

Appendix G
**Section 4(f) Draft De
Minimis
Determination**

Draft

NORTH PALM BEACH COUNTY GENERAL AVIATION AIRPORT

Section 4(f) Draft De Minimis Determination for the Extension of Runway 14-32 and Related Improvements

Prepared for
Federal Aviation Administration

March 2024

Prepared by
Environmental Science Associates and
Palm Beach County Department of Airports



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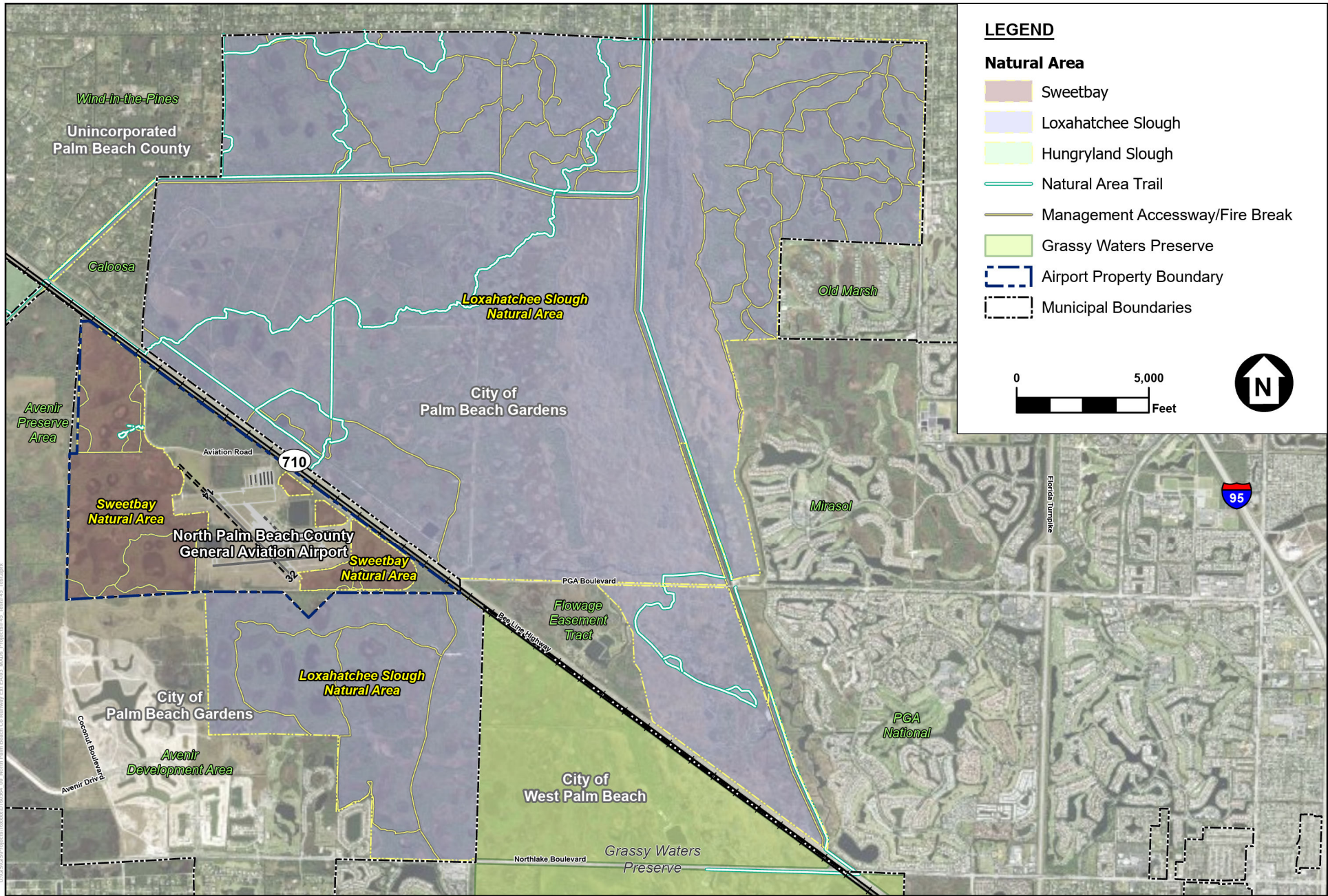
1. Introduction

The purpose of this document is to provide the information required by the Secretary of Transportation to make the decision regarding the use of significant publicly-owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites that are subject to the protective provisions of Section 4(f) of the *Department of Transportation Act of 1966* (recodified at 49 U.S.C. § 303). This document will also consider impacts and requirements under Section 6(f) of the *Land and Water Conservation Fund Act of 1965* (LWCFA). These laws and their associated regulations are discussed in Section 2 of this document.

The North Palm Beach County General Aviation Airport (F45) is located on 1,832 acres in north Palm Beach County, Florida, 2 miles west of the city of Palm Beach Gardens, 1.5 miles north of the town of Loxahatchee, and 12 miles northwest of the city of West Palm Beach. The Airport is bordered by State Route 710 (Beeline Highway) to the north and east, a parcel of the Loxahatchee Slough Natural Area to the south, and the Sweetbay Natural Area to the west and north. The Sweetbay Natural Area is located on Airport property. The location of the airport and adjoining areas are depicted on **Figure 1**. Existing facilities and conditions at the Airport and in the surrounding area are depicted on **Figure 2**. Both the Sweetbay Natural Area and the Loxahatchee Slough Natural Area are recognized as Section 4(f) properties.

As discussed in Section 3 of this document, the Palm Beach County Department of Airports proposes to extend Runway 14-32 from its present length of 4,300 to 6,000 feet. Related actions include associated taxiway improvements, airfield drainage improvements, relocating sections of existing access and service roads, and constructing a new Airport Traffic Control Tower.

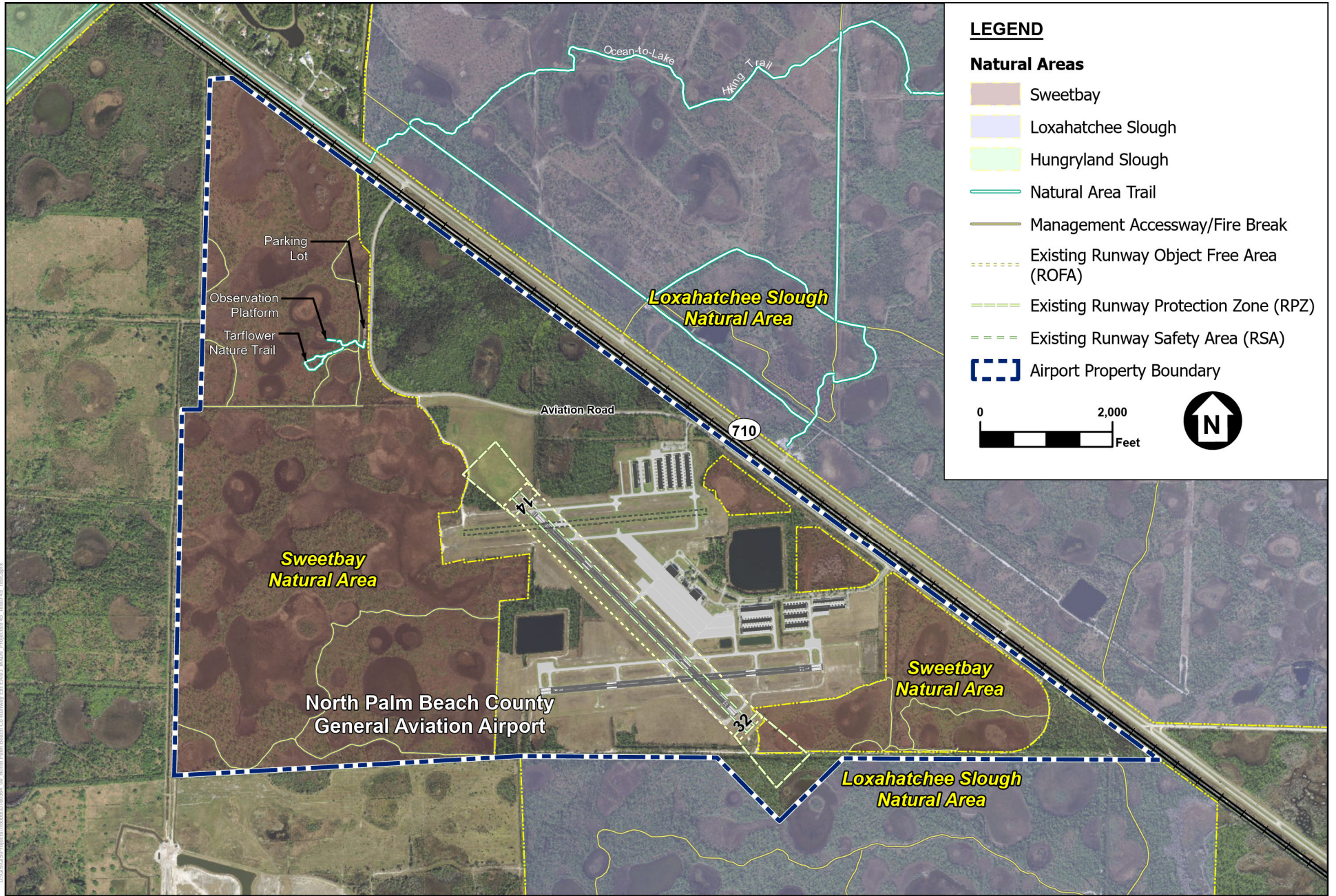
The Proposed Project would affect both the Sweetbay Natural Area and the Loxahatchee Slough Natural Area. Accordingly, the potential impacts require consideration under Section 4(f) of the DOT Act. Potential impacts on the Loxahatchee Slough Natural Area will also be evaluated in light of Section 6(f) of the LWCF Act.



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

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FIGURE 1
PROJECT AREA



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

North Palm Beach County General Aviation Airport EA for the Extension of Runway 14-32 and Connected Actions

FIGURE 2
EXISTING CONDITIONS

The purpose of this report is to provide information on the affected resources, how they would be affected, and document the Federal Aviation Administration’s (FAA) determination of effects. Based on the analysis in this report, the FAA finds the effects on the Sweetbay Natural Area and the Loxahatchee Slough Natural Area would be *de minimis*. This report documents the process used to arrive at the proposed draft *de minimis* effect determination. A final determination would be made after this document, which is appended to the Draft Environmental Assessment for the proposed runway extension, has been made available to public for review and comment. Through this process, FAA is seeking public comments specific to the affected Section 4(f) resources and the agency’s *de minimis* determination.

This report contains the following sections:

1. Introduction
2. Regulatory Requirements
3. Proposed Project
4. Section 4(f) Properties in the Study Area
5. Agency Coordination
6. Methodology
7. Section 4(f) Impact Analysis
8. Draft Determination

2. Regulatory Requirements

2.1 Department of Transportation Act, Section 4(f)

Section 4(f) establishes that it “is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”¹ The DOT Act provides:

...(that) Subject to subsection (d) and (h), the Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if—

- (1) there is no prudent and feasible alternative to using that land; and
- (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.²

¹ U.S. Department of Transportation Act of 1966, 49 U.S.C. § 303(a).

² *Id.* at § 303(c).

Use of Section 4(f) resource occurs when land is permanently incorporated into a transportation facility (a physical taking). Use of a resource may also occur when a temporary occupancy of the land is considered adverse in terms of the statute's preservation purpose. Constructive use would occur when a project does not physically use land, but the project's indirect impacts are so severe that the activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Constructive use may include impacts such as noise, visual impacts, and vibration. An example of constructive use would be a significant increase in highway traffic noise on an outdoor amphitheater at a public park. Before an alternative involving the use of a Section 4(f) resource can be selected, avoidance alternatives and minimization measures must be considered. Avoidance alternatives are those that totally avoid the use of Section 4(f) properties while meeting the defined project needs; minimization measures are efforts to minimize the impact of a project on a Section 4(f) property.

A *de minimis* impact involves the use of Section 4(f) property that is generally minor in nature. The FAA may make a *de minimis* impact determination with respect to a physical use of Section 4(f) property. For *de minimis* impacts, this would take into account avoidance minimization, mitigation, and enhancement measures to minimize harm if there is a determination that the project would not adversely affect the activities, features, or attributes of the resource, or there is a Section 106 finding of no adverse effect or no historic properties affected. A *de minimis* impact determination requires agency coordination with the officials with jurisdiction over the Section 4(f) property and opportunities for public involvement. There are three agencies that qualify as officials with jurisdiction for Sweetbay Natural Area, including Palm Beach County's Department of Environmental Resource Management (ERM), the Florida Fish and Wildlife Conservation Commission (FWC), and the South Florida Water Management District (SFWMD). ERM is responsible for public use facilities including trails and other developed public use elements such as informational kiosks, observation platforms, and parking lots. The SFWMD oversees the preserve areas in accordance with the Interlocal Agreement with the County, and FWC oversees state trails and land programs. ERM is the official jurisdiction for Loxahatchee Slough Natural Area. A *de minimis* impact determination may not be made when there is a constructive use.

