Appendix F
Cultural Resources

F-1: FAA – SHPO Early Coordination Letter
F-2: FAA – Tribal Coordination Letters

F-1: FAA - SHPO Early Coordination Letter

U.S. Department
of Transportation
**Federal Aviation
Administration**

Orlando Airports District Office
8427 South Park Circle, Suite 524
Orlando, FL 32819
Phone: (407) 487-7220
Fax: (407) 487-7135

May 28, 2021

[Sent vial e-mail to: compliancepermits@dos.myflorida.com]

Timothy A. Parsons, Ph.D.
Director, Division of Historical Resources
& State Historic Preservation Officer
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399

RE: Section 106 Consultation for Proposed Runway Extension
North Palm Beach County General Aviation Airport (F45)
Palm Beach County, Florida

Dear Dr. Parsons,

Palm Beach County has requested approval from the Federal Aviation Administration (FAA) to extend one the runways at the North Palm Beach County General Aviation Airport (F45). The federal actions associated with the proposed development project is an undertaking subject to the *National Historic Preservation Act* and its implementing regulations at 36 CFR Part 800. This letter is intended to initiate Section 106 consultation.

Proposed Undertaking

The proposed development project would extend Runway 14-32 from its present length of 4,300 feet to 6,000 feet. The project's purpose is to better accommodate the needs of existing and other users that cannot use the airport or are required to use smaller aircraft when using the airport. Other related improvements include widening the runway from 60 feet to 100 feet, grading and drainage improvements, and relocating a section of the airport's entrance road. The proposed development project is depicted on the enclosed Figure 1. A more descriptive summary of the project elements is included with this letter.

Area of Potential Effect (APE)

The construction and operation of the proposed development project was reviewed to identify an appropriate APE for the evaluation of potential impacts on historic, archaeological, and cultural resources. Based on a review of the proposed project, the Direct Effects portion of the APE includes the areas where ground disturbance is expected to occur. This area would generally be limited to areas associated construction of the proposed runway and taxiway extension, including adjacent runway and taxiway Safety Areas and Object Free Areas; areas associated with relocation of a portion of the airport access road and airport maintenance roads; access road construction; and, construction of a new Airport Traffic Control Tower. The Indirect Effects portion of the APE would encompass an area

around the runway likely to be exposed to increased noise (DNL 65 dB or higher), air emissions, light emissions, etc. The APE is depicted on Figure 2.

Historic and Archaeological Resources in the APE

NRHP Search – A review of information contained in the Florida Master Site File showed no known resources listed on the National Register of Historic Places (NRHP) within the APE or near the airport. The nearest National Register-eligible resource is the Seaboard Airline Railroad Station (PB12917), which is located approximately 9 miles east of the airport.

Cultural Resource Assessment Desktop Analysis – Archaeological Consultants, Inc. (ACI) prepared a desktop analysis for the proposed development project. The study included the identification and description of all known archaeological sites and historic resources located within or proximate to the APE[1], as well as a discussion of potential archaeologically sensitive areas. A copy of ACI's report is enclosed with this letter.

Background research indicated that no archaeological sites have been recorded within or near the APE. The report states there is a low probability for aboriginal and historic archaeological site occurrence. This is due to lack of preferred soil types; the areas low, wet setting; and no evidence of hammocks is present. The potential for unrecorded historic period archaeological sites was also assessed and found to be low. A review of the property appraiser data suggests no potential for historic structures and the historic aerial photos and maps revealed no historic buildings or structures. Because there is a low potential for archaeological and historic sites, ACI recommended that a Cultural Resource Assessment Survey (CRAS) does not appear to be warranted for this project.

Determination of Effect

Based on a review of the proposed development project and ACI's research and professional opinion, the FAA has determined the undertaking would not affect historic properties. Because the proposed project includes ground disturbance activities, the FAA will require Palm Beach County to implement special conditions regarding unexpected discoveries during construction.

FAA appreciates your review of the enclosed project information and response within 30 days of receipt of this letter, indicating if you concur with the APE and our determination. Please direct correspondence and questions to me at (407) 487-7296 or peter.m.green@faa.gov.

