 Relationship between Short-Term Uses and Long-Term Productivity

Physical systems, over the long term, will be modified due to the effects of the construction, and the engineering alterations imposed. No long-term impacts to the existing socioeconomic environment should result due to the proposed project because no population increases are associated with its operation. The necessity for onsite infrastructure (i.e., roadway and utility corridor, power transmission equipment, waterlines, telephone lines, and added solid waste disposal) will exert a long-term impact on the existing environment of the immediate area of the proposed project site, but no impact on the area-wide environment.

Long-term impacts on biological productivity from the construction and operation of the proposed action would not be significant. Open areas on the propose site would be revegetated and landscaped after construction. The habitat of some terrestrial species would be removed as a result of the proposed construction. These terrestrial species should be able relocate to adjacent undeveloped areas.

4.13 Adverse Environmental Impacts Which Cannot Be Avoided Should The Proposed Action Be Implemented

4.13.1 Physical Resources

Construction of the proposed facilities would result in short-term minor alterations to site topography.

Exposure of surface soils during construction would cause some erosion especially due to stormwater runoff.

Facility construction activities would temporarily reduce air quality due to exhaust emissions from earth moving and other construction equipment.

Construction activities would increase fugitive dust levels in the immediate construction zone.

Construction and operational noise would be confined to the immediate area.

4.13.2 Biological Resources

Only minor biological impacts to the area should occur as a result of the removal of some native vegetation for the proposed construction. Suitable adjacent habitat is present for the displaced terrestrial species to relocate

4.13.3 Socioeconomic Resources

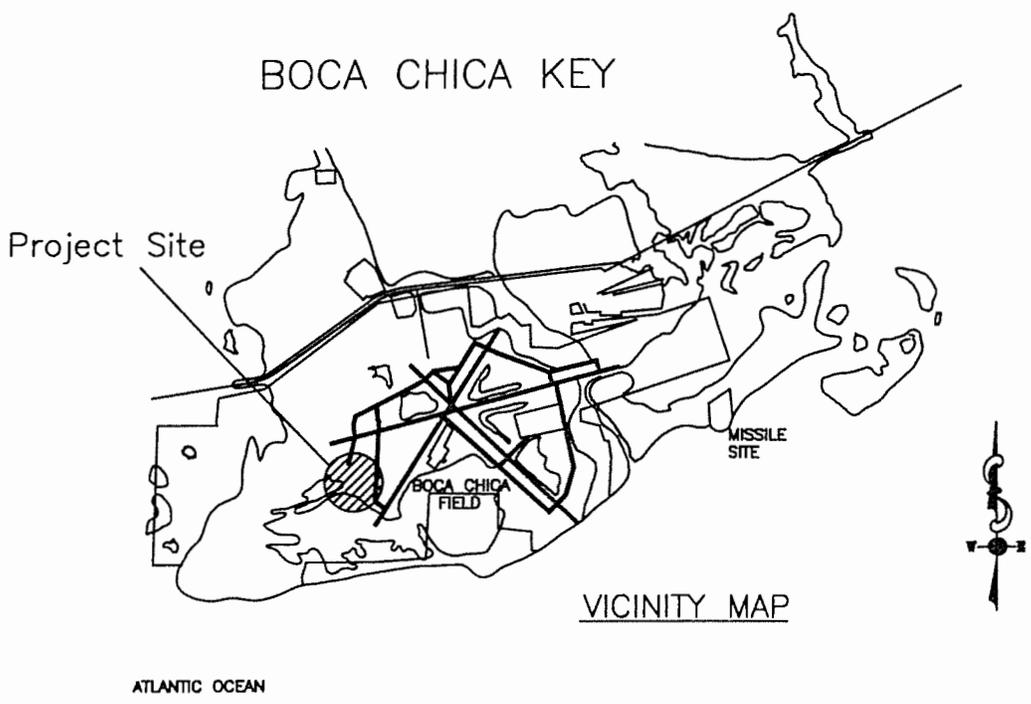
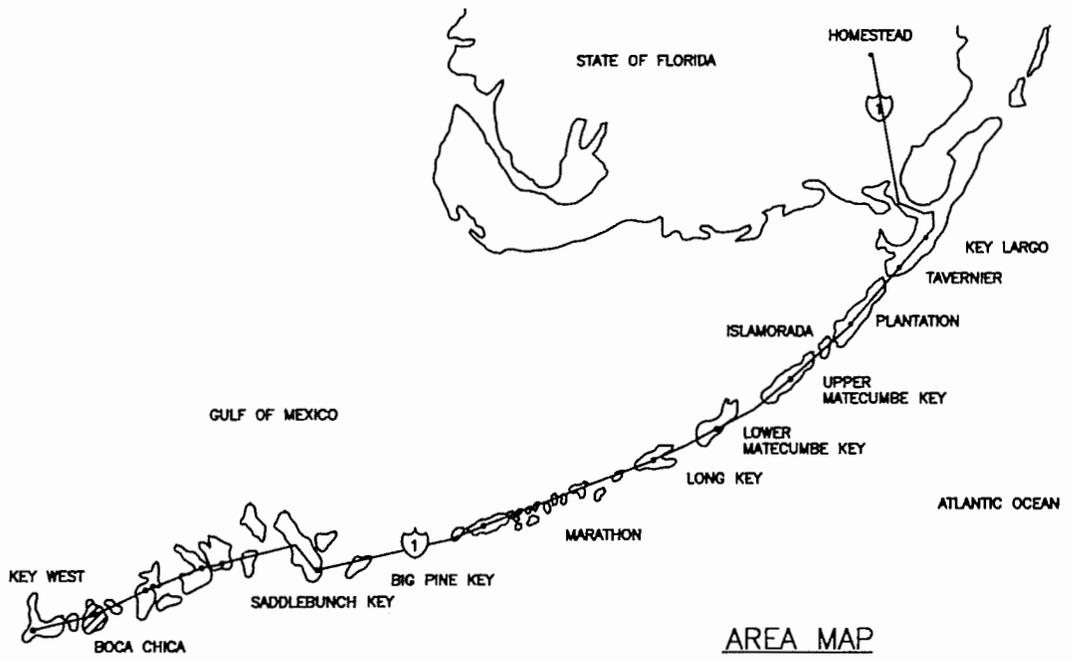
Socioeconomic impacts would be insignificant. No new impacts would occur as a result of this project.

5.0 REFERENCES

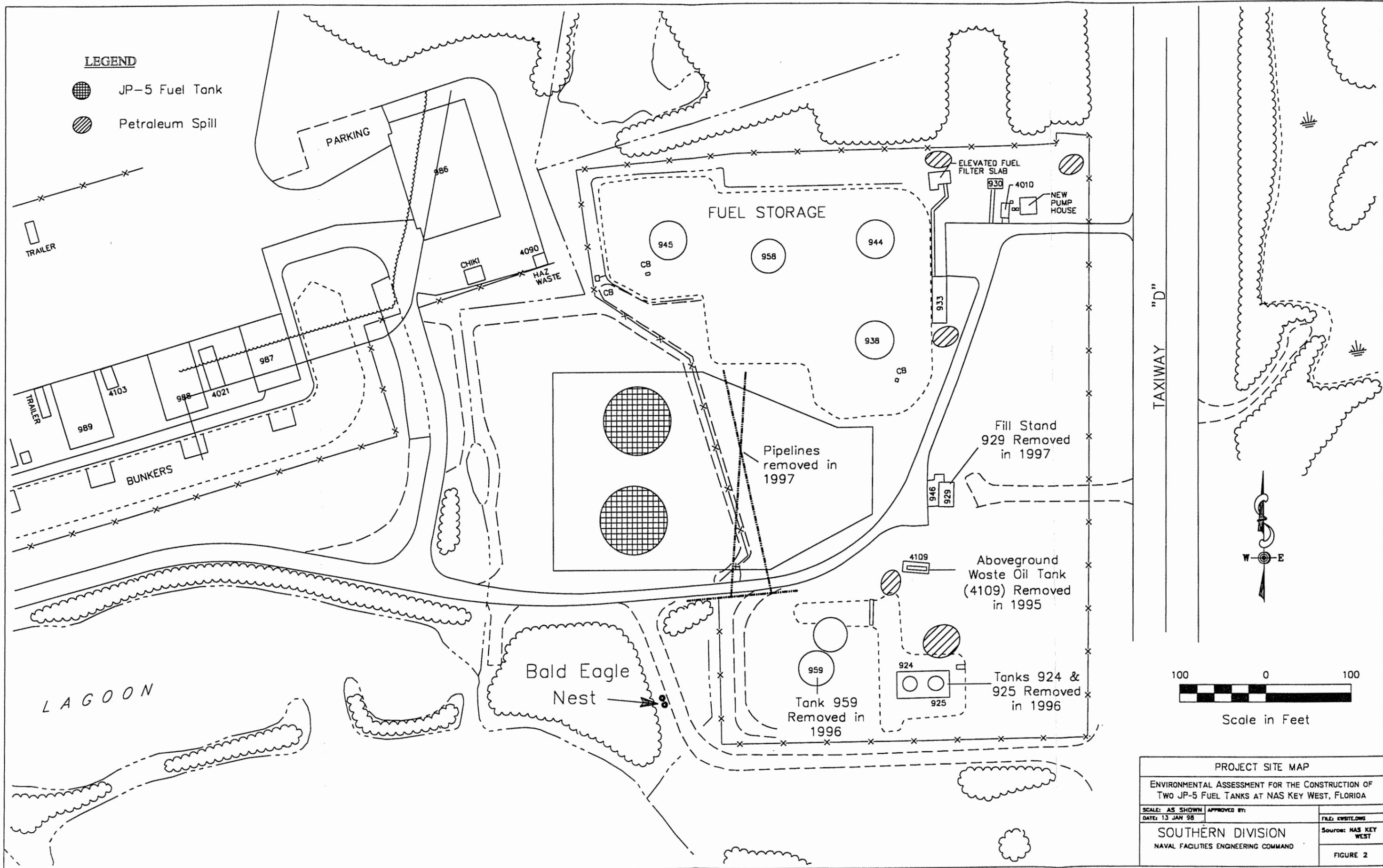
- Florida Department of Environmental Protection (FDEP), Division of Air Resources Management. 1997. ALLSUM Report.
- Florida Department of Environmental Protection (FDEP) letter date 11 December 1997.
- Florida Department of Community Affairs (FDCA) letter date 30 December 1997.
- Florida Department of State, Division of historic Resources letter date 4 December 1998
- Florida Department of Environmental Protection (FDEP), South District Office. 1998. Personal communication with David Knowles regarding air permits requirements For the construction and operation of fuel tanks at NAS Key West, Boca Chica Field, Key West, FL.
- Forys, Elizabeth, and Stephen Humphrey. 1994. Biology and Status of the Lower Keys Marsh Rabbit. University of Florida, Gainesville, Florida
- U.S. Fish and Wildlife Service (USFWS) letter date 23 Jan 1998.
- U.S. Fish and Wildlife Service (USFWS) letter date 12 March 1998.
- U.S. Fish and Wildlife Service (USFWS) letter date 21 September 1998.
- U.S. Fish and Wildlife Service (USFWS). Habitat Management Guidelines for the Bald Eagle in the Southeast Region.
- U.S. Fish and Wildlife Service (USFWS). 1998. Personal communication with Mr. Kalani Cairns. USFWS, Vero Beach, Florida.
- U.S. Navy. 1993. Environmental Assessment for Construction of a Solar Electro-Optical Network Facility, Key West Naval Complex.
- U.S. Navy. 1994. Preliminary Contamination Assessment Report. Boca Chica Tank Farm, Naval Air Station, Key West, Florida.
- U.S. Navy. 1996. Boca Chica Tank Farm Contamination Assessment Report. Naval Air Station, Key West, Boca Chica Key, Florida.
- U.S. Navy. 1997. Closure Assessment Report Petroleum Pipeline, Boca Chica Tank Farm Naval Air Station, Key West, Florida.
- U.S. Navy. 1998. Historic and Archaeological Resources Protection Plan for NAS Key West, Florida.