This report and analysis of effects in this document follow guidance in FAA's *1050.1F Desk Reference*; DOT Order 5610.1C; and related guidance developed by other DOT administrations.

2.2 Section 6(f) of the Land and Water Conservation Fund Act of 1965

A project that would use Section 4(f) parks or recreation areas must also comply with Section 6(f) of the Land and Water Conservation Fund, if the property was acquired or developed with financial assistance under the Land and Water Conservation Fund State Assistance Program. The program is administered by the National Park Service. Section 6(f) requires that areas funded through the program remain for public outdoor recreation use or be replaced by lands of equal value, location, and recreation usefulness.

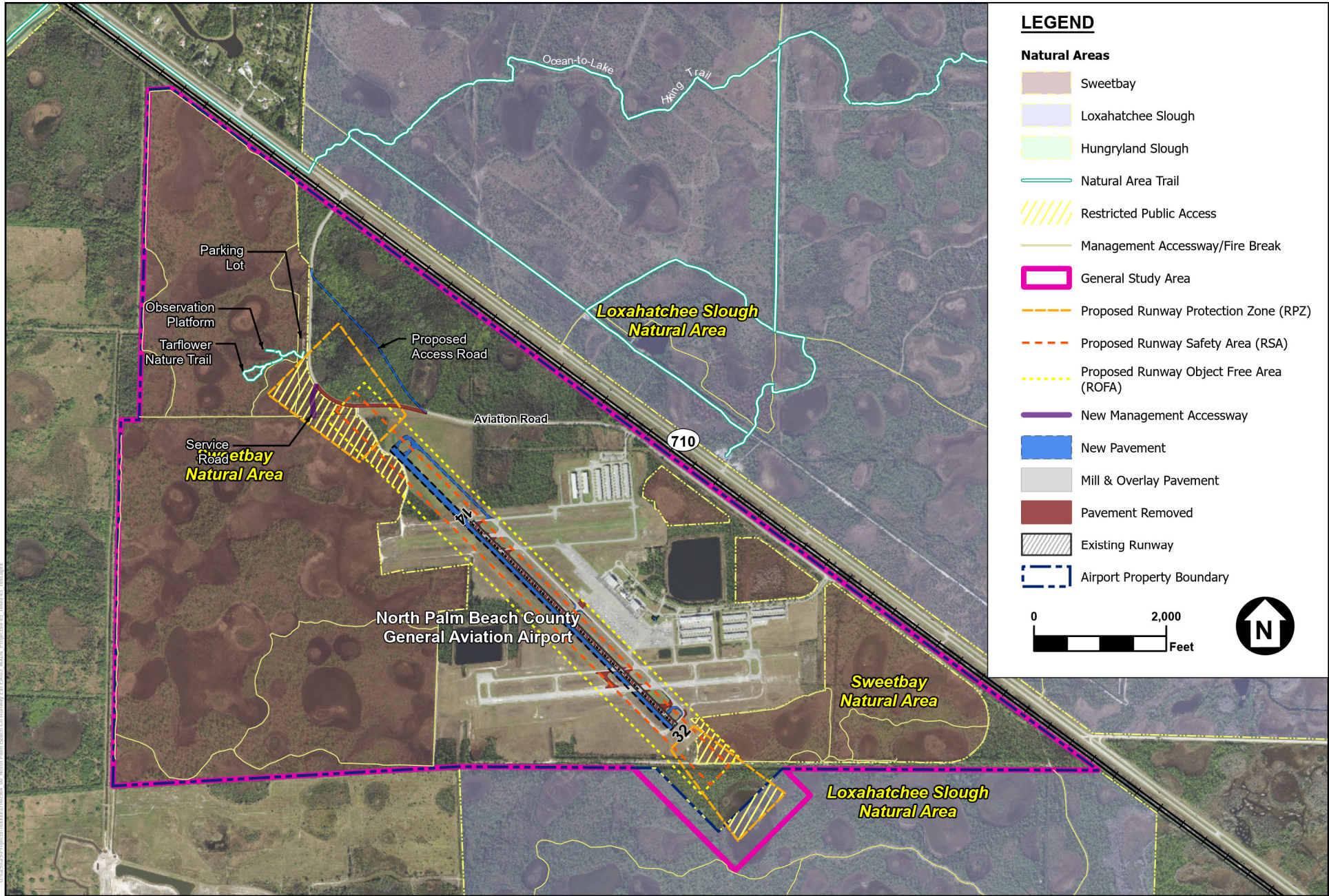
3. Proposed Project

The Proposed Project is shown on **Figure 3**. The Proposed Project consists of the following improvements at F45:

Runway 14-32/Taxiway F Extension

The runway/taxiway extension, including associated infrastructure, would be constructed in accordance with the requirements defined for the aircraft described in Appendix A, which are generally larger than the aircraft currently operating at F45.

- Extend Runway 14 to the northwest, increasing the runway length by 1,700 feet to a total length of 6,000 feet. Widen the entire length of the runway by 25 feet to a total width of 100 feet. Ensure pavement is of sufficient strength and design to support the design aircraft. This may include both overlaying and reconstructing existing sections of pavement or removal and replacement of existing sections of pavement.
- Extend parallel Taxiway F to the northwest, increasing the taxiway length by 1,700 feet to a total length of 6,000 feet and width of 35 feet, and construct a connector taxiway to the new Runway 14 threshold. Ensure pavement is of sufficient strength and design to support the design aircraft.
- Provide a runway-to-taxiway centerline separation of 300 feet by shifting the runway centerline by 60 feet.
- Clear objects, roads, and vegetation and compact and grade soils within the proposed Runway 14-32 and Taxiway F Safety Areas and Object Free Area. Construct a new access road beyond the Runway 14 end to reconnect the dead end at Aviation Boulevard outside of the proposed Runway Safety Area (RSA), Runway Object Free Area (ROFA), and proposed Runway Protection Zone (RPZ).
- Trim trees, vegetation, and objects that penetrate 14 CFR Part 77 airspace surfaces (e.g., Threshold Siting Surface, Departure Surfaces, Approach/Transitional Surfaces, or ROFA) and continuously maintain vegetation below a designated height that does not penetrate these surfaces.
- Culvert an existing drainage ditch and canal that runs through the RSA and RPZ beyond the end of Runway 32. Install new runway and taxiway edge lights and directional signs; relocate or install new Runway 14 threshold lights, Precision Approach Path Indicator (PAPI) lights, and Runway End Identifier Lights (REIL); and re-mark Runway 14-32 and Taxiway F pavement.
- Coordinate with FAA Air Traffic Organization (ATO) to develop new non-precision instrument approach procedures to the extended Runway 14 end. Remove close-in obstructions (e.g., trees), as needed. No major airspace changes are anticipated, including precision approach arrival procedures. Only minor approach and departure procedure modifications are anticipated. Establishing is not anticipated.



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

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FIGURE 3
PROPOSED PROJECT

Supporting Actions

- *Airport Access Road Relocation.* Relocate sections of Aviation Road outside the proposed RPZ. The road would be rerouted to meet airport design standards and RPZ land use guidelines and minimize any wetland impacts. The existing road segment would close at the RPZ and be barricaded with access control infrastructure to allow passage of County and Sweetbay Natural Area personnel only. A portion of the closed segment pavement would be removed as needed in clearing and grading activities associated with establishing the proposed RSA and ROFA.
- *Service Road Construction.* To meet Airport and Sweetbay Natural Area maintenance access requirements, a single-lane, gravel service road would be constructed to replace service roads removed from the proposed RSA, ROFA, and RPZ. The service road would be designed to ensure final alignment avoids wetlands to the extent practicable and minimizes wetland fragmentation.
- *Aircraft Parking.* Maintain at least existing area (approximately 33,000 square yards) of aircraft apron parking.
- *Air Traffic Control Tower.* Construct a new ATCT at the southeast corner of the aircraft parking apron off Aviation Road (Site 1) as shown in the F45 Tower Siting Study.³ The new ATCT facility would be built, owned, and maintained by Palm Beach County and operated by a selected contractor.
- *Stormwater Management.* Modify the existing on-Airport stormwater management system to accommodate the Proposed Project. Further engineering of stormwater management features would be the result of on-going site planning and permitting processes, but may include the relocation and installation of ditches, swales, and culverts channeling stormwater into existing retention ponds. Note that these proposed stormwater management improvements are conceptual at this time and may be further refined as the design process continues.

As shown on Figure 3, extension of Runway 14-32 includes extending the RSA, ROFA, and relocation of the RPZs. The relocated RSA, ROFA, and RPZ off the Runway 14 end would extend into areas within the Sweetbay Natural Area. On the Runway 32 end, the RPZ would extend beyond the Airport boundary into an area within the Loxahatchee Slough Natural Area.

4. Section 4(f) Properties in the Study Area

In accordance with *Department of Transportation Act of 1966* (now codified at 49 U.S.C. § 303), Section 4(f) properties include:

- parks and recreational areas of national, state, or local significance that are both publicly owned and open to the public;
- publicly owned wildlife and waterfowl refuges of national, state, or local significance that are open to the public; and
- historic sites of national, state, or local significance in public or private ownership regardless of whether they are open to the public.

³ Jacobs, 2020. *F45 Tower Siting Study: Preliminary Sites Selection for Palm Beach County Department of Airports*. May 1, 2020.

The Sweetbay Natural Area and portions of the Loxahatchee Slough Natural Area are located within the General Study Area (GSA) for the Proposed Project, as well as the Detailed Study Area, which includes RPZs.⁴ Palm Beach County developed the Natural Areas System, which includes the Sweetbay Natural Area and the Loxahatchee Slough Natural Area, for purposes of protecting in perpetuity areas of high-quality native ecosystems and biological diversity.⁵ In 1994, Palm Beach County enacted the Natural Areas Ordinance for purposes of preserving and protecting in perpetuity county-managed natural areas by regulating their use by the public.⁶ This applies to both Sweetbay Natural Area and Loxahatchee Slough Natural Area. Portions of these natural areas are available for public recreational use; however, certain activities require a special permit and some activities are prohibited.

The Loxahatchee Slough Natural Area is managed by ERM as conservation lands under the conservation protection ordinance. Sections of Loxahatchee Slough Natural Area are also encumbered with conservation easements in favor of the South Florida Water Management District (SFWMD). The Sweetbay Natural Area is located on airport property and is managed by ERM. There are no conservation easements on Sweetbay Natural Area property. Section 4(f) does not provide a definition of “wildlife and waterfowl refuges”. FHWA’s Section 4(f) Policy Paper states that “any significant publicly owned public property (including waters) where the primary purpose of such land is the conservation, restoration, or management of wildlife and waterfowl resources including, but not limited to, endangered species and their habitat is considered to be a wildlife and waterfowl refuge for purposes of Section 4(f).” This aligns with Palm Beach County’s Natural Areas Ordinance definitions of a “natural area,” which includes “all public lands containing high-quality native ecosystems that are under the control of or assigned to the department for management, maintenance, and operation.” Accordingly, Sweetbay Natural Area and Loxahatchee Slough Natural Area are identified as Section 4(f) properties.

The following sections discuss the Sweetbay Natural Area and the Loxahatchee Slough Natural Area in more detail. This discussion is based on information provided by ERM and a review of the North Palm Beach County General Aviation Airport Habitat Management Plan for Preserve Areas,⁷ the initial Draft Management Plan for Loxahatchee Slough Natural Area,⁸ Palm Beach County Ordinances,⁹ the Palm Beach County Comprehensive Plan,¹⁰ and Palm Beach County geospatial data.¹¹

⁴ The GSA encompasses the area in which indirect effects associated with the Proposed Project may occur (e.g., noise, air emission, traffic, lighting/visual impacts). The Detailed Study Areas includes those areas in which construction and other land disturbance activities would occur.

⁵ Natural Areas Ordinance, Palm Beach County Code, Ch. 11, Article XI.

⁶ *Id.*

⁷ Palm Beach County Department of Airports, *North Palm Beach County General Aviation Airport Habitat Management Plan for Preserve Areas*, 1991.

⁸ Palm Beach County, Department of Environmental Resources Management, *Draft Management Plan for Loxahatchee Slough Natural Area*, 2023.

⁹ Palm Beach County Code, Chapter 11, *Environmental Regulation and Control*, Article XI., Natural Areas, June 27, 1994.

¹⁰ Palm Beach County, Planning Division, *1989 Comprehensive Plan* (Revised), July 23, 2012, p. 1-RO.

¹¹ Palm Beach County, myGeoNav, Natural Area Tracts, <https://maps.co.palm-beach.fl.us/cwgis/#> (Downloaded October 26, 2022).

4.1 Sweetbay Natural Area

The Sweetbay Natural Area is depicted on **Figure 4**. The Sweetbay Natural Area relative to the Proposed Project is depicted on **Figure 5**. The Sweetbay Natural Area is a 1,094-acre nature preserve located on Airport property. The following sections describe the Sweetbay Natural Area’s background and recreation facilities.

