

Environmental Assessment

DRAFT

Proposed Strazzulla Tract Public Use Recreational Opportunities

For

ARTHUR R. MARSHALL LOXAHATCHEE
NATIONAL WILDLIFE REFUGE
PALM BEACH COUNTY, FLORIDA

For Further Information, Contact:
Project Leader
U.S. Fish and Wildlife Service
Arthur R. Marshall Loxahatchee National Wildlife Refuge
10216 Lee Road
Boynton Beach, FL 33437

TABLE OF CONTENTS

CHAPTER 1	Purpose and Need for Action.....	1
1.1	Introduction.....	1
1.2	Purpose and Need.....	4
CHAPTER 2	Proposed Action and Alternatives.....	4
2.1	Alternative A: No Action – No Public Use Opportunities.....	4
2.2	Alternative B: – Light Public Use – (proposed alternative).....	5
2.3	Alternative C: – Moderate Public Use.....	9
CHAPTER 3	Affected Environment.....	10
3.1	Physical Environment.....	10
3.2	Biological Environment.....	11
3.3	Socioeconomic Environment.....	14
3.4	Cultural and Historic Resources.....	15
CHAPTER 4	Environmental Consequences.....	16
4.1	Physical Consequences.....	16
4.2	Biological Consequences.....	18
4.3	Socioeconomic Consequences.....	20
4.4	Cultural Resource Consequences.....	21
4.5	Cumulative Impacts Analysis.....	21
CHAPTER 5	Consultation and Coordination with Others.....	23
APPENDIX A:	Literature References.....	24
APPENDIX B:	Section 7 Intra-Service Consultation.....	26
APPENDIX C:	Environmental Action Statement.....	40
APPENDIX D:	Appropriate Use Determinations.....	40
APPENDIX E:	Compatibility Determinations.....	44
APPENDIX F:	Court Report of April 8, 2015 Public Meeting.....	62
APPENDIX G:	Finding of No Significant Impact.....	102

CHAPTER 1 Purpose and Need for Action

1.1 Introduction

The National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. § 668dd et seq.) provides authority for the U.S. Fish and Wildlife Service (USFWS) to manage National Wildlife Refuges (NWRs) across the country. In accordance with the Act, Refuges will be managed to fulfill the mission of the National Wildlife Refuge System (NWRS); fulfill the individual purpose of each Refuge; and maintain the biological integrity, diversity, and environmental health of the natural system.

While wildlife is first priority in Refuge management, wildlife-dependent recreational uses or other uses may be allowed after they have been determined appropriate and compatible by the Refuge Manager or Project Leader. There are six priority wildlife-dependent public uses identified in the National Wildlife Refuge System Improvement Act of 1997: hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation. These six uses, called the “Big Six” are dependent upon healthy fish and wildlife populations and are to receive enhanced consideration over other public uses in planning and management.

The Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge) was established in 1951 under authority of the Migratory Bird Conservation Act of 1929. The Refuge (**Figure 1**) includes 141,374 acres operated under a license agreement with the State of Florida and 2,550 acres held in fee title. Since 1951, Water Conservation Area 1 (WCA1) has been managed as a NWR, initially under a 50-year license agreement between the State of Florida and the USFWS. Lands held in fee title for the Refuge include Compartments A, B, and C; the cypress swamp units on the eastern side of the Refuge; and Compartment D on the western side of the Refuge (**Figure 1**).

On May 14, 2015, the South Florida Water Management District (SFWMD) governing board voted in favor of a land swap between the SFWMD and the Refuge giving them ownership of Compartment D in exchange for the Strazzulla tract.

The Strazzulla tract (**Figure 2**) is a cypress-dominated wetland that provides habitat for a variety of wildlife species, including federally endangered snail kites, State threatened Florida sandhill cranes, and “secretive” marsh birds (Brandt 2005, Rutchey et al. 2006). The Refuge previously managed a portion of the Strazzulla tract from 1994 to 2002 (1,604 acres) as part of a license agreement with the SFWMD. In 2002, the initial license agreement was revised and renewed, and the Strazzulla tract was not included in the new agreement. The Strazzulla tract was previously included in the approved acquisition boundary of the Refuge.

The purpose of this Environmental Assessment (EA) is to identify the role the Refuge will play in support of the mission of the NWRS, and provide guidance in administering public use recreational opportunities on the Strazzulla tract when funding is available.

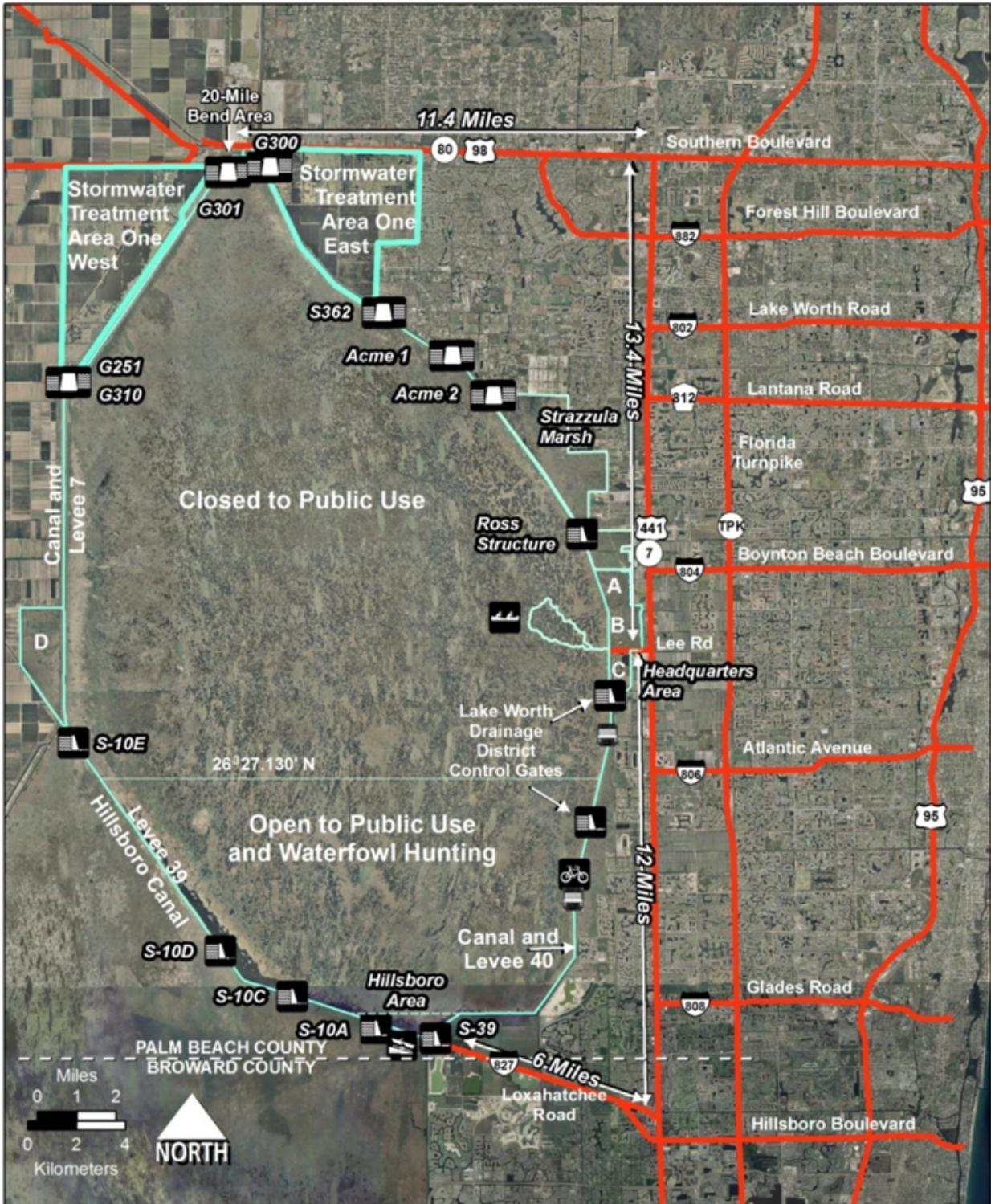


Figure 1. Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge).

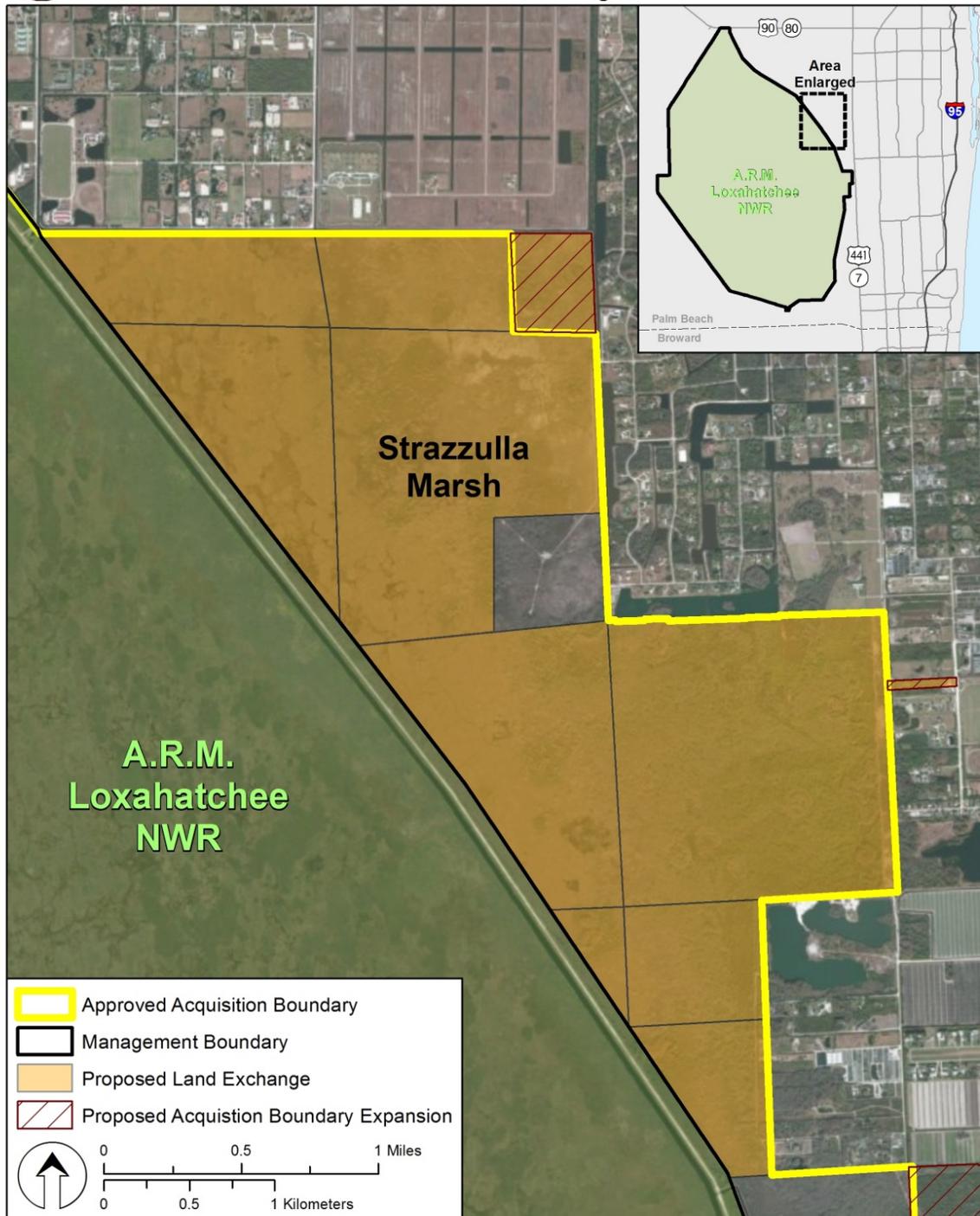


Figure 2. Detail of the Strazzulla tract location and boundaries, and approved and proposed expansion of the USFWS acquisition boundaries.

1.2 Purpose and Need

The purpose of this EA is to evaluate the environmental impacts of proposed public use recreational opportunities on the Strazzulla tract, ensuring that the proposed actions promote conservation of wildlife, fish, natural diversity, natural abundance, and ecological functions of a Refuge; provide conservation, maintenance, and management of wildlife, habitat, and cultural resources on the Refuge; serve as an inviolate sanctuary for migratory birds; and provide recreational activities when appropriate and compatible with the purpose of the Refuge and the mission of the NWRs. The need to propose alternative actions for public use is to protect wildlife and habitat values associated with the Strazzulla tract, while also ensuring a quality wildlife-dependent recreational experience. In achieving a “wildlife first” mandate, the number of Refuge users and conflicts among users may be limited by (1) permitted uses; (2) designating trails, levees and sites for specific kinds of wildlife-dependent recreation use; and (3) permitting uses at certain times of the year.

There are a number of situations where future Refuge closures or restrictions may be warranted. Examples of these situations include, but are not limited to, specific designated use areas; the protection of endangered species (flora or fauna); protection of colonial bird nesting colonies or roost sites, establishment of sanctuary areas for waterfowl; management activities including invasive/exotic species removal or prescribed fire; restriction of hunting to certain days of the week; closing a hunt season due to population decline; establishment of hunter quota systems to provide for public safety and a high quality hunting experience or to achieve specific wildlife population objectives; minimizing conflicts with other refuge management or public use programs; and/or inadequate funds or staff to administer the activities.

The Strazzulla tract is an important transition zone from cypress forest to sawgrass marsh, and is adjacent to the current Refuge management boundary. Managing the Strazzulla tract will contribute to meeting multiple goals and objectives outlined in the Refuge’s Comprehensive Conservation Plan (USFWS 2000). These include:

- Goal 1 (Wildlife Habitat and Population Management): Objectives 2 (Water Quality Monitoring) and 7 (Habitat Management for Trust Species);
- Goal 2 (Resource Protection): Objective 3 (Protect Areas of Concern and Buffer Lands); and
- Goal 3 (Public Use): Objectives 2 (Provide Public Access to the Strazzulla tract), and 6 (Environmental Education).

CHAPTER 2 Proposed Action and Alternatives

2.1 Alternative A: No Action – No Public Use Opportunities

Under Alternative A, the Strazzulla tract would remain closed to the public and no public use opportunities would occur. Management of the Strazzulla tract would include removing and treating invasive and exotic plants, minimizing expansion of woody vegetation into wet prairie and sawgrass communities, and controlling exotic animals such as the feral hog (*Sus scrofa*) which damage vegetation while providing opportunities for exotic vegetation to invade.

Restoration of the Strazzulla tract would include using traditional habitat management tools such as removing invasive/exotic species and conducting prescribed fires for habitat management. Under this alternative, public use opportunities would not be allowed.

2.2 Alternative B: – Light Public Use – (proposed alternative)

The proposed action (proposed alternative) allows light public use on the 2,586-acre Strazzulla tract to be owned in fee title and managed by the Refuge. The Refuge's 2000 Comprehensive Conservation Plan (CCP) (USFWS 2000) and associated Environmental Assessment included the Strazzulla tract in its 15-year plan for managing the Refuge. The proposed alternative management plan (referred to as the "Ecosystem Emphasis Alternative 2") from the CCP included opening the Strazzulla tract to the public on a limited basis and managing the Strazzulla tract for trust species.

The previously closed Strazzulla tract would be opened to the public on a limited basis. When there is an availability of funding, new facilities may be developed to include an interpretive trail, a boardwalk, a photo blind, and an observation tower. Proposed parking access will be partnered with the Village of Wellington and the Acme Drainage District. For the purpose of this EA, the Refuge is proposing the following public use options: environmental education; wildlife observation, a boardwalk and interpretive trail, a photo blind, and a wildlife observation tower. In addition, the Refuge would carefully consider the potential for a small-scale hunt (white-tailed deer (*Odocoileus virginianus*) and feral hog), bike riding (on existing trails), a limited camping opportunity for youth groups in designated areas, and a horseback riding trail. The Refuge Improvement Act of 1997 mandates the USFWS to provide wildlife-dependent recreation on Refuges, where appropriate and compatible, and designates six priority public uses of the Refuge System, referred to as the "Big Six": wildlife observation, wildlife photography, environmental education, environmental interpretation, hunting, and fishing.

The Refuge plans to use existing trails and levees as much as possible within the Strazzulla tract to minimize both environmental impacts and construction costs. Existing trails will provide considerable access with limited improvement needs. Other infrastructure (parking lots, boardwalks, towers, fishing piers, etc.) will have to be constructed as funding becomes available. All boardwalks would be Americans with Disability Act (ADA) approved. The perimeter canal (L-40) that borders the Strazzulla tract and the Refuge interior offers exceptional wildlife viewing and photographic opportunities for a myriad of wading birds, waterfowl, hawks, and alligators. Furthermore, the L-40 levee adjacent to the L-40 canal offers one of the highest vistas enabling observation of the unique Everglades habitats. The levee allows excellent opportunities for wildlife observation while limiting the impact or disturbance of human use.

Hikers and bikers are major user groups that heavily use trails in the south Florida area for the opportunity to experience and enjoy the outdoors and observe nature and wildlife. Existing trails and levees in designated areas would be used to provide wildlife viewing opportunities throughout the Strazzulla tract.

Potential hunting opportunities would be limited to a small-scale hunt for deer and feral hog in coordination with the Florida Fish and Wildlife Conservation Commission (FWC). FWC would

manage the hunt, and deer hunting would be limited to bucks only with antler regulations of at least two points on one side. The Refuge falls within the FWC's Deer Management Unit (DMU) A1; however, the Refuge deer and hog hunts could be more restrictive. Hunting opportunities would be limited to archery and crossbow to minimize potential negative interactions with surrounding residential communities. Crossbow would only be allowed during muzzleloader and general deer seasons, however, primitive weapons (muzzleloader), shotguns, and rifles will not be allowed on the Strazzulla tract for the safety of the surrounding communities. Refuge deer and hog hunts on the Strazzulla tract would allow a minimum of two (2) weekends total per season with three-four (3-4) day hunts each weekend. Deer and hog season will not exceed the dates and times allowed by FWC for Deer Management Unit A1. One weekend will take place early in the hunt season (Archery Season), and one weekend will take place during the latter half of the season (General Season). Additional hunts might be added depending on the deer and hog population within the Strazzulla tract. Hunting permits will be issued by FWC, and will be a lottery system used by the state. Feral hogs are an invasive species and feed by rooting with their snouts causing habitat disturbance which allow invasive/exotic species an opportunity to establish and spread. In the Strazzulla tract, feral hogs impact the parcel by uprooting vegetation, disrupting habitat and creating potential exotic plant establishment sites. Hogs will be allowed to be taken during the proposed deer hunting time frames, but may be hunted opportunistically if habitat damage is observed.

A potential partnership with the SFWMD and the Village of Wellington may provide an opportunity to place a canoe launch and fishing pier adjacent to the Strazzulla tract in the L-40 canal. Access to this area would be at an entrance point at ACME 2 (**Figure 1**). This potential partnership would provide an additional opportunity for canoers, kayakers, and anglers to utilize the L-40 north of the existing Lee Road boat ramp facilities (**Figure 3**). Fishing opportunities within the Strazzulla tract would not be allowed due to limited suitable habitat. Fishing would only take place in the L-40 canal adjacent to the Strazzulla tract (**Figure 3**).

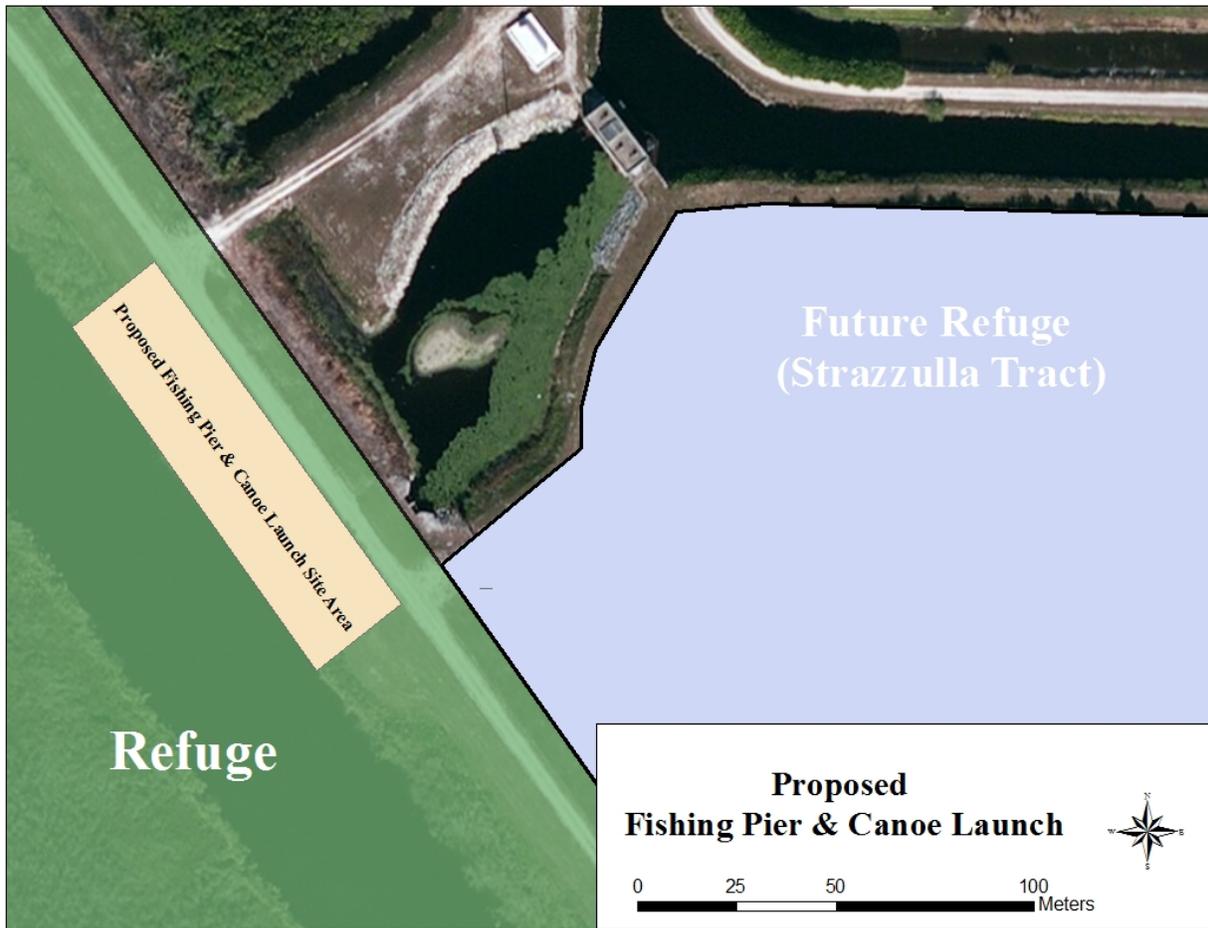


Figure 3. Proposed area for fishing pier and canoe launch.