U.S. Navy. 1998. Personal Communication with Mr. Arnim Schuetz. NAS Key West, Key West, Florida

Wolf, James. 1987. A Survey for the Silver Rice Rat on U.S. Naval Property in the Lower Florida Keys. Archbold Biological Station, Lake Placid, Florida.



PROJECT LOCATION MAP			
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF TWO JP-5 FUEL TANKS AT NAS KEY WEST, FLORIDA			
SCALE: NONE	APPROVED BY:	FILED: [Signature]	
DATE: 13 JAN 98		Source: NAS KEY WEST	
SOUTHERN DIVISION			FIGURE 1
NAVAL FACILITIES ENGINEERING COMMAND			



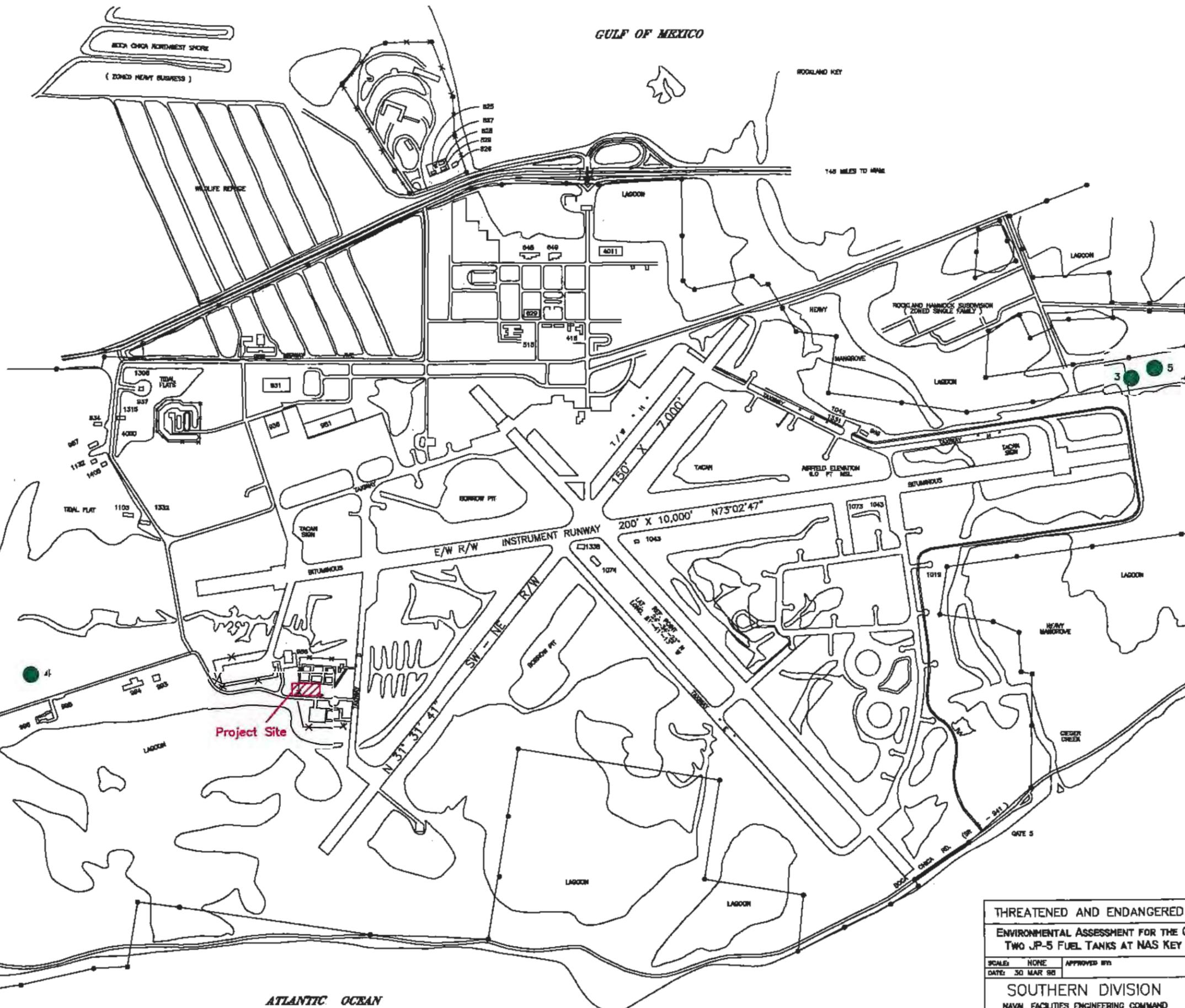
PROJECT SITE MAP		
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF TWO JP-5 FUEL TANKS AT NAS KEY WEST, FLORIDA		
SCALE: AS SHOWN	APPROVED BY:	FILE: EWSTL.DWG
DATE: 13 JAN 98		SOURCE: NAS KEY WEST
SOUTHERN DIVISION		FIGURE 2
NAVAL FACILITIES ENGINEERING COMMAND		

STATE AND FEDERALLY LISTED PLANTS		
SPECIES NO.	SCIENTIFIC NAME	COMMON NAME
1	<i>Argythamnia blodgettii</i>	Blodgett's Wild Meroury
2	<i>Gossypium hirsutum</i>	Wild Cotton
3	<i>Jacquinia keyensis</i>	Joewood
4	<i>Sriwistenia mahogani</i>	West Indian Mahogany
5	<i>Thrinax microcarpa (Thrinax morrisii)</i>	Brittle Thatch Palm
6	<i>Tillandsia flexuosa</i>	Twisted Air Plant

SOURCE: ECOLOGICAL SURVEY OF U.S. NAVY PROPERTY IN THE LOWER FLORIDA KEYS, MONROE COUNTY, FLORIDA, AUGUST 1994.