Background

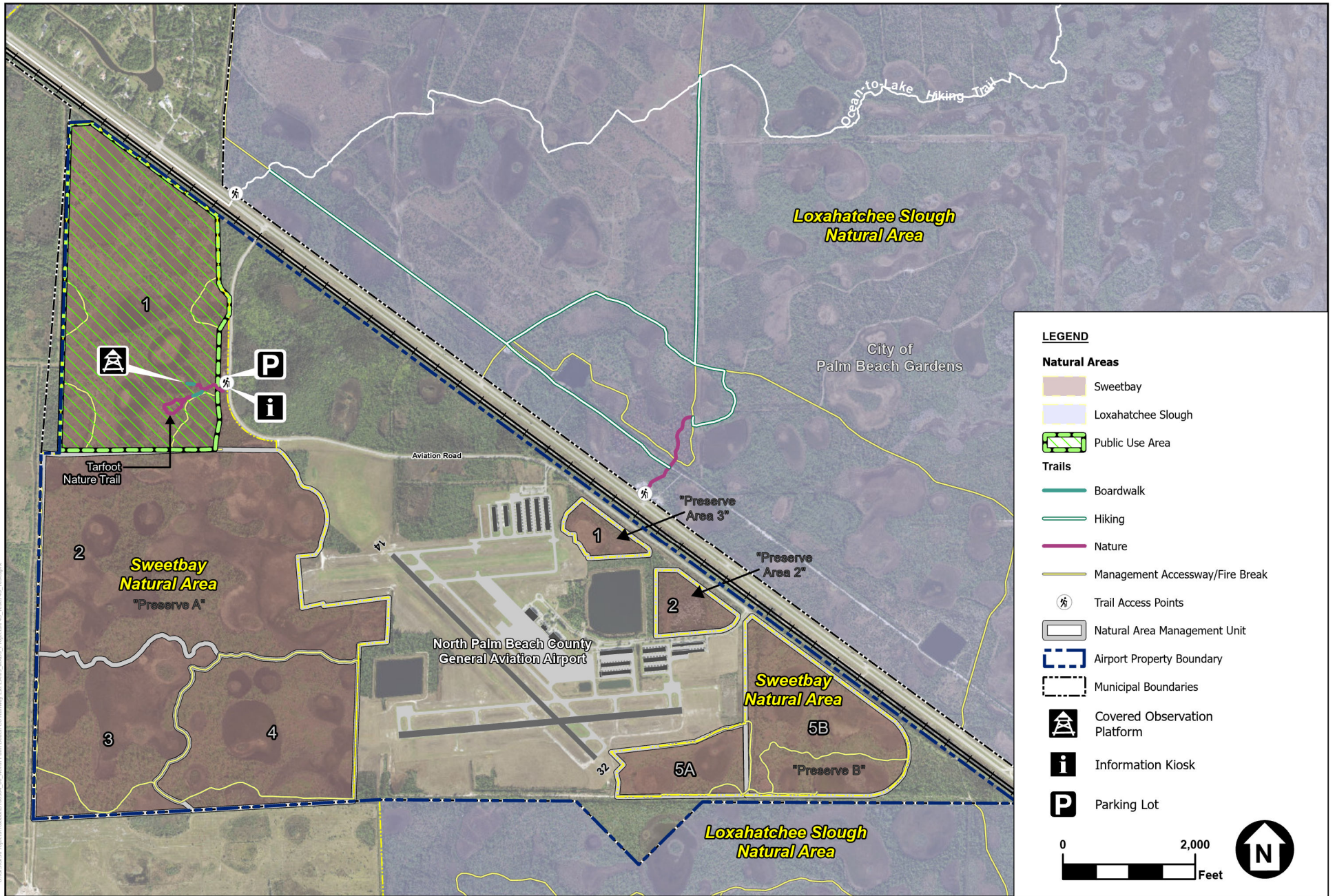
The Sweetbay Natural Area was created to fulfill the requirements of the 1990 Palm Beach County Resolution R-90-294 that serves as the order for development of the Airport and required preservation of wetland areas in the Airport environs. As noted in Section 3, Condition 8 of the resolution, the 788-acre Preserve A, located immediately west and northwest of the airfield, and the 137 acre Preserve B, located southeast of the airfield, were established in perpetuity and to be guaranteed by an Interlocal Agreement between the Treasure Coast Regional Planning Council and South Florida Water Management District in consultation with the Florida Department of Environmental Regulation, the Florida Game and Fresh Water Fish Commission, and the U.S. Fish and Wildlife Service. An Interlocal Agreement between the South Florida Water Management District and Palm Beach County was executed in 1992 and, in addition to protecting Preserves A and B, also included Preserve Areas 1 through 5. Preserves A and B, representing 925 acres, and Preserve Areas 2, 3, and 5, representing 169 acres, constitute the Sweetbay Natural Area. Figure 4 depicts the preserve areas and management units of Sweetbay Natural Area, which includes units 1 through 4, 5a, and 5b.

The purpose of the Sweetbay Natural Area’s formation was to protect native wetlands habitat in areas around the Airport, consistent with the conditions laid out in the 1990 development order and with the policies of the Palm Beach County Comprehensive Plan. The goals and objectives of management applicable to the Sweetbay Natural Area are laid out in the Habitat Management Plan for Preserve Area prepared for the Airport by ERM, per Section 3, Condition 13 of Resolution R-90-294. The objectives and strategies of the Habitat Management Plan are focused on controlling invasive species, maintaining the continued viability of the wetlands, development of “passive recreational and scientific uses consistent with preservation of the ecological integrity of the preserve and compatible with airport operations,” and development of a prescribed burn program.¹² Examples of passive recreation include hiking, bird watching, nature study and photography.¹³ Further, The ERM has subsequently developed an updated fire management plan for Sweetbay Natural Area.

The Sweetbay Natural Area includes a mosaic of upland and wetland habitats, including wet prairies, freshwater marshes, and pine flatwoods; however, wet prairie is the most abundant habitat in the Natural Area. The Sweetbay Natural Area is divided into five Management Units (Management Unit 5 is subdivided into Management Unit 5A and Management Unit 5B). Management Units are designed to focus on maintaining the unique natural communities contained therein and roughly correspond with prescribed Fire Units. The natural communities included in the Sweetbay Natural

¹² Palm Beach County Department of Environmental Resources Management, *North Palm Beach County General Aviation Airport, Habitat Management Plan for Preserve Areas*.

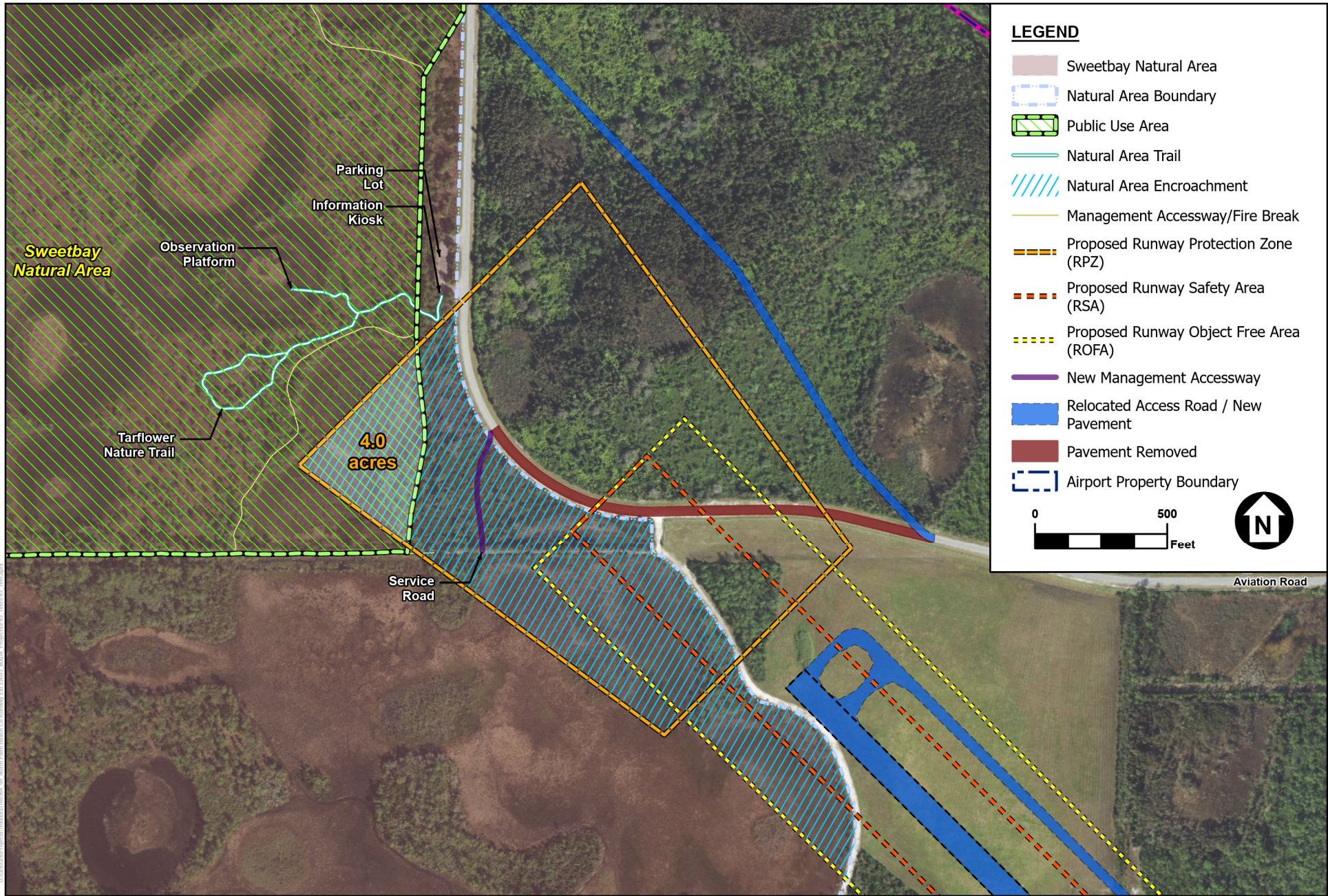
¹³ Palm Beach County, Environmental Resource Management. *Natural Areas*. <https://discover.pbcgov.org/erm/Pages/Natural-Areas.aspx#:~:text=All%20Palm%20Beach%20County%20natural,watching%2C%20nature%20study%20and%20photography>. Accessed on May 22, 2023.



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

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FIGURE 4
SWEETBAY NATURAL AREA
PUBLIC USE FACILITIES



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

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FIGURE 5
PROPOSED PROJECT – SWEETBAY NATURAL AREA

Area have evolved to be dependent on a regular burn cycle. As natural fire is no longer possible in these areas, prescribed burns are regularly conducted both to maintain the existing natural communities and to protect adjacent development from uncontrolled wildfire. Figure 4 depicts the Management Units and the management access ways/fire breaks by which they are roughly bounded.

Public Access

A portion of the Sweetbay Natural Area is open to the public. Public access is available during normal hours of operations (i.e., sunrise to sunset) within Management Unit 1 of Sweetbay Natural Area “Preserve A”, as depicted in Figure 4 and as described in the Palm Beach County Department of Environmental Resources Management, *Habitat Management Plan for Preserve Areas*. However, the primary function and purpose of Management Units 2, 3, and 4 of Preserve A is for nature preservation and not for public access or recreation. Similarly, the areas identified as Preserve B, Preserve 2, Preserve 3 and Preserve 5 of Sweetbay Natural Area are managed for nature preservation and not for public access or recreation.