Potential youth camping (i.e. Boy Scouts, Girl Scouts, JROTC, YMCA, etc.) opportunities would allow children to learn about the Everglades, enjoy the unique opportunity to experience nocturnal wildlife, and provide an opportunity to recognize the uniqueness of the Everglades ecosystem. It is vital to provide ways for youth to understand why supporting the cost of ongoing restoration/protection efforts is important to the residents of south Florida. To provide this experience, a very limited overnight camping opportunity is proposed.

Small designated campsites would be constructed with a cleared area and fire ring. This opportunity would provide a back country camping experience and campers would be required to use pack-in and pack-out techniques used in wilderness settings. Campers shall stay on the trails and use the designated camp areas to stay the night. Overnight stays would be by permit only, based on advanced reservations, limited by number, and only during certain times of year. Specific restrictions and guidelines would prevent visitors from becoming lost during their visit and reduce the number of emergency rescues by law enforcement staff. However, long-term disturbance would be minimal. Facilities will be limited to provide a back country experience and consist of a cleared area and a fire ring in these campsites. No restrooms, tables, garbage disposal, or other amenities would be provided.

This alternative would provide for horseback riding use on the northern perimeter levee of the Strazzulla tract from the Acme Pump Station 2 (Figure 4 and 5). The majority of the horseback riding will occur immediately north of the Strazzulla tract on Acme Drainage District land. Horseback riding access will depend on partnering with the Village of Wellington for vehicle and trailer parking at the Acme site and the Acme Drainage District for access to the northern portion of the Strazzulla tract. Equestrian opportunities will give this group, who might not otherwise visit the Refuge, an opportunity to appreciate the Everglades ecosystem, observe resident wildlife, and enjoy the aesthetic attributes of a NWR.

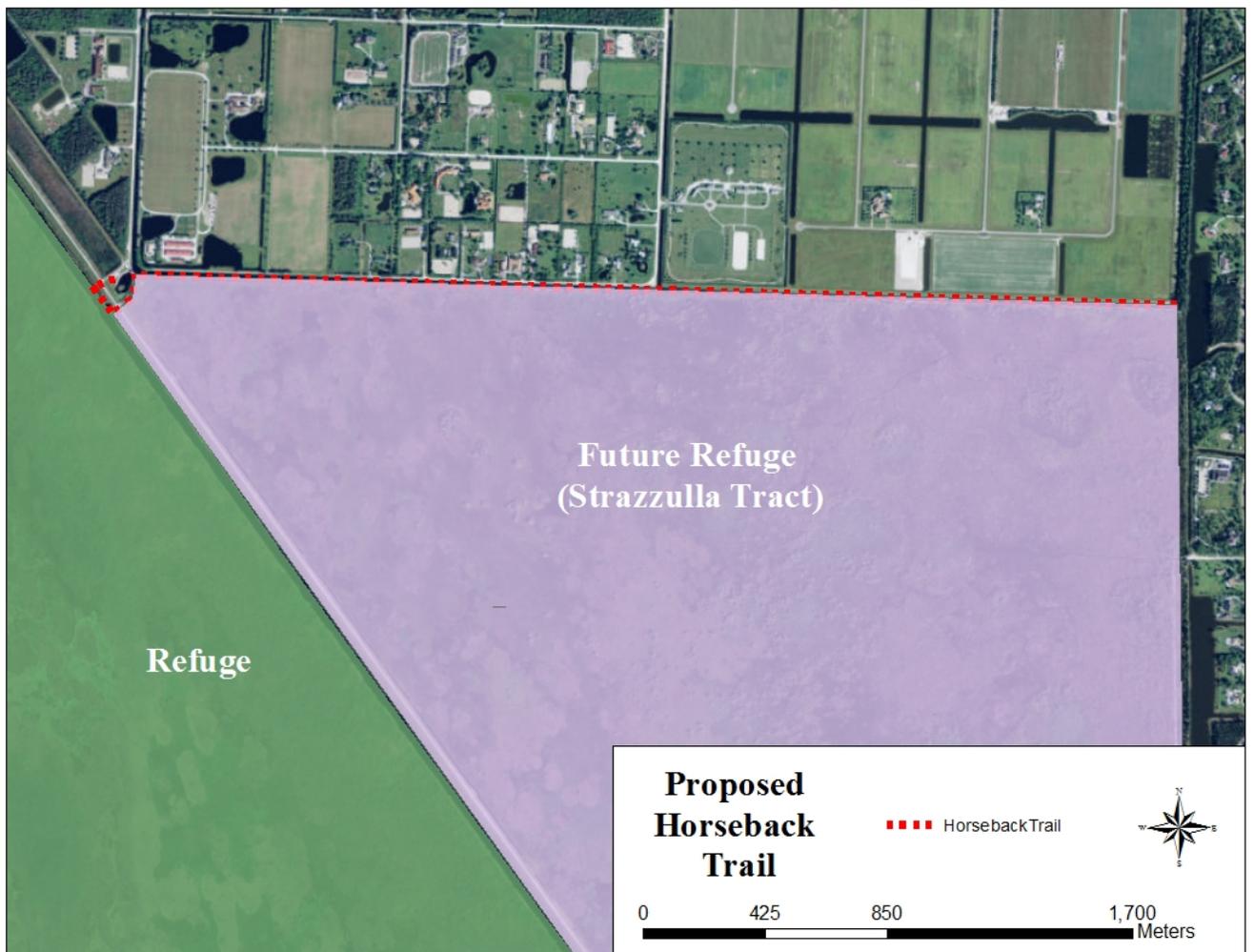


Figure 4. Proposed horseback riding trail.

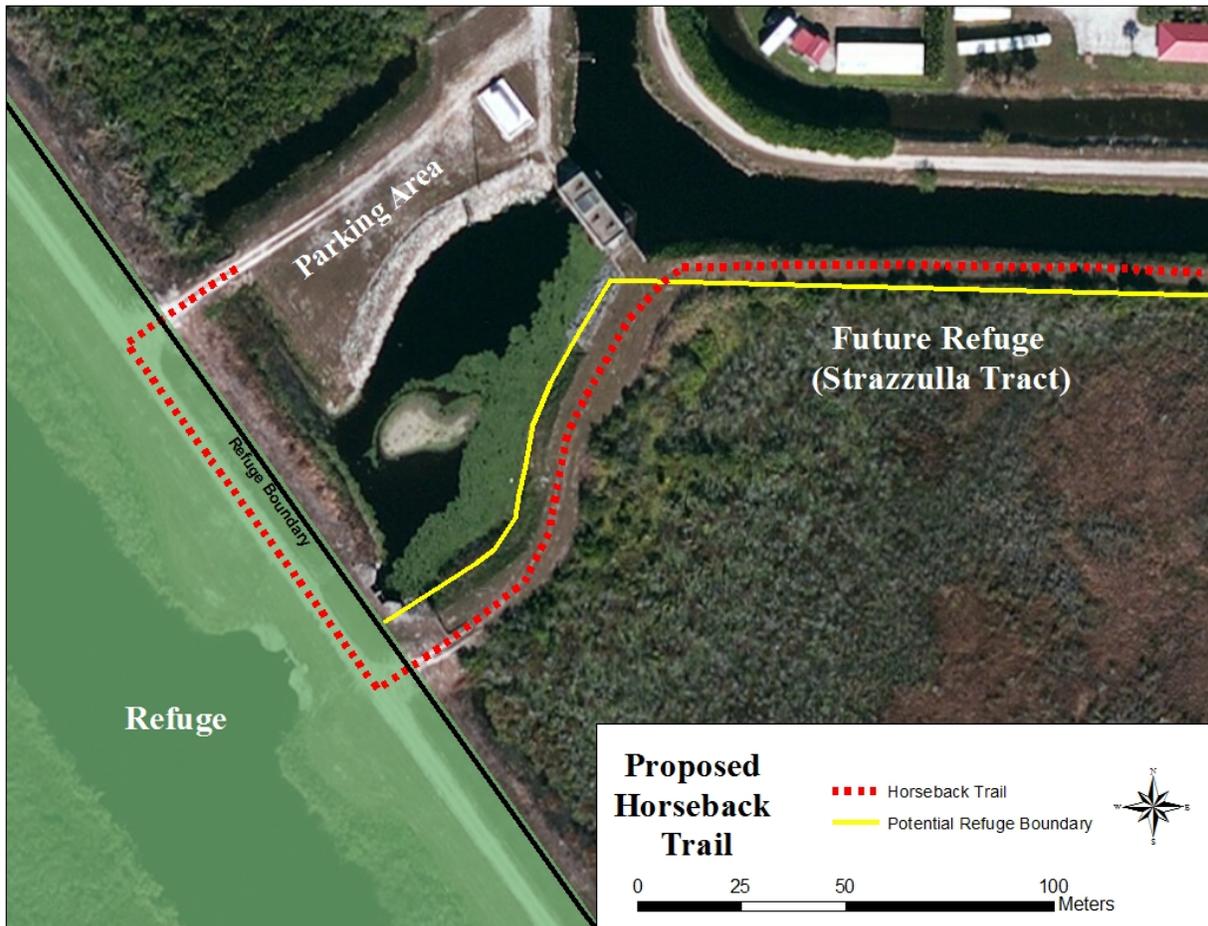


Figure 5. Proposed horseback riding trail and parking area.

The transfer of the Strazzulla tract to the Refuge provides permanent protection for this important tract of remaining remaining cypress, sawgrass marsh, and wet prairie habitats, and ensures that this habitat remains intact and available to support the maximum ecological benefits for Everglades’ wildlife, including threatened, endangered, and trust species. Under this alternative, public use recreational opportunities are expected to have negligible impacts to sensitive species and buffers will be in place to ensure protection of threatened, endangered, and trust species as well as compatibility between public uses and the mission of the NWRS.

2.3 Alternative C: – Moderate Public Use

Alternative C would allow moderate public use on the Strazzulla tract. Primitive camping for the general public in designated areas would be allowed.

Public camping in designated areas would allow people to learn about the Everglades, enjoy the unique opportunity to observe nocturnal wildlife, and an opportunity to recognize the uniqueness of the Everglades ecosystem. It is vital to provide ways to understand why supporting the cost of ongoing restoration/protection efforts is important to the residents of south Florida. To provide this experience, a very limited overnight camping opportunity is proposed. Facilities will be

limited to provide a back country experience and consist of a cleared area and a fire ring in these campsites. No restrooms, tables, garbage disposal, or other amenities would be provided. Visitors shall stay on the trails and use the designated camp areas to stay the night.

Overnight stays would be by permit only, based on advanced reservations, limited by number and only during certain times of year. Specific restrictions and guidelines would help keep visitors from becoming lost during their visit and reduce the number of emergency rescues by law enforcement staff. If mandatory rescue missions become too numerous, the camping experience will be modified or closed. Further stipulations may be made to assure wildlife and vegetation are not disturbed, including ending the overnight option.

CHAPTER 3 Affected Environment

This chapter describes the environmental conditions of the lands being proposed for public use recreational opportunities on the Strazzulla tract (**Figures 1 and 2**).

3.1 Physical Environment

The Refuge is the last remnant of the once vast northern Everglades ridge and slough landscape. It is located seven miles west of the city of Boynton Beach, in Palm Beach County, Florida. Palm Beach County is the largest county in terms of land area and the largest agriculture producing county in terms of dollar value east of the Mississippi River.

The Refuge and the Strazzulla tract are within the Southern Florida Coastal Plain ecoregion (USEPA 2011) and the Equatorial monsoon climate zone (minimum monthly average temperature $\geq +18$ °C, and accumulated annual precipitation (mm) ≥ 25 times [100 minus precipitation of the driest month (mm)]; Kottek et al. 2006). In general, there are two seasons—wet and dry. The wet season occurs from about May to October. Wet season rainfall averages 38.1 inches (968 mm), 73% of the average annual rainfall (52.2 inches). Dry season occurs from about November to April.

Geologically, the Everglades are recent, having been formed only about 5,000 years ago. The limestone bedrock of this once vast freshwater marsh is covered with a layer of peat up to 12 feet thick. Underlying the Refuge is a large aquifer that provides water to the nearby coastal area. Land elevations vary from about 17 feet msl at the northern tip of the Refuge to 11 feet msl on the southern boundary. The managed interior marsh of the Refuge is entirely impounded by three levees/borrow canals (L-40, L-39, and L-7) that form a 57-mile border around the perimeter of the Refuge marsh.

The Strazzulla tract is located on the eastern side of the Refuge along the L-40 canal and levee (**Figures 1 and 2**), was originally the meeting point of the Everglades and the huge, north-flowing swamp known as the Loxahatchee Slough. This slough served as headwaters for the Loxahatchee River near Jupiter. The NRCS Web Soil Survey indicates that soils in this area are 86% fine sand (Boca, Holopaw, Pineda, and Riviera fine sands), 13% muck (Sanibel, Tequesta, and Okeelanta mucks), and 1% other soils (NRCS 2014). Generally, the fine sand soils are poorly drained (very poorly drained in depressional areas) with 5 to 6 feet of fine sand and/or

sandy loam soil layers, very low to low available water storage in the soil profile, moderately high to very high capacity to transmit water ($K_{sat} = 0.2$ to 20 in/hr), depth to water table of 0 to 12 inches, and frequency of ponding ranging from frequent (in depressional areas) to none (NRCS 2014). The mucks (drained) are generally very poorly drained soil with 1 to $2\frac{1}{2}$ feet of muck overlaying $2\frac{1}{2}$ to 5 feet of fine sand and/or sandy loam layers, moderate to high available water storage in the soil profile, moderately high to very high capacity to transmit water ($K_{sat} = 0.6$ to 20 in/hr), water table near the surface, and frequent ponding (NRCS 2014).

The Strazzulla tract is primarily a rainfall-driven system. Low, largely rainfall-driven phosphorus and chloride values in the Strazzulla tract (Richardson et al. 1990; USEPA 2001) reflect a cypress swamp that would benefit from being further isolated from adjacent land management practices in the future (USFWS 2003). Results of a monitoring study of the Strazzulla tract (Frakes et al. 2010) suggest the area exhibits high wetland quality and functional values relative to the surrounding areas.

A three year monitoring study (May 2001 through April 2004) by Refuge biologists was undertaken to determine baseline levels of phosphorus, chloride, metals, and pesticides in the Strazzulla tracts surface water and soils (Frakes et al. 2010). They found concentrations of metals in surface water and sediments seldom exceeded State surface water quality criteria (SWQC) or sediment quality assessment guideline (SQAG) values. Adverse impacts from these exceedances were stated to be unlikely (Frakes et al. 2010). Legacy pesticides DDD and DDE were present in several sediment samples above SQAG values. However, food-web modeling confirmed that there was little, if any, risk to aquatic dependent birds (Frakes et al. 2010).

3.2 Biological Environment

3.2.1 Vegetation and Habitat

A vegetation classification for southern Florida (Rutchev et al. 2006) found the “Strazzulla tract property adjacent to eastern Loxahatchee NWR” to be characteristic of a Cypress Forest having the following general description: “Pond Cypress (*Taxodium ascendens*) and/or Bald Cypress (*Taxodium distichum*) dominant forest with common understory vegetation consisting of Pond Apple (*Annona glabra*), Wax Myrtle (*Myrica cerifera*), Pop Ash (*Fraxinus caroliniana*), Cocoplum (*Chrysobalanus icaco*), and Leather Fern (*Acrostichum danaeifolium*).” A land assessment effort completed by the SFWMD (2013) documented the vegetation communities in the Strazzulla tract as “transition[ing] from cypress in the east to sawgrass marsh in the west and...wet prairie towards the center of the site.” This parcel has a direct hydrologic connection to portions of the Refuge’s 400 acre cypress swamp and serves as habitat for wildlife in the region.

3.2.2 Wildlife Resources

The Refuge provides important feeding, roosting, and nesting habitats for many birds, mammals, reptiles, amphibians, and fish species. In a given year, as many as 257 species of birds may use the diverse habitats found on the Refuge (USFWS 2000). Of those, approximately 93 species are considered to be common or abundant during certain seasons (USFWS 2000). Numerous duck species, including mottled, ring-necked, fulvous whistling, wood, ruddy, blue and green-winged

teal, lesser scaup, northern pintail, American widgeon, northern shoveler, hooded merganser, gadwall, and coot, can be found on the Refuge during the fall and winter when water levels are appropriate and habitat is available (USFWS 2000). Since the Strazzulla tract is adjacent to the Refuge and has similar habitat, many of the same species may be observed.

Twenty-three species of mammals commonly found in south Florida are known to occur on the Refuge, including the Mexican free-tailed bat (*Tadarida basiliensis*), cotton mouse (*Peromyscus gossypinus*), river otter (*Lutra canadensis*), eastern gray squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), white-tailed deer, round-tailed muskrat (*Neofiber alleni*), and marsh rabbit (*Sylvilagus palustris*) (USFWS 2000).

Amphibians and reptiles are also well represented on the Refuge. Approximately ten species of turtles, eight species of lizards, 24 snake species, and American alligators (*Alligator mississippiensis*) are present on the Refuge (USFWS 2000).

There are at least 46 species of temperate fresh water fish that occur regularly on the Refuge, including mosquito fish, topminnow, largemouth bass, gar, and bowfin (Loftus and Kushlan 1987). Structurally simple sloughs and canals are dominated by bass and other predatory fish (Loftus and Kushlan 1987). Prawns and crayfish tend to occur more often in densely vegetated wet prairies than in sloughs (Lowe 1986). Small fish and large arthropods manage to avoid large fish in sloughs, but large arthropods feed on small fish in wet prairies and sawgrass stands. Fishing opportunities are being considered in the L-40 canal adjacent to the Strazzulla tract; however, due to limited suitable areas to fish within the Strazzulla tract, fishing opportunities will not be offered.

In a study by the United States Army Corps of Engineers (USACE) (1999), the Strazzulla tract was found to provide the following benefits: (1) expands the spatial extent of protected natural areas; (2) makes a hydrological and ecological connection to the Refuge; (3) acts as a buffer between higher water stages to the west and agricultural lands to the east that must be drained; (4) provides vital habitat connectivity for species that require large unfragmented tracts of land for survival; and (5) protects the only remaining cypress habitat in the eastern Everglades and one of the few remaining sawgrass marshes adjacent to the coastal ridge.

3.2.3 Threatened and Endangered Species

At least 63 plant or animal species listed by the State or Federal government as endangered, threatened, or species of special concern are known to occur on the Refuge, either currently or historically. These species include, but are not limited to, the snail kite (*Rostrhamus sociabilis plumbeus*), wood stork (*Mycteria americana*), Florida panther (*Puma concolor coryi*), eastern indigo snake (*Drymarchon corais couperi*), Audubon's crested caracara (*Polyborus plancus audubonii*), bald eagle (*Haliaeetus leucocephalus*), Florida sandhill crane (*Grus canadensis pratensis*), snowy egret (*Egretta thula*), little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), and roseate spoonbill (*Ajaia ajaia*) (USFWS 2000).

The entire Refuge is designated as critical habitat for the snail kite (50 CFR§ 17.95(b), 1977) (**Figure 6**). Snail kites forage and sometimes nest in the interior marsh of the Refuge with a

preference for wet prairie and slough habitats. However, snail kites are highly nomadic, and are usually not abundant on the Refuge unless environmental conditions are optimal such as abundant apple snail populations and water levels that maximize forage potential. Snail kites are usually encountered during the winter months (December to March), as this coincides with the period when water levels are the highest within the interior marsh, allowing them to more effectively forage on apple snails. If breeding occurs, it generally takes place from January to March. Snail kite foraging and nesting is possible, but has not been documented in the Strazzulla tract.

Wood storks forage in the interior marsh during periods of low water encountered during the spring draw down (April through early June) in preparation for hurricane season, or during extreme droughts as experienced in 2001 and 2011. The time frame for optimal wood stork foraging, breeding, and roosting is even shorter than that observed with the snail kite. Wood storks are extremely susceptible to water level fluctuations and generally disperse with the onset of summer rains (late May or early June). High numbers of wood storks (300) have been observed foraging on the Refuge interior and impoundments when water levels are very low. Historically, before the Everglades ecosystem was modified for water management purposes, wood storks began to nest as early as November. However, wood storks now nest from February to May due to habitat and hydro pattern modifications that have disrupted the natural synchronization between forage availability and energetic requirements of reproductive birds. As such, even minor fluctuations in water levels can cause wood storks to abandon their nests. Occasionally, but infrequently, wood storks will nest and have nested successfully in the Refuge. For example, two pairs nested successfully in 1990, one unsuccessfully in 1999, 21 successfully in 2009. Wood stork foraging has been observed and nesting is possible, but nesting has not been documented in the Strazzulla tract.

While the Refuge is within the Florida Scrub Jay consultation area, neither the Refuge nor the Strazzulla tract provide upland scrub habitat required by this species (**Figure 6**).

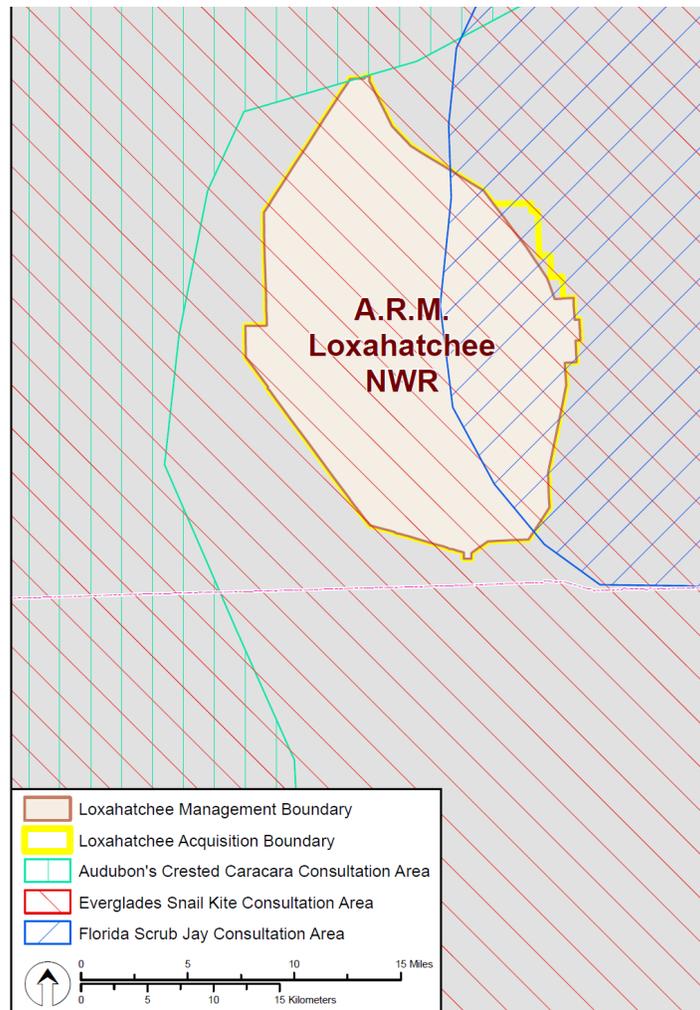


Figure 6. Shows the Species Consultation Areas that overlap the Refuge management boundary.