LEGEND

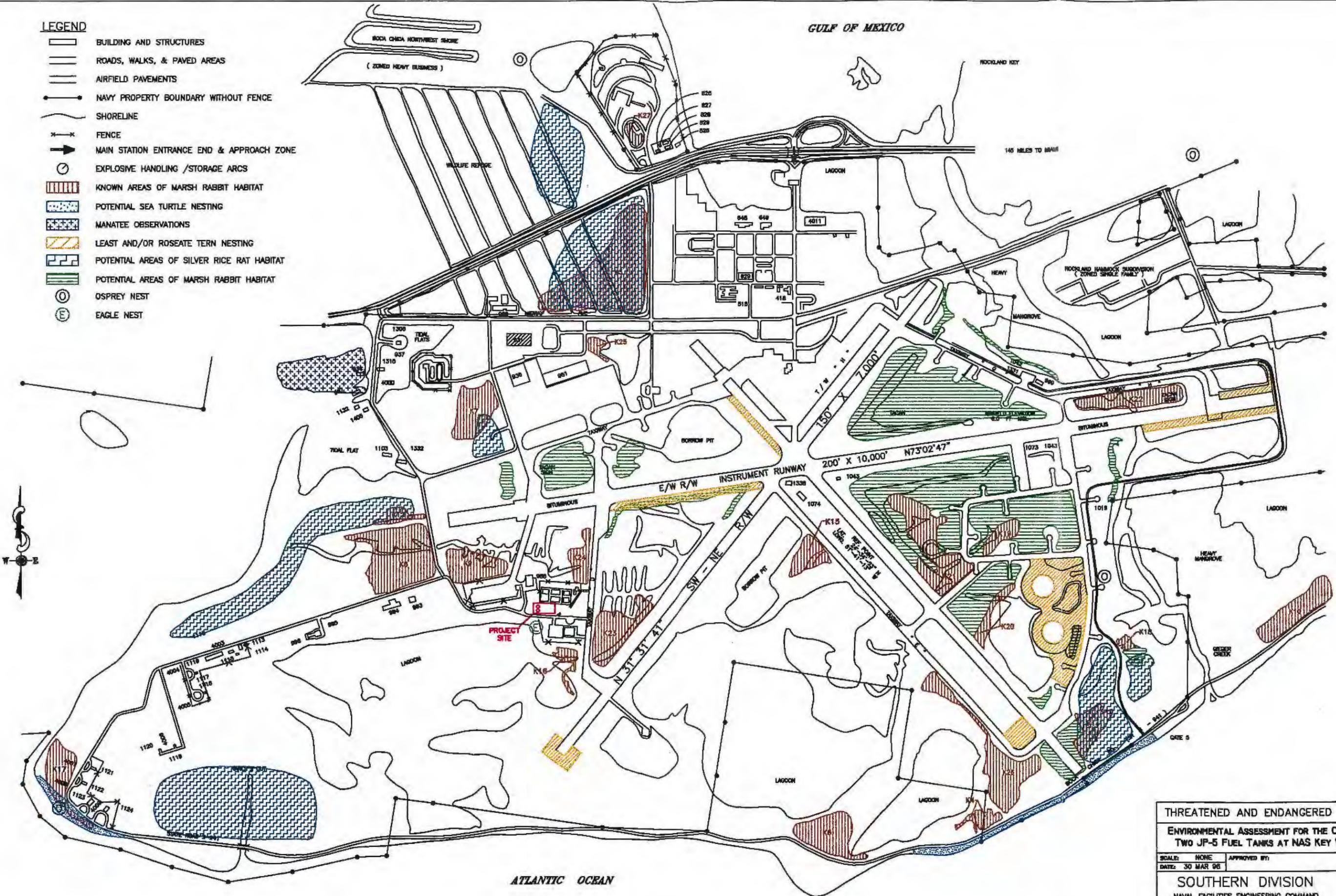
- BUILDING AND STRUCTURES
- ROADS, WALKS, & PAVED AREAS
- AIRFIELD PAVEMENTS
- NAVY PROPERTY BOUNDARY WITHOUT FENCE
- SHORELINE
- FENCE
- MAIN STATION ENTRANCE END & APPROACH ZONE
- EXPLOSIVE HANDLING / STORAGE ARCS
- 1 APPROXIMATE PLANT LOCATION & SPECIES NUMBER



THREATENED AND ENDANGERED PLANTS MAP	
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF TWO JP-5 FUEL TANKS AT NAS KEY WEST, FLORIDA	
SCALE: NONE	APPROVED BY:
DATE: 30 MAR 98	FILE:
SOUTHERN DIVISION	
NAVAL FACILITIES ENGINEERING COMMAND	
Source: NAS KEY WEST	
FIGURE 5	

LEGEND

-  BUILDING AND STRUCTURES
-  ROADS, WALKS, & PAVED AREAS
-  AIRFIELD PAVEMENTS
-  NAVY PROPERTY BOUNDARY WITHOUT FENCE
-  SHORELINE
-  FENCE
-  MAIN STATION ENTRANCE END & APPROACH ZONE
-  EXPLOSIVE HANDLING / STORAGE ARCS
-  KNOWN AREAS OF MARSH RABBIT HABITAT
-  POTENTIAL SEA TURTLE NESTING
-  MANATEE OBSERVATIONS
-  LEAST AND/OR ROSEATE TERN NESTING
-  POTENTIAL AREAS OF SILVER RICE RAT HABITAT
-  POTENTIAL AREAS OF MARSH RABBIT HABITAT
-  OSPREY NEST
-  EAGLE NEST

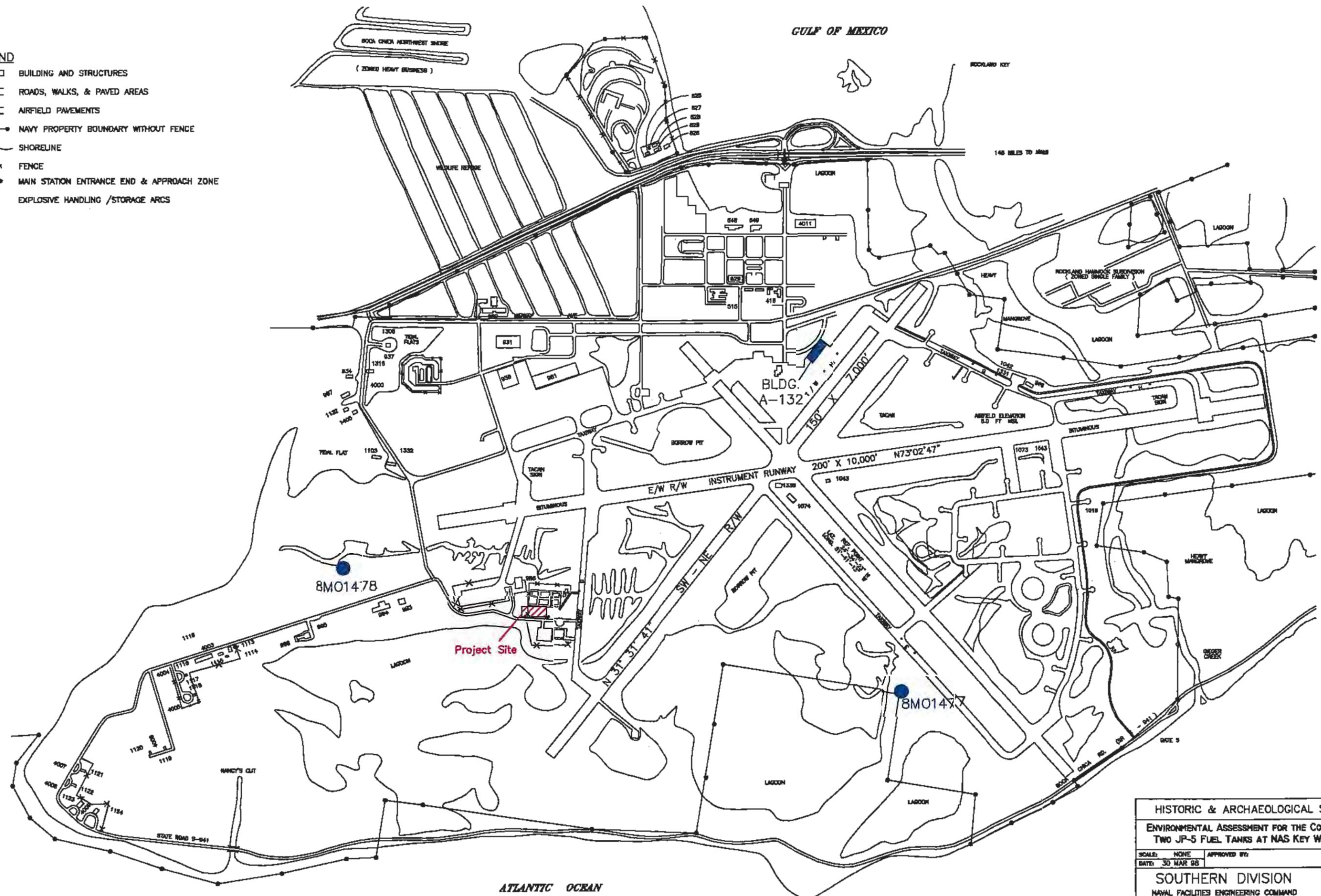


THREATENED AND ENDANGERED SPECIES MAP
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF TWO JP-5 FUEL TANKS AT NAS KEY WEST, FLORIDA