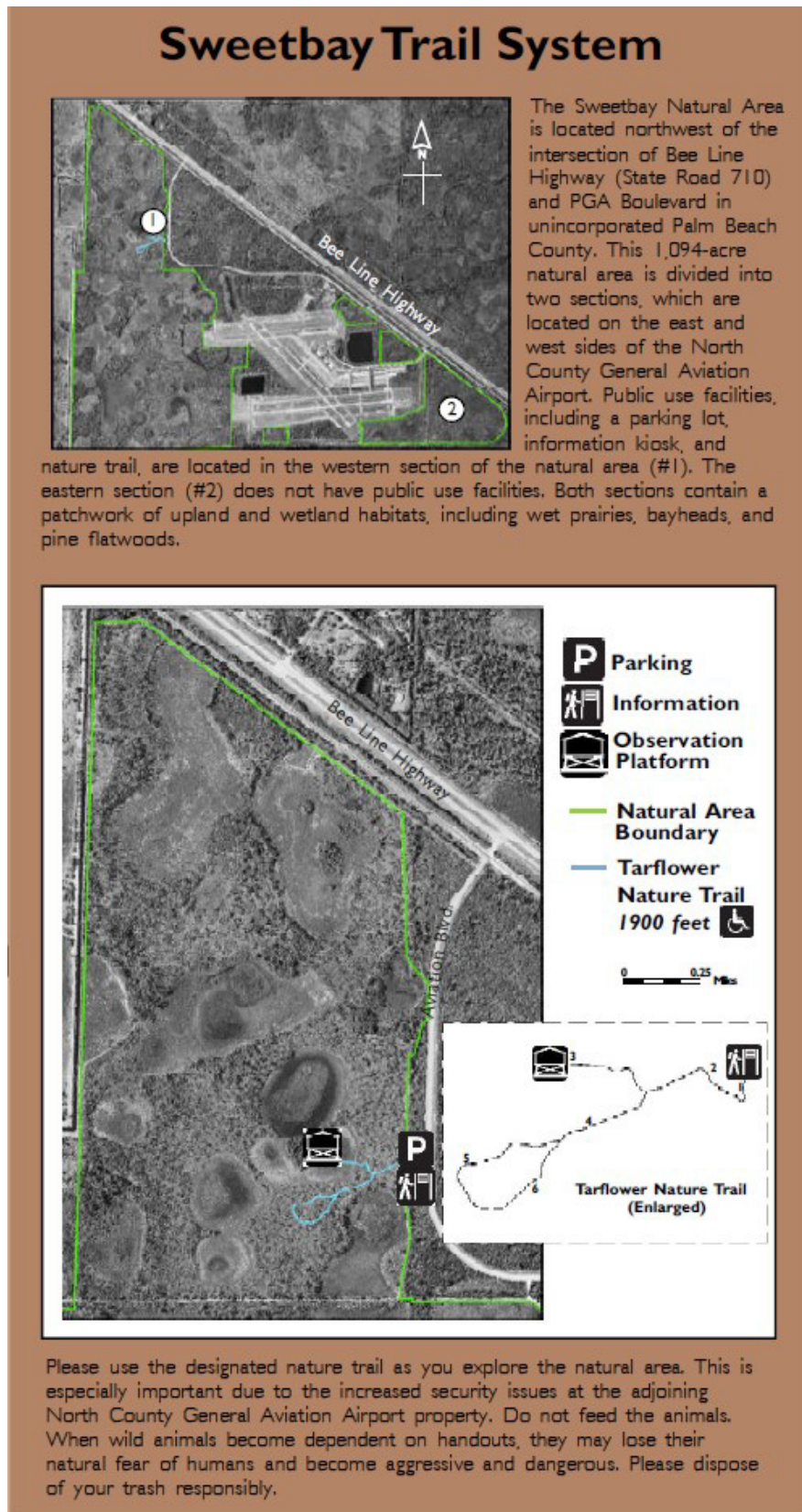
Management Unit 1 consists of a mixture of pine trees, scrub/shrub, and wetland habitat. Public access is provided to Management Unit 1 within Preserve A at the entrance adjacent to the Sweetbay Natural Area parking lot on Aviation Road. From the Sweetbay Natural Area Parking Lot, the public can access developed trails and a firebreak that is used by ERM to manage that portion of the property. The firebreak is part of the prescribed fire management plan for the Sweetbay Nature Preserve. However, ERM does not prohibit the maintenance access drives and firebreak to be used by the public for walking and hiking. Although not formally identified as an improved walking trail at the Sweetbay Natural Area, the firebreak is used for recreational purposes. Figure 4 depicts the location of the firebreaks. **Figure 6** shows photos of the entrance to the firebreak from the improved walking trail. **Figure 7** is the visitor brochure and kiosk signage depicting the usable trails.

Figure 6 View of Firebreak from Sweetbay Natural Area Parking Lot



SOURCE: Palm Beach County Department of Airports, May 2023.

Figure 7 Visitor Brochure for Sweetbay Trail System



Maintenance vehicles can access the Sweetbay Natural Area Preserve A from Aviation Road. The entrance is gated and access by unauthorized vehicles is restricted. **Figure 8** is a photo of the Service Road entrance from Aviation Road.

Figure 8 View of Service Road and Firebreak from Aviation Road



SOURCE: Palm Beach County Department of Airports, May 2023.

ERM maintains statistics on visitor usage of the Sweetbay Natural Area based on automobile entry counts at the parking lot entrance using tire counters, which recorded 5,687 visitors entering the Sweetbay Natural Area in 2021. ERM anticipated approximately 5,531 visitors in 2022.

Hiking Trails and Other Developed Public Use Facilities

Although the primary purpose of the Sweetbay Natural Area is to function as a nature preserve, sections of the property are open to the public for recreational purposes, such as walking, hiking, and bird watching. Public access to Sweetbay Natural Area is provided in Management Unit 1 of Preserve A. This management unit is located on the northwestern portion of the Sweetbay Natural Area and includes developed public use facilities. This portion of the Sweetbay Natural Area offers a boardwalk and approximately 1,900 feet of marked hiking trails (Tarflower Nature Trail), an information kiosk, a covered observation platform, parking, wildlife viewing, and is wheelchair accessible. The Natural Area is also designated as Great Florida Birding Trail. The facilities and recreation areas available to the public are depicted on Figure 4. However, portions of a cleared maintenance access drive and firebreak adjacent to the marked hiking trail are also used by some people for hiking and birdwatching. These sections of the maintenance access drive and firebreak are located along portions of the Management Area's southeast border and southern border. Although the maintenance access drive and firebreak are used, the public is encouraged to utilize the paved trail system.

Management Unit 1 meets the Section 4(f) criteria for both public parks and wildlife/waterfowl refuges. There are no public recreation areas in the other portions of the Sweetbay Natural Area, which include Management Units 2, 3, and 4 of Preserve A; Preserve B; and Preserve Areas 2, 3, and 5. These units meet the Section 4(f) criteria for wildlife/waterfowl refuges.

Public and Group Events

The ERM conducts public and group events include guided tours of the Sweet Bay Natural Area, which are offered as Palm Beach County’s “Adventure Awaits” program. The Florida Native Plant Society Loxahatchee River District’s River Center also provides guided tours on request. Pre-arranged tours generally occur between three and six times a year. **Table 1** describes the 11 tours conducted for the Sweetbay Natural Area between January 2018 and February 2023.

**TABLE 1
SWEETBAY NATURAL AREA EVENTS (2018 – 2023)**

Outreach Event	Date	Number of Event Attendees
Natural Areas Festival-Sunset Fire Hike	March 9, 2018	16
Adventure Awaits-Sweetbay Fire Hike	April 11, 2018	6
Summer Wildflower Walk ^a	June 5, 2018	13
Adventure Awaits-Growing Up Wild Connecting Kids	June 21, 2018	10
Growing Up Wild-Swamp Tromp	September 8, 2018	12
Swamp Tromp	October 4, 2018	4
Sunset Hike	February 6, 2019	22
Growing Up Wild - Life in the Wetlands	September 7, 2019	18
Swamp Tromp-Kids Conservation Club	September 2, 2021	17
Swamp Tromp At Sweetbay	September 8, 2021	8

NOTES:

^a Event cancelled due to weather.

SOURCE: Palm Beach County Department of Environmental Resources Management, 2023.

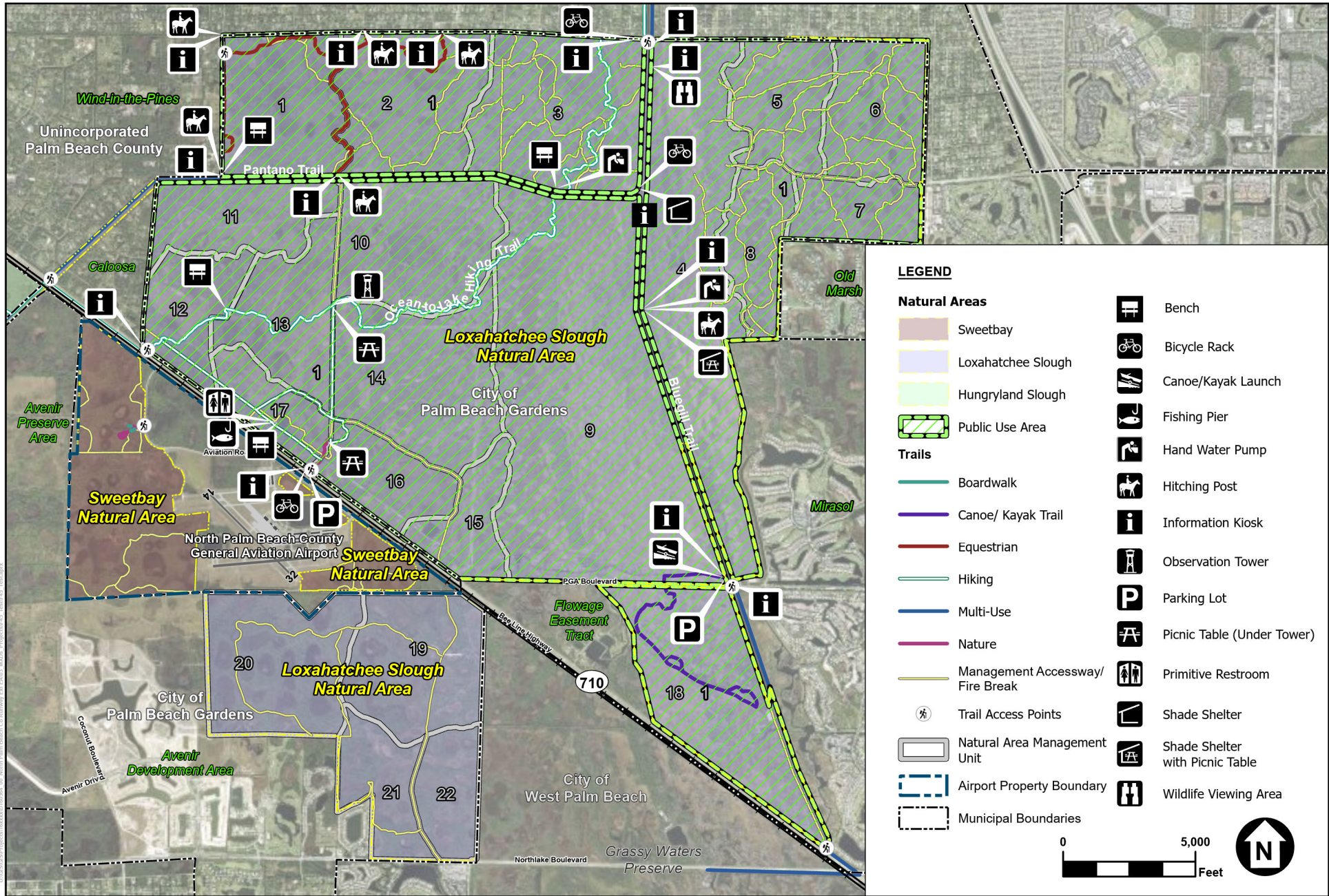
4.2 Loxahatchee Slough Natural Area

The entire Loxahatchee Slough Natural Area is depicted on **Figure 9**. The Loxahatchee Slough Natural Area parcel located adjacent to the south side of the airfield is depicted on **Figure 10**. The entire Loxahatchee Slough Natural Area is a 13,010-acre nature preserve located in the City of Palm Beach Gardens. The natural area is owned and operated by Palm Beach County.¹⁴ The following section describe the Loxahatchee Slough Natural Area’s background and recreation facilities and uses.

Background

The formation of Loxahatchee Slough Natural Area began in March 1991 when Palm Beach County voters approved a \$100 million bond measure for acquisition of environmentally sensitive lands in the County. Portions of the existing Loxahatchee Slough Natural Area had been previously identified as a “high priority acquisition site” in a study of native ecosystems completed in 1989.