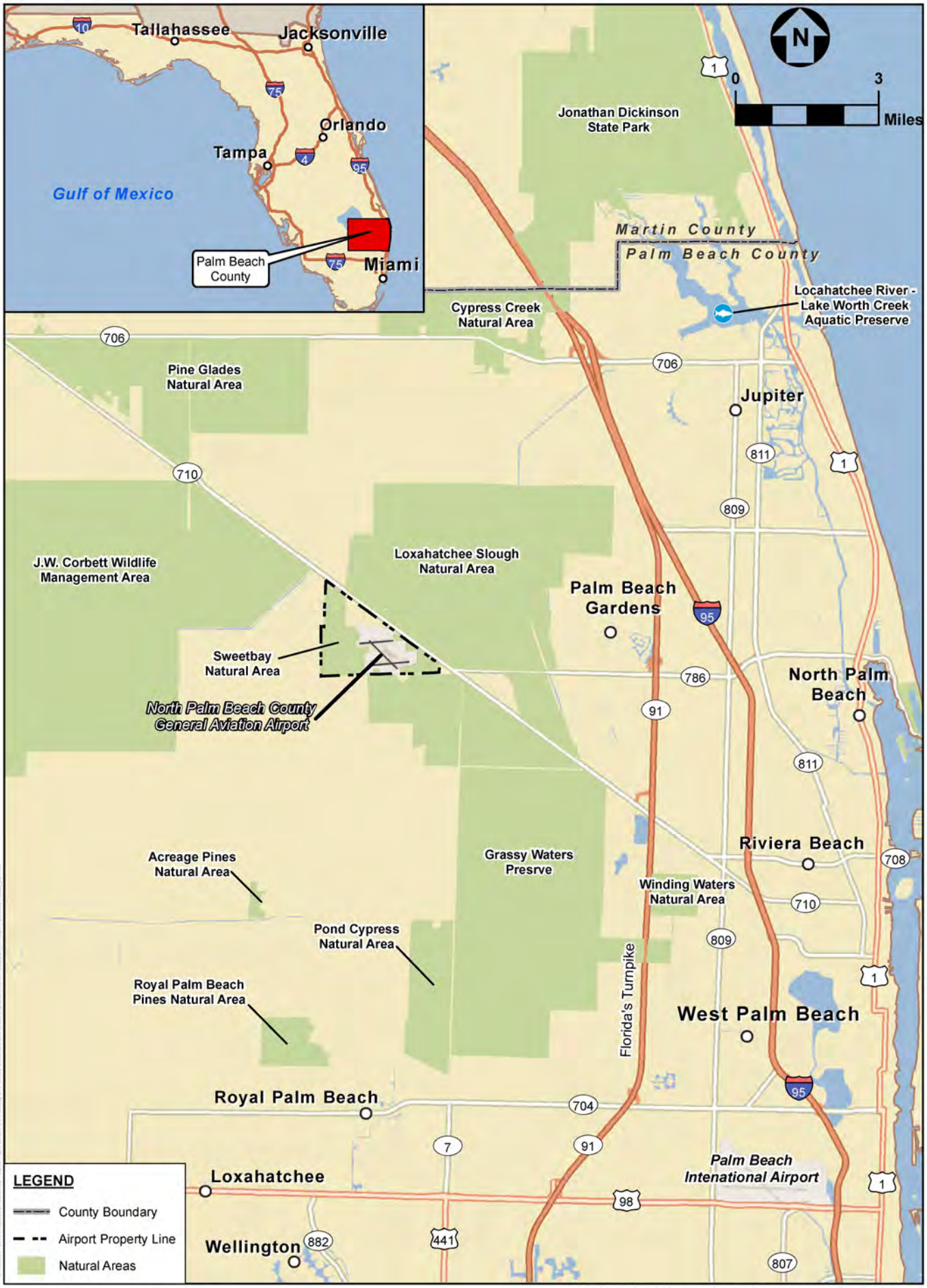
Sincerely,

Peter M. Green, AICP
Environmental Protection Specialist

Enclosures

Cc: Gary Sypek, Palm Beach County Department of Airports
Amy Paulson, Environmental Science Associates