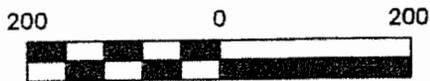
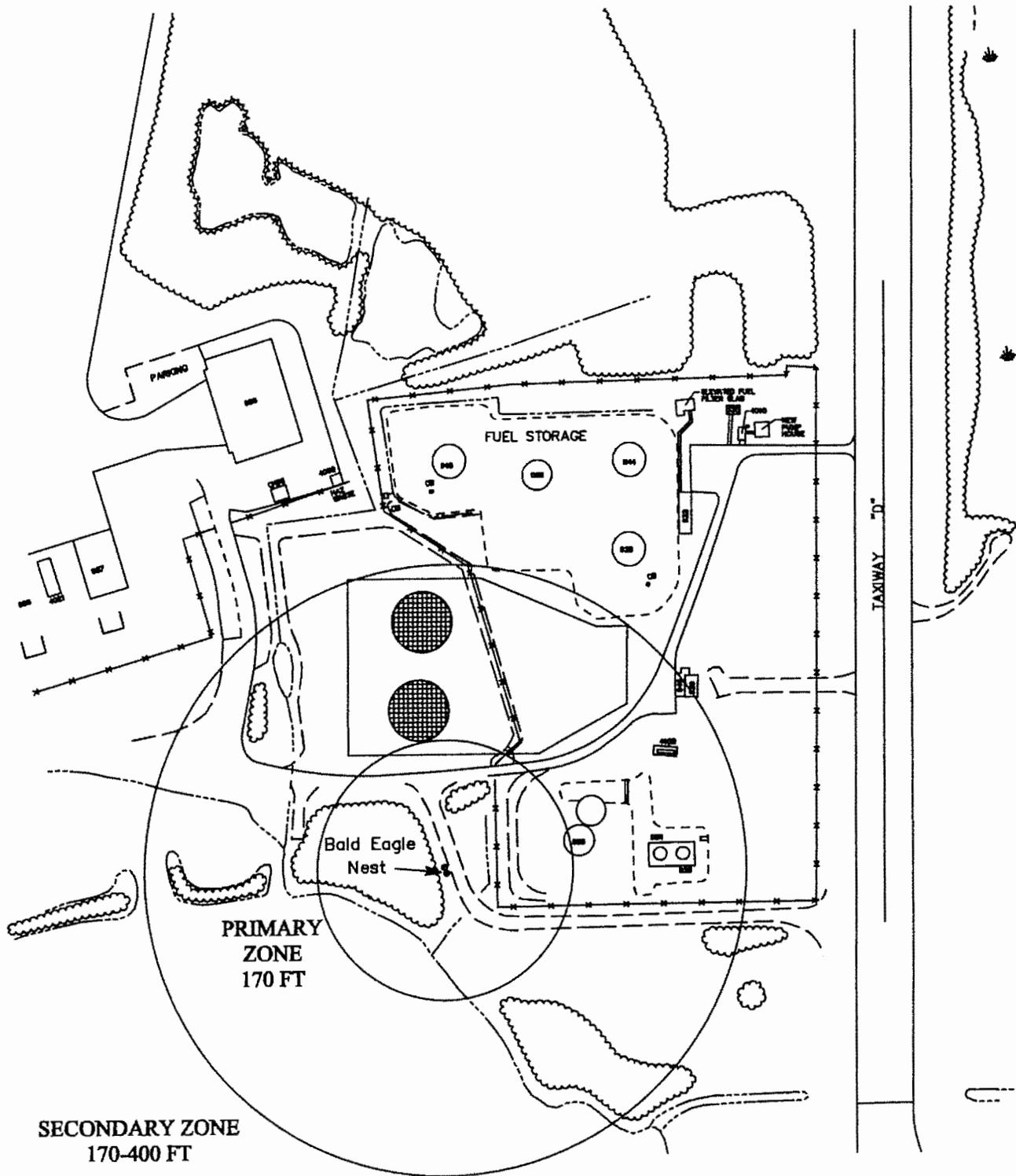
SCALE: NONE	APPROVED BY:	FILE#:
DATE: 30 MAR 95		Source: HAS KEY WEST
SOUTHERN DIVISION NAVAL FACILITIES ENGINEERING COMMAND		FIGURE 4

LEGEND

-  BUILDING AND STRUCTURES
-  ROADS, WALKS, & PAVED AREAS
-  AIRFIELD PAVEMENTS
-  NAVY PROPERTY BOUNDARY WITHOUT FENCE
-  SHORELINE
-  FENCE
-  MAIN STATION ENTRANCE END & APPROACH ZONE
-  EXPLOSIVE HANDLING / STORAGE ARCS



HISTORIC & ARCHAEOLOGICAL SITES MAP	
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF TWO JP-5 FUEL TANKS AT NAS KEY WEST, FLORIDA	
SCALE: NONE	APPROVED BY:
DATE: 30 MAR 88	SOURCE: NAS KEY WEST
SOUTHERN DIVISION NAVAL FACILITIES ENGINEERING COMMAND	
FIGURE 5	



Scale in Feet

EAGLE MANAGEMENT ZONES	
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF TWO JP-5 FUEL TANKS AT NAS KEY WEST, FLORIDA	
SCALE: AS SHOWN	APPROVED BY:
DATE: 13 JAN 95	
SOUTHERN DIVISION NAVAL FACILITIES ENGINEERING COMMAND	
FILE: EMBL.DWG	SOURCE: NAS KEY WEST
FIGURE 8	

APPENDIX A

Federal and State Listed Threatened, Endangered and Candidate Species that Occur or Potentially Occur on the Naval Air Station, Key West, Florida

SPECIES COMMON NAME	SCIENTIFIC NAME	RESIDENCE STATUS ¹	LEGAL STATUS ²		
			USFWS ³	FGFWFC ³	FDA ³
PLANTS					
Tamarindillo	<i>Acacia choriophylla</i>	PR			E
Golden leather fern	<i>Acrostichum aureum</i>	PR			E
Blodgett's wild mercury	<i>Argythamnia blodgettii</i>	CR			E
Little strongbark	<i>Bourreria cassinifolia</i>	PR			E
Small-flowered lily-thorn	<i>Catesbaea parviflora</i>	PR			E
Powdery catopsis	<i>Catopsis berteroniana</i>	PR			E
Wedge spurge	<i>Chamaesyce deltoidea serphyllum</i>	PR			E
Garber's spurge	<i>Chamaesyce garberi</i>	PR	T		E
Porter's broad-leaved spurge	<i>Chamaesyce porteriana porteriana</i>	PR			E
Silver palm	<i>Coccothrinax argentata</i>	PR			CE
Geiger tree	<i>Cordia sebestena</i>	PR			E
Cupania	<i>Cupania glabra</i>	PR			E
Dollar orchid	<i>Encyclia boothiana</i> var. <i>erythronioides</i>	PR			E
Tropical ironwood	<i>Eugenia confusa</i>	PR			T
Red stopper	<i>Eugenia rhombea</i>	PR			E
Wild cotton	<i>Gossypium hirsutum</i>	CR			E
Lignum-vitae	<i>Guaiacum sanctum</i>	PR			E
Manchineel	<i>Hippomane mancinella</i>	PR			T
White ironwood	<i>Hypelate trifoliata</i>	PR			T
Pineland jacquemontia	<i>Jacquemontia curtissii</i>	PR			E
Joewood	<i>Jacquinia keyensis</i>	CR			T
Sand flax	<i>Linum arenicola</i>	PR			E
Twinberry	<i>Myrcianthes fragrans</i> var. <i>simpsonii</i>	PR			T
Burrowing four-o'clock	<i>Okenia hypogaea</i>	PR			E
Semaphore cactus	<i>Opuntia spinosissima</i>	UR			E
Mahogany mistletoe	<i>Phoradendron rubrum</i>	PR			E
Key Tree cactus	<i>Pilosocereus robinii</i> var. <i>deeringii</i>	PR	E		E
Big pine tree cactus	<i>Pilosocereus robinii</i> var. <i>robinii</i>	PR	E		E
Florida royal palm	<i>Roystonea elata</i>	PR			E
Pride-of-big-pine	<i>Strumpfia maritima</i>	PR			E
West Indies Mahogany	<i>Swietenia mahogoni</i>	CR			T
Brittle thatch palm	<i>Thrinax morrisii</i>	CR			CE
Florida thatch palm	<i>Thrinax radiata</i>	PR			CE
Wild pine or air plant	<i>Tillandsia flexuosa</i>	CR			T
Pineland noseburn	<i>Tragia saxicola</i>	PR			E
Florida gama grass	<i>Tripsacum floridanum</i>	PR			E
Worm-vine orchid	<i>Vanilla barbellata</i>	PR			E

APPENDIX A (continued)

SPECIES COMMON NAME	SCIENTIFIC NAME	RESIDENCE STATUS ¹	LEGAL STATUS ²		
			USFWS ³	FGFWFC ³	FDA ³
Yellowheart, satinwood	<i>Zanthoxylum flavum</i>	PR			E
INVERTEBRATES					
Florida purplewing	<i>Eunica tatila tatilista</i>	PR	E		
Schaus' swallowtail butterfly	<i>Heracles artistodemus ponceanus</i>	PR	E		
Florida tree snail	<i>Liguus fasciatus matecumbensis</i>	PR		SSC	
Stock Island tree snail	<i>Orthalicus reses reses</i>	UR	T	E	
FISH					
Key silverside	<i>Menidia conchorum</i>	PR		T	
Mangrove rivulus	<i>Rivulus marmoratus</i>	PR		SSC	
Key Blenny	<i>Starksia starcki</i>	PR		SSC	
REPTILES and AMPHIBIANS					
American alligator	<i>Alligator mississippiensis</i>	UR	T/(S/A)	SSC	
Loggerhead turtle	<i>Caretta caretta</i>	PR	T	T	
Green turtle	<i>Chelonia mydas</i>	LM	E	E	
American crocodile	<i>Crocodylus acutus</i>	PV	E	E	
Leatherback turtle	<i>Dermochelys coriacea</i>	UM	E	E	
Key ringneck snake	<i>Diadophis punctatus acricus</i>	PR		T	
Eastern indigo snake	<i>Drymarchon corais couperi</i>	PR	T	T	
Lower Keys red rat snake	<i>Elaphe guttata guatta</i>	PR		SSC	
Hawksbill turtle	<i>Eretmochelys imbricata imbricata</i>	PM	E	E	
Florida Keys mole skink	<i>Eumeces egregius egregius</i>	PR		SSC	
Gopher tortoise	<i>Gopherus polyphemus</i>	PR		SSC	
Key mud turtle	<i>Kinosternon bauri bauri</i>	PR		E	
Atlantic Ridley turtle	<i>Lepidochelys kempfi</i>	PM	E	E	
Lower Keys brown snake	<i>Storeria dekayi victa</i>	PR		T	
Rim Rock crowned snake	<i>Tantilla oolitica</i>	PR		T	
Florida ribbon snake	<i>Thamnophis sauritus sackeni</i>	PR		T	
BIRDS					
Roseate spoonbill	<i>Ajaia ajaja</i>	PR		SSC	
Cape Sable seaside sparrow	<i>Ammodramus maritimus mirabilis</i>	PR	E	E	
Southeastern snowy plover	<i>Charadrius alexandrinus</i>	UV		T	
Piping plover	<i>Charadrius melodus</i>	UV	T	T	
White-crowned pigeon	<i>Columba leucocephala</i>	CR		T	
Little blue heron	<i>Egretta caerulea</i>	PR		SSC	
Reddish egret	<i>Egretta rufescens</i>	CR		SSC	
Snowy egret	<i>Egretta thula</i>	PR		SSC	