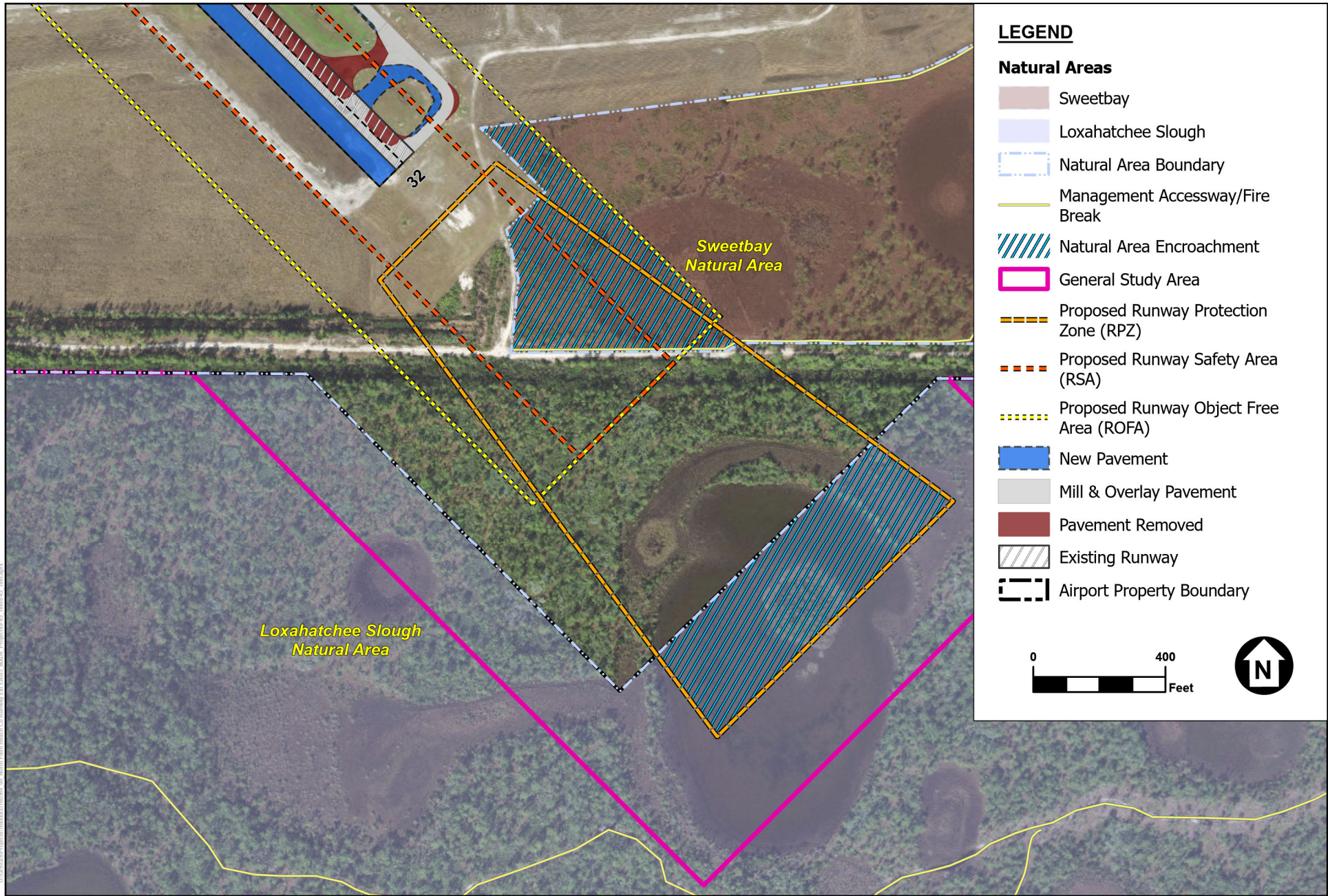
¹⁴ Approximately 12,750 acres of land within the natural area is directly owned by the County with an additional 260 acres leased from the South Florida Water Management District and three acres leased from the State of Florida.



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

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FIGURE 9
LOXAHATCHEE SLOUGH NATURAL AREA
PUBLIC USE FACILITIES



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

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FIGURE 10
PROPOSED PROJECT – LOXAHATCHEE SLOUGH NATURAL AREA

The Loxahatchee Slough Natural Area was amalgamated from various tracts of land either acquired by or leased to the County between 1996 and 2020. The purpose of the County’s addition of the Loxahatchee Slough Natural Area to its Natural Area System was to protect native ecosystems and biological diversity. The goals and objectives of management of the Loxahatchee Slough Natural Area are defined in the draft Management Plan for the Loxahatchee Slough Natural Area. The Management Plan focuses on habitat restoration and improvement; species habitat maintenance, enhancement, restoration or population restoration; maintenance and control of invasive species; hydrologic preservation and restoration; sustainable forestry management; public access and recreation; and management of facilities and infrastructure. Portions of the Loxahatchee Slough Natural Area are subject to numerous active easements and other encumbrances, including mitigation obligations.

The Loxahatchee Slough Natural Area includes a patchwork of upland and wetland habitats, including mesic and wet flatwoods, mesic and hydric hammock, wet prairie, depression and slough marsh, and strand and dome swamp. The Loxahatchee Slough, from which the Natural Area derives its name, is located approximately 10 miles southeast of the Airport, well outside the GSA. The slough is a wide, shallow channel of water that flows approximately 250 days per year and is a regionally significant wetland and the historic headwaters of the Loxahatchee National Wild and Scenic River, located approximately nine miles northeast of the Airport.

Management Units 1-18 (Located East of Beeline Highway)

The Loxahatchee Slough Natural Area is a large area composed of 22 different management units, as depicted in Figure 9. The majority of the Loxahatchee Slough Natural Area, 11,238 acres in size, is located east of the Airport, across the Beeline Highway. This area, comprised of Management Units 1 through 18, is available to the public for a variety of recreational uses. The primary public access point is located at 11855 Beeline Highway (State Highway 710). Public recreation within this area includes nature appreciation and study, hiking, nature photography, bird/wildlife watching, canoeing/kayaking, fishing, picnicking, and primitive camping. Developed public use facilities include hiking trails, observation areas, restrooms, picnic areas, fishing platforms, and supporting infrastructure. The ERM conducts outreach events, including both guided tours and virtual field trips, of the Loxahatchee Slough Natural Area located east of the Beeline Highway. This parcel meets the Section 4(f) criteria for both public parks and wildlife/waterfowl refuges.

Management Units 19-22 (Parcel Located South of Airport)

The Loxahatchee Slough Natural Area also includes a 1,772-acre parcel west of the Beeline Highway. This parcel, which includes Management Areas 19-22, borders the southern boundary of the airport. This parcel is also bordered to the east by the City of West Palm Beach’s Grassy Water Preserve and to the west by the Avenir residential subdivision. A small portion of Management Unit 20 falls within the study area of the Proposed Project. This portion of the Loxahatchee Slough Natural Area, relative to the airport and Proposed Project, is depicted on Figure 10.

Developed public use facilities are not provided in the Loxahatchee Slough Natural Area parcel located south of the airport (Management Units 19-22), but public access for hiking is allowed. There are no formal parking or access areas within Management Units 19-22; however, people park

nearby, and pedestrians can enter the parcel by walking around both gates. There are also no recreation facilities or marked trails in these management units; however, public access and hiking is allowed on the maintenance access drive and firebreaks. There is no parking and two locked gates provide vehicle access for maintenance and management activities conducted by ERM staff. There is no formal access, but pedestrians can enter by going around both gates on Northlake Boulevard. There are no sidewalks, entrance roads, or other improvements available for public access. There are plans to develop a sidewalk along Northlake Boulevard to support the safe movement of pedestrian traffic along Northlake Boulevard, which could encourage use of the parcel from neighboring communities. There are no group events offered within Management Units 19-22. Although there are no formal or designated trails within this area, ERM allows use of the maintenance access drive and firebreaks for walking and hiking. While the primary function and purpose of these management units is for nature preservation, the public can access the area for recreation (e.g., walking or hiking). Therefore, the parcel is considered a recreation resource subject to the protective provisions of Section 4(f). The parcel was established for habitat and wildlife management. The parcel presently is subject to the County's habitat management programs and is subject to a conservation easement held by the State of Florida's South Florida Water Management District. Therefore, this parcel also meets the criteria for wildlife or waterfowl refuges under Section 4(f).

5. Agency Consultation

Consultation with agencies having jurisdiction over the Sweetbay Natural Area and Loxahatchee Slough Natural Area was conducted. As noted previously, Palm Beach County's Department of Environmental Resource Management (ERM) is responsible for management, maintenance, and operation of the natural areas for conservation purposes and public recreation. The SFWMD holds conservation easements on the Loxahatchee Slough Natural Area lands. Historic sites of national, state, or local significance also fall under the purview of Section 4(f). The State of Florida Historic Preservation Officer and Native American Indian tribes were also consulted.

5.1 Officials With Jurisdiction

5.1.1 Palm Beach County Department of Environmental Resource Management

The DOA coordinated with ERM, the official with jurisdiction, throughout the development of the Section 4(f) evaluation and preparation of the Draft EA. The FAA also participated in several meetings with DOA and ERM. On June 9, 2021, the DOA sent Notice of Preparation of an EA for the Proposed Project to ERM. The letter included a project description and a request for input on the Proposed Project. The ERM responded on June 25, 2021, expressing concerns about the potential effects of the proposed Project to the Sweetbay, Hungryland Slough¹⁵ and Loxahatchee Slough Natural Areas due to the extension of Runway 14-32 and the related improvements. In response, ERM expressed a need for further communications with the DOA regarding impacts on the public use facilities in the Sweetbay Natural Area. A series of meetings and discussions

¹⁵ Hungryland Slough Natural Area is located approximately 1.5 miles northwest of North Palm Beach County General Aviation Airport property boundary. ERM expressed concerns about the impact of the Proposed Project on ERM's ability to perform prescribed fire management in this area.

considered and addressed the initial concerns related to ongoing maintenance of vegetation within the airport's Runway Protection Zones; the potential for noise impacts in the Sweetbay recreation areas; the potential for vandalism associated with realigning the section of Aviation Road; the possible need to relocate the Sweetbay Natural Area parking lot and trailhead; and the potential effect of future prescribed burns on the functioning of the proposed ATCT. Other concerns discussed included impacts to habitat in both the Sweetbay Natural Area and the Loxahatchee Natural Area, as well as, relocating sections of service and maintenance roads. Follow-up meetings were held to discuss ERM's concerns, anticipated impacts on habitat and its management, and mitigation. To address the concerns, additional alternatives that may reduce impacts, anticipated changes in aircraft noise, and other impacts were evaluated. A detailed evaluation of treetop elevations was conducted to verify which trees might need to be trimmed or removed for the Proposed Project and the extent of impacts anticipated. The Proposed Project was also evaluated by a qualified Biologist to assess potential for increased wildlife hazards to aviation. The additional analyses and results were coordinated with ERM. Following the series of discussions and receipt of additional information and analyses, the primary remaining concerns identified by ERM pertained to potential noise impacts at the developed public use facilities and security concerns over the potential for vandalism and other illegal activities in the Sweetbay Natural Area. Many of the initial concerns raised by ERM were addressed and resolved.

Further discussion of the potential effects of the Proposed Project on both the Sweetbay Natural Area and Loxahatchee Slough Natural Area to review and ensure information on the resources within each natural area was current. During this discussion, ERM indicated that there are no developed public use facilities in the Loxahatchee Slough Natural Area parcel located south of the airport and there were no immediate or defined plans to develop a formal trail system or similar use. ERM acknowledged the maintenance roads and firebreaks in the parcel are used by some members of the public, who enter the property near the locked maintenance gate on Northlake Boulevard.

DOA and ERM continued to meet and discuss remaining questions and concerns. Through these discussions, conceptual mitigation of the potential effects of the Proposed Project was formulated. Based on the information and additional analysis conducted, ERM agreed there was no developed public use facilities and no physical impacts to Loxahatchee Natural Area even though ERM does allow individuals to access Management Units 19-22 of Loxahatchee Slough Natural Area for hiking and walking. As such, no mitigation in the Loxahatchee Slough Natural Area is warranted. Mitigation measures for the Sweetbay Natural Area would include enhancements to existing facilities and additional security.

The FAA, DOA, and ERM met in January 2024 to clarify "official(s) with jurisdiction" over the Sweetbay Natural Area under Section 4(f) and discuss potential mitigation. FAA and ERM clarified that ERM's oversight as an "official with jurisdiction" is limited to the public use facilities, including trails and other developed public use elements such as informational kiosks, observation platforms, and parking lots. Due to access restrictions imposed by the project, which would prohibit access to and use of the firebreak for hiking and recreation use, ERM and DOA agreed that a new 2,167-foot unpaved trail would be established as mitigation. The new trail would be located outside the proposed RPZ and would transect the Sweetbay Natural Area, providing a connection to the

eastern and western firebreaks that follow the periphery of the natural area (See **Attachment A**). ERM clarified that this mitigation is consistent with the preservation of the ecological integrity of the preserve and directs public use away from the Airport operations. ERM also concluded that the new trail would be appropriate mitigation and would enhance public access at Sweetbay Natural Area.

The proposed project will increase access restrictions within a small portion of the Loxahatchee Slough Natural Area to accommodate the shifted RPZ. However, the proposed project will not affect any of the areas that are accessed by the public for walking or hiking. The project is also not going to affect any of the existing trees, vegetation, or habitat management. Therefore, there is no direct or constructive use that would affect the recreation or conservation aspects of the Loxahatchee Slough Natural Area. ERM confirmed in February 2024 (Attachment A) that the proposed RPZ would result in no change in the existing uses. Due to no physical or constructive use of the Loxahatchee Slough Natural Area, ERM and DOA have determined that the County's Conservation Lands Protection Ordinance (CLPO) mitigation requirements are not applicable to the Proposed Project. Mitigation under Section 4(f) is not necessary.