3.3 Socioeconomic Environment

3.3.1 Demographics

Palm Beach County is a county of extremes. Along the east coast lies a highly urbanized area, part of the South Florida urban system of some three million people. Urbanization extends westward through the county to the Refuge’s eastern boundary. Around the Refuge, agriculture and low density urban dwellings exist. West of the Refuge lies an extensive system of highly productive agricultural fields where sugar cane and other crops or sod are grown. Palm Beach County and proximal counties, including Broward and Martin, are slowly losing their rural character and becoming urbanized. Broward County (to the south of Palm Beach) has already extended its urban fringe to the border of levees that surround the southern Everglades, similar to Dade County (further south). Martin County (to the north of Palm Beach) is slowly developing into its western reaches. The population in Palm Beach County grew 16.7% from a population of 1,131,184 in 2000 to 1,320,134 in 2010 (U.S. Census Bureau 2014). Median household

income (\$51,278) and per capita income (\$31,743) for Palm Beach County for 2012 were higher than State averages (U.S. Census Bureau 2014).

3.3.2 Recreation Use

There are no developed public use facilities on the Strazzulla tract parcel (SFWMD 2013). The Strazzulla tract is currently open to non-motorized uses by the SFWMD. Horseback riding, hunting, hiking, target practicing, ATV riding, and other uses are currently occurring on the Strazzulla tract.

For the purpose of this EA, the Refuge is proposing the following public use options in our proposed Alternative (B): environmental education; wildlife observation, a boardwalk with an interpretive trail, photo blind, canoe launch and fishing pier (L-40 canal adjacent to the marsh), and an observation tower. In addition, the Refuge would carefully consider the potential for a small-scale hunt using archery or crossbow (deer and feral hog), bike riding, limited camping for youth groups, and horseback riding on an existing levee. Alternative C would also expand camping to allow all age groups and provide for. All proposed alternatives are based on an availability of funding.

The “Big Six” are traditional forms of outdoor recreation for many people in South Florida. During the latest National Survey of Fishing, Hunting and Wildlife-Associated Recreation held in 2006, it was indicated that in Florida, there were 5.9 million residents and nonresidents participating in fishing, hunting, and watching wildlife. The economic impact of the Refuge on the local economy is very beneficial. For every dollar (\$1.00) Congress spends on the Refuge, approximately \$6.81 comes back to the local economy. In addition, Refuge visitation also generates 107 jobs in the local community (Banking on Nature, 2011).

3.4 Cultural and Historic Resources

3.4.1 Prehistoric Background

Archaeologists suspect that prehistoric occupation did not occur on the Refuge because of little dry land on which to live. Even tree islands, which are thought to have formed within the last 1,000 years, would have been unsuitable for prehistoric occupation (Griffin et al. 1979). Three sites show evidence of the Glades tradition within close proximity to the Refuge (Griffin et al. 1979). The sites mentioned include the Cagles Hammock site, the Markham Park site (Williams and Mowers 1977), and the Peace Camp site (Mowers and Williams 1972).

3.4.2 Belle Glade (Okeechobee) Area

Griffin et al. (1979) have hypothesized that the Refuge may have been used by the Belle Glade People to travel east toward the Atlantic. Once there, the Belle Glade people could have traded with the groups occupying the area, or harvested the marine goods recovered at Fort Center (Griffin et al. 1979).

The closest Belle Glade site to the Refuge (according to Griffin et al. 1979) is the Boynton Mound Complex located within ½ mile of the eastern Refuge boundary.

3.4.3 Historic Period

By the time European explorers stepped foot on the Florida peninsula, there were five tribal groups associated with the east coast of Florida. These groups were the Timicua to the north, the Ais, the Guacata, the Jeaga, and the Tequesta to the south. All tribes were known to collect shellfish and other marine and aquatic resources, which resulted in large shell and bone middens near the villages (Andrews and Andrews 1985). There is evidence that these middens/mounds were used as safe-havens of dry land when coastal flooding occurred (Andrews and Andrews 1985). Tribal groups most associated with the Refuge area were the Guacata, the Jeaga, and the Tequesta (Griffin et al. 1979). It appears that the Guacata occupied territory in a band north of the Refuge, including the eastern shore of Lake Okeechobee and the coast near St. Lucie. Other groups, the Jeaga and perhaps even the Tequesta, were located south of what is now the Refuge. By the 1800s, Native Americans from Georgia, Alabama, and South Carolina began filtering down into the Florida peninsula. These people became more cohesive through time as they fought together against the encroaching Europeans in the Second Seminole War of 1835-1842 (Neill 1956). The war's end could be nothing but a loss for the Seminoles, as they were forcibly moved west. Those that chose to remain made their way into the Everglades inhabiting a land that the newer Americans did not seem to want (Griffin et al. 1979). With improved transportation, more non-Native American settlers began to move into the area. Small communities, most of which were short lived, sprang up near the Refuge. These consisted of Belle Glade (c. 1913), Glade Crest (c. 1914) on the Hillsboro Canal, Shawano (c. 1924) on the Hillsboro Canal, 20 Mile Bend at the juncture of the Hillsboro and West Palm Beach Canals, Gladeview on Hillsboro Canal, and Loxahatchee (c. 1913) on West Palm Beach Canal (Will 1964, p. 180; Will 1968, p. 33; Griffin et al. 1979). The new settlements, with associated road construction, managed to bypass the Refuge due to the inhospitable environment.

CHAPTER 4 Environmental Consequences

This chapter describes the foreseeable environmental consequences of implementing the three alternatives outlined in Chapter 2.

When detailed information is available, a scientific and analytic comparison between alternatives and their anticipated consequences is presented, which is described as “impacts” or “effects.” When detailed information is not available, those comparisons are based on the professional judgment and experience of Refuge staff and USFWS and State biologists.

4.1 Physical Consequences

The physical environment of the Strazzulla tract appears sufficient for continued conservation, maintenance, and management as a natural area. Soil and water samples from the Strazzulla tract exhibit low phosphorus and chloride values, low levels of mercury and lead, and low levels of the pesticide DDE, none of which were considered to be ecologically detrimental (Frakes et al. 2010; also see Section 3.1).

4.1.1 Impacts to Physical Environment

Impacts of each alternative on the Refuge physical environment have been evaluated.

Alternative A would provide minimal disturbance to the surface soils, topography in the Strazzulla tract. Following restoration activities, short term disturbances to surface soils may be observed.

Alternative B would have some initial disturbance to surface soils, topography, and in areas associated with construction of an interpretive trail, a boardwalk, a photo blind, or an observation tower; however, effects would be minimal and care would be taken to minimize habitat damage adjacent to the project. All efforts will be made to use conservative construction techniques (i.e. silt barriers), recycled materials, and environmentally sensitive treated lumber in each of the proposed projects. The public use opportunities being proposed will take advantage of existing roads/levees and trails in the Strazzulla tract wherever possible and will provide excellent opportunities to observe the many species of wildlife that use the area.

Hunting opportunities would be limited to archery and crossbow to minimize potential negative interactions with surrounding residential communities. Primitive weapons, shotguns, and rifles will not be allowed on the Strazzulla tract for the safety of the surrounding communities. These hunts would be limited to small-scale lottery hunts for deer and feral hog. Feral hog are an invasive species and feed by rooting with their snouts causing habitat disturbance which allow invasive/exotic species an opportunity to establish. The proposed hunt should not result in any negative cumulative impacts to the Refuge, and given the small number of permits issued, only a negligible increase of hunters will be observed. The Refuge would monitor access to the Strazzulla tract in order to minimize habitat degradation as a result of visitor access and modify public use recreational options if negative consequences to the physical environment were observed.

Some disturbance to wildlife and habitat may initially occur with the construction of the campsites. However, long-term disturbance would be minimal to moderate based on the amount of people permitted, the wilderness back country techniques (pack-in/pack-out), and primitive campsites allowed in designated areas.

Negligible impacts to the natural hydrology of the Strazzulla tract are also expected. The Refuge expects impacts to air and water quality to be minimal. Existing State water quality criteria and use classifications are adequate to achieve desired on-Refuge conditions; thus, implementation of the proposed actions in *Alternative A* and *Alternative B* would not impact adjacent landowners or users beyond the constraints already implemented under existing State standards and laws.

Impacts associated with solitude are expected to be minimal given time and space management techniques used to avoid conflicts among user groups, such as seasonal access and area closures.

Horseback riding on the north levee accessed from Acme 2 would have moderate impacts to levees in the areas where horses are allowed to travel. All horses accessing the Strazzulla tract shall be required to keep horse manure off of the levee by cleaning up after the horses, and to keep invasive and exotic plants from being deposited on the Refuge. Horses are not anticipated

to cause unreasonable damage to the levee. The proposed horseback riding trail is a flat, narrow gravel and shellrock levee that will hold up well under hoof traffic.

Alternative C would likely cause moderate disturbance to surface soils, topography, and in areas selected as primitive camping sites for the general public. Some disturbance to wildlife and habitat will initially occur with the construction of the sites. Long-term disturbance would be moderate based on the amount of people and campsites allowed in designated areas.

4.1.2 Impacts to Refuge Facilities

Alternative A would require no facilities on the Strazzulla tract; therefore, no impact would occur.

Alternative B would require construction of facilities (i.e. interpretive trail, boardwalk, observation tower, or photo blind) and maintenance (i.e. parking areas and hiking/biking trails), and will cause minimal impacts to localized soils and waters. These actions may cause limited wildlife disturbances and damage to vegetation during construction; however, these disturbances are expected to be short term or during the duration of construction or maintenance. New facility construction or filling activities would comply with the requirements of Section 404 of the Clean Water Act and other applicable regulations. Turbidity during construction would be limited by silt screens or other methods to minimize potential runoff during construction. Parking areas would be constructed to allow storm water to percolate into the soil rather than allowing it to run directly into the adjacent wetlands.

A potential partnership with the SFWMD may provide an opportunity to place a canoe launch and floating fishing pier adjacent to the Strazzulla tract in the L-40 canal. Access to this area would be at an entrance point at ACME 2 (**Figure 1**). This potential partnership would provide an additional opportunity for canoers, kayakers, and anglers to utilize the L-40 canal. Fishing would not be allowed in the Strazzulla tract due to limited available habitat.

Facilities for youth camping would be limited to a cleared area and a fire ring in the proposed campsites. No restrooms, tables, garbage disposal, or other amenities would be provided. This alternative would require maintenance of parking areas and camp sites.

Horseback riding would require maintenance of parking areas and trails.

Alternative C would require maintenance of parking areas and trails for public camping sites.

4.2 Biological Consequences

The transfer of the Strazzulla tract to the Refuge provides permanent protection for this important tract of remaining cypress, sawgrass marsh, and wet prairie habitats, and ensures the land remains intact and available to support the maximum ecological benefits for Everglades' wildlife, including threatened, endangered, and trust species.

4.2.1 Impacts to Vegetation and Habitat

Alternative A would improve vegetation and habitat within the Strazzulla tract and would have no impact to minimal impact on native species. Invasive and exotic species would be treated with both ground and aerial treatments allowing native vegetation to thrive and persist. Therefore, native vegetation impacts would be minimal. Areas may be impacted as contractors kill unwanted vegetation, but the overall impact would improve habitat conditions by allowing native species to persist.

Alternative B would potentially have minimal to moderate impact as new projects are being constructed (interpretive trail, boardwalk, observation tower, canoe launch, fishing pier, or photo blind); however, long term impacts are not expected to occur. To accommodate the burgeoning visitor use to natural areas in South Florida, more access areas are needed to help educate the public and interpret the Everglades ecosystem. Projects such as creating a boardwalk, observation tower, or photo blind will be approached with great care to minimize damage to the resource. All efforts will be made to use conservative construction techniques (i.e. silt barriers), recycled materials, and environmentally sensitive treated lumber in each of the proposed projects. The public use opportunities being proposed will take advantage of existing roads/levees and trails in the Strazzulla tract to the greatest extent possible in order to limit negative impacts.

This alternative would provide for horseback riding on the northern perimeter levee of the Strazzulla tract starting at the Acme Pump Station 2. Potential moderate impacts to vegetation along trails could be observed and invasive/exotic vegetation may be introduced to the disturbed areas from horse manure.

Alternative C would potentially have a moderate impact on local vegetation, surface soils, water, or wildlife habitat in areas selected as primitive camping sites. Some disturbance to wildlife and habitat will initially occur with the construction of the sites. Long-term disturbance would occur due to the amount of people permitted and number of campsites allowed in designated areas. Facilities for camping would be limited to a cleared area and a fire ring in the proposed campsites. Facilities such as restrooms, tables, garbage disposal, or other amenities would not be provided.

4.2.2 Impacts to Wildlife

Each alternative ranges from no impact, minimal impact, or moderate impact to wildlife resources. Overall, management of the Strazzulla tract by the USFWS provides permanent protection for this important tract of remaining cypress, sawgrass marsh, and wet prairie habitats, and ensures the land remains intact and available to support the maximum ecological benefits for Everglades' wildlife, including threatened, endangered, and trust species.

4.2.3 Impacts to Threatened and Endangered Species

All suggested alternatives inherently induce a potential change to wildlife or wildlife habitat within the Strazzulla tract. Each alternative ranges from no impact, minimal impact, or moderate impact to wildlife resources.

A Section 7 evaluation was conducted in association with this EA (**Appendix B**). It was determined that the proposed alternatives would not likely to adversely affect endangered species including the snail kite, wood stork, and eastern indigo snake. The Section 7 Evaluation further states when appropriate, USFWS commits to requiring the use of conservation guidelines for the snail kite, the wood stork, and the eastern indigo snake, in any future consultation under Section 7 of the Endangered Species Act for projects that may be proposed in the Strazzulla tract (**Appendix B**).

4.3 Socioeconomic Consequences

4.3.1 Impacts on Environmental Justice

Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was signed by President Bill Clinton on February 11, 1994, to focus Federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order directed Federal agencies to develop environmental justice strategies to aid in identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The Order is also intended to promote nondiscrimination in Federal programs substantially affecting human health and the environment, and to provide minority and low-income communities with access to public information and participation in matters relating to human health or the environment.

This assessment has not identified any adverse or beneficial effects for any of the Alternatives A, B, or C unique to minority or low-income populations in the affected area. None of the alternatives will disproportionately place any adverse environmental, economic, social, nor health impacts on minority or low-income populations.

4.3.2 Impacts on Public Health and Safety

The Alternatives A, B, and C s do not inherently cause a change to the environment of the Strazzulla tract. All public use opportunities would be consistent with the goals and objectives in the CCP (USFWS 2000). In addition, the Strazzulla tract is a large rainfall driven system providing good water quality and wildlife habitat contiguous to the existing Refuge boundary. Thus, any alternative would have similar minimal impact on human health and safety.

4.3.4 Impacts on Recreation

Alternative A would not allow recreational opportunities on the Strazzulla tract. Public uses currently occurring on the Strazzulla tract would not be allowed.

Alternative B would allow minimal recreational opportunities on the Strazzulla tract; therefore only minor impacts to recreation would occur. Some current uses would be continued; however, some uses would be eliminated for example, horseback riding, ATV riding, and target practice.

Alternative C would allow moderate recreational opportunities on the Strazzulla tract; however only uses currently occurring but not permitted would be prohibited, (for example, target practice, ATV riding).

None of the alternatives inherently causes a change to the public-use activities anticipated on the Strazzulla tract since no recreation is currently allowed. Thus, each alternative would have similar minimal impact on wildlife dependent (or other) recreational activities.

4.4 Cultural Resource Consequences

The Strazzulla tract does not have any known archaeological or historic resources, and the alternatives inherently do not cause disturbance or disruption of the physical conditions of the Strazzulla tract. The USFWS is a public agency required to protect cultural resources, thus if any cultural resources were discovered on the property, they would continue to be protected in the public's trust.

4.5 Cumulative Impacts Analysis

Cumulative impacts on the environment result from incremental effects of a proposed action when these are added to other past, present, and reasonably foreseeable future actions. While cumulative effects may result from individually minor actions, they may, viewed as a whole, become substantial over time. The Strazzulla tract would retain the physical, biological, socioeconomic, and cultural and historic characteristics of the current environment after the proposed transfer to the Service. As such, the direct impacts are expected to be minimal.

The proposed alternatives should not result in any negative cumulative impacts to the habitat, threatened, endangered, or trust species. The Refuge is committed to providing safe public use opportunities for the public to enjoy, and the Refuge Improvement Act of 1997 mandates the Service to provide wildlife-dependent recreation on Refuges, where appropriate and compatible, and designates six priority public uses of the Refuge System, referred to as the "Big Six": hunting, fishing, wildlife observation, wildlife photography, environmental education, and environmental interpretation. Therefore, the six priority public uses are accepted on all Refuges, as long as the proposed activity is appropriate and compatible with the establishing legislation of the Refuge.

To minimize potential impacts to snail kites or wood storks, the six priority public use opportunities will take measures to avoid active snail kite and wood stork nest sites. If snail kite or wood stork nests are active during a hunt season, the Refuge will coordinate restrictions and necessary communications with FWC staff and hunters, and "Area Closed" signs will be placed to show the buffer zones whether along levees or within the marsh. Prior to the hunts, the Refuge will provide hunters with maps, GPS points, and specific rules and regulations regarding the restrictions within the snail kite and wood stork nest buffer zones. Specifically, the buffer zones will be closed to recreational activities to prevent disturbing any active nests. Deer hunting season and snail kite and wood stork nesting seasons do not typically overlap; however, if a nest is detected, hunting shall not be directed into or occur within the 500-meter buffer zones; It will be explained that shot deer that fall within the 500-meter buffer zones cannot be retrieved, so the hunters should plan and set up accordingly.

Alternative A would have no negative cumulative impact. Restoration activities through the removal of invasive/exotic species will ensure that this tract of land is permanently protected, and ensures the land remains intact and available to support the maximum ecological benefits for Everglades' wildlife, including threatened, endangered, and trust species.

Alternative B would have minimal impact on the areas identified for construction of facilities (i.e. boardwalk and observation tower), maintenance (i.e. parking areas and hiking/biking trails), and the six priority uses, and will cause minimal impacts to localized soils and waters. These actions may cause limited wildlife disturbances and damage to vegetation; however, these disturbances are expected to be short term or during the duration of construction or maintenance. Construction activities will be planned around nesting seasons and to avoid any active nests of threatened, endangered, or trust species.

Refuges conduct hunting programs within the framework of State and Federal regulations. The Refuge is at least as restrictive as the State of Florida. By maintaining hunting regulations that are as, or more, restrictive than the State, the Refuge ensures that it is maintaining seasons which are supportive of management on a more regional basis. The proposed hunt is supported by the FWC, and the Refuge. The Refuge coordinates with FWC annually to maintain regulations and programs that are consistent with the State management program. The proposed hunts should not result in any negative cumulative impacts to the Refuge, and given the small number of permits that will be issued, only a negligible increase of hunters will be observed. The Refuge would monitor access to the Strazzulla tract in order to minimize habitat degradation as a result of visitor access and modify public use recreational options if negative consequences to the physical environment were observed. A public hunt (archery or crossbow only) for feral hogs will be carried out as needed to reduce their impact on the Refuge.

Horseback riding may have potential cumulative impacts due to the increase in user groups that utilize the Strazzulla tract. Horseback riding is a popular activity in South Florida, and the Refuge may not have the staff to consistently maintain parking areas, or provide law enforcement to patrol the area to ensure no negative impacts are occurring to wildlife species or habitat.

Also, the possible negative effect of cowbirds on resident passerines would need to be considered. Because cowbirds eat undigested grain in horse 'patties' and lay their eggs in other birds' nests during the breeding season, they have the potential to undermine the reproductive efforts of resident perching birds. Another negative effect of horse use is the possible spread of exotic plants. This may happen in two ways. Exotic and invasive plant seeds may be deposited on the trails and levee from horse 'patties'. Conversely, plants and seeds eaten by horses while on the levee may be deposited off the Refuge. All horses accessing the Strazzulla tract shall be required clean up horse patties off of the levee, and to keep invasive and exotic plants from being deposited on the refuge. Horses are not anticipated to cause unreasonable damage to the levee. The proposed horseback riding trail is a flat, narrow gravel and shell rock levee that will hold up well under hoof traffic. Should negative impacts be observed, public use levels and options will be adjusted accordingly.

Alternative C may have potential cumulative impacts due to the increase in user groups that utilize the Strazzulla tract. Public camping is another popular activity in South Florida, and the Refuge may not have the staff to consistently maintain campsites, parking areas, or provide law enforcement to patrol the area to ensure negative impacts are not occurring to wildlife species or habitat. Enforcing wilderness back country techniques may be difficult without proper staffing.

CHAPTER 5 Consultation and Coordination with Others

The USFWS and SFWMD held preliminary meetings in April and May 2012 to discuss the potential land exchange for the Strazzulla tract. The letter from E. Barnett (SFWMD) to S. Pelizza (Refuge) on December 6, 2012 formally initiated the land-exchange process, and ongoing communication and coordination have occurred since that time.

Over the past few years, Refuge has communicated generally about the land exchange at meetings with various stakeholders. Any future changes in use or management to the Strazzulla tract would be consistent with the Refuge's 2000 Comprehensive Conservation Plan (USFWS 2000). Development of this 15-year plan included extensive consultation and coordination with others about future management of the Refuge, including the Strazzulla tract. The planning team included 23 members from six outside organizations (SFWMD, US Army Corps of Engineers, Palm Beach County's Department of Environmental Resources, University of Florida's Department of Recreation, Parks and Tourism, University of Florida's Institute of Food and Agricultural Sciences, and Florida Atlantic University's Department of Anthropology) and four organizational branches within the USFWS (Refuge and Hobe Sound National Wildlife Refuges, Southeast Regional Office, Savannah Coastal Refuges, and Ecological Services).