APPENDIX A (continued)

SPECIES COMMON NAME	SCIENTIFIC NAME	RESIDENCE STATUS ¹	LEGAL STATUS ²		
			USFWS ³	FGFWFC ³	FDA ³
Tricolored heron	<i>Egretta tricolor</i>	PR		SSC	
Peregrine falcon	<i>Falco peregrinus</i>	PR	T	E	
Southeastern American kestrel	<i>Falco sparverius paulus</i>	PR		T	
Bald eagle	<i>Haliaeetus leucocephalus</i>	CR	T	T	
Wood stork	<i>Mycteria americana</i>	UV		E	
Osprey	<i>Pandion haliaetus</i>	PR		SSC	
Brown pelican	<i>Pelecanus occidentalis</i>	PR		SSC	
Red-cockaded woodpecker	<i>Picoides borealis</i>	PR	E	T	
Florida burrowing owl	<i>Speotyto cunicularia floridana</i>	PR		SSC	
Least tern	<i>Sterna antillarum</i>	CR		T	
Roseate tern	<i>Sterna dougallii</i>	CR	T	T	
MAMMALS					
Key Largo woodrat	<i>Neotoma floridana smalli</i>	PR	E	E	
Key deer	<i>Odocoileus virginianus clavium</i>	PR	E	E	
Silver rice rat	<i>Oryzomys argentatus</i>	PR	E	E	
Key Largo cotton mouse	<i>Peromyscus gossypinus allapaticola</i>	PR	E	E	
Lower keys marsh rabbit	<i>Sylvilagus palustris hefneri</i>	CR	E	E	
Florida manatee	<i>Trichechus manatus</i>	CM	E	E	

RESIDENCE STATUS²

C = Confirmed P = Possible M = Migrant R = Resident
 L = Likely U = Unlikely V = Visitor

LEGAL STATUS²

E = Endangered
 T/SA = Threatened due to Similarity of Appearance
 T = Threatened
 CE = Commercially Exploited
 SSC = Species of Special Concern

AGENCY³

USF&WS = U.S. Fish and Wildlife Service
 FG&FWFC = Florida Game and Fresh Water Fish Commission
 FDA = Florida Department of Agriculture

APPENDIX B

GENERAL CORRESPONDENCE



United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecosystem Office
P.O. Box 2676
Vero Beach, Florida 32961-2676

September 21, 1998

Commanding Officer
Southern Division, Naval Facilities Engineering Command
Attention: Robert Teague, Code 064RT
P.O. Box 190010
North Charleston, SC 29419-9010

Dear Mr. Teague:

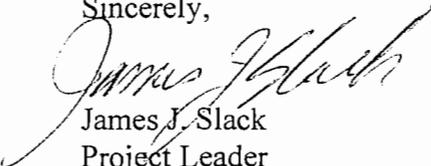
The U.S. Fish and Wildlife Service (FWS) has reviewed the Environmental Assessment (EA) for construction of two 20,000-barrel-fuel-storage tanks at the Naval Air Station, Boca Chica Key, Monroe County, Florida. This letter represents the FWS' view on the effects of the proposed action in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). We have assigned FWS Log Number 4-1-98-I-737 to this coordination.

In the vicinity of the project site are two federally listed species: the bald eagle (*Haliaeetus leucocephalus*) and the Lower Keys marsh rabbit (*Sylvilagus palustris hefneri*). In a letter from this office, dated March 12, 1998, the primary and secondary management zones were established, and a copy of the *Habitat Management Guidelines for the Bald Eagle in the Southeast Region* was provided. The EA submitted to the FWS stated that the construction of the fuel tanks could begin during the middle of May, provided no bald eagles are present, and extend through the first of October. This would eliminate disturbance during the nesting season, which occurs from October to mid-May. Additionally, to eliminate impacts to the Lower Keys marsh rabbit in the adjacent vegetative corridors, the EA stated that personnel involved in the construction of the fuel tanks should be instructed to avoid these areas. The FWS recommends that the EA state that the personnel will, not should, be instructed to avoid these areas.

Based upon the information included in the EA, the FWS concurs that the project as proposed is not likely to adversely affect the bald eagle or Lower Keys marsh rabbit. This written concurrence fulfills the requirements of the ESA, and no further action is required. If modifications are made to the project or if additional information involving potential effects on listed species becomes available, reinitiation of consultation may be necessary.

Thank you for your cooperation in the effort to protect threatened and endangered species. If you have any questions, please contact Jeanette Gallihugh at our Florida Keys Suboffice, P.O. Box 430510, Big Pine Key, FL 33043; phone (305) 872-5563.

Sincerely,


James J. Slack
Project Leader
South Florida Field Office

cc:

FWS, Big Pine Key, FL
GFC, Marathon, FL



United States Department of the Interior

FISH AND WILDLIFE SERVICE

South Florida Ecosystem Office
P.O. Box 2676
Vero Beach, Florida 32961-2676

March 12, 1998

L.M. Pitts
Department of the Navy
Naval Facilities Engineering Command
P.O. Box 190010
North Charleston, SC 29419-9010

Dear Mr. Pitts:

The U.S. Fish and Wildlife Service (FWS) submits this letter for your consideration in developing the Environmental Assessment (EA) for the construction of two JP-5 fuel tanks at Key West Naval Air Station (NAS), Boca Chica Key, Florida. According to your letter dated December 31, 1997, you identified the presence of an active bald eagle (*Haliaeetus leucocephalus*) nest on NAS property. Furthermore, you stated that this bald eagle nest is within 170 feet of the proposed construction site for the two fuel tanks.

In response to this information, we provided you with a copy of the *Habitat Management Guidelines for the Bald Eagle in the Southeast Region* on January 23, 1998. These guidelines are management recommendations developed by the FWS and the Florida Game and Fresh Water Fish Commission to help plan activities in a way that minimizes disturbances to nesting bald eagles. Typically, primary and secondary management zones are established around bald eagle nests in order to restrict certain types of activities that would adversely affect bald eagles, especially during the nesting season. Bald eagles are most vulnerable to disturbance during the nesting period. Disturbance as such may result in nest abandonment or premature fledging.

According to Arnum Schuetz of Key West NAS, this particular bald eagle nest was relocated from an old fuel tank scheduled for demolition to its current location on a platform atop two telephone poles approximately five years ago. No eagles nested that year or the next. Three years ago, a pair of breeding eagles nested two months late into the nesting season, leaving in July. Two years ago, the eagles nested one month late, leaving in mid-June. This year, the eagles nested on schedule with two eggs hatching in December. Their departure should coincide with the conclusion of the breeding season, which is May 15. Mr. Schuetz also informed us that the Lower Keys marsh rabbit (*Sylvilagus palustris hefneri*) is present near the proposed site for these two fuel tanks.

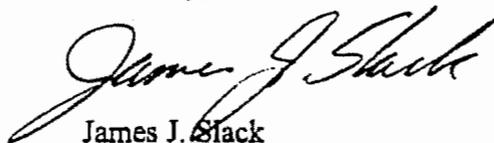
It is our understanding that primary and secondary management zones have not been established for this eagle nest. Therefore, based on the distance between the two new fuel tanks and the eagle nest, the primary zone shall extend 170 feet outward from the nest. The secondary zone

extends an additional 230 feet from the boundary of the primary zone for a total distance of 400 feet. This 400-foot distance is the minimum distance between the eagle nest and current routine NAS activities (e.g., refueling operations).

In order to minimize adverse effects to nesting eagles during the construction of these fuel tanks, we recommend that Key West NAS schedule their construction-related activities occurring in the primary zone to the non-nesting season, which extends from October 1 to May 15. We also recommend that Key West NAS comply with the restrictions for both the primary and secondary zones as provided in the guidelines. In addition, we recommend that all Key West NAS personnel participating in the construction of these new fuel tanks be instructed to avoid the vegetative corridors around the project site. Doing so should minimize adverse effects to marsh rabbits using these areas. These protective measures should be incorporated into the EA.

Thank you for the opportunity to provide these comments on your efforts to protect threatened and endangered species. If you have any questions regarding the contents of this letter, please contact Kalani Cairns of this office at (561) 562-3909.