5.1.2 South Florida Water Management District (SFWMD)

The SFWMD is considered one of the officials with jurisdiction over Sweetbay Natural Area. The SFWMD oversees the preserve areas in accordance with the Interlocal Agreement¹⁶ with the County. According to the Interlocal Agreement, as approved by the Treasure Coast Regional Planning Council and SFWMD, the Sweetbay Natural Area is to be maintained in accordance with a FWC and U.S. Fish and Wildlife Service (USFWS)-approved Habitat Management Plan, developed by the Palm Beach County Zoning Division and ERM. ERM implements the Habitat Management Plan to maintain upland and wetland habitats, control exotic vegetation, provide a controlled burning program, address recreation and other uses of the areas, and coordinate with the Airport regarding fencing, clear zone vegetation management, and other issues. This Interlocal Agreement further identifies and details decision authority to the SFWMD for any modification, amendment, elimination, or change to the preserve area or the uses thereof.

The DOA coordinated with SFWMD throughout the development of the Section 4(f) evaluation and preparation of the Draft EA. On July 31, 2023, the FAA and DOA met with SFWMD to discuss the Proposed Project and potential impacts to Sweetbay Natural Area. Through consultation with SFWMD, the FAA and PBC conveyed that the Proposed Project would result in approximately 12.56 acres of direct impacts to wetlands, including 11.9 acres in Sweetbay Natural Area. Wetland impacts would be mitigated in accordance with SFWMD criteria and in coordination with PBC ERM. The total amount of mitigation will account for impacts to wetlands within Sweetbay Natural Area that were mitigation for airport development. Construction BMPs would also be implemented to protect water resources not directly impacted.

In the July 2023 meeting, SFWMD acknowledged that the PBC had done a thorough job in considering areas of interest including avoidance and minimization of wetland impacts and

¹⁶ As noted in Resolution 92-678, Palm Beach County and the South Florida Water Management District entered into the Interlocal Agreement on September 10, 1992.

incorporating this into the project development and future design. SFWMD identified they had no further questions and would review the Draft EA when circulated.

5.1.3 Florida Fish and Wildlife Conservation Commission (FWC)

In addition to SFWMD, the FWC is considered one of three agencies that qualify as an official with jurisdiction. The FWC approves the Habitat Management Plan for Sweetbay Natural Area which is developed by the Palm Beach County Zoning Division and ERM. The FWC also oversees that Great Florida Bird and Wildlife Trail which hosts a network of more than 500 premier wildlife viewing sites across Florida, and Sweetbay Natural Area is included in this trail network.

The FAA consulted with the FWC to discuss the Proposed Project and the potential impacts to Sweetbay Natural Area February 14, 2024. In consultation with FWC, the FAA detailed the potential impacts to Sweetbay Natural Area. This included approximately 830 linear feet of impacts to a firebreak road that is not part of the designated trail system but is sometimes used by visitors for walks. FWC replied that although Sweetbay Natural Area is part of the Great Florida Birding and Wildlife Trail, the property is not owned or managed by FWC. Therefore, FWC would defer to local managers regarding land use and operations decisions. FWC had no further comments, recommendations, or objections related to the Proposed Project.

5.2 State Historic Preservation Officer

A Cultural Resource Assessment Desktop Analysis was prepared for the Proposed Project in April 2021. Based on research, environmental setting, site conditions, and other conditions, the analysis concluded there was a low probability for historical sites, no potential for historic structures, and low potential for archaeological and historic sites. Consultation was initiated with the State Historic Preservation Office (SHPO), Muscogee (Creek) Nation, Miccosukee Tribe of Indians of Florida, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and Poarch Band of Creek Indians in July 2021. The SHPO did not respond to the consultation submittal. The Muscogee (Creek) Nation responded and concurred there should be no effects to any known historic properties. This draft de minimis determination, as well as the Draft EA will be provided electronically to the SHPO and responding tribes for their review and comments.

Based on research conducted and consultation with the State of Florida and Native American Indian tribes, no archaeological sites or materials anticipated to be encountered during construction. Indirect effects of the Proposed Project, such as noise or air emissions, would not affect any known sites of historic or cultural significance. Therefore, there will be no effect on historic, architectural, archaeological, or cultural sites.

6. Methodology

As discussed in Section 2, *Regulatory Requirements*, Section 4(f) protects significant publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites. A project requiring the use of these properties would be approved only if there is no feasible and prudent alternative to the use of the property and the project includes all possible planning to minimize harm resulting from the use.

Impacts to a Section 4(f) resource can be direct (physical use) or indirect (constructive use). A physical use would occur “if the proposed action or alternative(s) would involve an actual physical taking of Section 4(f) property through purchase of land or a permanent easement, physical occupation of a portion or all of the property, or alteration of structures or facilities on the property.”¹⁷ Constructive use occurs “when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. For example, constructive use may be caused by noise, air pollution, water pollution, or other impacts. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.”¹⁸

For this assessment, the Sweetbay Natural Area and Loxahatchee Slough Natural Area were analyzed to determine whether they would be directly impacted by the Proposed Project. The criteria used to also determine whether the Proposed Project would result in constructive use of the Sweetbay Natural Area and/or the Loxahatchee Slough Natural Area focused on indirect effects (e.g., change in aircraft noise) and aesthetic impacts. Because some developed public facilities at Loxahatchee Slough utilized LWCFA funds, the analysis also considered whether there is potential for the Proposed Project to result in conversion of LWCFA fund assisted properties to non-recreational purposes.

The initial analysis determined a use of property, but not a constructive use. In this case, the scope of the study turned to evaluating *de minimis* impacts. A *de minimis* impact determination with respect to a physical use of Section 4(f) property can be made if, after taking into account any measures to minimize harm, the result is either:

- a determination that the project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or wildlife or waterfowl refuge for protection under Section 4(f); or
- a Section 106 finding of no adverse effect or no historic properties affected.

7. Section 4(f) Resource Impacts

The following section discuss the potential impacts to Section 4(f) resources that would result from implementation of the Proposed Project.

7.1 Proposed Project

7.1.1 Sweetbay Natural Area

Overview

The Proposed Project would affect a total of 32.3 acres of land within the Sweetbay Natural Area. Approximately 17.4 acres of land would be directly affected by construction of the proposed

¹⁷ 23 CFR § 774.17

¹⁸ *Id.* at § 774.15.

runway extension and related improvements and land clearing and approximately 14.9 acres would be within the new Runway Protection Zones (RPZs).

The proposed Runway 14-32 RPZs be somewhat larger and, on the Runway 14 end, the RPZ would shift from its existing location to be at the new (extended) runway end. In total, the new RPZs would encompass approximately 14.9 acres of land within the Sweetbay Natural Area. Approximately 4.05 acres of the public recreation area in Sweetbay Natural Area’s Management Unit 1 would be within the Runway 14 RPZ. There are no marked trails or other facilities within this area. However, this section of the Sweetbay Natural Area contains 830 linear feet of a maintenance access way and firebreak that is used by some people for walking and hiking. The remaining 10.7 acres of land within the Runway 14 RPZ would be located on Sweetbay Natural Area property that is not managed for recreational use. An additional 0.17 acre of Sweetbay Natural Area land would be included in the in the RPZ on that end of the runway.

Construction of the proposed runway, taxiway, and related improvements would directly affect 17.4 acres of land within the Sweetbay Natural Area. This includes approximately 6.5 acres of land that would be filled and compacted for the Runway Safety Area (RSA). Approximately 10.8 acres of land would be cleared of vegetation within the Object Free Area (OFA). **Table 2** depicts the acreages of Sweetbay Natural Area within the Proposed Project safety areas.

**TABLE 2
SWEETBAY NATURAL AREA ACREAGES IN THE PROPOSED PROJECT SAFETY AREAS**

Nearest Runway End	Land Area (acres)
RSA	
14	4.27
32	2.29
ROFA	
14	7.33
32	3.49
RPZ	
14 (In Sweetbay Public Recreation Area)	4.05
14 (Not in Public Recreation Area)	10.67
32	0.17
Total	32.27

NOTES:
Acreages may not sum precisely due to rounding.
SOURCE: Environmental Science Associates, 2023.

Physical Use

As stated in FAA 150/5190-4B, *Airport Land Use Compatibility Planning*, “The purpose of a Runway Protection Zone (RPZ) is to enhance the protection of people and property on the ground. This is best achieved through airport owner control over RPZs.” To ensure compatible land use

within the new section of the RPZ that would extend into Management Unit 1, the County proposes to limit public access within the 4-acre area. Approximately 830 feet of maintenance access way and firebreak is located within this area. As previously noted, this section of maintenance access way and firebreak is used by the public for recreation purposes. Although the RPZ would not be fenced, signage would be installed to discourage people from entering the portion of the RPZ that would be located in Management Unit 1. The portion of the maintenance access way and firebreak would remain in place and the land within the RPZ would still be managed for conservation purposes. The maintenance access way and firebreak will remain intact as part of the infrastructure used for management of the Sweetbay Natural Area. The section of the Tarflower Nature Trail closest to the RPZ would be located near the information kiosk. Here, a small section of the trail would be approximately 18 feet from the edge of the RPZ. The rest of the trail is located 185 feet or greater from the proposed RPZ.

Portions of the proposed Runway Object Free Area (ROFA) and Runway Safety Area (RSA) would extend into the Sweetbay Natural Area. Although the proposed ROFA and RSA do not encroach on areas available to the public for recreational use, the land is used for conservation purposes and is subject to the provisions of Section 4(f) of the DOT Act. As noted above, approximately 10.8 acres of Sweetbay Natural Area is located within the proposed ROFA (7.33 acres near Runway 14 end and 3.49 acres near Runway 32 end). Vegetation within the ROFA would be cut to eliminate aboveground objects (e.g., trees and bushes) that protrude above the elevation of the nearest section of the runway. This would affect approximately 8.9 acres of wetlands that would be maintained through ongoing trimming and management. Approximately 6.56 acres of the Sweetbay Natural Area is located within the proposed RSA (4.27 acres at Runway 14 and 2.29 acres at Runway 32). The areas within the RSA would be cleared, filled, compacted and graded. The new sections of RSA would be maintained as regularly mowed grass. The RSA improvements would affect 2.4 acres of wetlands. The areas within the ROFA and RSA would cease to function as a nature preserve. An existing service road that runs through this area is used by Airport and ERM employees. As part of the Proposed Project, this service road would be removed; based upon coordination with ERM, it was determined that the maintenance road is not required and will not be replaced.

Aviation Road, the access road from Beeline Highway to the Airport and the Sweetbay Natural Area parking lot, would be rerouted as part of the Proposed Project. The existing road would be terminated near the edge of the proposed RPZ, creating a cul-de-sac. The remaining section of roadway would maintain access to the Sweetbay Natural Area parking lot and allowing continued public access to the recreation area. Concerns were raised by ERM that based on experience, terminating the road at a dead end has the potential to attract after-hours loitering and other activities detrimental to the ongoing maintenance and use of the Sweetbay Natural Area facilities.

Constructive Use

Aircraft presently fly over the recreational area within the Sweetbay Natural Area. The Proposed Project would extend Runway 14-32 1,700 feet closer to the recreational area and would increase aircraft activity at the airport by 2,500 annual aircraft operations (approximately 7 daily arrivals and departures). The altitude of aircraft arriving to the airport over the recreation area would be approximately 30 feet lower than present altitudes. The primary environmental effect of the