On April 8, 2015 a public meeting was held for the public to comment on the proposed land swap and to provide input on recreational opportunities they would like to see in the Strazzulla tract. The comments from the public can be viewed below. On May 14, 2015, the SFWMD governing board voted to approve the land swap between the Strazzulla tract and Compartment D. A public meeting to discuss public recreational opportunities will be held in the summer of 2015.

APPENDIX A: Literature References

- Andrews, E.W., and C.M. Andrews (eds). 1985. Jonathan Dickinson's Journal. Port Solerno, Florida: Florida Classics Library.
- Brandt, L.A. 2005. Summary of Arthur R. Marshall Loxahatchee National Wildlife Refuge 2004 Science Workshop. U.S. Fish and Wildlife Service. Available at: <http://sofia.usgs.gov/workshops/lox-nwr-scimtg/2004/ARMLoxNWR-2004-Sci-Wksp-Summ-Final-May05.pdf>. Accessed: May 21, 2014.
- Frakes, R.A., T.A. Bargar, B. Arrington, J.F. Boggs, J. Tutton, and A.D. Sowers. 2010. Pesticide and Nutrient Contamination in the Strazzulla Marsh of the A.R.M. Loxahatchee National Wildlife Refuge. Project ID: 200140004.1. U.S. Fish and Wildlife Service, South Florida Ecological Services Office, Vero Beach, FL. 33 p. + appendices.
- Griffin, J.W., J.J. Miller, and M.L. Fryman. 1979. A Survey of the Archaeology and History of Loxahatchee NWR. Contract #A5651 (78) for the U.S. Fish and Wildlife Service.
- Kottek, M., J. Grieser, C. Beck, B. Rudolf, and F. Rubel. 2006. World Map of the Köppen-Geiger climate classification updated. *Meteorologische Zeitschrift* 15(3): 259-263.
- Loftus W.F., and J.A. Kushlan. 1987. Freshwater fishes of southern Florida. *Bulletin of the Florida State Museum: Biological Sciences* 31: 147-344.
- Lowe, E.F. 1986. The relationship between hydrology and vegetational pattern within the flood plain marsh of a subtropical Florida lake. *Florida Scientist* 49: 213-233.
- Mowers, B., and W. Williams. 1972. The Peace Camp Site, Broward County, Florida. *Florida Anthropologist* 25(1): 1-20.
- Natural Resources Conservation Service (NRCS). 2014. Web Soil Survey. Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. Available at: <http://websoilsurvey.nrcs.usda.gov/>. Accessed: May 14, 2014.
- Neill, W. 1956. Florida's Seminole Indians. Great Outdoors Publishing Co., St. Petersburg, Florida.
- Richardson, J.R., W.L. Bryant, W.M. Kitchens, J.E. Mattson, and K.R. Pope. 1990. An evaluation of refuge habitats and relationships to water quality, and hydroperiod. Florida Cooperative Fish and Wildlife Research Unit, Gainesville, Florida.
- Rutchev, K., T.N. Schall, R.F. Doren, A. Atkinson, M.S. Ross, D.T. Jones, M. Madden, L. Vilchek, K.A. Bradley, J.R. Snyder, J.N. Burch, T. Pernas, B. Witcher, M. Pyne, R. White, T.J. Smith III, J. Sadle, C.S. Smith, M.E. Patterson, and G.D. Gann. 2006. Vegetation Classification for South Florida Natural Areas. Open-File Report 2006-1240. Saint Petersburg, FL: U.S. Geological Survey. 142 p.
- South Florida Water Management District (SFWMD). 2002. Everglades Consolidated Report 2002. West Palm Beach, Florida.
- South Florida Water Management District (SFWMD). 2013. SFWMD Land Assessment: Fee-Owned Properties Recommended for Further Evaluation for Potential Exchange or Surplus. Available at:

- http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/lass_proposed_exchange_surplus_lands.pdf. Accessed: February 4, 2014.
- South Florida Water Management District (SFWMD). 2014. Restoration Strategies website. Available at: <http://www.sfwmd.gov/restorationstrategies/>. Accessed: July 1, 2014.
- U.S. Army Corps of Engineers (USACE). 1999. Central and South Florida project comprehensive review study. Final integrated feasibility report and programmatic environmental impact statement. Jacksonville District Office; Jacksonville, Florida.
- U.S. Census Bureau. 2014. American Community Survey. U.S. Census Bureau, U.S. Department of Commerce. Available at: <http://www.census.gov/acs/www/>. Accessed: May 21, 2014.
- U.S. Environmental Protection Agency (USEPA). 2001. Proceedings and summary report workshop on the fate, transport, and transformation of mercury in aquatic and terrestrial environments. Pp. 48 (D. Krabbenhoft). EPA, Regional Office; Atlanta, Georgia. Available at: <http://www.epa.gov/region4/sesd/reports/epa904r01002.html>
- U.S. Environmental Protection Agency (USEPA). 2011. Level III and IV Ecoregions of the Conterminous United States (Revised December 2011). Available at: ftp://ftp.epa.gov/wed/ecoregions/us/Eco_Level_IV_US_pg.pdf. Accessed: March 27, 2014.
- U.S. Fish and Wildlife Service (USFWS). 2000. Arthur R. Marshall Loxahatchee National Wildlife Refuge Comprehensive Conservation Plan. U.S. Fish and Wildlife Service, Atlanta, GA, 362 pp. Available at: <http://www.fws.gov/southeast/planning/CCP/Loxahatchie%20Final%20Pg.html>
- U.S. Fish and Wildlife Service (USFWS). 2003. Arthur R. Marshall Loxahatchee National Wildlife Refuge Annual Narrative Report, Calendar Year 2003. Boynton Beach, Florida.
- U.S. Fish and Wildlife Service (USFWS). 2010. Arthur R. Marshall Loxahatchee National Wildlife Refuge Annual Narrative Report, Calendar Year 2010. Boynton Beach, Florida.
- U.S. Fish and Wildlife Service (USFWS). 2011. Banking on Nature: The Economic Benefits to Local Communities of National Wildlife Refuge Visitation.
- U.S. National Archives and Records Administration. 1977. Code of federal regulations. Title 50: Wildlife and Fisheries, Part 17: Endangered and threatened wildlife and plants, Section 95: Critical habitat—fish and wildlife, Subsection (b) Birds: Florida Everglades Kite (*Rostrlzomus sociabilis plumbeus*).
- Williams, W., and B. Mowers. 1977. Markham Park Mound No. 2, Broward County, Florida. *Florida Anthropologist* 30(2): 56-78.
- Will, L.E. 1964. Cracker History of Okeechobee. Great Outdoors Publishing Co., St. Petersburg, Florida.
- Will, L.E. 1968. Swamp to sugar bowl: Pioneer days in Belle Glade. Great Outdoors Publishing Co., St. Petersburg, Florida.

APPENDIX B: Section 7 Intra-Service Consultation

REGION 4

INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

[Note: This form provides the outline of information needed for intra-Service consultation. If additional space is need, attach additional sheets, or set up this form to accommodate you responses.]

Originating Person: Rolf E. Olson

Telephone Number: (561) 735-6022 **Email:** Rolf_Olson@fws.gov

Fax Number: (561) 369-7190

Date: 06/18/15

PROJECT NAME: Strazzulla Public Use Recreational Opportunities (DRAFT)

I. **Service Program:**

- Ecological Services
- Federal Aid
 - Clean Vessel Act
 - Coastal Wetlands
 - Endangered Species Section 6
 - Partners for Fish and Wildlife
 - Sport Fish Restoration
 - Wildlife Restoration
- Fisheries
- Refuges/Wildlife

II. **State/Agency:** Florida, U.S. Fish and Wildlife Service

III. **Station Name:** Arthur R. Marshall Loxahatchee National Wildlife Refuge (FF04RFLX00)

IV. **Description of Proposed Action:**

The purpose of this action is to evaluate public use recreational opportunities on the Strazzulla parcel to be managed by the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge). The Strazzulla parcel is a total of 2,586 acres (**Figure 1**). The Refuge's current Comprehensive Conservation Plan (USFWS 2000) and associated Environmental Assessment included Strazzulla in its 15-year plan for managing the Refuge. The preferred alternative management plan (referred to as the "Ecosystem Emphasis Alternative 2") included opening Strazzulla to the public on a limited basis and managing Strazzulla for trust species. Consultation and coordination on this plan included five meetings of the 23-member interagency planning team, a public scoping meeting, and a period of public review and consideration (USFWS 2000). Future uses

for Strazzulla are being considered in relation to the environmental assessment currently being drafted.

Recreational activities that are dependent on wildlife, known as the Big Six priority public uses—fishing, hunting, wildlife photography, wildlife observation, environmental education, and wildlife interpretation—are automatically considered to be appropriate activities on a National Wildlife Refuge. Recreational activity within the Strazzulla parcel will avoid active nests of snail kite, wood stork, and any other trust species (e.g., Florida scrub jay, gopher tortoise). When any such trust species nest is detected, a 500-meter no-entry buffer zone will be placed around each snail kite nest, and a 150-meter no-entry buffer zone will be placed around each nest of other species. If snail kites and wood storks are actively nesting within the Refuge during planned recreational events, the Refuge will coordinate restrictions and necessary communications with user groups and placement of signs surrounding the Refuge areas at the edges of buffer zones. The Refuge will place “Area Closed” signs delineating levees or within water areas that need to be closed to avoid adverse disturbance effects to snail kite and wood stork nests. Enforcement of restrictions will be performed by the Refuge Law Enforcement Officers.

The proposed action, Alternative B in the Environmental Assessment, includes the following public-use options: environmental education, wildlife observation, boardwalks, interpretive trails, photo blinds, and observation towers. In addition, the Refuge would carefully consider a small-scale hunt (white-tailed deer, feral hog), bike riding (on existing trails), canoeing, fishing, and limited camping for youth groups in designated areas. Additional public-use options were considered under Alternative C, including primitive camping for the general public in designated areas and horseback riding on existing levees.

Pertinent Species and Habitat:

A. Location Map

Strazzulla is located on the eastern side of the Refuge along the L-40 canal and levee (**Figure 1**). A 2013 Land Assessment effort completed by the South Florida Water Management District (SFWMD) documented the vegetation communities in Strazzulla as “transition[ing] from cypress in the east to sawgrass marsh in the west and...wet prairie towards the center of the site.” Similarly, the National Wetlands Inventory (USFWS 2014) documents Strazzulla as transitioning from forested/shrub wetland in the east to emergent wetland in the west (**Figure 2**). Strazzulla has a direct hydrologic connection to portions of the Refuge’s 400 acre cypress swamp and serves as habitat for wildlife in the region. The United States Fish and Wildlife Service (USFWS) entered an agreement with the SFWMD in May 2015 to acquire Strazzulla. The final agreement will take place sometime between March and June 2016. Acquiring Strazzulla will provide permanent protection for this parcel ensuring the habitat remains available to support Everglades’ wildlife, including threatened and endangered species.

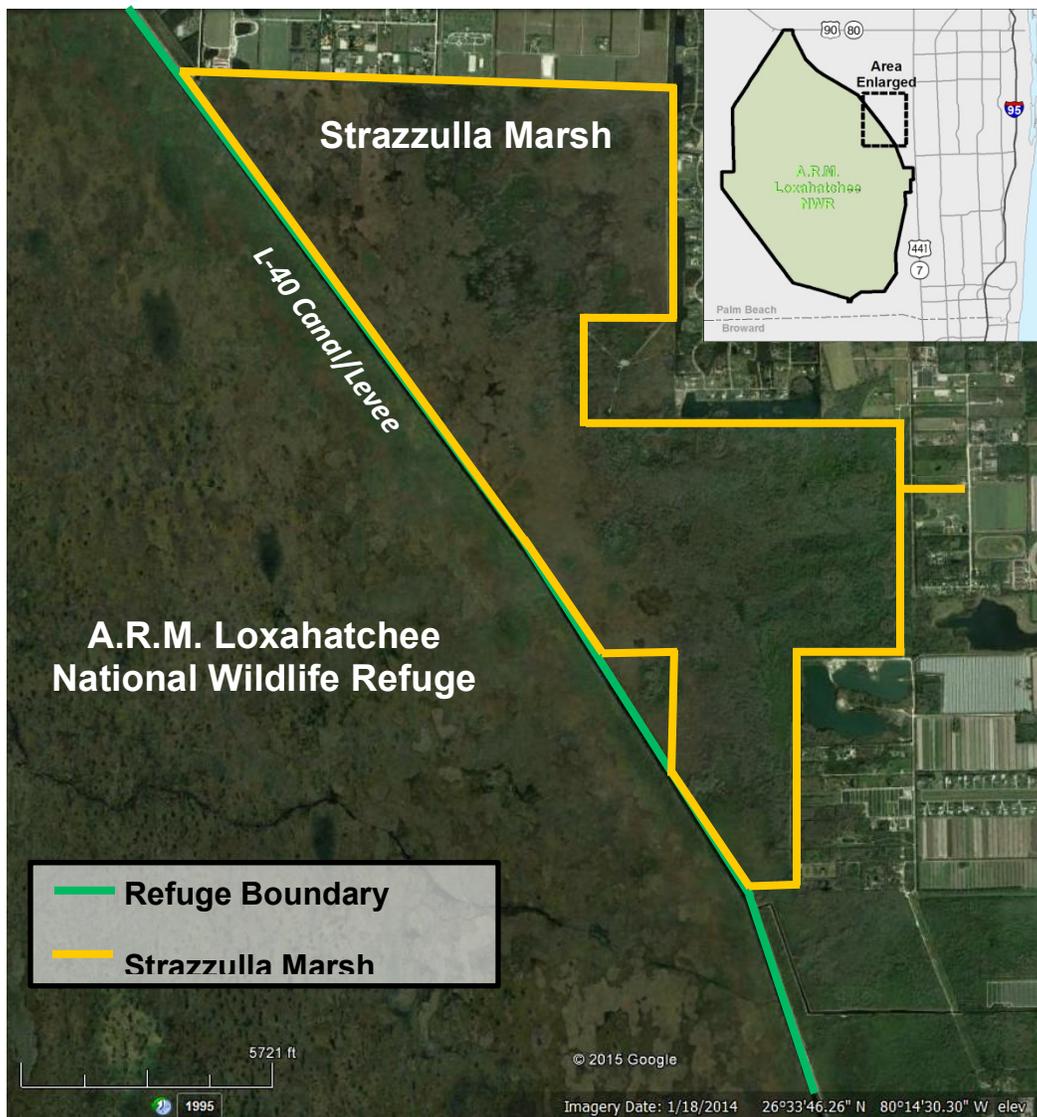


Figure 1. Location of the Strazzulla Marsh tract (orange line), adjacent to the eastern Refuge boundary (green line). [Aerial image from Google Earth (Accessed 06/22/15).]

All public-use options being considered for Strazzulla would be implemented consistent with the goals and objectives outlined in the Refuge’s Comprehensive Conservation Plan (USFWS 2000). All construction will use best practices and environmentally sensitive materials.

Public-use infrastructure, including trails, boardwalks, and campsites, would be sited only after a detailed site reconnaissance, with particular attention to location of trust species nests, vegetation and habitat characteristics, and existing infrastructure and access trails. All public-use activities would be excluded from known trust species nesting areas (species-specific details outlined below).

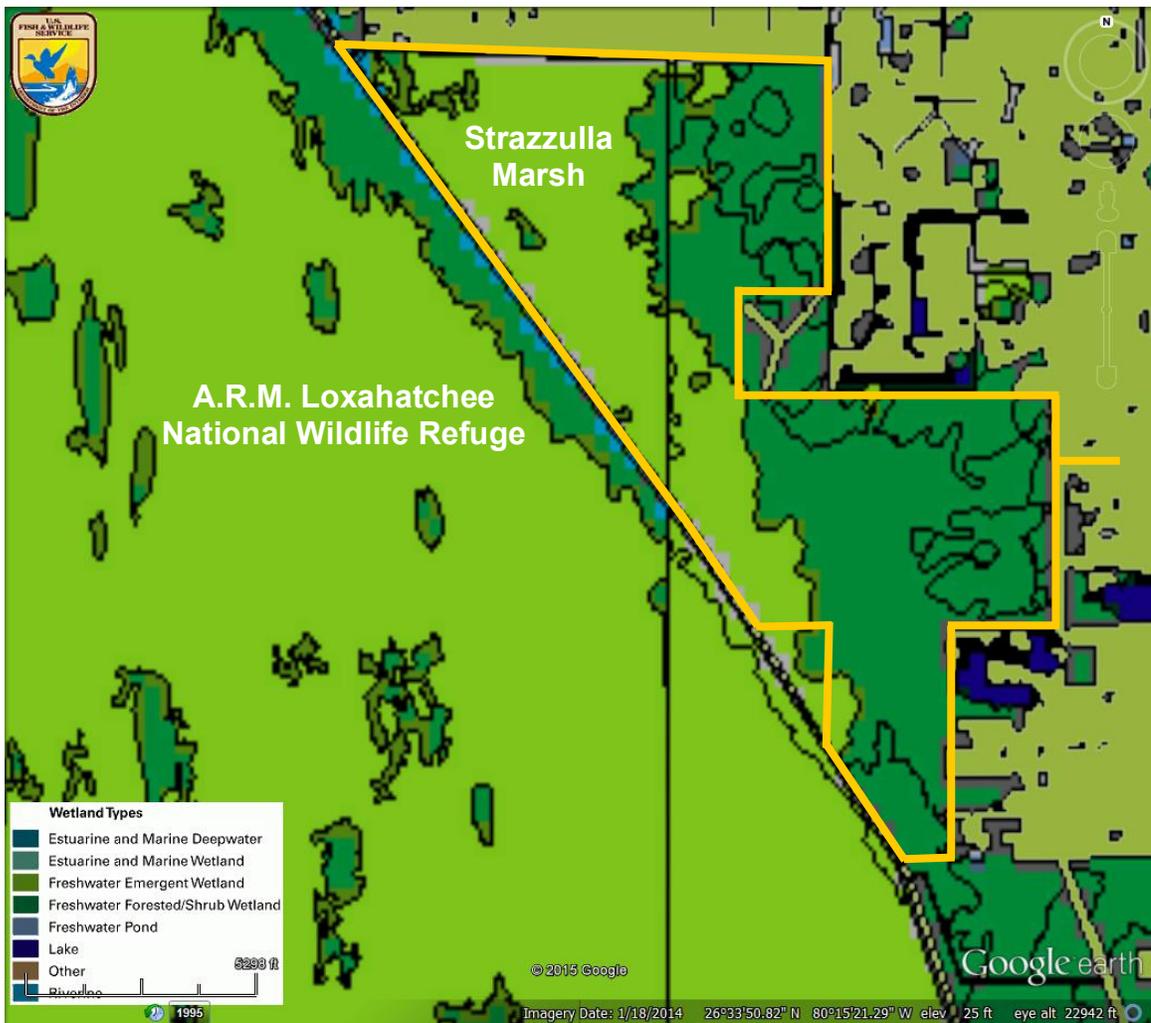


Figure 2. Vegetation map for Strazzulla (approximate boundary indicated by orange line) from the USFWS National Wetlands Inventory, showing transition from forested/shrub wetland in the east (dark green) to emergent wetland in the west (light green) (USFWS 2014).

The public-use options being proposed will take advantage of existing roads/levees and trails in Strazzulla, wherever possible (e.g., **Figure 3** shows proposed horseback riding trail). Hunting would be limited to small-scale lottery hunts for deer and feral hog using archery and crossbow. Camping disturbance would be minimal to moderate, depending on limitations/restrictions on the number of people and locations of primitive campsites designated for use. A proposed fishing pier and boat launch (**Figure 4**) would be located in the L-40 canal to maximize public access for fishing and boating opportunities, but would have no impact to Strazzulla’s environment and wildlife.

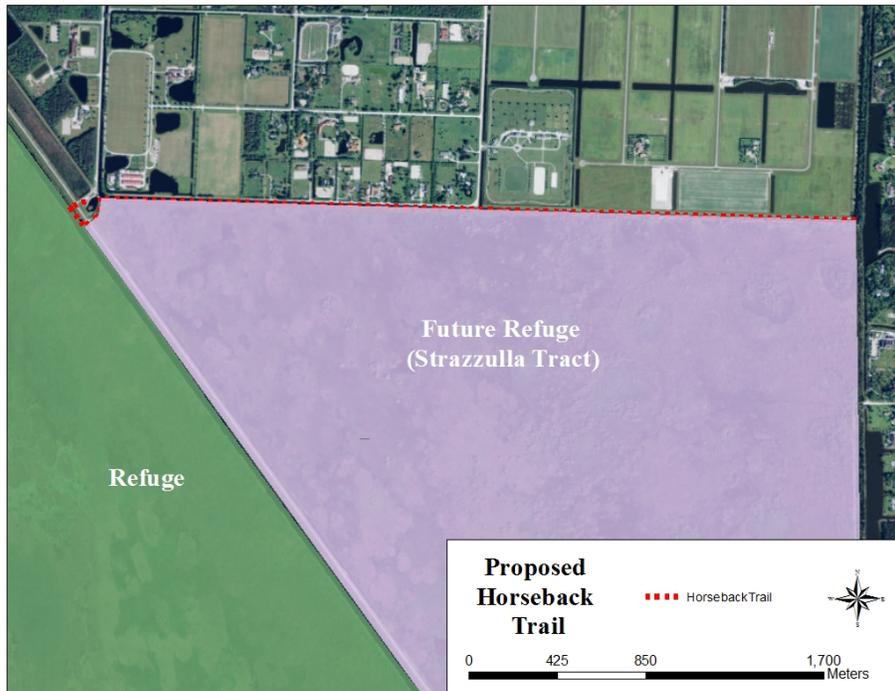


Figure 3. Potential location of horseback riding trail on an existing levee along the northern border of Strazzulla.