Sincerely,



James J. Slack
Project Leader
South Florida Field Office

cc:
GFC, Marathon, FL



United States Department of the Interior

FISH AND WILDLIFE SERVICE

South Florida Ecosystem Office

P.O. Box 2676

Vero Beach, Florida 32961-2676

January 23, 1998

L.M. Pitts
Department of the Navy
Naval Facilities Engineering Command
P.O. Box 190010
North Charleston, SC 29419-9010

Dear Mr. Pitts:

Thank you for your letter dated December 31, 1997, in which you state that the Department of the Navy is developing an Environmental Assessment (EA) for the construction of two JP-5 fuel tanks at Key West Naval Air Station (NAS), Boca Chica Key, Florida. Your letter identifies the presence of an active bald eagle (*Haliaeetus leucocephalus*) nest on NAS property. This eagle nest is within 170 feet of the proposed construction site for the two fuel tanks. In order to avoid potential effects to the eagle nest during the construction of these fuel tanks, you requested a copy of the *Habitat Management Guidelines for the Bald Eagle in the Southeast Region*.

As per your request, the U.S. Fish and Wildlife Service has enclosed a copy of these guidelines. Accordingly, the guidelines contain recommended restrictions to manage specific activities within certain distances of an eagle nest. These distances are established as primary and secondary zones around the eagle nest (see enclosure). For this particular nest, we are not aware of any established management zones. If none exist, then the zones will be developed after we consult with the Florida Game and Fresh Water Fish Commission and any other entities that may have pertinent information on this eagle nest. We will contact your office once these zones are identified.

Thank you for interest in the effort to protect the nest site for this pair of threatened bald eagles. If you have any questions regarding the contents of this letter, please contact Kalani Cairns of our office at (561) 562-3909.

Sincerely,

For James J. Slack
Project Leader
South Florida Field Office

enclosure



FLORIDA DEPARTMENT OF STATE
Sandra B. Mortham
Secretary of State
DIVISION OF HISTORICAL RESOURCES

December 4, 1997

Commanding Officer
Southern Division
Naval Facilities Engineering Command
P.O. Box 190010
Charleston, South Carolina 29419-9010

In Reply Refer To:
Frank J. Keel
Historic Preservation Planner
Project File No. 976231

Attention: Don Couch

RE: Cultural Resources Assessment Request
Construction of Two JP-5 Fuel Tanks at Boca Chica Field
Monroe County, Florida

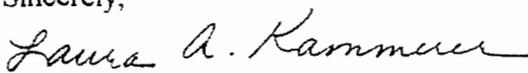
Dear Commanding Officer:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Protection of Historic Properties"), we have reviewed the referenced project(s) for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*. The authority for this procedure is the National Historic Preservation Act of 1966 (Public Law 89-665), as amended.

A review of the Florida Site File indicates that no significant archaeological or historical sites are recorded for or likely to be present within the project area. Furthermore, because of the project location and/or nature it is unlikely that any such sites will be affected. Therefore, it is the opinion of this office that the proposed project will have no effect on historic properties listed, or eligible for listing, in the *National Register of Historic Places*.

If you have any questions concerning our comments, please do not hesitate to contact us. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,


for

George W. Percy, Director
Division of Historical Resources
and
State Historic Preservation Officer

GWP/Kfk

DIRECTOR'S OFFICE

R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250 • (850) 488-1480
FAX: (850) 488-3353 • WWW Address <http://www.dos.state.fl.us>



STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

"Helping Floridians create safe, vibrant, sustainable communities"

LAWTON CHILES
Governor

JAMES F. MURLEY
Secretary

December 30, 1997

Mr. L. M. Pitts
Department of the Navy
Southern Division
Naval Facilities Engineering Command, Code 064/RT
Post Office 190010
2155 Eagle Drive
North Charleston, South Carolina 29419-9010

RE: U.S. Department of the Navy - Scoping Document -
Environmental Assessment for the Construction of Two JP-5
Fuel Tanks at Boca Chica Field - Key West, Monroe County,
Florida
SAI: FL9711030766C

Dear Mr. Pitts:

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 above-referenced project.

The Department of Environmental Protection (DEP) indicates that the applicant should contact the City of Key West regarding stormwater management issues. Tank installation will be administered by the DEP's contractor, the Monroe County Public Health Unit. A National Pollutant Discharge Elimination system permit may be required from the Environmental Protection Agency if any discharge to surface waters is anticipated. Please refer to the enclosed DEP comments.

The Florida Game and Fresh Water Fish Commission (GFWFC) indicates that the project site is adjacent to an existing, active bald eagle nest located atop a manmade nest platform. The GFWFC believes that the development of the fuel tank is compatible with protection of the active eagle nest. However, construction of the new fuel tank facility should conform with the U.S. Fish and Wildlife Service's Habitat Management Guidelines for the Bald Eagle. The GFWFC notes that the fuel tank facility is an existing facility; therefore, the applicant is not expected to comply with the recommended development setback of 750 to 1,500 feet from the nest site. However, development activities should not be conducted within the primary zone between November and May, the active nesting season of the eagles on NAS Boca Chica. Therefore, the GFWFC recommends that

2555 SHUMARD OAK BOULEVARD • TALLAHASSEE, FLORIDA 32399-2100
Phone: 850.488.8466/Suncom 278.8466 FAX: 850.921.0781/Suncom 291.0781
Internet address: <http://www.state.fl.us/comaif/dca.html>

FLORIDA KEYS
Area of Critical State Concern Field Office
2796 Overseas Highway, Suite 212
Marathon, Florida 33050-2227

GREEN SWAMP
Area of Critical State Concern Field Office
155 East Summerlin
Bartow, Florida 33830-4641

SOUTH FLORIDA RECOVERY OFFICE
P.O. Box 4022
8600 N.W. 36th Street
Miami, Florida 33157-4022

Mr. L. M. Pitts
December 30, 1997
Page Two

all major construction be conducted between June 15 and October 15.
Please refer to the enclosed GFWFC comments.

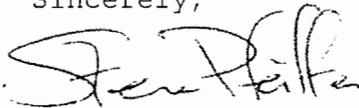
The South Florida Water Management District (SFWMD) indicates that prior to the preparation of the draft environmental assessment, the applicant should contact the SFWMD's Natural Resource Management Division to assess the extent of existing wetlands on the project site. Until the wetlands have been delineated by the applicant and field verified by the SFWMD, the potential for wetland impacts cannot be determined. The information is also required by the SFWMD to evaluate the consistency of the project with the Florida Coastal Management Program and the Environmental Resource Permit rules and criteria. Please refer to the enclosed SFWMD comments.

The Department of Transportation (DOT) indicates that seagrass will be planted by the DOT in the lagoon between SR 941 and the Boca Chica Naval Air Station as off-site mitigation for seagrass impacts associated with the proposed widening of US 1 and the reconstruction at Lake Surprise. The applicant should consider the potential impacts caused by either mechanical means or pollutant discharge to the planned mitigation site. Please refer to the enclosed DOT comments.

Based on the information contained in the scoping letter and the enclosed comments provided by our reviewing agencies, the state has determined that, at this stage, the above-referenced project is consistent with the Florida Coastal Management Program (FCMP). All subsequent environmental documents prepared for this project must be reviewed to determine the project's continued consistency with the FCMP. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews. Comments received from the South Florida Regional Planning Council are also enclosed for your review.

Thank you for the opportunity to review the scoping letter. If you have any questions regarding this letter, please contact Ms. Cherie Trainor, Clearinghouse Coordinator, at (850) 922-5438.

Sincerely,



G. Steven Pfeiffer
Assistant Secretary

RC/cc

Enclosures

cc: Robert Hall, Department of Environmental Protection
Bradley Hartman, Game and Fresh Water Fish Commission
Mark Hamilton, Department of Transportation
James Golden, South Florida Water Management District
Eric Silva, South Florida Regional Planning Council



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

December 11, 1997

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

RECEIVED
DEC 15 1997

State of Florida Clearinghouse

Re: U.S. Department of the Navy, Scoping Document for the Environmental Assessment and Construction of two JP-5 Fuel Tanks at Boca Chica Field, Key West, Monroe County

SAI: FL9711030766C

Dear Ms. Trainor:

This Department has reviewed the above-described project proposal and based on the information provided, we find it consistent with our authorities in the Florida Coastal Management Program, and request that the following environmental concerns be considered in the project.

The layout and design approval for stormwater management purposes, are regulated by Chapter 373, Florida Statutes. Administration of these requirements have been delegated to the City of Key West by the South Florida Water Management District. You should contact the City of Key West for assistance with the stormwater management issues.

This Department's concerns are primarily associated with construction of the fuel tanks. Tank installation should be performed in accordance with Chapters 62-761 and 62-762, Florida Administrative Code, which are administered by the Department's contractor, the Monroe County Public Health Unit. Please contact Mr. John Carter, 305/292-6892, extension 7527, for assistance with questions related to tank installation.

A National Pollutant Discharge Elimination System (NPDES) permit may be required from the Environmental Protection Agency if any discharge to surface waters is anticipated.

For specific information on construction requirements, Please call Mr. Phil Barbaccia at -941/332-6975.

Thank you for the opportunity of commenting on this proposal. If you have any questions regarding this letter please give me a call at 850/487-2231.