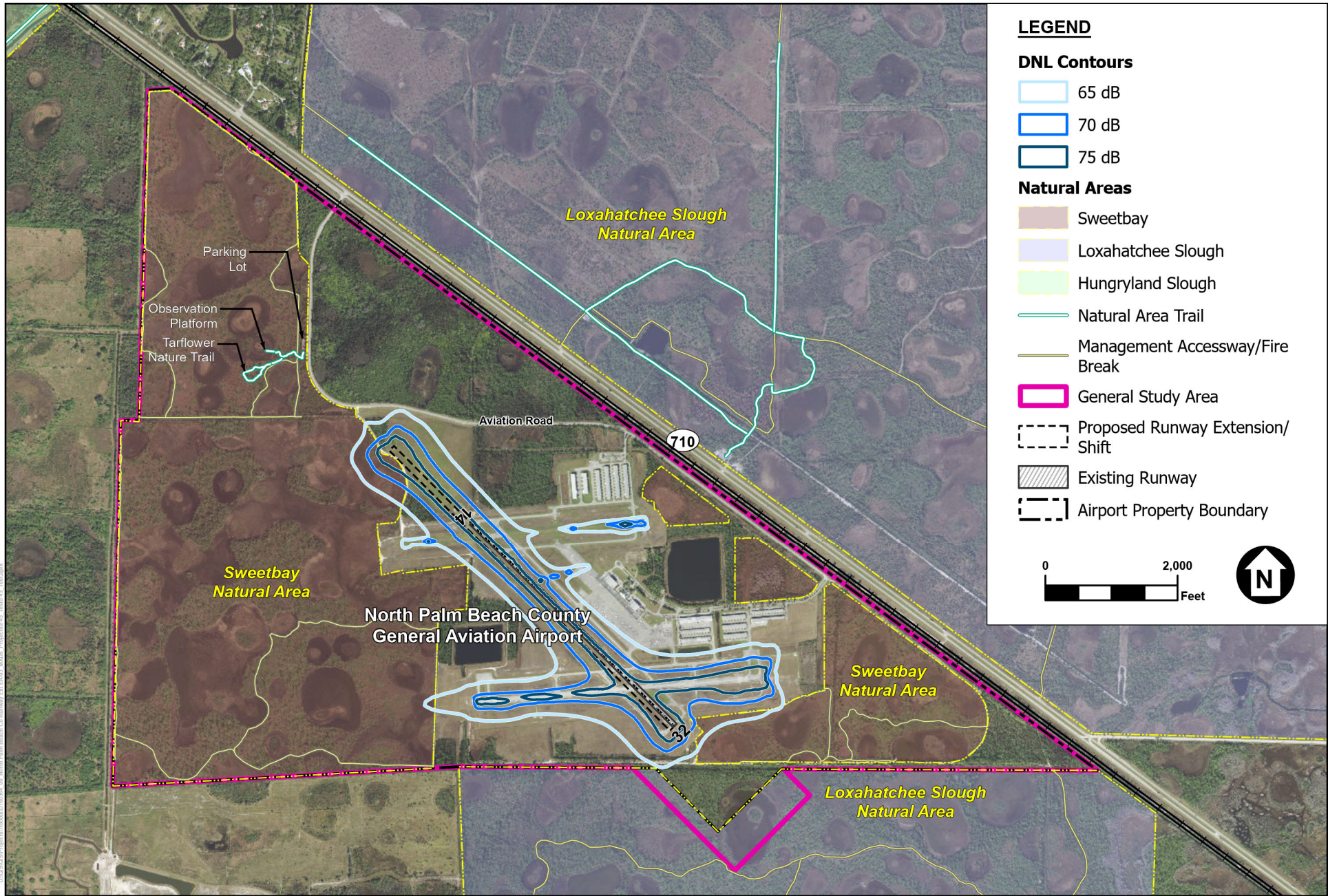
Proposed Project would be the change in aircraft noise exposure over the recreation area. As noted previously, the recreational area within the Sweetbay Natural Area is used for hiking, nature and wildlife viewing, and educational activities and tours. To evaluate the potential for constructive use, an analysis of aircraft noise was conducted to determine the change in noise levels and how the change may affect the recreation area and activities.

Noise modeling using FAA's Aviation Environmental Design Tool (AEDT) was conducted for the Proposed Project and for the no-action alternative. **Figure 11** depicts the Proposed Project Day-Night Average Sound Level (DNL) contours relative to the Sweetbay Natural Area and the Loxahatchee Slough Natural Area. If the runway was extended, approximately 31.23 acres of the Sweetbay Natural Area located immediately adjacent to the new Runway 14 end would be exposed to aircraft noise levels of DNL 65 dB or higher. The recreation area within Management Unit 1 would not be exposed to noise levels DNL 65 or higher. Based on the land use guidelines provided in Table 1 of Appendix A in Title 14 Code of Federal Regulations, Part 150, the recreation land use within Management Unit 1 would be compatible with the projected aircraft noise levels.

To evaluate the potential for noise annoyance to users of the recreation area, a supplemental grid point analysis was prepared. Predicted noise levels were analyzed at 18 grid points located at the parking lot and along various points along the Tarflower Trail. **Figure 12** depicts the locations of the grid points. Noise was calculated at the grid points for both the Proposed Project and the No Action Alternative to identify changes in noise levels if the Proposed Project was implemented. **Table 3** provides the results of the grid-point noise analysis. As shown in Table 3, the maximum difference in noise when comparing the Proposed Project to the No Action Alternative would be an increase of 1.3 dB at Receptors (grid point) T1, T2, and T3 in 2025 and an increase of 1.6 to 1.7 dB at the same receptors in 2030. Receptors T2 and T3 would experience the highest level of noise in 2030, with a projected increase from DNL 58.6 to 60.4 dB and from DNL 58.6 to 60.3 dB, respectively. A noise increase of 3 dB is considered barely perceptible to the human ear in an outdoor environment.¹⁹ As shown in Table 3, the change at each grid point location would be less than 3 dB. Accordingly, the noise increases identified by the grid point analysis are not likely to be noticeable to visitors.

In regard to visual effects, some trimming or removal of select trees may be necessary in the RPZ. However, clearing of vegetation is not required. Although the removal or trimming of select trees may occur and may be noticeable at some locations, no substantial or significant change would occur that would be detrimental to the use and enjoyment of the Tarflower Trail and other facilities.

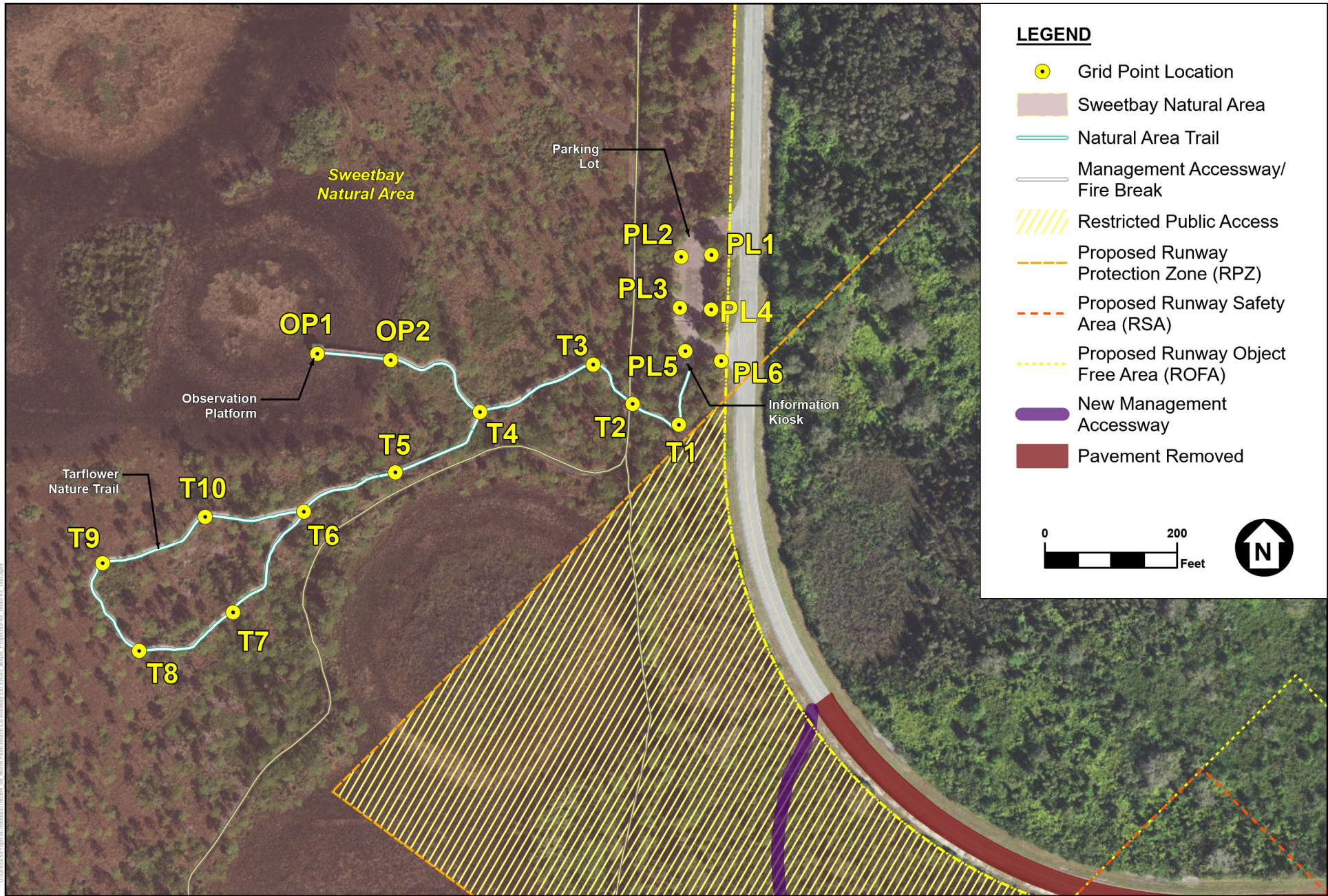
¹⁹ Federal Interagency Committee on Noise (FICON), *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.



Source: AEDT 3e; ESA, 2023; Palm Beach County, 2022; State of Florida 2021.

North Palm Beach County General Aviation Airport EA for the Extension of Runway 14-32 and Connected Actions

FIGURE 11
2030 PROPOSED PROJECT DNL CONTOURS



Source: ESA, 2022; Palm Beach County, 2022; State of Florida, 2021.

North Palm Beach County General Aviation Airport EA for the Extension of Runway 14-32 and Connected Actions

FIGURE 12
SWEETBAY NATURAL AREA GRID POINT ANALYSIS

**TABLE 3
SWEETBAY NATURAL AREA GRID-POINT ANALYSIS**

Receptor Location	Grid Point/ Receptor Label	Latitude	Longitude	2021	2025			2030		
				Existing	No Action	Proposed Action	Difference	No Action	Proposed Action	Difference
Sweetbay Natural Area Parking Lot	PL1	26.857628	-80.234776	57.7	57.9	58.4	0.5	58.2	59.1	0.9
Sweetbay Natural Area Parking Lot	PL2	26.857621	-80.234917	57.7	58.0	58.5	0.5	58.2	59.2	0.9
Sweetbay Natural Area Parking Lot	PL3	26.857409	-80.234924	58.0	58.2	59.0	0.7	58.5	59.6	1.1
Sweetbay Natural Area Parking Lot	PL4	26.857401	-80.234779	58.0	58.2	58.8	0.6	58.5	59.5	1.0
Sweetbay Natural Area Parking Lot	PL5	26.857229	-80.2349	58.2	58.4	59.3	0.9	58.7	60.0	1.3
Sweetbay Natural Area Parking Lot	PL6	26.857187	-80.234734	58.3	58.5	59.3	0.8	58.8	59.9	1.2
Observation Platform	OP1	26.857227	-80.236608	56.2	56.4	57.2	0.9	56.7	57.9	1.3
Observation Platform	OP2	26.857199	-80.236268	56.6	56.9	57.9	1.0	57.1	58.6	1.5
Sweetbay Natural Area Trail	T1	26.856923	-80.234932	58.3	58.5	59.8	1.3	58.8	60.4	1.6
Sweetbay Natural Area Trail	T2	26.857011	-80.235146	58.1	58.3	59.6	1.3	58.6	60.3	1.7
Sweetbay Natural Area Trail	T3	26.857175	-80.235328	57.9	58.1	59.4	1.3	58.4	60.1	1.7
Sweetbay Natural Area Trail	T4	26.856981	-80.235855	57.1	57.4	58.5	1.1	57.6	59.2	1.5
Sweetbay Natural Area Trail	T5	26.856732	-80.236249	56.4	56.6	57.4	0.8	56.9	58.0	1.2
Sweetbay Natural Area Trail	T6	26.856571	-80.236675	55.6	55.8	56.4	0.6	56.1	57.1	1.0
Sweetbay Natural Area Trail	T7	26.856151	-80.237006	55.0	55.2	55.6	0.4	55.5	56.2	0.8
Sweetbay Natural Area Trail	T8	26.855993	-80.237443	54.4	54.6	54.9	0.3	54.9	55.6	0.6
Sweetbay Natural Area Trail	T9	26.856359	-80.23761	54.4	54.6	54.9	0.3	54.9	55.5	0.7
Sweetbay Natural Area Trail	T10	26.856552	-80.237133	55.0	55.2	55.7	0.5	55.5	56.3	0.8

NOTE: Noise values are presented in decibels DNL (Day-Night Average Sound Level).

SOURCE: Environmental Science Associates, 2023.

Based on the evaluations conducted, the Proposed Project would not substantially impair use of the recreation areas and activities in Management Unit 1. The Proposed Project would not constitute a constructive use.

Proposed Mitigation – Sweetbay Natural Area

The proposed mitigation measures described below are designed to address impacts and concerns related to the Proposed Project’s effects on recreation activities and habitat conservation obligations in the Sweetbay Natural Area. After receiving and considering comments on this Draft de minimis determination, the mitigation measures will be finalized and implementation must be completed before the Proposed Project is completed and the runway is opened for use.

Conservation Lands and Habitat –The Sweetbay Natural Area is comprised of land that was set aside for conservation purposes for the original airport development. Mitigation for the use of 17.8 acres of land within Sweetbay Natural Area to construct the proposed runway extension and related improvements will also consider its original mitigation obligations for conservation and habitat protection. The amount and type of mitigation will be determined during the permitting phase of the project. This process will require coordination with several local, state, and federal agencies. At this time, it is anticipated that will be replaced at a permitted mitigation site and will be completed in accordance with state permit requirements, and in coordination with ERM, the South Florida Water Management District, and other agencies. For example, mitigation may be completed through the purchase of the appropriate number of credits from the County’s Pine Glades West Mitigation Area, Loxahatchee Mitigation Bank, or the RG Reserve Mitigation Bank.