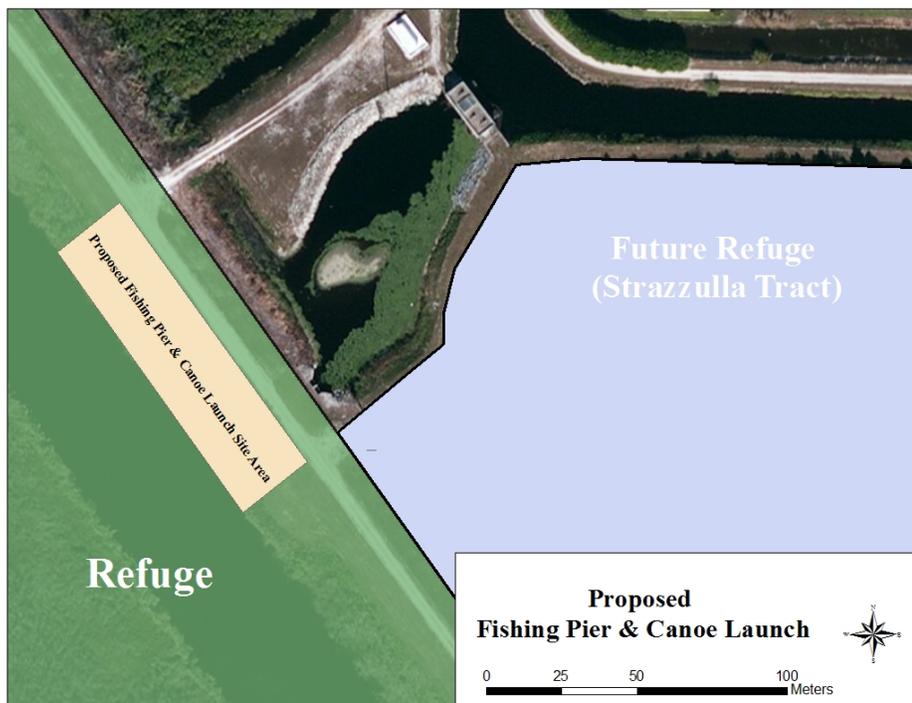


Figure 4. Potential location of fishing pier and canoe launch in northwest corner of Strazzulla.

B. Complete the following table:

SPECIES/CRITICAL HABITAT	STATUS¹
Snail kite (<i>Rostrhamus sociabilis plumbeus</i>)	E, CH
Wood stork (<i>Mycteria americana</i>)	T
Eastern indigo snake (<i>Drymarchon corais couperi</i>)	T
Florida scrub jay (<i>Aphelocoma coerulescens</i>)	T
Gopher tortoise (<i>Gopherus polyphemus</i>)	C

¹STATUS: E=endangered, T=threatened, CH=critical habitat, C=candidate species.

VI. Location (attach map): See Figure 1.

A. Ecoregion Number and Name: Ecoregion 76, Southern Florida Coastal Plain

B. County and State: Palm Beach, FL

C. Section, township, and range (or latitude and longitude):
26E30.00N 80E14.00W (Headquarters Area)

D. Distance (miles) and direction to nearest town:
10 miles west of Boynton Beach, FL

E. Species/habitat occurrence:
Strazzulla is located within the Species Consultation Area for two trust species: Everglade snail kite and Florida scrub jay (**Figure 5**).

Snail Kite

The Refuge is designated as critical habitat for the snail kite (*Rostrhamus sociabilis plumbeus*). Snail kites forage and sometimes nest in the interior marsh of the Refuge with a preference for wet prairie and slough habitats. However, snail kites are highly nomadic, and usually are not abundant on the Refuge unless environmental conditions are optimal, including abundant apple snail populations and water levels that maximize forage potential. Snail kites usually are encountered during the winter months (December to March), as this coincides with the period when water levels are the highest within the interior marsh and snail kites can more effectively forage on apple snails. If breeding occurs, it generally takes place from January to March. Snail kites are known to use the area, and foraging and nesting may occur on the Strazzulla tract.

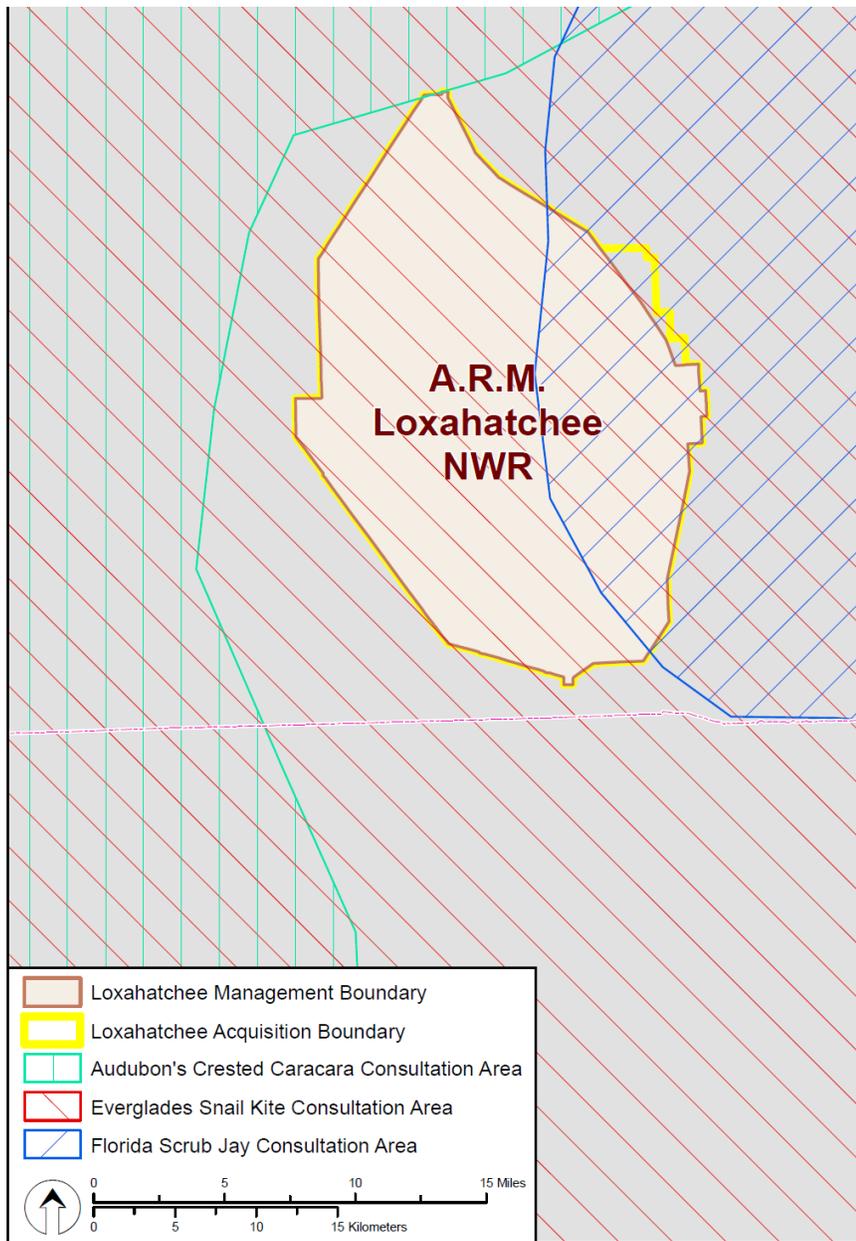


Figure 5. Shows the Species Consultation Areas that overlap the Refuge management boundary.

Wood Stork

Wood storks (*Mycteria americana*) forage in the interior marsh during periods of low water encountered during the Spring recession (April through early June) leading up to hurricane season, or during extreme droughts as experienced in 2001 and 2011. The time frame for optimal wood stork foraging, breeding, and roosting is even shorter than that observed with the snail kite. Wood storks are extremely susceptible to water level fluctuations and generally disperse with the onset of summer rains (late May or early June). Historically, before the

Everglades ecosystem was modified for water management purposes, wood storks began to nest as early as November. However, wood storks now nest from February to May due to habitat and hydro pattern modifications, which have disrupted the natural synchronization between forage availability and energetic requirements of reproductive birds. As such, even minor fluctuations in water levels can cause wood storks to abandon their nests. Wood storks are known to use the area, and foraging and nesting may occur in the Strazzulla tract.

Eastern Indigo Snake

In south Florida, eastern indigo snakes (*Drymarchon corais couperi*) range over large areas and use various habitats throughout the year, with most activity occurring in the summer and fall (Moler 1985a; Smith 1987). Over most of its range, this species frequents habitat types that include tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, and human-altered habitats. Underground refugia used by this species include natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and the crevices of rock-lined ditch walls (Layne and Steiner 1996). Adult males have larger home ranges than adult females and juveniles (Moler 1985b). At the Archbold Biological Station (ABS) located in central Florida, average home range size for males was determined to be 185 acres and females to be 47 acres (Layne and Steiner 1996). The presence of eastern indigo snake may occur on the Strazzulla tract, but such observation has not been documented to date.

Florida Scrub Jay

Florida scrub jays (*Aphelocoma coerulescens*) are non-migratory, extremely sedentary, and reside only in oak scrub on fine white, drained sand (Cox 1984). Scrub jays primarily consume insects, found within the oak foliage or along the bare-sand understory, and acorns, either freshly gathered during late summer and fall or recovered from caches in the sand. Scrub jay seldom are found outside of habitat with up to 50% dense, short (less than 3 m) scrub oak thicket interspersed with scattered areas of open, bare sand; jays avoid forests and marshes (USFWS 1990c). As such, their distribution tended to fall outside Strazzulla, nearer to the eastern Florida coast (USFWS 1990c). Territory is well defined and defended, particularly during spring nesting, with area that varies depending on factors including habitat characteristics and family size, averaging about 9 ha (25 ac) (Woolfenden and Fitzpatrick 1984). Although Strazzulla Marsh falls with the Florida scrub jay Consultation Area (**Figure 5**), there are no documented sightings and the scrub jay is not likely to occur on the Strazzulla tract.

Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) is the only tortoise indigenous to the southeastern U.S. (USFWS 1990a). Their habitat is generally defined by the following characteristics: (1) well-drained sandy soils for their burrow(s), (2) herbaceous ground cover for food, and (3) generally open canopy for egg incubation. They feed on a range of grasses, grass-like plants, and legumes (Garner and Landers 1981). Gopher tortoises are most active in temperatures

ranging from 28 to 31 °C (82 to 88 °F), less active above 32 °C (90 °F), and rarely active below 22 °C (72 °F). Surface activities are centered around the burrow, which have a single entrance and are excavated to a size appropriate for the individual, with adult burrows averaging 4.5 m (15 ft.) length and 1.8 m (6 ft.) depth. Females typically select the mound of excavated sand at the burrow entrance for egg incubation. Size of the home range is related both to forage availability and breeding forays, with the average colony typically using 4 ha (10 ac) or less (USFWS 1990a). McRae et al. (1981) observed movement to follow a nearly circular pattern around the burrow, which indicates that a 4-ha range generally falls within a 113 m (370 ft.) radius of the home burrow. The presence of gopher tortoise may occur on the Strazzulla tract, but such observation has not been documented to date.

Overall Determination

It is not anticipated that public use opportunities and management of the Strazzulla tract will cause adverse impacts to or affect designated critical habitat of any threatened and endangered species. In addition, when appropriate, the Refuge will use conservation guidelines (below) for the snail kite, wood stork, Eastern indigo snake, Florida scrub jay, and gopher tortoise, and any future consultation under Section 7 of the Endangered Species Act for activities or projects that may be proposed for the Strazzulla tract.

VII. Determination of Effects:

A. Effects of the action on species and critical habitats in item V. B, (attach additional pages as needed):

SPECIES/ CRITICAL HABITAT	IMPACTS TO SPECIES/CRITICAL HABITAT
Snail kite	“May affect, not likely to adversely affect”
Wood stork	“May affect, not likely to adversely affect”
Eastern indigo snake	“May affect, not likely to adversely affect”
Florida scrub jay	“May affect, not likely to adversely affect”
Gopher tortoise	“May affect, not likely to adversely affect”

B. Actions to be implemented to reduce adverse effects:

SPECIES/ CRITICAL HABITAT	ACTIONS TO MINIMIZE ADVERSE EFFECTS
Snail kite	A 500 meter no-entry zone and other closures, as needed, will be enacted in areas being actively used by snail kites. These areas will be identified through coordination with the Service’s snail kite recovery lead (South Florida Ecological Services Office, 772-562-3909) and marked by Refuge biology staff.
Wood stork	A 150 meter no-entry zone will be enacted in areas being actively used by wood storks. These areas will be identified by Refuge biology staff. Implement: <i>Habitat Management Guidelines for the Wood Stork in the Southeastern Region</i> (USFWS 1990b)
Eastern indigo snake	Will avoid ring and fast moving fires that could potentially kill indigo snakes. Implement: <i>Standard Protection Measures for the Eastern Indigo Snake</i> (USFWS 2013)
Florida scrub jay	A 150 meter no-entry zone will be enacted around each identified Florida scrub jay nest. These areas will be identified by Refuge biology staff. Implement: <i>Recovery Plan for the Florida Scrub Jay</i> (USFWS 1990c)
Gopher tortoise	A 150 meter no-entry zone will be enacted around each identified gopher tortoise burrow. These areas will be identified by Refuge biology staff. Implement: <i>Gopher Tortoise Recovery Plan</i> (USFWS 1990a)

Recreational activity within the Strazzulla will avoid active nests of snail kite, wood stork, and any other trust species (e.g., Florida scrub jay, gopher tortoise). When a nest is detected, a 500-meter no-entry buffer zone will be placed around each snail kite nest and a 150-meter no-entry buffer zone will be placed around each nest of each of the other species. If snail kites and wood storks are actively nesting within the Refuge during planned recreational events, the Refuge will meet with Service staff prior to the event to discuss any restrictions, area closures, outreach materials, and sign placement within the Refuge. Refuge staff will coordinate restrictions and necessary communications with user groups and the placement of signs surrounding Refuge areas at the edges of buffer zones. The Refuge will place “Area Closed” signs delineating levees or within water areas that need to be closed to avoid adverse disturbance effects to snail kite and wood stork nests. Enforcement of restrictions will be performed by the Refuge Law Enforcement Officers.

VIII. Effect Determination and Response Requested:

SPECIES/ CRITICAL HABITAT	DETERMINATION			RESPONSE ¹ REQUESTED
	NE	NA	AA	
Snail kite		x		concurrence
Wood stork		x		concurrence
Eastern indigo snake		x		concurrence
Florida scrub jay		x		concurrence
Gopher tortoise		x		concurrence

¹DETERMINATION/RESPONSE REQUESTED:

NE=no effect. This determination is appropriate when the proposed action will not directly, indirectly, or cumulatively impact, either positively or negatively, any listed, proposed, candidate species or designated/proposed critical habitat. Response Requested is optional but a "Concurrence: is recommended for a complete Administrative Record.

NA= not likely to adversely affect. This determination is appropriate when the proposed action is not likely to adversely impact any listed, proposed, candidate species or designated/proposed critical habitat or there may be beneficial effects to these resources. Response Requested is a "Concurrence".

AA= likely to adversely affect. This determination is appropriate when the proposed action is likely to adversely impact any listed, proposed, candidate species or designated/proposed critical habitat. Response Requested for listed species is "Formal Consultation". Response Requested for proposed or candidate species is "Conference".

Roll E. Oloan 6/24/15
Signature (originating station) Date

PROJECT LEADER
Title

IX. **Reviewing Ecological Services Office Evaluation:**

- A. Concurrence X
- B. Formal consultation required _____
- C. Conference required _____
- D. Informal conference required _____

E. **Remarks (attach additional pages as needed):**

Donald R. Fugate 6/24/15
Signature Date
Everglades Program Supervisor
Title

X. **Literature Cited:**

- A.R.M. Loxahatchee National Wildlife Refuge. 2000. Comprehensive Conservation Plan. U.S. Fish and Wildlife Service, Boynton Beach, Florida.
- Cox, J.A. 1984. Conservation and ecology of the Florida scrub jay. Unpubl. Ph.D. dissertation, Univ. Florida, Gainesville. 185 pp.
- Garner, J.H. and J.L. Landers. 1981. Foods and habitat of the gopher tortoise in Southwestern Georgia. Proc. Ann. Conf. S.E. Assoc. Fish and Wildl. Agencies 35: 120-133.
- Layne, J.N. and T.M. Steiner. 1996. Eastern indigo snake (*Drymarchon corais couperi*): Summary of research conducted on Archbold Biological Station. Report prepared under Order 43910-6-0134 to the U.S. Fish and Wildlife Service; Jackson, Mississippi.
- McRae, W.A., J.L. Landers and J.A. Garner. 1981. Movement patterns and home range of the gopher tortoise. Am. Midl. Nat. 106: 165-179.
- Moler, P.E. 1985a. Distribution of the eastern indigo snake, *Drymarchon corais couperi*, in Florida. *Herpetological Review* 16(2): 37-38.
- Moler, P.E. 1985b. Home range and seasonal activity of the eastern indigo snake, *Drymarchon corais couperi*, in northern Florida. Final Performance Report, Study E-1-06, III-A-5. Florida Game and Freshwater Fish Commission; Tallahassee, Florida.
- Smith, C.R. 1987. Ecology of juvenile and gravid eastern indigo snakes in north Florida. M.S. thesis, Auburn University; Auburn, Alabama. 232 pp.
- U.S. Fish and Wildlife Service. 1990a. Gopher Tortoise Recovery Plan. U.S. Fish and Wildlife Service, Jackson, Mississippi. 28 pp.
- U.S. Fish and Wildlife Service. 1990b. Habitat management guidelines for the wood stork in the southeast region. U.S. Fish and Wildlife Service, Atlanta, Georgia. 11 pp.
- U.S. Fish and Wildlife Service. 1990c. Recovery Plan for the Florida Scrub Jay. U.S. Fish and Wildlife Service, Atlanta, Georgia. 23 pp.
- U.S. Fish and Wildlife Service. 2013. Standard protection measures for the eastern indigo snake. South Florida Ecological Services Office; Vero Beach, Florida. 3 pp.

U.S. Fish and Wildlife Service. 2014. National Wetlands Inventory, Wetlands-Data.kml, file last modified 1 May 2014. Available at <http://www.fws.gov/wetlands/data/google-earth.html>, Accessed 18 June 2015.

Woolfenden, G.E., and J.W. Fitzpatrick. 1984. The Florida scrub jay. Princeton Univ. Press, Princeton, New Jersey. 406 pp.

DRAFT

APPENDIX C: Environmental Action Statement

Page Intentionally Left Blank

DRAFT

APPENDIX D: Appropriate Use Determinations

1. Horseback riding
2. Youth Camping

DRAFT

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Arthur R. Marshall Loxahatchee NWR

Use: Horseback Riding

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Arthur R. Marshall Loxahatchee NWR

Use: Limited Youth Camping

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

APPENDIX E: Compatibility Determinations

1. Big Six
2. Horseback riding
3. Youth Camping

DRAFT

Compatibility Determination #1

Refuge Name: Arthur R. Marshall Loxahatchee National Wildlife Refuge

Use: This compatibility determination applies to the Big Six: 1.) wildlife observation and photography; 2.) environmental education and interpretation; 3.) walking and hiking; 4.) bicycling; 5.) hunting; 6.) fishing; and 7.) research and Special Use Permits.

Date Established: June 8, 1951

Establishing and Acquisition Authorities: A cooperative and License Agreement between the Central and Southern Florida Flood Control District (precursor to the South Florida Water Management District (SFWMD)) and the U.S. Fish and Wildlife Service with the Migratory Bird Conservation Act of 1929 authorized the establishment of Arthur R. Marshall Loxahatchee National Wildlife Refuge. In the initial License Agreement, 143,116 acres of wetlands, known as Water Conservation Area I, were leased to the U.S. Fish and Wildlife Service by the State of Florida to be managed in accordance with the License Agreement and legislative mandates.

Refuge Purpose: "...for use as an inviolate sanctuary, or for other management purposes, for migratory birds." (Migratory Bird Conservation Act of 1929. 16 U.S.C. Sect. 644)

...shall be administered by him [Secretary of the Interior] directly or in accordance with cooperative agreements...and in accordance with such rules and regulations for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon. 16 U.S.C. Sect. 664 (Fish and Wildlife Conservation Act).

National Wildlife Refuge System Mission: *to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."*

Other Applicable Laws, Regulations, and Policies:

Antiquities Act of 1906 (34 Stat.225)

Migratory Bird Treaty Act of 1918 (15 U.S.C. 703-711; 40 Stat.755)

Migratory Bird Conservation Act of 1929 (16 U.S.C. 715r; 45 Stat. 1222)

Migratory Bird Hunting Stamp Act of 1934 (16 U.S.C. 718-178h; 48 Stat.451)

Criminal Code Provisions of 1940 (18 U.S.C. 41)

Bald and Golden Eagle Protection Act of (16 U.S.C. 668-668d; 54 Stat.250)

Refuge Trespass Act of June 25, 1948 (18 U.S.C. 41; Stat. 686)

Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j; 70 Stat.1119)

Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4; Stat. 653)

Wilderness Act (16 U.S.C. 1131; 78 Stat. 890)

Land and Water Conservation Fund Act of 1965

National Historic Preservation Act of 1966, as amended (16 U.S.C.470, et seq.; 80 Stat. 915)
National Wildlife Refuge Administration Act of 1966 (16 U.S.C. 668dd, 668ee; 80 Stat. 927)
National Environmental Policy Act of 1969, NEPA (42 U.S.C. 4321, et seq; 83 Stat.852)
Use of Off-Road Vehicles on Public Lands (Executive Order 11644, as amended by Executive Order 10989)
Endangered Species Act of 1973 (16 U.S.C. 1531 et seq; 87 Stat.884)
Refuge Revenue Sharing Act of 1935, as amended in 1978 (16 U.S.C. 715s; 92 Stat.1319)
National Wildlife Refuge Regulations for the Most Recent Fiscal year 950 CFR Subchapter C; 43 CFR 3101.3-3)
Emergency Wetlands Resources Act of 1986 (S.B. 740)
North American Wetlands Conservation Act of 1990
Food and Security Act (Farm Bill) of 1990 as amended (HR 2100)
The Property Clause of the U.S. Constitution Article IV 3, Clause 2
The Commerce Clause of the U.S. Constitution Article I, Section 8
The National Wildlife Refuge System Improvement Act of 1997 (Public law 105-57, USC668dd)
Executive Order 12996, Management and General Public Use of the National Wildlife Refuge System, March 25, 1996
Title 50, Code of Federal Regulations, Parts 25-33
Archeological Resources Protection Act of 1979
Native American Graves and Protection Repatriation Act of 1990

Description of Use: This compatibility determination assesses public use impacts on wildlife resources in Strazzulla and a proposed fishing dock/canoe launch, adjacent to Strazzulla in the L-40 canal. If adverse impacts to Refuge resources associated with public use activities are identified in future years, modifications to that part of the program in question will be implemented immediately to minimize that impact.