Sincerely,

Robert W. Hall
Office of Intergovernmental Programs

cc: Ms. Peggie Highsmith

"Protect, Conserve and Manage Florida's Environment and Natural Resources"



FLORIDA GAME AND FRESH WATER FISH COMMISSION



QUINTON L. HEDGEPEATH, DDS MRS. GILBERT W. HUMPHREY THOMAS B. KIBLER JAMES L. "JAMIE" ADAMS JR. JULIE K. MORRIS
Miami Miccosukee Lakeland Bushnell Sarasota

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-6661
SUNCOM 278-6661
FAX (850) 922-5679
TDD (850) 488-9542

December 19, 1997

Ms. Keri Akers
Florida State Clearinghouse
2555 Shumard Oaks Boulevard
Tallahassee, Florida 32399-2100

RE: SAI #FL9711030766C, Monroe County,
U.S. Department of the Navy, Boca Chica
Field, Key West

Dear Ms. Akers:

The Office of Environmental Services of the Florida Game and Fresh Water Fish
Commission has reviewed the referenced project and offers the following comments.

The U.S. Department of the Navy, Southern Division is proposing to construct two JP-5
fuel tanks at the Boca Chica Naval Air Station in Key West. These fuel tanks will be constructed
on a 1.7-acre cleared site adjacent to the air field.

The proposed construction is adjacent to an existing, active bald eagle (Haliaetus
leucocephalus) nest located atop a man-made nest platform. This platform was constructed for
use by this specific pair of eagles in 1991 as mitigation for the destruction of an outdated fuel tank
which the birds had been nesting on. The birds readily relocated to the man-made platform and
have nested at this site annually since that time. One eagle was fledged from this nest last
summer.

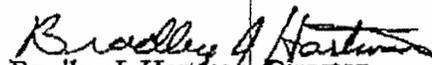
We recognize the importance of the fuel tank facility to naval operations at NAS Boca
Chica, and believe that the development of the fuel tank is compatible with protection of the
active eagle nest. However, construction of the new fuel tank facility should conform to the U.S.
Fish and Wildlife Service's Habitat Management Guidelines for the Bald Eagle as much as
possible. Because the fuel tank facility is pre-existing, obviously the Navy cannot comply with the
recommended development setback of 750-1,500 feet (primary zone) from the nest site.
However, development activities should not be conducted within the primary zone during the
active nesting season of the eagles. The eagles on NAS Boca Chica are active on the nest from
approximately November through May. Thus, we recommend that any major construction

www.state.fl.us/gfc/
ONE OF "FLORIDA'S BEST" WEB SITES

Ms. Keri Akers
December 19, 1997
Page 2

associated with the development of the JP-5 fuel tanks at NAS Boca Chica be conducted outside of the nesting season, between approximately June 15 and October 15.

Sincerely,


Bradley J. Hartman, Director
Office of Environmental Services

BJH/PF
ENV 1-3-2
nasfuel.wpd

cc: Mr. Ty Symroski, DCA, Marathon
Mr. Craig Johnson, USFWS, Vero Beach
Mr. Arnim Scheutz, Environmental Affairs, NAS Boca Chica
Mr. Mark Robson, FGFWFC, West Palm Beach

COUNTY: Monroe

DATE: 11/05/97

COMMENTS DUE-2 WKS: 11/20/97

CLEARANCE DUE DATE: 12/18/97

SAI#: FL9711030766C

Message:

STATE AGENCIES

WATER MANAGEMENT DISTRICTS

OPB POLICY UNITS

Agriculture
 Community Affairs
 Environmental Protection
 Game and Fresh Water Fish Comm
 X Marine Fisheries Commission
 OTTED
 State
 Transportation

South Florida WMD

Environmental Policy/C & ED

NOV 07 1997

RECEIVED

NOV 19 1997

State of Florida Clearinghouse

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

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

U.S. Department of the Navy - Scoping Document for the Environmental Assessment of the Construction of Two JP-5 Fuel Tanks at Boca Chica Field - Key West, Monroe County, Florida.

To: Florida State Clearinghouse
 Department of Community Affairs
 2555 Shumard Oak Boulevard
 Tallahassee, FL 32399-2100
 (850) 922-5438 (SC 292-5438)
 (904) 414-0479 (FAX)

EO. 12372/NEPA

- No Comment
- Comments Attached
- Not Applicable

Federal Consistency

- No Comment/Consistent
- Consistent/Comments Attached
- Inconsistent/Comments Attached
- Not Applicable

From:

Division/Bureau: _____
 Reviewer: Lily Speed
 Date: 11/12/97

COUNTY: Monroe

DATE: 11/05/97

COMMENTS DUE-2 WKS: 11/20/97

CLEARANCE DUE DATE: 12/18/97

SAI#: FL9711030766C

Message:

STATE AGENCIES

WATER MANAGEMENT DISTRICTS

OPB POLICY UNITS

Agriculture
 Community Affairs
 Environmental Protection
 Game and Fresh Water Fish Comm
 Marine Fisheries Commission
 OTTED
 State
 Transportation

South Florida WMD
 5200

Environmental Policy/C & ED
 MONROE
 SAT-NAVY-KW
 975957
 RECEIVED
 NOV 25 1997
 State of Florida Clearinghouse

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

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

U.S. Department of the Navy - Scoping Document for the Environmental Assessment of the Construction of Two JP-5 Fuel Tanks at Boca Chica Field - Key West, Monroe County, Florida.

To: Florida State Clearinghouse
 Department of Community Affairs
 2555 Shumard Oak Boulevard
 Tallahassee, FL 32399-2100
 (850) 922-5438 (SC 292-5438)
 (904) 414-0479 (FAX)

EO. 12372/NEPA

Federal Consistency

- No Comment
- Comments Attached
- Not Applicable

- No Comment/Consistent
- Consistent/Comments Attached
- Inconsistent/Comments Attached
- Not Applicable

From:

Division/Bureau: Historical Resources

Reviewer: [Signature] Laura A. Kammerer

Date: 11/19/97 11-20-97

COUNTY: Monroe

DATE: 11/05/97

COMMENTS DUE-2 WKS: 11/20/97

CLEARANCE DUE DATE: 12/18/97

Message:

SAI#: FL9711030766C

STATE AGENCIES

WATER MANAGEMENT DISTRICTS

OPR POLICY UNITS

Agriculture
 Community Affairs
 Environmental Protection
 Game and Fresh Water Fish Comm
 Marine Fisheries Commission
 OTTED
 State
 X Transportation

South Florida WMD

Environmental Policy/C & ED

Post-It™ brand fax transmittal memo 7671 # of pages > 2

To: KERI AKERS	From: MARK HAMILTON
Co: DCA	Co: FDOT, D 6
Dept:	Phone #: (511) 377-5890
Fax #: (904) 994-0477	Fax #:

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

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 830, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

U.S. Department of the Navy - Scoping Document for the Environmental Assessment of the Construction of Two JP-5 Fuel Tanks at Boca Chica Field - Key West, Monroe County, Florida.

To: Florida State Clearinghouse
 Department of Community Affairs
 2555 Shumard Oak Boulevard
 Tallahassee, FL 32399-2100
 (850) 922-5438 (SC 292-5438)
 (904) 414-0479 (FAX)

EO. 12372/NEPA

Federal Consistency

- No Comment
- Comments Attached
- Not Applicable

- No Comment/Consistent
- Consistent/Comments Attached
- Inconsistent/Comments Attached
- Not Applicable

From:

Division/Bureau: FDOT DISTRICT 6 PLANNING
 Reviewer: DAVID KORRAS D.K.
 Date: 11/20/97

COUNTY: Monroe

DATE: 11/05/97

COMMENTS DUE-2 WKS: 11/20/97

CLEARANCE DUE DATE: 12/18/97

SAI#: FL9711030766C

Message:

STATE AGENCIES

WATER MANAGEMENT DISTRICTS

OPB POLICY UNITS

Agriculture
 Community Affairs
 Environmental Protection
 Game and Fresh Water Fish Comm
 Marine Fisheries Commission
 OTTED
 State
 Transportation

South Florida WMD

RECEIVED
 DEC 08 1997
 State of Florida Clearinghouse

X Environmental Policy/C & ED

RECEIVED
 NOV 7 1997
 OFFICE OF PLANNING
 & BUDGETING
 ENVIRONMENTAL POLICY UNIT

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

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

U.S. Department of the Navy - Scoping Document for the Environmental Assessment of the Construction of Two JP-5 Fuel Tanks at Boca Chica Field - Key West, Monroe County, Florida.

To: Florida State Clearinghouse
 Department of Community Affairs
 2555 Shumard Oak Boulevard
 Tallahassee, FL 32399-2100
 (850) 922-5438 (SC 292-5438)
 (904) 414-0479 (FAX)

EO. 12372/NEPA

Federal Consistency

No Comment

Comments Attached

Not Applicable

No Comment/Consistent

Consistent/Comments Attached

Inconsistent/Comments Attached

Not Applicable

at this stage

From:

Division/Bureau: EO 6-OPB Env. Policy

Reviewer: [Signature]

Date: 12/2/97

[Signature]

FLORIDALAWTON CHILES
GOVERNOR**DEPARTMENT OF TRANSPORTATION**THOMAS P. BARRY, JR.
SECRETARY**RECEIVED**

NOV 24 1997

6th DISTRICT
PLANNING AND
PROGRAMS OFFICE

MEMORANDUM

Date: November 21, 1997

To: Mark Hamilton, Planning Office

From: Marjorie Bixby, Environmental Manager *MB*

Copies: Barbara Culhane, Melanie Calvo

Re: ICAR for Boca Chica Naval Station fuel tank installation;
SAI# FL9711030766.

The FDOT has established the lagoon between SR 941 and the Boca Chica Naval Air Station as the location for future seagrass plantings. These plantings are to be off-site mitigation for seagrass impacts associated with the ~~widening~~ proposed widening of US 1 and reconstruction at Lake Surprise.