Security Concerns – Mitigation will be provided to address the potential for the proposed cul-de-sac at the Sweetbay Natural Area entrance and parking area to attract loitering and other activities detrimental to the on-going maintenance and operation of the recreation facilities. The DOA, with input and approval from ERM, will install a security camera system to monitor the facilities. Airport managers will also be responsible for arranging regular nighttime patrols of the truncated roadway and Sweetbay Natural Area parking lot as part of an ongoing effort to discourage loitering at the facility. Additional signage along the roadway will be installed to discourage after-hours parking and use of the facilities.

Recreation Facilities and Amenities – The proposed runway extension will limit access to approximately 4 acres of land within the Sweetbay Natural Area. Gates and signage will be installed at key points to deter people from entering the 4-acre RPZ area, in which public access would be restricted. Although marked and improved trails would not have any restrictions, approximately 830 linear feet of the maintenance access and unpaved firebreak would no longer be accessible. Although this firebreak is not part of a designated trail system, the entire Sweetbay Natural Area is open to the public and the firebreak in this area is commonly used for hiking and wildlife viewing. Therefore, a new 2,167-foot unpaved trail will be established as mitigation for this impact (see **Figure 13**). This results in a net increase of 1,337-feet of new trail that connects to existing trails and is expected to enhance public use opportunities for hiking, wildlife observation, and nature viewing. This mitigation preserves the ecological integrity of the Natural Area and directs public use away from the airport operations.

Figure 13 Proposed Public Use Trail



SOURCE: ERM, March 2024.

7.1.2 Loxahatchee Slough Natural Area

Physical Use

The Proposed Project would enlarge and extend the Runway 32 Runway Protection Zone extend beyond the existing airport boundary line. Approximately 6.66 acres of the Loxahatchee Slough Natural Area would be included within the RPZ (see Figure 10). As noted in Section 4.2, there are no public recreation areas, or public use facilities, within this parcel of the Loxahatchee Slough Natural Area. Individuals can access the maintenance access ways and firebreaks for hiking or walking even though these are not developed trails. Public access to recreation areas and facilities are provided in the larger parcel located east of Beeline Highway. The parcel adjoining the southern border of the airport is managed for land and habitat conservation and public access is allowed for recreation. Therefore, this area is subject to the protective provisions of Section 4(f) of the DOT Act.

The area that would be included in the larger and extended RPZ predominantly consists of freshwater marsh. In January 2023, the DOA conducted a tree survey of the area using LiDAR data to determine the height of trees and other vegetation under the Runway 32 approach and departure surfaces. This was performed to determine whether any trees or other vegetation would be considered obstructions that needed to be removed. The results of the tree survey showed that only trees located on existing airport property would require trimming or removal. The trees are located along a drainage canal and are already subject to regular maintenance by DOA. There were no trees identified within Loxahatchee Slough Natural Area that would need to be removed. There would be no physical use or alterations of the Loxahatchee Slough Natural Area parcel adjoining the airport. The Proposed Project would not require any taking or use of this portion of the Loxahatchee Slough Natural Area. Access within the RPZ and new, larger RPZ, would be restricted. However, the area is largely comprised of wetlands and does not contain areas used for walking or hiking.

Constructive Use

When compared to the No Action Alternative, the Proposed Project would result in an increase of approximately 0.71 acre of the Loxahatchee Slough Natural Area exposed to DNL 65 dB or higher. This area is located immediately adjacent to the Airport property line, primarily over and around the existing canal. Although this area would experience a minor increase in noise, no public recreation areas would be affected. There would be no constructive use of the Loxahatchee Slough Natural Area.

Section 6(f) of the LWCFE Evaluation

As discussed in Section 4.2, the public recreation areas and facilities in the Loxahatchee Slough Natural Area were developed using LWCFE grant funds. The developed public use facilities are located on the portion of the Loxahatchee Slough Natural Area located east of the Beeline Highway. Public access for recreation purposes is allowed on the portion of Loxahatchee Slough Natural Area located east of the Beeline Highway and south of the Airport. However, there are no developed public use facilities on the parcel located on the south side of the Airport. The Proposed Project would not convert property acquired or developed using LWCFE grants for uses other than public outdoor recreation. Therefore, there would be no impacts related to the conversion of LWCFE fund-assisted properties.

Mitigation

As there would be no physical or constructive impacts to Section 4(f) or 6(f) resources in the Loxahatchee Slough Natural Area, no mitigation is required.

8. Draft Determination

The effects of the proposed runway extension project at the North Palm Beach County General Aviation Airport on Section 4(f) resources were evaluated under Section 4(f) of the Department of Transportation Act (recodified at 49 U.S.C. § 303). As discussed in Sections 4.1 and 7.1.1 of this document, the Proposed Project would limit access on a portion of the Sweetbay Natural Area that is used for public recreation. Although the project would not affect the marked trail system, it would limit access to a section of maintenance access ways and firebreaks currently used by some members of the public for walking. Land clearing and construction of the Proposed Project would also affect 17.4 acres of land within the Sweetbay Natural Area that is used for habitat management and conservation. The Proposed Project would also extend the Runway 14-32 Protection Zone over a parcel of the Loxahatchee Slough Natural Area at the southern boundary of airport property. However, there would be no physical or constructive uses of the resource.

Based on the following, the Federal Aviation Administration proposes the impacts associated with the transportation use of the Sweetbay Natural Area would be *de minimis*.

1. The Proposed Project, together with the proposed avoidance, minimization, and mitigation or enhancement measures, would not adversely affect the activities, features, or attributes that qualify the Sweetbay Natural Area for protection under Section 4(f). The FAA will ensure that mitigation measures are implemented.
2. The public will be afforded an opportunity to review and comment on the effects of the project on the protected activities, features, or attributes of the Section 4(f) property.
3. The officials with jurisdiction over the property, after considering public comments and FAA's intent to make the *de minimis* impact finding, concur in writing that the project will not adversely affect the activities, features, or attributes that qualify the property for protection under Section 4(f).

9. Public Review and Comment

9.1 Notice of Availability of Draft de Minimis Determination

A Notice of Availability of the Draft Section 4(f) De Minimis Determination, Draft Environmental Assessment, and Notice of a Public Information Workshop/Public Hearing was published in the Palm Beach Post newspaper on April 9, 2024. The Notice was also placed on Palm Beach County Department of Airports website on April 9, 2024.

Copies of the Draft Section 4(f) De Minimis Determination and Draft EA are available for public review during regular business hours at the locations listed below. The Draft Section 4(f) De Minimis Determination and Draft EA are also available electronically (in PDF format) for download on the Airport's website at the following link: <https://www.pbia.org/general->

aviation/north-palm-beach-county-airport/. Locations with copies of the Draft Section 4(f) De Minimis Determination and Draft EA are below.

Signature Flight Support at North Palm Beach County Airport
11600 Aviation Rd
West Palm Beach, FL 33412

North Palm Beach Library
303 Anchorage Dr
North Palm Beach, FL 33408

9.2 Commenting on the Draft Section 4(f) De Minimis Determination

The comment period for the Draft Section 4(f) De Minimis Determination is from April 9, 2024, and will close on May 21, 2024. Anyone wishing to comment on the information and conclusions in this Draft Section 4(f) De Minimis Determination and is welcome to do so at any time during the review and comment period.

The FAA and DOA will review and consider all comments received during the public comment period. All public and federal, state, and local agency comments received during the comment period will be considered and responded to in Final Section 4(f) De Minimis Determination and Final EA. Comments can be submitted electronically to F45EAComments@esassoc.com. Written comments may be submitted to PBCDOA at the address below.

DOA Administrative Office - Palm Beach County Department of Airports
846 Palm Beach International Airport
West Palm Beach, FL 33406

9.3 Public Information Workshop / Public Hearing

A combined Public Information Workshop/Public Hearing will be held from 5:30 p.m. to 6:30 p.m. on May 14, 2024, at the Palm Beach State College, Palm Beach Gardens Campus Multi-Purpose Room SC-127, 3160 PGA Boulevard, Palm Beach Gardens, FL 33410. A Public Hearing to receive formal verbal comments from the public will be held immediately after the Public Workshop at 6:30 P.M. and conclude once all comments are made. The Workshop will include a series of display boards that provide information about the Proposed Project and its environmental impacts, including impacts to Section 4(f) resources. Representatives of the Airport and Study Team will be present to discuss the Proposed Project, its impacts, and proposed mitigation. During the Workshop and Public Hearing, an area will be available to provide written comments and court reporters will be available to record verbal comments.

Attachments

Attachment A

From: Deborah Drum <DDrum@pbcgov.org>

Sent: Monday, February 12, 2024 3:47 PM

To: Green, Peter M (FAA) <peter.m.green@faa.gov>

Cc: Laura Beebe <lmbeebe@pbia.org>; Gary Sypek <gsypek@pbia.org>; Patrick Rutter <PRutter@pbc.gov>; Michael Stahl R. <MStahl@pbcgov.org>; Brenda Hovde <BHovde@pbcgov.org>; Steven Pisano <SPisano@pbcgov.org>

Subject: Official with Jurisdiction: F45 Public Use Facilities Impacts under Section 4(f)

Mr. Green:

Subject: North Palm Beach County General Aviation Airport (F45) / Proposed Mitigation for Impacts to Recreation Facilities and Amenities

The Federal Aviation Administration (FAA) determined and communicated on 1-18-24 that Palm Beach County's Environmental Resources Management (ERM) Department is one of three "officials with jurisdiction" over the Sweetbay Natural Area (Sweetbay) under Section 4(f) (the other two being South Florida Water Management District and the Florida Fish and Wildlife Conservation Commission). In subsequent meetings with you on 1-25-24, and with you and Amy Reed on 2-2-24, we discussed and further clarified ERM's oversight as an "official with jurisdiction" is limited to the public use facilities, including trails and other developed public use elements such as informational kiosks, observation platforms, and parking lots.

The Department of Airports took affirmative actions to avoid and minimize impacts to the public use facilities located in the surrounding properties, including Sweetbay. However, the proposed runway extension impacts approximately 830 feet of a firebreak road as indicated as a red line on the attached map. Although this firebreak road is not part of a designated trail system, visitors are not prohibited from using the firebreak road as a hiking trail. Therefore, it is recommended that a new trail be established as mitigation for this impact. The proposed trail for mitigation is shown on the attached map in green as a 2167-foot trail. This action results in a net increase of 1337-feet of new trail that connects existing trails and creates a connected loop which is expected to enhance public use opportunities for hiking. This proposal is consistent with the preservation of the ecological integrity of the preserve and directs public use away from the airport operations. Therefore, with the creation of the new trail as proposed for mitigation, the Department of Airports will have addressed ERM's concerns with the public use facilities in the Sweetbay area, as the new trail is anticipated to enhance public access, since the firebreak was not specifically designated for public use in the past.

Regarding Loxahatchee Slough Natural Area, the draft Environmental Assessment (EA) determined the proposed project will cause a 6.66 acre portion of Natural Area property to be located within a future Runway Protection Zone (RPZ), extending southeastward from Runway 32.

The RPZ is a trapezoidal area off the end of the runway end that serves to enhance the protection of people and property on the ground. Protection is achieved when the owner of an airport controls the property within RPZ and ensures that use of the property remains compatible. In this instance, the County controls the Natural Area where the future RPZ will be located since the County is the owner of the property.

The EA concluded that there will be no physical or constructive impacts to Section 4(f) resources in the Natural Area.

Although the RPZ will extend into the Natural Area, no change in use is required since the existing conservation use is compatible with the RPZ and DOA is not seeking an authorization to use the Natural Area in a manner not initially intended for the property. In addition, DOA does not require any interest in the property for the purpose of the RPZ since the property is owned and controlled by the County.

Due to the fact no physical use of or authorization to use the Natural Area is required for the future RPZ and the Natural Area will continue to be maintained as conservation land, ERM and DOA have determined that the Conservation Lands Protection Ordinance (CLPO) mitigation requirements are not applicable to the proposed project based on the extremely narrow set of circumstances. Notwithstanding the foregoing, the DOA and ERM have agreed that in the event that DOA seeks any authorization of a use not initially intended for the Natural Area, DOA will be required to follow the process set forth in the CLPO. DOA and ERM agree that tree trimming or any

other impact inconsistent with the maintenance of the Natural Area as conservation lands will trigger the application of the CLPO.

Respectfully,
Deb Drum, Director
Palm Beach County Environmental Resources Management

Under Florida law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

SWEETBAY NATURAL AREA

PROPOSED PUBLIC USE TRAIL CHANGES FOR FAA SECTION 4(F) MITIGATION



- FIREBREAK
- REMOVED FIREBREAK - 830 Feet
- New Mitigated Trail - 2,167 Feet
- Existing Firebreak - 4,920 Feet
- Preserve Boundary