Wildlife Observation/Photography

The Refuge is known for its easily observed population of alligators, and its diversity and visibility of resident and wintering wading birds. Florida specialty birds that bring in birders from around the country include the snail kite, swallow-tailed kite, short-tailed hawk, smooth-billed ani, wood stork, and limpkin to name a few. Strazzulla can provide nesting and forage areas for these birds, and may provide excellent opportunities for photography. Since the Refuge is geographically positioned in the Atlantic Flyway, there is a good possibility to observe waterfowl and migratory shorebirds. The cypress swamp within Strazzulla and the ecotone surrounding it are potentially rewarding areas to see migratory neotropical passerines, and many birders enjoy the seasonal show of colorful warblers and vireos. Butterflies, dragonflies, and damselflies grace the landscape providing some of the best photo opportunities in South Florida. Grey fox, raccoons, river otter, bobcat, and the exotic armadillo may also be seen by the quiet observer in addition to numerous herpetofaunal species.

Non-consumptive uses such as bird watching, nature photography, butterfly watching, and plant identification are enjoyed by approximately 300,000 people a year, and visitors come from as many as 49 foreign countries, all 50 states, as well as locally. An increase in non-consumptive uses is expected to grow rapidly due to increases in resident population growth adjacent to the Refuge, “winter” visitor population, the awareness of the Refuge’s diverse habitats, and the newly acquired Strazzulla property.

To accommodate the burgeoning visitor use to the Refuge, more access areas are needed to help educate the public and interpret the Everglades ecosystem. Projects such as extending or creating a boardwalk, observation towers, or photo blinds will be approached with great care to minimize damage to the resource. All efforts will be made to use conservative construction techniques (e.g., silt barriers), recycled materials and environmentally sensitive treated lumber in each of these projects. Boardwalks will also be built within American with Disabilities Act (ADA) guidelines.

In most cases, wildlife observation/photography will result in minimal disturbance to wildlife. However, if visitors venture too close to foraging wading birds, alligators or other wildlife, foraging or resting activities will be disrupted. To minimize the chance of these disturbances, appropriate buffers and signs will be in place if nesting wildlife is observed. The Refuge will place signs delineating levees or in areas that need to be closed to avoid adverse disturbance effects to snail kite nests, and a 500-meter buffer zone will be established. Wood storks and other trust species will have a 150-meter buffer zone established. Refuge law enforcement officers will be enforcing all laws, and areas may be closed.

Environmental Education and Interpretation

Expanding the environmental education and interpretation to encompass additional activities will cause a minimal impact to the surrounding vegetation and is anticipated to have an insignificant effect on Refuge resources, including fish, wildlife, and their habitats.

To avoid impacts, any or all fill operations would comply with the requirements of Section 404 of the Clean Water Act and other applicable regulations. Turbidity during construction would be limited by silt screens or other methods to minimize potential runoff during construction. Parking areas would be constructed to allow storm water to percolate into the soil rather than allowing it to run directly into the adjacent wetlands. Short term negative effects to air, noise quality, and soils within the project site will be expected, and measures to protect the environment will be taken. Buffer zones for threatened and endangered species will be established if nesting is observed, and areas may be closed.

Walking/Hiking

Public use opportunities are being proposed to take advantage of existing roads/levees and trails that provide excellent opportunities to observe the many species of wildlife that use Strazzulla. The perimeter canal (L-40) offers exceptional walking and hiking opportunities for wildlife viewing and photographic opportunities. Furthermore, the levee

adjacent to the canal offers one of the highest vistas in the Refuge enabling additional walking and hiking areas in addition to providing views of the unique Everglades habitats. The existing perimeter levee is the highest vantage point in the area and for 30 feet on either side it is free of vegetation, and allows excellent opportunities for wildlife observation while limiting the impact or disturbance of human use. Walking and hiking trails within Strazzulla will be limited to existing trails both on the levees and within the actual marsh.

In most cases, walking and hiking will result in minimal disturbance to wildlife. However, if visitors venture too close to foraging wading birds, alligators or other wildlife, foraging or resting activities will be disrupted. To minimize the chance of these disturbances, appropriate buffers and signs will be in place if nesting wildlife is observed. The Refuge will place signs delineating levees or in areas that need to be closed to avoid adverse disturbance effects to snail kite nests, and a 500-meter buffer zone will be established. Wood storks and other trust species will have a 150-meter buffer zone established. Refuge law enforcement officers will be enforcing all laws, and areas may be closed.

Bicycling

Biking on Strazzulla is being proposed to take advantage of existing roads/levees (L-40) and already established trails within Strazzulla that provide excellent opportunities to observe the many species of wildlife that use the Refuge.

Bicycling is currently allowed on the perimeter levee from the Hillsboro Recreation Area (southeastern portion of the refuge) north up to Headquarters Area. Currently there is a proposal to expand biking even further north to Acme 2 which is adjacent to Strazzulla. The L-40 levee provides an established and maintained, hard gravel, 12' wide surface that is traversed by Refuge and state vehicles quite frequently. This levee has been used by the SFWMD and the USFWS vehicles for over 50 years. The road has a wide right-of-way, and is located on the perimeter of the Refuge. Strazzulla also has many established trails within the unit that would provide great opportunities to observe wildlife on designated trails. Biking would contribute minimal disturbance to wildlife encountered along the levee, and within Strazzulla, and it is anticipated that the direct, indirect and cumulative impacts would be insignificant. Areas may be closed to the public if disturbance is excessive.

Hunting

Waterfowl and alligator hunting are currently the only permitted forms of hunting on the Refuge. Waterfowl and alligator hunting at Refuge are regulated by CFR 50 § 32.28, and Refuge specific regulations.

Potential hunting opportunities would be limited to a small-scale hunt for deer and feral hog in coordination with the Florida Fish and Wildlife Conservation Commission (FWC). FWC would manage the hunt, and deer hunting would be limited to bucks only with antler regulations of at least two points on one side. The Refuge falls within the FWC's Deer Management Unit (DMU) A1; however, Refuge deer and hog hunts in Strazzulla

might be more restrictive and allow a minimum of two (2) weekends total per season with three-four (3-4) day hunts each weekend. Deer and hog season will not exceed the dates and times allowed by the FWC for DMU A1. One weekend will take place early in the hunt season (Archery Season), and one weekend will take place during the latter half of the season (General Season). For safety reasons, only archery and crossbow will be authorized during the General Season. Splitting the hunt weekends will allow hunters to hunt during the early season rut and later in the season when temperatures are more moderate. Additional hunts might be added depending on the deer and hog population within Strazzulla. Hunting permits will be issued by FWC, and will be a lottery system used by the state.

Feral hog are an invasive species and feed by rooting with their snouts causing habitat disturbance which allow invasive/exotic species an opportunity to establish and spread. In Strazzulla, feral hogs impact the parcel by uprooting vegetation, disrupting habitat, and creating potential exotic plant establishment sites. Hogs will be allowed to be taken during the proposed deer hunting time frames, but may be hunted opportunistically if habitat damage is observed.

Hunting should not have any adverse impacts on other wildlife resources, listed or trust species, or other natural resources on the Refuge. Hunts will not take place during nesting season for most wildlife species, so impacts would be minimal.

Fishing

In south Florida, the public is a strong advocate for sport fishing. Largemouth bass, exotic tilapia, exotic oscar and other species are a traditional form of appropriate, compatible wildlife-dependent recreation in this region. On the Refuge, sport fishing is the most common consumptive use. Providing fishing opportunities allows the use of a renewable natural resource without adversely impacting other resources. Anglers must, of course, comply with state fishing regulations.

As of 2015, the Refuge will host twelve fishing tournaments per year in the perimeter canal system and will continue to do so by Special Use Permits. To provide a quality recreational experience and protect Refuge resources, there are designated fishing areas. Because of the high mercury levels associated with fish on the Refuge and in south Florida, catch and release is advised.

Adding a floating dock near the Acme 2 pump station should not have any adverse impacts on the fisheries resource, other wildlife resources, listed or trust species, or other natural resources on the Refuge. Minimal impacts could take place during construction of the dock, but would not take place if birds are nesting in the interior of the Refuge adjacent to the L-40 canal. Educational efforts will be increased to encourage anglers to collect and discard excess and old fishing line, hooks and sinkers, since wildlife are known to die after ingesting this debris. Problems associated with littering and illegal take of fish (undersized fish, over bag limit) will be controlled through law enforcement.

In the perimeter canal, the excessive speeds of some fishing boats, due to high-powered outboard engines, can result in collisions with wildlife, endangerment to canoeist, kayakers, and small johnboat operators, . To minimize these effects, boats in the perimeter canal will be restricted to a maximum of 35 MPH and in boat launch areas speeds are limited to ‘slow speed, minimum wake’ at all times.

Research and Special Use Permits (SUP's)

The Refuge receives many requests to conduct scientific research and other types of activities. The stipulations governing whether access to the Refuge is allowed are described below.

The proposed research must be beneficial to Refuge management and to the Everglades ecosystem, and must not be redundant to previous research conducted in the Everglades or in the Refuge.

If the proposed research methods will impact or potentially impact Refuge resources (habitat or wildlife), it must be demonstrated that the research is a critical need and the researcher must identify and implement the mitigation measures that will minimize the potential impacts.

If the proposed research can be conducted elsewhere it will not be allowed.

Copies of all data and meta-data shall be provided, in an electronic format, to the Refuge at the end of the project. Abstracts, interim and final reports shall be provided to the Refuge in both an electronic and hard copy format. If these data are not published in an agreed-upon time frame, the Refuge reserves the right to publish these data under the USFWS name.

At any time, Refuge staff may accompany the researchers. Staff may determine that previously approved research and special use permits may be terminated. All Refuge rules and regulations must be followed unless otherwise allowed by Refuge management.

Availability of Resources: Based on review of the Refuge’s budget allocated for these types of activities, there will be adequate funding to ensure compatibility and to administer the proposed uses. Construction of boardwalks, an observation tower, and a photo blind will be contingent on future funding.

Anticipated Impacts of the Use: Based on available information, the proposed uses, namely, wildlife observation and photography; environmental education and interpretation; walking, hiking, biking, hunting, fishing, and research and Special Use Permits uses are deemed compatible with the purpose for which the Refuge was established and the mission of the National Wildlife Refuge System. Based on available information there is no indication of any long-term adverse biological impacts associated with these uses.

There are a number of situations, harmful to plant and animal life that would warrant the Refuge closures or the development of use restrictions. Examples of these situations include, but are not limited to protection of trust and listed species (flora and fauna), impacted vegetation, nesting or denning species, and the protection of and possible conflicts with other Refuge management programs.

Public Review and Comment: Methods used to solicit public review and comment will include a 30 day public review (Summer 2015). A draft of the Compatibility Determination will be posted at Refuge Headquarters located at 10216 Lee Road, Boynton Beach, FL 33437-4796, phone numbers provided (561.732.3684 or 561.735.6022), and Refuge fax number provided (561.369.7190).

Determination (check one below):

_____ Use is Compatible

 X Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility: Access should be limited to that necessary to facilitate priority and compatible secondary uses. To mitigate potential disturbances, a combination of Refuge staff presence and informational kiosks would help educate visitors about the potential problems associated with their actions. Law enforcement patrol of public use areas will continue to minimize violations of Refuge regulations. The parking areas, boat ramps, and other access areas, minimize wildlife disturbance to daylight hours only. If any negative impacts occur, the Refuge will take corrective action to reduce or eliminate the effects on wildlife. Impacts to wildlife from visitor use including observation and photography activities, environmental education and interpretation, walking, hiking, biking, hunting, fishing, or construction of initial trail facilities including information kiosks, etc., may result in disturbance to wildlife, but are expected to be minimal.

All current or future Refuge specific rules and regulations apply to the proposed uses:

- Public use of motorized vehicles on the Refuge levee system is not allowed.
- Public use of ATV's on any portion of the Refuge is not allowed.
- Permitted motorized vehicles are restricted to existing roads and parking areas.
- Public use of certain boats including airboats, "go-devils", and personal watercraft are not allowed except in the perimeter canals surrounding the Refuge.
- Boating, bicycling, hiking, walking, etc. is solely for recreational purposes, and uses such as racing, water skiing, etc. are not permitted.
- Limit all access when necessary to protect nesting snail kites, colonial nesting birds, resting waterfowl from public disturbance, or for other management purposes
- Public access restricted to posted hours.
- Certain areas of the Refuge may be restricted seasonally to avoid disturbance of breeding or nesting wildlife or to protect sensitive habitat.

- Pets are not authorized.
- Clearing of vegetation is prohibited.

NEPA Compliance for Refuge Use Description:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

Justification: According to the National Wildlife Refuge System Improvement Act of 1997, wildlife conservation has first priority in Refuge management; public uses are allowed and encouraged as long as they are appropriate and compatible with or do not detract from this priority mission and the purposes for which the Refuge was established. Wildlife-dependent recreational uses (namely, wildlife observation, wildlife photography, environmental education and interpretation, hunting, and fishing,) assuming they are judged to be compatible, are considered as legitimate, appropriate and priority uses of the National Wildlife Refuge System. Other recreation uses, namely, walking, hiking, and biking, have been determined not to materially interfere with or detract from the purposes of the Refuge or the mission of the National Wildlife Refuge System.

Signature: Refuge Project Leader: _____
(Signature and Date)

Review: Regional Compatibility Coordinator: _____
(Signature and Date)

Review: Refuge Supervisor: _____
(Signature and Date)

Concurrence: Regional Chief: _____
(Signature and Date)

Mandatory 15-Year Re-evaluation Date: _____

Compatibility Determination #2

Refuge Name: Arthur R. Marshall Loxahatchee National Wildlife Refuge

Use: Horseback Riding on Strazzulla

Date Established: June 8, 1951

Establishing and Acquisition Authorities: A cooperative and License Agreement between the Central and Southern Florida Flood Control District (precursor to the South Florida Water Management District (SFWMD)) and the U.S. Fish and Wildlife Service with the Migratory Bird Conservation Act of 1929 authorized the establishment of Arthur R. Marshall Loxahatchee National Wildlife Refuge. In the initial License Agreement, 143,116 acres of wetlands, known as Water Conservation Area I, were leased to the U.S. Fish and Wildlife Service by the State of Florida to be managed in accordance with the License Agreement and legislative mandates.

Refuge Purpose: "...for use as an inviolate sanctuary, or for other management purposes, for migratory birds." (Migratory Bird Conservation Act of 1929. 16 U.S.C. Sect. 644)

...shall be administered by him [Secretary of the Interior] directly or in accordance with cooperative agreements...and in accordance with such rules and regulations for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon. 16 U.S.C. Sect. 664 (Fish and Wildlife Conservation Act).

National Wildlife Refuge System Mission: *to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."*

Other Applicable Laws, Regulations, and Policies:

Antiquities Act of 1906 (34 Stat.225)

Migratory Bird Treaty Act of 1918 (15 U.S.C. 703-711; 40 Stat.755)

Migratory Bird Conservation Act of 1929 (16 U.S.C. 715r; 45 Stat. 1222)

Migratory Bird Hunting Stamp Act of 1934 (16 U.S.C. 718-178h; 48 Stat.451)

Criminal Code Provisions of 1940 (18 U.S.C. 41)

Bald and Golden Eagle Protection Act of (16 U.S.C. 668-668d; 54 Stat.250)

Refuge Trespass Act of June 25, 1948 (18 U.S.C. 41; Stat. 686)

Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j; 70 Stat.1119)

Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4; Stat. 653)

Wilderness Act (16 U.S.C. 1131; 78 Stat. 890)

Land and Water Conservation Fund Act of 1965

National Historic Preservation Act of 1966, as amended (16 U.S.C.470, et seq.; 80 Stat. 915)

National Wildlife Refuge Administration Act of 1966 (16 U.S.C. 668dd, 668ee; 80 Stat. 927)
National Environmental Policy Act of 1969, NEPA (42 U.S.C. 4321, et seq; 83 Stat.852)
Use of Off-Road Vehicles on Public Lands (Executive Order 11644, as amended by Executive Order 10989)
Endangered Species Act of 1973 (16 U.S.C. 1531 et seq; 87 Stat.884)
Refuge Revenue Sharing Act of 1935, as amended in 1978 (16 U.S.C. 715s; 92 Stat.1319)
National Wildlife Refuge Regulations for the Most Recent Fiscal year 950 CFR Subchapter C; 43 CFR 3101.3-3)
Emergency Wetlands Resources Act of 1986 (S.B. 740)
North American Wetlands Conservation Act of 1990
Food and Security Act (Farm Bill) of 1990 as amended (HR 2100)
The Property Clause of the U.S. Constitution Article IV 3, Clause 2
The Commerce Clause of the U.S. Constitution Article I, Section 8
The National Wildlife Refuge System Improvement Act of 1997 (Public law 105-57, USC668dd)
Executive Order 12996, Management and General Public Use of the National Wildlife Refuge System, March 25, 1996
Title 50, Code of Federal Regulations, Parts 25-33
Archeological Resources Protection Act of 1979
Native American Graves and Protection Repatriation Act of 1990

Description of Use: Public access in the form of horseback riding on the northern levee of Strazzulla starting from Acme 2 in an effort to provide visitors additional areas to experience the myriad of wading birds, waterfowl, hawks, and alligators that use the Refuge and surrounding natural areas. Potential horseback riding opportunities will give this group, who might not otherwise visit the Refuge, an opportunity to appreciate the natural plant community, observe resident wildlife, and enjoy the aesthetic attributes of the Refuge.

A limiting factor to using this section of the levee is trailer parking adjacent to Acme 2. The Refuge will partner with the Village of Wellington to create suitable parking just off of the Refuge at this location. This will assist in providing adequate space for all user groups. The Refuge equestrian trail also connects to existing trails on SFWMD and Village of Wellington land. Most of the proposed trail will be on partner land and will not be on the Refuge proper. This trail will only cross a very limited part of the Refuge. The interior of Strazzulla is predominately wet marsh and Cypress Swamp and is not suitable for horseback riding. Hoof traffic in the interior of Strazzulla would cause rutting and safety concerns for the horse and rider. Therefore, the interior of Strazzulla will not be opened to equestrian use.

Availability of Resources: Based on review of the Refuge's budget allocated for this type of activity, there will be adequate funding to ensure compatibility and to administer the use at the proposed level.

Anticipated Impacts of the Use: Horseback riding on the north levee accessed from Acme 2 would have minimal impacts to the levee in the areas where horses are allowed to travel. All horses accessing the north levee of Strazzulla shall be required to keep horse manure off of the levee by cleaning up after the horses, and to keep invasive and exotic plants from being deposited on the Refuge. Horses are not anticipated to cause unreasonable damage to the levee. The proposed horseback riding trail is a flat, narrow gravel and shellrock levee that will hold up well under hoof traffic. A partnership with ACME and the Village of Wellington will have to be established in order to allow horseback riding on the levee.

Infrastructure via a levee currently exists and no additional trail construction will be necessary to afford access. The Refuge has experienced minimal impacts to wildlife as a result of existing (hiking and biking) visitor access to levee systems. Allowing public horseback riding access to the northern boundary of Strazzulla is anticipated to minimally impact wildlife resources, similar to impacts experienced on levee settings currently open to public access.

The possible negative effect of cowbirds on resident passerines would need to be considered. Because cowbirds eat undigested grain in horse ‘patties’ and lay their eggs in other birds’ nests during the breeding season, they have the potential to undermine the reproductive efforts of resident perching birds. However, because a large equestrian compound in the Village of Wellington currently exists on the border of the Refuge, any cowbirds associated with the stables already have immediate access to passerine nests on the Refuge. Preventing horseback riding on the northern levee of Strazzulla would not decrease cowbird impacts. Another potential negative effect of horse use is the possible spread of exotic plants. This may happen in two ways. Exotic and invasive plant seeds may be deposited on the trails and levee from horse ‘patties’. Conversely, plants and seeds eaten by horses while on the levee may be deposited off the Refuge. All horses accessing Strazzulla shall be required clean up horse patties off of the levee, and to keep invasive and exotic plants from being deposited on the Refuge. Should negative impacts be observed, public use levels and options will be adjusted accordingly.

Public Review and Comment: Methods used to solicit public review and comments include a 30 day public review in July 2015. A draft of the Compatibility Determination will be posted at Refuge Headquarters located at 10216 Lee Road, Boynton Beach, FL 33437-4796, phone numbers provided (561.732.3684 or 561.735.6022), and Refuge fax number provided (561.369.7190).

Determination (check one below):

_____ Use is Compatible

X Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

Allowing horseback riding would require maintenance of parking areas and trails.

Access should be limited to that necessary to facilitate priority and compatible secondary uses. To mitigate potential disturbances, a combination of Refuge staff presence and informational kiosks would help educate visitors about the potential problems associated with their actions. Law enforcement patrol of public use areas will continue to minimize violations of Refuge regulations. If any negative impacts occur, the Refuge will take corrective action to reduce or eliminate the effects on wildlife. Impacts to wildlife from horseback may result in disturbance to wildlife, but are expected to be minimal given the access is restricted to an existing levee.

Refuge specific rules and regulations would apply to the proposed horseback riding expansion.

There are specific stipulations that should apply to opening horseback riding to the northern perimeter levee of Strazzulla from Acme 2:

- Limit all access when necessary to protect nesting snail kites, colonial nesting birds, resting waterfowl, or for other management purposes.
- Public access restricted to posted hours.
- Certain areas of the Refuge may be restricted seasonally to avoid disturbance of breeding or nesting wildlife or to protect sensitive habitat.
- All trash must be packed out and properly disposed off-site.
- Pets are not authorized.
- Clearing of vegetation is prohibited.

NEPA Compliance for Refuge Use Description:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

Justification: Expanding Refuge access along the north boundary of Strazzulla provides the public additional opportunities to experience wildlife and enhances the public use experience at the Refuge. The Refuge strives to provide compatible uses that the public can enjoy on a National Wildlife Refuge.

Signature: Refuge Project Leader: _____
(Signature and Date)

Review: Regional Compatibility Coordinator: _____
(Signature and Date)

Review: Refuge Supervisor: _____
(Signature and Date)

Concurrence: Regional Chief: _____
(Signature and Date)

Mandatory 15-Year Re-evaluation Date: _____

DRAFT

Compatibility Determination #3

Refuge Name: Arthur R. Marshall Loxahatchee National Wildlife Refuge

Use: Camping in Strazzulla Marsh and other approved sites on Refuge

Date Established: June 8, 1951

Establishing and Acquisition Authorities: A cooperative and License Agreement between the Central and Southern Florida Flood Control District (precursor to the South Florida Water Management District (SFWMD)) and the U.S. Fish and Wildlife Service with the Migratory Bird Conservation Act of 1929 authorized the establishment of Arthur R. Marshall Loxahatchee National Wildlife Refuge. In the initial License Agreement, 143,116 acres of wetlands, known as Water Conservation Area I, were leased to the U.S. Fish and Wildlife Service by the State of Florida to be managed in accordance with the License Agreement and legislative mandates.