It is requested that the Navy be cognizant of this project and consider potential future impacts caused by either mechanical means or pollutant discharge to the seagrass plantings.

Should there be additional questions in this regard, please contact the District Environmental Management Office at (305) 470-5220.



South Florida Water Management District

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045
TDD (561) 697-2574

GOV 04-12 RF: 98080

November 20, 1997

RECEIVED
NOV 24 1997

Ms. Keri Akers
Florida State Clearinghouse
Florida Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

State of Florida Clearinghouse

Dear ~~Ms. Akers~~:

Subject: Environmental Assessment Of The Construction of Two JP-5 Fuel Tanks At Boca Chica Field Naval Air Station (SAI #9711030766C)

In response to your request, the South Florida Water Management District (SFWMD) has reviewed the Scoping Document submitted by the U.S. Navy in connection with the preparation of an Environmental Assessment (EA) for the above-referenced project.

Prior to preparation of the Draft EA, the applicant should contact Mr. Ron Peekstok in our Natural Resource Management Division at (561) 687-6956 to assess the extent of existing wetlands on the project site. Please be advised that, until the wetlands have been delineated by the applicant and field verified by SFWMD environmental staff, the potential for the proposed project to result in any adverse wetland impacts cannot be determined. This information is also necessary for the SFWMD to evaluate consistency of this project with the Florida Coastal Management Program (FCMP) and our Environmental Resource Permit (ERP) rules and criteria.

If I can be of further assistance, please give me a call at (561) 687-6862.

Sincerely,

James J. Golden, AICP
Senior Planner
Regulation Department

/jjg

c: L.M. Pitts, U.S. Navy

Governing Board:

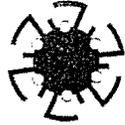
Frank Williamson, Jr., Chairman
Eugene K. Pettis, Vice Chairman
Mitchell W. Berger

Vera M. Carter
William E. Graham
William Hammond

Richard A. Machek
Michael D. Minton
Miriam Singer

Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

South
Florida
Regional
Planning
Council



December 5, 1997

RECEIVED
DEC 10 1997
State of Florida Clearinghouse

Ms. Cheri Trainor
Florida State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

RE: SFRPC #97-1111, SAI #FL9711030766C - Request for comments on the scoping document for the Environmental Assessment of the construction of two JP-5 fuel tanks at Boca Chica Field, U.S. Department of the Navy, Key West, Monroe County.

Dear Ms. Trainor:

We have reviewed the above-referenced document and have the following comments:

- Council staff is concerned about the cumulative impacts of this and similar projects. Staff recognizes the location of this project in the Florida Keys National Marine Sanctuary, a natural resource of regional significance as designated in the *Strategic Regional Policy Plan for South Florida*. The Florida Keys ecosystem is sensitive and is subject to significant growth pressures. While this project may have little effect on the system by itself, the cumulative impacts on the water quality and ecological integrity of the region are of concern to Council staff and need to be considered with all projects. The project should be consistent with the goals and policies of the City of Key West and Monroe County comprehensive plans and their corresponding land development regulations.
- Staff recommends that, if this permit is granted, 1) impacts to the natural systems be minimized to the greatest extent feasible and 2) the permit grantor determine the extent of sensitive marine life and vegetative communities in the vicinity of the project and require protection and/or mitigation of disturbed habitat. This will assist in reducing the cumulative impacts to native plants and animals, wetlands and deep water habitat and fisheries that the goals and policies of the *Strategic Regional Policy Plan for South Florida* seek to protect.
- The goals and policies of the *Strategic Regional Policy Plan for South Florida*, in particular those indicated below, should be observed when making decisions regarding this project.

Strategic Regional Goal

- 3.1 Eliminate the inappropriate uses of land by improving the land use designations and utilize land acquisition where necessary so that the quality and connectedness of Natural Resources of Regional Significance and suitable high quality natural areas is improved.

Regional Policies

- 3.1.1 Natural Resources of Regional Significance and other suitable natural resources shall be preserved and protected. Mitigation for unavoidable impacts will be provided either on-site or in identified regional habitat mitigation areas with the goal of providing the highest level of resource value and function for the regional system. Endangered faunal species habitat and populations documented on-site shall be preserved on-site. Threatened faunal species and populations and species of special concern documented on-site, as well as critically imperiled, imperiled and rare plants shall be preserved on-site unless it is demonstrated that off-site mitigation will not adversely impact the viability or number of individuals of the species.
- 3.1.9 Degradation or destruction of Natural Resources of Regional Significance, including listed species and their habitats will occur as a result of a proposed project only if:
- a) the activity is necessary to prevent or eliminate a public hazard, and
 - b) the activity is in the public interest and no other alternative exists, and
 - c) the activity does not destroy significant natural habitat, or identified natural resource values, and
 - d) the activity does not destroy habitat for threatened or endangered species, and
 - e) the activity does not negatively impact listed species that have been documented to use or rely upon the site.
- 3.1.10 Proposed projects shall include buffer zones between development and existing Natural Resources of Regional Significance and other suitable natural resources. The buffer zones shall provide natural habitat values and functions that compliment Natural Resources of Regional Significance values so that the natural system values of the site are not negatively impacted by adjacent uses. The buffer zones shall be a minimum of 25 feet in width. Alternative widths may be proposed if it is demonstrated that the alternative furthers the viability of the Natural Resource of Regional Significance, effectively separating the development impacts from the natural resource or contributing to reduced fragmentation of identified Natural Resources of Regional Significance.

Strategic Regional Goal

- 3.4 Improve the protection of upland habitat areas and maximize the interrelationships between the wetland and upland components of the natural system.

Regional Policies

- 3.4.4 Require the use of ecological studies and site and species specific surveys in projects that may impact natural habitat areas to ensure that rare and state and federally listed plants and wildlife are identified with respect to temporal and spatial distribution.
- 3.4.5 Identify and protect the habitats of rare and state and federally listed species. For those rare and threatened species that have been scientifically demonstrated by past or site specific studies to be relocated successfully, without resulting in harm to the relocated or receiving populations, and where *in-situ* preservation is neither possible nor desirable from an ecological perspective, identify suitable receptor sites, guaranteed to be preserved and managed in perpetuity for the protection of the relocated species that will

be utilized for the relocation of such rare or listed plants and animals made necessary by unavoidable project impacts. Consistent use of the site by endangered species, or documented endangered species habitat on-site shall be preserved on-site.

- 3.4.8 Remove invasive exotics from all Natural Resources of Regional Significance and associated buffer areas. Require the continued regular and periodic maintenance of areas that have had invasive exotics removed.
- 3.4.9 Required maintenance shall insure that re-establishment of the invasive exotic does not occur.

Strategic Regional Goal

- 3.8 Enhance and preserve natural system values of South Florida's shorelines, estuaries, benthic communities, fisheries, and associated habitats, including but not limited to, Florida Bay, Biscayne Bay and the coral reef tract.

Regional Policies

- 3.8.1 Enhance and preserve natural shoreline characteristics through requirements resulting from the review of proposed projects and in the implementation of ICE, including but not limited to, mangroves, beaches and dunes through prohibition of structural shoreline stabilization methods except to protect existing navigation channels, maintain reasonable riparian access, or allow an activity in the public interest as determined by applicable state and federal permitting criteria.
- 3.8.2 Enhance and preserve benthic communities, including but not limited to seagrass and shellfish beds, and coral habitats, by allowing only that dredge and fill activity, artificial shading of habitat areas, or destruction from boats that is the least amount practicable, and by encouraging permanent mooring facilities. Dredge and fill activities may occur on submerged lands in the Florida Keys only as permitted by the Monroe County Land Development Regulations. It must be demonstrated pursuant to the review of the proposed project features that the activities included in the proposed project do not cause permanent, adverse natural system impacts.
- 3.8.3 As a result of proposed project reviews, include conditions that result in a project that enhances and preserves marine and estuarine water quality by:
 - a) improving the timing and quality of freshwater inflows;
 - b) reducing turbidity, nutrient loading and bacterial loading from wastewater facilities and vessels;
 - c) reducing the number of improperly maintained stormwater systems; and
 - d) requiring port facilities and marinas to implement hazardous materials spill plans.
- 3.8.4 Enhance and preserve commercial and sports fisheries through monitoring, research, best management practices for fish harvesting and protection of nursery habitat and include the resulting information in educational programs throughout the region. Identified nursery habitat shall be protected through the inclusion of suitable habitat protective features including, but not limited to:

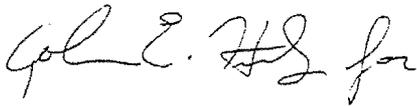
Ms. Cheri Trainor
December 5, 1997
Page 4

- a) avoidance of project impacts within habitat area;
- b) replacement of habitat area impacted by proposed project; or
- c) improvement of remaining habitat area within remainder of proposed project area.

3.8.5 Enhance and preserve habitat for endangered and threatened marine species by the preservation of identified endangered species habitat and populations. For threatened species or species of critical concern, on-site preservation will be required unless it is demonstrated that off-site mitigation will not adversely impact the viability or number of individuals of the species.

Thank you for the opportunity to comment. We would appreciate being kept informed on the progress of this project. Please do not hesitate to call if you have any questions or comments.

Sincerely,



Eric Silva
Regional Planner

ES/cp

cc: Ted Strader, City of Key West
Timothy McGarry, Monroe County