Refuge Purpose: "...for use as an inviolate sanctuary, or for other management purposes, for migratory birds." (Migratory Bird Conservation Act of 1929. 16 U.S.C. Sect. 644)

...shall be administered by him [Secretary of the Interior] directly or in accordance with cooperative agreements...and in accordance with such rules and regulations for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon. 16 U.S.C. Sect. 664 (Fish and Wildlife Conservation Act).

National Wildlife Refuge System Mission: *to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."*

Other Applicable Laws, Regulations, and Policies:

Antiquities Act of 1906 (34 Stat.225)

Migratory Bird Treaty Act of 1918 (15 U.S.C. 703-711; 40 Stat.755)

Migratory Bird Conservation Act of 1929 (16 U.S.C. 715r; 45 Stat. 1222)

Migratory Bird Hunting Stamp Act of 1934 (16 U.S.C. 718-178h; 48 Stat.451)

Criminal Code Provisions of 1940 (18 U.S.C. 41)

Bald and Golden Eagle Protection Act of (16 U.S.C. 668-668d; 54 Stat.250)

Refuge Trespass Act of June 25, 1948 (18 U.S.C. 41; Stat. 686)

Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j; 70 Stat.1119)

Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4; Stat. 653)

Wilderness Act (16 U.S.C. 1131; 78 Stat. 890)

Land and Water Conservation Fund Act of 1965

National Historic Preservation Act of 1966, as amended (16 U.S.C.470, et seq.; 80 Stat. 915)

National Wildlife Refuge Administration Act of 1966 (16 U.S.C. 668dd, 668ee; 80 Stat. 927)
National Environmental Policy Act of 1969, NEPA (42 U.S.C. 4321, et seq; 83 Stat.852)
Use of Off-Road Vehicles on Public Lands (Executive Order 11644, as amended by Executive Order 10989)
Endangered Species Act of 1973 (16 U.S.C. 1531 et seq; 87 Stat.884)
Refuge Revenue Sharing Act of 1935, as amended in 1978 (16 U.S.C. 715s; 92 Stat.1319)
National Wildlife Refuge Regulations for the Most Recent Fiscal year 950 CFR Subchapter C; 43 CFR 3101.3-3)
Emergency Wetlands Resources Act of 1986 (S.B. 740)
North American Wetlands Conservation Act of 1990
Food and Security Act (Farm Bill) of 1990 as amended (HR 2100)
The Property Clause of the U.S. Constitution Article IV 3, Clause 2
The Commerce Clause of the U.S. Constitution Article I, Section 8
The National Wildlife Refuge System Improvement Act of 1997 (Public law 105-57, USC668dd)
Executive Order 12996, Management and General Public Use of the National Wildlife Refuge System, March 25, 1996
Title 50, Code of Federal Regulations, Parts 25-33
Archeological Resources Protection Act of 1979
Native American Graves and Protection Repatriation Act of 1990

Description of Use: Public access in the form of permitted youth camping in Strazzulla in an effort to provide visitors additional opportunities to experience the Everglades ecosystem at night.

Currently, no camping is allowed on the Refuge without a Special Use Permit. This use would provide a limited primitive camping opportunity for youth groups in designated areas. Potential youth camping (i.e. Boy Scouts, Girl Scouts, JROTC, YMCA, etc.) opportunities would allow each user group to learn about the Everglades, the unique opportunity to observe by sight and sound nocturnal wildlife, observe celestial phenomenon somewhat away from urban light pollution, and an opportunity to recognize the uniqueness of the Everglades ecosystem. It is vital to provide ways for our youth to understand why supporting the cost of ongoing restoration/protection efforts is important to the residents of south Florida.

To provide this experience, a very limited permitted overnight camping opportunity is proposed. Small designated campsites would be constructed with a cleared area and fire ring in areas outside wetlands. Campers would be required to stay on trails and use the designated camp areas to stay the night. Overnight stays would be by permit only, based on advanced reservations, limited by number, and only during certain times of year. Specific restrictions and guidelines would prevent visitors from becoming lost during their visit and reduce the number of emergency rescues by law enforcement staff. If mandatory rescue missions become too numerous, the camping experience will be modified or closed. Further stipulations may be made to assure wildlife and vegetation is

not disturbed, including ending the overnight option. However, long-term disturbance would be minimal.

Availability of Resources: Based on review of the Refuge’s budget allocated for this type of activity, there will be adequate funding to ensure compatibility and to administer the use at its proposed level.

Anticipated Impacts of the Use: This use would likely cause moderate disturbance to surface soils in areas selected as primitive camping sites. Some disturbance to wildlife and habitat will initially occur with the construction of the sites. Long-term disturbance would be minimal based on the amount of people permitted and number of campsites allowed in designated areas. Facilities for youth camping would be limited to a cleared area and a fire ring in the proposed campsites. No restrooms, tables, garbage disposal, or other amenities would be provided. This use would require maintenance of parking areas and camp sites.

Public Review and Comment: Methods used to solicit public review and comment include a 30 day public review (July 2015). A draft of the Compatibility Determination will be posted at Refuge Headquarters located at 10216 Lee Road, Boynton Beach, FL 33437-4796, phone numbers provided (561.732.3684 or 561.735.6022), and refuge fax number provided (561.369.7190).

Determination (check one below):

- Use is Compatible
- Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility: Access should be limited to that necessary to facilitate priority and compatible secondary uses. To mitigate potential disturbances, a combination of Refuge staff presence and informational kiosks would help educate visitors about the potential problems associated with their actions. Law enforcement patrol of public use areas will continue to minimize violations of refuge regulations. If any negative impacts occur, the Refuge will take corrective action to reduce or eliminate the effects on wildlife. Impacts to wildlife from visitor use including observation and photography activities, biking, walking, hiking, or construction of initial trail facilities including information kiosks, pay fee cans, etc., may result in disturbance to wildlife, but are expected to be minimal.

All current or future Refuge specific rules and regulations apply to the proposed public use expansion:

- Public use of motorized vehicles of any kind operated on the refuge levee system or within Strazzulla.
- Public use of ATV’s on any portion of the Refuge.
- Permitted motorized vehicles are restricted to existing roads and parking areas.

- Public use of certain boats including airboats, “go-devils”, and personal watercraft are not allowed on any portion of the Refuge.
- Boating, bicycling, hiking, walking etc. solely for recreational purposes (such as racing, water skiing, etc.) is not permitted.
- Youth camping in designated areas.

There are specific stipulations that should apply to opening Strazzulla area to camping:

- Limit all access when necessary to protect nesting snail kites, colonial nesting birds, resting waterfowl, or for other management purposes.
- Public access restricted to posted hours.
- Certain areas of the Refuge may be restricted seasonally to avoid disturbance of breeding or nesting wildlife or to protect sensitive habitat.
- All trash must be packed out and properly disposed off-site.
- Pets are not authorized.
- Clearing of vegetation is prohibited.

NEPA Compliance for Refuge Use Description:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

Justification: Expanding Refuge access into Strazzulla provides the public, specifically youth groups, additional opportunities to experience wildlife and enhances the public use experiences the Refuge strives to provide and educated the public about the importance of National Wildlife Refuges.

Signature: Refuge Project Leader: _____
(Signature and Date)

Review: Regional Compatibility Coordinator: _____
(Signature and Date)

Review: Refuge Supervisor: _____
(Signature and Date)

Concurrence: Regional Chief: _____
(Signature and Date)

Mandatory 15-Year Re-evaluation Date: _____

APPENDIX F: Court Report of April 8, 2015 Public Meeting

Page: 1

1	
2	
3	-----
4	ARTHUR R. MARSHALL LOXAHATCHEE
5	NATIONAL WILDLIFE REFUGE
6	PALM BEACH COUNTY, FLORIDA
7	LAND EXCHANGE WITH THE STATE OF FLORIDA
8	STRAZZULLA MARSH
9	U.S. FISH & WILDLIFE SERVICE
10	PUBLIC MEETING
11	APRIL 8, 2015
12	10216 LEE ROAD
13	BOYNTON BEACH, FLORIDA 33473
14	6:00 P.M. - 6:52 P.M.
15	-----
16	STAFF APPEARANCES
17	Xavier Cathey
18	Rolf Olson
19	William Miller
20	Jacob Tuttle
21	William Calvert
22	Scott Engstler
23	
24	STENOGRAPHICALLY REPORTED BY:
25	Tracy L. Fazio, FPR
	Notary Public - State of Florida

Florida Court Reporting
(561) 689-0999

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

- - -

(Thereupon, the following proceedings began at 6:00 P.M. and were transcribed as follows:)

MR. CATHEY: So my name is Xavier Cathey. I'm the Wildlife Refuge Specialist here on the Refuge. I just wanted to welcome everybody and say thank you for coming out, and give you sort of an overview of what is going to happen during this meeting. I'm going to go over a few things about the comment period, and then I'm going to pass it off to Rolf who is the commentator.

So comments are recorded by transcription. I'm going to call one speaker at a time in the order that you filled your cards out. Whenever your name is called, please come up to the podium here. You have three minutes for your comments. We will have Melissa here, she will be the timekeeper. She'll hold up the green card when your portion time starts. The yellow card signifies one minute, and then the red will mean stop. Please as soon as you see the red, please finish your thought and then we can get to the next person. And with the size of

1 this group, we can definitely circle back
2 around if there's some follow-up comments.

3 So we're going to be doing two separate
4 sort of comments. First we're going to do the
5 land swap comments first. Once we get through
6 them, then we'll go on to the public use
7 comments. And then like I said, the yellow
8 card is one minute and the red card time is up.
9 One person speaks at a time. Be careful on the
10 issues, but kind on the people.

11 So also about comments. So they started
12 on March 4th and they'll last until May 15th.
13 You can do the comments by verbally or
14 handwritten tonight or you can write them by
15 email, fax, mail or hand delivery up until May
16 15th. For email, you can contact
17 marciekapsch@fws.gov. Here's our fax number
18 here and the mailing address. I'll put this
19 slide back up whenever we get to the comment
20 section. That way you can write everything
21 down if you don't have time.

22 With that being said, I'm going to pass it
23 off to Rolf Olson here and he'll get started
24 with the presentation.

25 MR. OLSON: We didn't really know how many

1 people would come tonight. So what we had
2 planned was just a very short talk on
3 Strazzulla and what we're proposing, and then
4 we were just going to have mostly public
5 comment, and if we can, have time for public
6 discussion. So let me see.

7 So this is the mission of the U.S. Fish
8 and Wildlife Service to administer a national
9 network of lands and waters for the
10 conservation, management, and where
11 appropriate, restoration of the fish, wildlife,
12 and plant resources within the United States
13 for the benefit of present and future
14 generations of Americans.

15 This is the area we're talking about. The
16 Refuge, the majority of the Refuge,
17 141,000 acres is actually owned by the South
18 Florida Water Management District and it's
19 managed under a 50 year license agreement with
20 the U.S. Fish and Wildlife Service. There's
21 two parts that we actually own in fee title,
22 that's Compartment D, and the area where we are
23 right now on Lee Road.

24 What we're proposing to do is actually
25 swap -- way back when Strazzulla was acquired,

1 it was actually managed by us. Back in the
2 early 2000's, it was switched over or taken
3 away from us for a couple of reasons. The
4 reason I heard was in 2006, the Everglades
5 Forever Act required water discharged into the
6 Loxahatchee National Wildlife Refuge to be 10
7 parts per billion. We weren't sure how we were
8 going to do that at the time. So the Water
9 Management District when they did the second
10 lease took Strazzulla and put it under their
11 management. What we're planning on doing is
12 swapping Compartment D, which is 1,327 acres
13 for Strazzulla, which is 2,586 acres.
14 Compartment D was originally acquired by the
15 U.S. Fish and Wildlife Service for snail kites
16 and -- I'm drawing a blank. I call them
17 whooping cranes. Sandhill cranes. It's not a
18 whooping crane. Sandhill cranes. It never
19 really performed the way it was supposed to
20 perform. The way it was built, it didn't
21 retain water. So it's never really performed.
22 There's still pretty good wildlife habitat, but
23 it's not really what we had intended for.
24 Strazzulla Marsh is the last pristine,
25 rain driven -- maybe not the last, but one of

1 the last pristine, rain driven marshes. It
2 also contains the largest remnant of cypress
3 swamp. And that cypress swamp starts right
4 here behind Bedner's, runs up across the Refuge
5 that we own now through Strazzulla -- I mean
6 through some County land and into Strazzulla.
7 This is the last largest remanent of cypress
8 swamp, contiguous cypress swamp in Palm Beach
9 County.

10 We have basically two alteratives that
11 we're kind of looking at and discussing
12 tonight. The first one is no exchange of land.
13 So we would keep Compartment D. South Florida
14 Water Management District would keep
15 Strazzulla. Alternative B is we would trade.
16 South Florida Water Management District would
17 get Compartment D and we would get Strazzulla.

18 The South Florida Water Management
19 District would like to have Compartment D, and
20 they're going to use that as part of their
21 Restoration Strategies Program, and use that
22 1,300 acres for stormwater treatment,
23 additional stormwater treatment area.

24 The wildlife in Strazzulla is pretty much
25 what you see throughout the Everglades.

1 There's mammals, deer, raccoons. There are
2 hogs in Strazzulla and a little bit of water
3 fowl. Of course alligators, snail kites, other
4 hawks and sandhill cranes. I don't know why
5 I'm having such a bad time with that.

6 So what we're trying to do and Xavier
7 explained a little bit. We're trying to
8 combine two meetings. So one meeting is
9 commenting on the land swap itself, and the
10 other meeting is kind of assuming that we're
11 going to get the land swap. That won't be
12 decided until tomorrow or may be postponed
13 again. But right now we're scheduled for
14 tomorrow at the Governing Board meeting.

15 If we do get it, we're trying to do like a
16 public scoping meeting to see what public uses
17 the public would like within Strazzulla.

18 So those are the two things we're trying
19 to accomplish tonight. One is to allow you
20 guys to comment on the actual land swap itself.
21 If we have time you can ask questions on the
22 land swamp. And the second thing is to talk
23 about any uses that you would like to see. And
24 this is really open process. I mean, if you
25 have any use at all that you would like to see

1 in Strazzulla, this would be a good time to
2 bring it up and discuss it.

3 You're going to have -- so our plan kind
4 of on that tonight is to have a scoping meeting
5 coming up with those public uses. We're going
6 to have to come up with a Public Use Plan and
7 another environmental assessment. We hope to
8 have that done by June 30th, and then we'll
9 have another meeting right around the June 30th
10 period. And then hopefully we'll take those
11 comments from that public meeting and then do a
12 final plan -- or the comment period will end
13 around July 31st is our target date. And then
14 hopefully take those comments and come up with
15 a final plan and publish it. And then have all
16 that wrapped up by January 29th, 2016.

17 The thing with that is whatever we decide
18 on we'll still be depending on funding to
19 implement. If we decide on boardwalks or
20 trails or whatever, that's pretty much the
21 process we have. Xavier.

22 MR. CATHEY: Thank you, Rolf. Okay. As I
23 stated before, at this time we'll allow for the
24 comments. So as I said before, I'm going to
25 read these names off. Whenever you hear your

1 name, please just step up to the podium and
2 your three minutes. Once all these comments
3 are done, like I said, with the number here
4 we'll be able to definitely loop back around
5 and also allow some time to probably do some
6 questions also.

7 So first up, Michael O'Dell. Is everybody
8 okay as far as this information? Jay, you can
9 hit the lights, please, sir. Thank you very
10 much.

11 MR. O'DELL: Michael O'Dell with the
12 Village of Wellington representing the Village
13 here tonight. I have some questions with
14 regards to this property being utilized. Is it
15 still the intent -- and I'm asking questions
16 and I don't know whether you get these answers
17 here. Will you still retain this as a buffer
18 area? That's one of the questions I have. All
19 the readings that I've been able to do, it was
20 South Florida Water Management District's plan
21 to use this as a buffer. So is that still part
22 of your program that you would use it as a
23 buffer?

24 Another one is the transfer, when you
25 consider the transfer of this land. The reason

1 I ask that is the Everglades National Park when
2 it was transferred, it was also considered as a
3 buffer, but that went away when that transfer
4 actually occurred. So that raises that
5 question.

6 South Florida Water Management and the
7 Everglades Buffer Plan, the East Coast Plan was
8 also proposing this for water storage. Is that
9 something that you would still also do? Would
10 you continue to use it for that purpose?

11 And my next question has to do with
12 funding. Does the Refuge have the funding
13 sources to keep any improvements going on
14 Strazzulla? Rainfall driven as it's supposed
15 to be as it is right now appears to be somewhat
16 insufficient to retain the hydro periods that
17 are currently on place. And you can see that
18 through the exotic vegetation that someone
19 taking over at least the southern end of the
20 property at this point. Willow climbing vine
21 are already in the southern half and continue
22 to move forward. And I would assume over time
23 they'll continue to move northward into that.
24 So I would expect that there's a fair amount of
25 dollars need to be spent to keep the exotics

1 under control.

2 Also access to Strazzulla is somewhat
3 limited. How do you plan on providing access
4 into the facilities? Knowing that there's only
5 a TV tower that has some public access to a
6 private gate community. I guess that's really
7 all the comments that I have on that.

8 MR. CATHEY: Thank you very much. Cook.

9 MR. COOK: Would you answer a couple of
10 those questions, particularly access?

11 MR. OLSON: Do we want to do that now?

12 MR. COOK: That gentleman asked pretty
13 basic questions regarding --

14 MR. OLSON: The idea was to just comment
15 and then --

16 MR. COOK: Public access. From where
17 would public access come? I think that's
18 important to know. Would you be able to have
19 public access off of the levee that runs there?
20 That's the question I have. Can you walk in
21 off the levee?

22 MR. OLSON: You can walk in off the levee.

23 MR. COOK: Where's the law enforcement
24 guy?

25 MR. OLSON: So are we going to answer

1 questions?

2 MR. COOK: I think that would be
3 appropriate.

4 MR. OLSON: Does anyone object to that?

5 MR. O'DELL: Would you answer mine as well
6 then?

7 MR. COOK: That's what we're talking
8 about. You had some good questions.

9 MR. OLSON: So right now it is mentioned
10 in our 2000 Comprehensive Conservation Plan,
11 the management of Strazzulla. Right now it is
12 pretty locked by private property. The only
13 way that we would have access today to get into
14 Strazzulla is to come in Lee Road and then you
15 would have to walk or bike up the L-40, and
16 then into the Strazzulla somehow.

17 MR. COOK: Okay.

18 MR. OLSON: Maybe we can make some other
19 access through boardwalks or something like
20 that into along in here or something like that.
21 But right now that would be the only access
22 that you would have the right to at this time.
23 Let me just finish.

24 MR. COOK: How far it is from here to
25 here, half mile, two miles?

1 MR. OLSON: No. More like five or six
2 miles.

3 MR. COOK: Five or six miles.

4 MR. OLSON: Let me just finish one theme
5 at a time. We have not really entered like
6 formal negotiations with the Town of
7 Wellington. But I mean another option would be
8 where the old acme pump is or the current acme
9 pump to kind of come in that way. Access along
10 this side is kind of blocked by gated
11 communities. I don't think we're going to get
12 access through there. There might be something
13 that we can work out in the future with this
14 county land down in this area. But access is a
15 problem for the public, yes.

16 MR. COOK: Sir, did you get your questions
17 answered?

18 MR. OLSON: We'll come back to him. Ask
19 your questions and we'll bring Mike back.

20 MR. COOK: The reason I asked that
21 obviously we've been looking at this piece of
22 property for a long time. There's some of us
23 who have had a lifetime of experience on this
24 piece of property. And it seems an opportunity
25 in a way to go into the Refuge Management. We

1 spent last night with National Wildlife Refuge
2 Association people and we're spending a lot of
3 time in Florida increasing public access to the
4 Refuges. In our particular case, particularly
5 hunting access. And we know for a fact that
6 this place is loaded with deer. And we also
7 know for a fact that you have to -- give us
8 permits so that the public is actually not
9 being able to access the resource. Some of the
10 adjacent land owners are having a field day
11 with the game animals that actually live there.

12 So we're looking forward to the
13 acquisition. I'll probably speak to it again
14 as I do at the Governing Board meeting. And I
15 hope that the public will be able to have
16 access and that we will put this into the
17 hunting program. And when you write your plan,
18 hunting will be listed as one of the public.

19 We aim high often with hunting access.
20 But we also understand that this is not a large
21 piece of property. We also understand it's not
22 too far from development areas. But it could
23 at least support some very vigorous bow hunting
24 at the very least, very least. We know you
25 have hogs on there. That's another where we do

1 a real favor for the Refuge, getting the hogs
2 off. Although, you have to pay for it. That
3 would be like shotgun only type access, because
4 obviously we're very safety conscious. So I
5 look forward to this.

6 Now the other question I have is on the
7 Compartment D. That is outside the levee; is
8 that correct?

9 MR. OLSON: It is.

10 MR. COOK: It's actually like the Brown
11 Farms type property; that side. Because I'm
12 going to have somewhat questions for the
13 District. Because that land is going to lay
14 foul for years at least and we ought to get
15 some public access on that as well. So we see
16 this as a positive, very, very positive thing.

17 MR. OLSON: So Browns Farm Road comes
18 right in this area. Like right in this area
19 somewhere. The levee itself runs right down
20 that line right there, Newton. So it is on the
21 west side of the levee.

22 MR. COOK: We think it's very positive.

23 MR. OLSON: Access is probably easier into
24 Compartment D.

25 MR. COOK: No doubt about that. I can

1 only tell you that the National Wildlife Refuge
2 of Florida is doing a super job. We just had
3 an alligator hunting. Very small program, but
4 a good one. And St. Marks is expanding.
5 Merritt Island is getting ready to expand. So
6 we appreciate that very much. And it's
7 bringing Florida back up to where other states
8 are. We really appreciate it. Thank you.

9 MR. OLSON: Mr. O'Dell, I guess you can
10 come back up or if you can ask them from there.
11 If you'd re-ask your questions, I'd be glad to
12 try to address them.

13 MR. O'DELL: The first one was does the
14 Refuge have the ability to still offer to
15 function in its true property as a buffer?

16 MR. OLSON: So I know that there's a
17 concern about buffer. And I'm not really sure
18 what happened with Parks Service. At one time
19 there was talk about this whole area being a
20 buffer and there were different things. And I
21 think that's why the County bought the farm
22 property just north of Lee Road here. I don't
23 think that we're really worried about a buffer
24 anymore. If you're asking are we going to get
25 Strazzulla and then declare that we want

1 another buffer? I don't think that we're going
2 to be doing that.

3 MR. O'DELL: That's why I raised the
4 question about the Everglades. That's
5 essentially what happens with -- when the
6 Refuge was taken over down south. They
7 purchased a property. It was a buffer area.
8 And then all of a sudden it comes under the
9 Wildlife Group and now it's part of the park
10 system. Now there's no buffer for that.
11 That's part of the concern. We keep moving the
12 buffer.

13 MR. OLSON: You don't have that concern
14 now, because there's no way to move a buffer
15 against homes.

16 MR. O'DELL: The next one is really the
17 rainfall driven scenario that this has been
18 talked about. My concern is that after looking
19 at the property, looking at the aerials, being
20 out on the property driving through it, I see
21 the southern half with the Old World climbing
22 vine and the exotic vegetation taking over. I
23 see that increasing in the northern half. And
24 the saw grass that is there. You can see the
25 different level of saw grass, which shows that

1 there is some evidence of water ponding even at
2 this time of the year. But water to that
3 facility would help that exotic activity as
4 well. Help to reduce those exotics. But I'm
5 not sure where you would get that from. That's
6 my concern about, you know, cleaning up the
7 water and keeping it clean as well. That's
8 part of the buffering program as well. So
9 would you look at trying to do something else?

10 MR. OLSON: We're open to all kinds of
11 suggestions right now. I don't think we're
12 going to be open to taking untreated water.
13 That would be one extreme. But there's going
14 to be a buffer in there somewhere that we would
15 be willing to address. The Everglades Forever
16 Act requires water discharging into the
17 Loxahatchee National Wildlife Refuge at 10
18 parts per billion. So that would be one
19 probably all the way up until May.

20 So we were open to ideas there. I don't
21 know how we would do that. Under certain
22 scenarios, we would be willing to accept water.
23 But I'm not sure I totally agree with you on
24 the Lygodium. Because Lygodium grows in
25 wetlands and dry areas. So I'm not sure if

1 water would really help us with our Lygodium
2 problem.

3 MR. O'DELL: There's other --

4 MR. OLSON: Those are native.

5 MR. O'DELL: Not in saw grass areas.

6 MR. OLSON: If it is a rain driven system,
7 you are going to have dry periods and wet
8 periods, which can be healthy on some
9 frequency, but probably not the frequency that
10 we're getting now. Actually in the entire
11 cypress marsh. I think you had another
12 question.

13 MR. O'DELL: Access was my other question.

14 MR. OLSON: Yeah, access. We had talked
15 briefly totally off the cuff about, you know,
16 partnering with you guys. Of course that's
17 just -- I mean, there's no agreement there or
18 anything like that. But we are open to, you
19 know, partnering with perhaps the Village of
20 Wellington if you guys were willing to do that
21 or the County. Like I told Mr. Cook, access is
22 going to be a problem to Strazzulla. It's
23 pretty much surrounded by private land. And,
24 you know, maybe on some limited things, like if
25 we did have a hunt, maybe we could allow some

1 vehicles to drive up there. But I don't know
2 that we would be allowed to have regular
3 vehicle traffic on the L-40 levee, flood
4 protection levee. But that's really South
5 Florida Water Management District's call. I
6 don't think you're going to see that levee open
7 in my opinion to vehicle traffic on a routine
8 basis. And I think you had a question on
9 funding or something like that.

10 MR. O'DELL: You mentioned earlier you
11 didn't have much money. But I guess that's
12 part of problem. Whatever program gets
13 developed, whether it's maintenance or
14 improvements or whatever, funding is always
15 going to be one of your issues. That's what
16 I've been able to read anyway.

17 MR. OLSON: Yeah, funding should be an
18 issue with pretty much everyone in this
19 environment. But we've done a pretty good job
20 with managing the cypress swam. Logistically,
21 getting into the cypress swamp is much easier
22 for treating exotic than the interior. The
23 pool of contractors is much larger than the
24 pool of contractors in the interior. So I'm
25 fairly confident we can get enough money to

1 treat exotics in Strazzulla. We have different
2 pots of money that we can tap into like -- I
3 mean we all have different streams. There's
4 Department of Transportation money for public
5 use enhancement. There's actually fee money
6 that we collect and it's collected nationwide
7 that some of it comes straight to us. Some of
8 it goes to a pot that we can compete for. But
9 those are all highly competitive processes. I
10 mean, I can't say if we got the land within one
11 year we'd have a boardwalk. But I think we
12 would have a good shot at a boardwalk.

13 Congress has actually been very kind to
14 the Fish and Wildlife Service once we have a
15 structure in in maintaining those structures.
16 It hasn't always been that way. Once we have
17 something, I'm pretty confident that we'll be
18 able to maintain it had.

19 MR. O'DELL: Thank you.

20 MR. CATHEY: Bishop Wright, Jr.

21 MR. WRIGHT: I just want to say that I'm
22 definitely in favor of the land swap. I was
23 kind of sad when you all lost it. And, you
24 know, I know there's probably more access to
25 Compartment D as far as getting some kind of

1 recreational basis on it. But we're looking
2 forward to whatever recreational. We know we
3 can work some things out. We're not thinking
4 it's going to be open 24/7 or anything like
5 that. But we are looking forward to some
6 limited recreational access in there. And I
7 think, you know, we'd be open-minded to all of
8 it. And we're really interested in preserving
9 the swamp that it is and trying to keep it, you
10 know, the cypress from being developed, which I
11 don't see that even if the Water Management
12 District kept it I would hope. But you see all
13 this land swapping and all this trading off
14 partials of land and stuff, and it makes you
15 realize the government is getting skinny and I
16 know funding is rough. But I really think we
17 can get some funding for that. And I'm looking
18 forward to the land swap honestly, and looking
19 forward to getting some recreational
20 opportunities in there.

21 MR. OLSON: Thanks Bishop. We are really
22 looking to, you know, the public to help us
23 come up with ideas on specifically what you
24 guys would like to see with Strazzulla. You
25 guys may have a better solution to access

1 issues that I can think of. So in this process
2 we're looking forward to --

3 MR. WRIGHT: We'd like to see some horse
4 trails in there. We'd like to see some youth
5 hunts in there. The most recreational
6 opportunity that we can put in to, you know,
7 minimize the footprint. That's what we would
8 like to see.

9 MR. OLSON: Thank you, Bishop.

10 MR. CATHEY: Kay Gates.

11 MS. GATES: Good evening. Kay Gates,
12 Boynton Beach. And I am a member and an
13 activist for the Sierra Club. And we support
14 the land swap. If the Refuge thinks that
15 that's how they can better manage preserving
16 and protecting the Refuge. I don't know that
17 we've commented or thought much about the uses,
18 but if you were going to do uses for allowing
19 hunting, I think it should be balanced with
20 uses for passive tourism.

21 MR. CATHEY: Thank you, Kay.

22 So that concludes the land swap comments.
23 If you have any comments for the public use
24 aspect of what you would like to see done,
25 please come up here. Same thing, I'll call

1 your name and you can come back up. Michael
2 O'Dell.

3 MR. O'DELL: Again, Mike O'Dell with the
4 Village of Wellington. As far as uses go,
5 passive uses, the trail systems opening up to
6 equestrian uses, things like that would be an
7 addition that we see to our community. We have
8 our equestrian population. So that would be
9 something we would be supportive of.

10 I think the idea of hiking trails. I
11 noticed in some documents I saw that there were
12 concepts of some kind of towers where you can
13 see out, get a visual of different things that
14 you can look at. Right now in our Section 24,
15 we have a five-story tower that you can get up
16 and look around at. And that's very helpful
17 for people to get a grasp of what's going on
18 for bird watching and things like that.

19 I think that if there's again some open
20 water sources and things like that where some
21 pole boating and kayaking and canoeing type
22 activities would be available certain times of
23 the year, those would also be beneficial.

24 MR. CATHEY: Thank you. Cook.

25 MR. COOK: Well, I don't want to be too

1 repetitive. Obviously the first situation we
2 have to address is access. I do agree that it
3 would be temporary access up the levee road.
4 There's not too many levee roads like that
5 where the public is allowed in 24/7, 365. But
6 if we had a youth hunt or a quarter hunt, which
7 is what we're going to have, bow hunt, whatever
8 it is for those three days period, you'd have
9 the same opening that you have four o'clock
10 till like we do with the duck hunts and the
11 alligator hunts. So we're not creating any new
12 situations that cause a lot of pain for people.
13 It's something that is already done, proven,
14 acceptable, no problems as far as I know.
15 That's the only thing. I think access is the
16 biggest problem.

17 So we look forward to all the hiking,
18 biking. That levee is a great place to bike.
19 The bird watching, I'll have to tell you, we
20 love the bird watching. As a duck hunter, I
21 watch more birds than most birdwatchers.
22 Incredible opportunity particularly because of
23 the cypress. Not many places where you can --
24 actually, this is part of north central Florida
25 where we are versus the Glades or Big Cypress

1	across the water. Not very many places where
2	you can actually go in and be in a very large
3	old stand cypress. That's going to be
4	fascinating. New to a lot of people.
5	Something that a lot of people haven't seen. I
6	don't know that there's enough water for
7	kayaking, but that would be wonderful. It is
8	rain driven. But there should be opportunities
9	where that levee is open for the birders and
10	the kayakers and it should be managed. It's a
11	managed access like we're used to. I know I'd
12	like to take a kayak and take off down through
13	there. Thank you.
14	MR. CATHEY: Thank you. Bishop Wright,
15	Jr.
16	MR. WRIGHT: Again, I'd like to echo
17	pretty much what Newton said. I'd just like to
18	say we want the most recreational opportunity
19	that we can get that the access will allow us
20	to have whether it's passive or consumptive.
21	We would just like to see access to the
22	property, because we feel the eyes and the ears
23	are the people that actually get to go into the
24	area and look at it and learn to love it, learn
25	to taste it, learn to feel it, learn to smell

1 it. When you just lock everybody out because
2 there's no access or anything like that, no one
3 ever gets to see the true value of the place.
4 So we'd like to try and get as many users in
5 there as it will allow and still keep it as
6 pristine as it is. We're looking for uses is
7 what we're looking for.

8 MR. CATHEY: Thank you. All right. So
9 that concludes everybody who filled out a
10 comment card. So now, yes, we can definitely
11 open it up for anybody else. Please come up
12 here one at a time.

13 UNIDENTIFIED SPEAKER: I just have a
14 question. I've fished L-40 all my life, but
15 I've never had the luxury of seeing what's on
16 the other side of it. I don't think I've ever
17 really -- is this a piece of property that say
18 somebody could put a kayak on the boat and go
19 up the L-40, and park their boat and utilize it
20 to fish just like we do the other side?

21 MR. OLSON: There's not a lot of water.
22 It's pretty shallow. There's not like a borrow
23 ditch or something like that. The saw grass
24 comes up pretty much through the levee itself.

25 UNIDENTIFIED SPEAKER: That's more like

1 the sound end with the grass. So where does
2 the cypress run up through it?

3 MR. OLSON: So you can see the cypress.
4 It's this lighter gray, lighter tan area is
5 probably most likely willow or brush or saw
6 grass. But you can see these little kind of
7 brownish mustard color continuing up there;
8 that's cypress. All this is cypress splashed
9 in with some marsh. This is all cypress,
10 contiguous cypress here. This is all cypress
11 here. So it's kind of this broccoli textured
12 kind of stuff throughout here.

13 UNIDENTIFIED SPEAKER: I got you.

14 MR. OLSON: Throughout here it's all
15 cypress with a few little domes scattered out
16 amongst the other vegetation types.

17 UNIDENTIFIED SPEAKER: Just asking.

18 MR. OLSON: I don't know what the fishing
19 opportunities are just because it's mostly saw
20 grass. There's not a lot of like a borrow dish
21 or something.

22 UNIDENTIFIED SPEAKER: That's why I was
23 asking if the cypress was more of a strand or
24 if it was patches.

25 MR. OLSON: The cypress is mostly to the

1 east. The other stuff and the saw grass is to
2 the west. Now that would be an option. That's
3 a good thing you brought up. I mean, I don't
4 see why you couldn't come up in a boat. I know
5 it's not good for everybody. But you could
6 anchor there and then potentially put some kind
7 of facility.

8 UNIDENTIFIED SPEAKER: That's why I'm
9 asking what the lay of the land is. Trying to
10 come up with something to, you know, appease.
11 Because I see where your problem is coming in.
12 You got a lot of private property backing up to
13 this piece.

14 MR. OLSON: But the L-40 levee is open
15 right now to hiking. We're trying to open it
16 up to biking. So there would be no reason why
17 tomorrow you couldn't drive your boat up there
18 and then walk across the levee. So that's a
19 great option. Thank you for coming up with
20 that.

21 UNIDENTIFIED SPEAKER: Like I said, I'm
22 trying to get an idea of what the property is
23 like.

24 MR. OLSON: Is Bill out there or is he
25 gone? Calvert. Bill might be able to address

1 a little bit more on if there's actually
2 fishing opportunities. I really don't think
3 there's much currently fishing.

4 MR. CATHEY: Kay, you had a question?

5 MS. GATES: I'm looking at this more
6 carefully studying the map. What's the little
7 square piece of brown property that's been
8 blocked off?

9 MR. OLSON: This one here or this one
10 here?

11 MS. GATES: The top one and the bottom
12 one.

13 MR. OLSON: I'm not sure why that is cut
14 out. I'm just guessing, but I think that may
15 not be owned by the Water Management District.
16 Do you know Susan?

17 MS. TROKEY: I believe that's private.

18 MR. OLSON: Private property. This area
19 right here is in order for National Wildlife
20 Refuge to acquire land, we have to have an
21 approved acquisition boundary. And for
22 whatever reason, when this acquisition boundary
23 was drawn, it was drawn on this yellow line
24 here. I have no idea why. So we have to
25 modify the acquisition boundary. That

1 red-hatched area is in the trade. But we're
2 going to have to modify our acquisition
3 boundary to include that.

4 MS. GATES: So it wouldn't be part of the
5 property?

6 MR. OLSON: It would be, yeah. Right now
7 that's just showing that we have to modify the
8 boundary.

9 MS. GATES: And then both of those green
10 areas, that's private property?

11 MR. OLSON: This right here, Kay, is what
12 you're talking about? That is the tower that
13 you see out there. And we're not acquiring the
14 land around the tower. You know, it's a really
15 tall radio and television tower.

16 Bill, there was a question about if there
17 were any fishing. I didn't think off the top
18 of my head if there was really anything deep
19 enough to fish in here. You've been over that
20 area way more than I have. So I thought maybe
21 you could answer that.

22 MR. CALVERT: No. It's mostly saw grass.
23 All this is saw grass up to here. And this is
24 all cypress. There's not much in the way of
25 any lakes or anything back there at all.

1 UNIDENTIFIED SPEAKER: Excuse me, Bill.
2 That triangle, that was County, right?

3 MR. CALVERT: It's either County or
4 private. I thought it was private. I know
5 this is County probably right here. This is
6 County property. Palm Beach County owns this.
7 They may. I can look real quick.

8 MR. OLSON: The triangular piece comes up
9 as state lands.

10 MR. CALVERT: State land. Okay.

11 MR. O'DELL: Do you know why that wouldn't
12 be in the deal then?

13 MR. OLSON: You would have to ask someone
14 besides me. I do not know, no. Unless it's
15 not owned by the South Florida Water Management
16 District. I'm just guessing at that though.

17 MR. O'DELL: Like I said, it comes up as
18 trustee land. So it's state owned land.

19 MR. CALVERT: It's not owned by the South
20 Florida Water Management.

21 MR. OLSON: Right. So, yeah, they don't
22 own it. So they can't trade it. So I guess if
23 we wanted to acquire that land, we'd have to
24 talk to the state. Whatever bureau manages it
25 in the state.

1 MR. CATHEY: Does anybody else have any
2 other comments or questions?

3 MR. O'DELL: Who will be -- so the South
4 Florida Water Management District will be
5 retaining ownership of the radio tower and the
6 TV tower lands?

7 MR. OLSON: Susan, do you know that at
8 all?

9 MS. TROKEY: As far as I know -- well,
10 it's not an ideal. But I don't know what their
11 plans are for that.

12 MR. OLSON: I assume it's theirs now.

13 MS. TROKEY: They probably make a lot of
14 money off of that from the various leases. I
15 would assume that that's probably the reason
16 why they're keeping that. Plus, that's not
17 really compatible with Refuge lands. But I
18 have no clue what they're going to do with
19 that.

20 MR. O'DELL: It would be a good source of
21 money for maintaining it.

22 MR. CATHEY: Kay.

23 MS. GATES: In that same vein, that
24 private piece of property that's been commented
25 the County owns. Was that land that they used

1 for -- what do they call that when they buy the
2 environmental --

3 MS. TROKEY: The one down south?

4 MS. GATES: Yeah, south where they buy to
5 take environmental. Mitigation.

6 MR. CALVERT: The County has owned that
7 land since I've been here in 1997, '98.
8 They've owned that before any of the property
9 out here was sold.

10 MR. CATHEY: Still open for any questions,
11 answers, comments, concerns.

12 MR. O'DELL: The only other comment that I
13 have is this is a little off topic, but to your
14 access point, the L-40 canal. I've approached
15 the Water Management District about access into
16 the STA for biking and hiking. And the comment
17 was made that the overall trail plan would be
18 great to create a hiking or biking trail down
19 the L-40 to tie into this facility here. So it
20 sounds like at least from my conversations with
21 the Water Management District that they're open
22 to the idea of creating some kind of pathway
23 system to connect their STA down through and
24 connect to this facility here on Lee Road.

25 MR. OLSON: That is a separate process

1 that we're going through. But Xavier is
2 working on actually increasing bike access to
3 the Refuge and hiking access to the Refuge.
4 We've talked to South Florida Water Management
5 District and they've indicated that it's
6 exactly what you said. They would not mind
7 seeing the whole L-7, 39 and 40 levees open.
8 We're in the process of opening the L-7 to the
9 S-6 pump house and then up right now to Acme.

10 There's some issues. It doesn't really
11 show up on this map too well. But getting
12 around the pump house, the discharge pump house
13 of the STA-1 East, we have to come up with some
14 kind of issue or a bridge or something like
15 that. So Xavier is writing that into our plan
16 for that. But I think that that's going to be
17 farther down the road. The Water Management
18 District has indicated that they are interested
19 in opening it to biking and hiking. I'm not
20 sure about vehicle access would be the key for,
21 you know, getting people to Strazzulla.

22 MR. CATHEY: So we have another speaker
23 that just came in. Roy Snyder. If you'd like
24 to come up to the podium here.

25 MR. SNYDER: Speaking for myself and the

1 part of the Audubon Society of the Everglades,
2 we all think this is a long time coming and
3 that finally, finally occurred. We just waited
4 to get that 46,000 acres south of the lake.
5 But we'll take whatever we can get and move on
6 with that. But we thank all of the efforts
7 everybody has taken. It's taken a lot of
8 effort and we're glad finally seeing this
9 coming to fruition. The Audubon Society
10 supported this from the very beginning.

11 MR. CATHEY: Anymore comments? This is
12 definitely y'all's time. Please, like me and
13 Rolf said, anything you may want to see done,
14 this is the perfect time.

15 UNIDENTIFIED SPEAKER: I speak for the
16 Audubon Society. We're representing the Board
17 and we are absolutely thrilled that you're
18 finally going to get Strazzulla Marsh. Rosa
19 Durando will really, really be thrilled when I
20 tell her about it, because she has believed
21 that it would never occur. But I think the
22 value to the wildlife and the birds and just
23 the water quality in general is going to be
24 just such a big boom to our Refuge that belongs
25 to all of us, and we think it's great.

1 MR. CATHEY: Is there any final
2 communications or questions?

3 MR. WRIGHT: Thanks for putting the
4 meeting together.

5 MR. OLSON: I really do appreciate you
6 coming out tonight. This will probably
7 conclude our formal meeting. I wanted to
8 introduce the staff I had here tonight. If you
9 want to take advantage while you're here to
10 talk to them and ask them a hard question or
11 something, that's good. This is Rebekah
12 Gibble. She's our Senior Biologist. In the
13 back if you could identify yourself. Scott
14 Engstler, our Law Enforcement Officer. Jacob
15 Tuttle, he's a Law Enforcement Officer. Also
16 in charge of maintenance and the Public Use
17 Program. Bill Calvert is our Senior Law
18 Enforcement Officer. Sara Martinez is our
19 intern for six months. She's been with us four
20 months now. Kathy Skaggs is with our Water
21 Quality Program. Susan Trokey is just visiting
22 today. She's our realty specialist from Ding
23 Darling. And Melissa Martin is our Senior
24 Ecologist with the Everglades Program. And
25 then Xavier is our -- right now he's in charge

1 of volunteers and a bunch of other things.
2 That's really all we had. Sorry, Bill. Bill
3 Miller is helping me for a few months as the
4 Assistant Manager. He's actually the Manager
5 of Hope Sound National Wildlife Refuge, which
6 is in our complex. So if you have any
7 questions about Hobe Sound Refuge, you can hit
8 Bill up. Thank you.

9 MR. CATHEY: As I said, comments are open
10 until May 15. Please comment until then.
11 Here's the information. Does anybody need this
12 information? I can turn off the lights if you
13 all want to copy it down real quick. Other
14 than that, thank you all for coming out. We
15 very much ask appreciate it.

16 MR. OLSON: Xavier and Marcie will be the
17 two writing the Public Use Plan. So the more
18 information you can get them on uses. If you
19 know people that have ideas, have them start
20 sending them to us. Then we can put them in
21 our plan and it will just speed things up a
22 little bit rather than having to change the
23 plan once we go through the public review
24 process. But that will go through a formal
25 public review process. We'll have two shots at

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

that.

MR. CATHEY: Any idea is fair game. So please give us your ideas. Definitely helps us out a lot. Thanks you all.

(Thereupon, the meeting concluded at 6:52 P.M.)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CERTIFICATE

STATE OF FLORIDA)
COUNTY OF PALM BEACH)

I, TRACY LYN FAZIO, Florida Professional Reporter and Notary Public within and for the State of Florida at Large, duly commissioned and qualified, do hereby certify that pursuant to a notice to take said proceedings heretofore filed, the examination was reduced to writing under my supervision; and that the transcript is a true record of my stenographic notes.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 27th day of April, 2015.



TRACY LYN FAZIO, FPR
Notary Public, State of
Florida at Large

APPENDIX G: Finding of No Significant Impact

Page Intentionally Left Blank

DRAFT