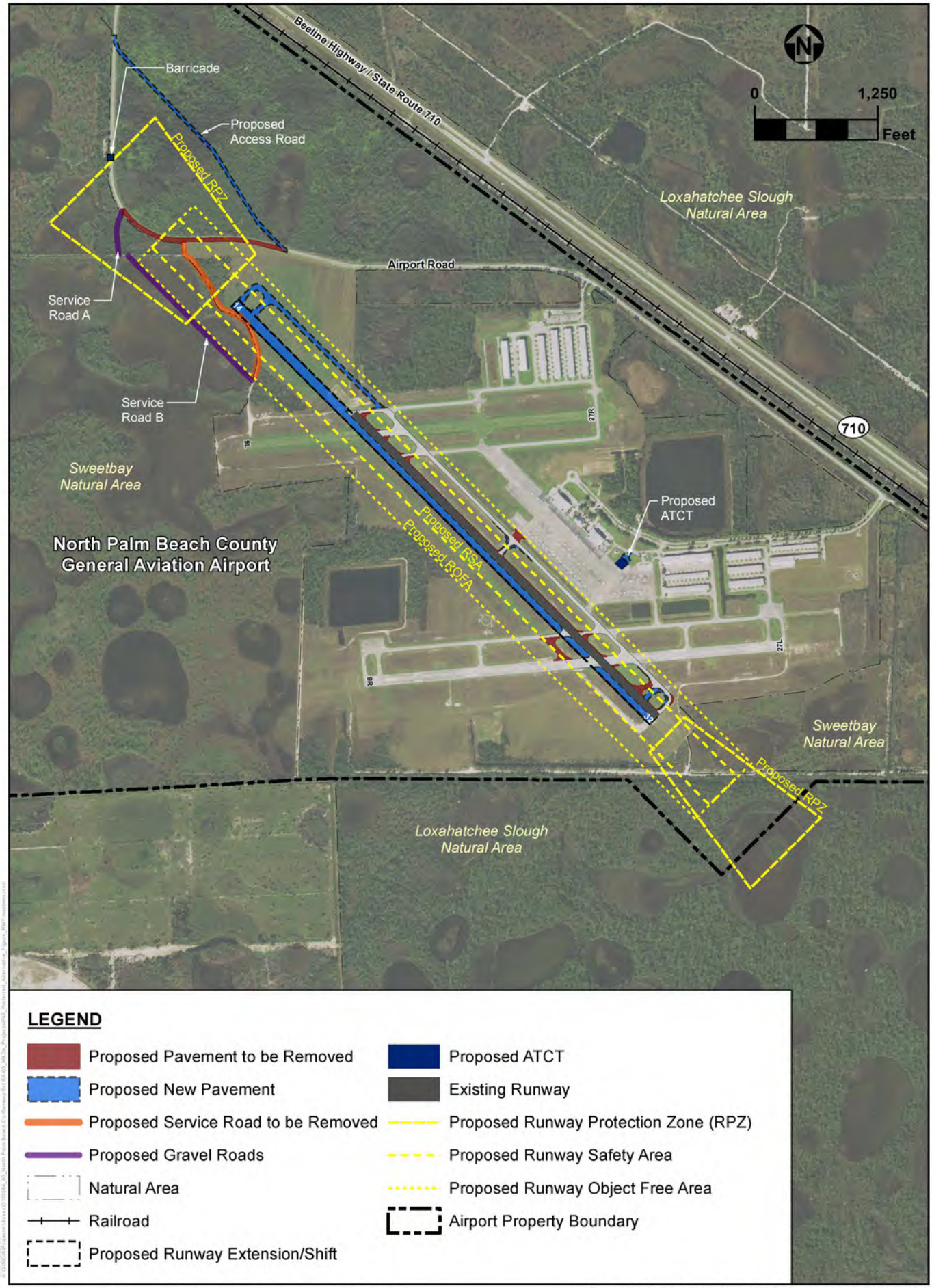
[1] Subsequent to the completion of ACI's Desktop Survey, the APE was enlarged slightly for FAA's consideration of potential indirect effects (e.g., aircraft noise). The Direct Effects portion of the APE (areas subject to disturbance) remain unchanged.



Source: Esri; SFWMD, 2010; ESA, 2019

North Palm Beach County General Aviation Airport Runway Extension EA

AIRPORT LOCATION

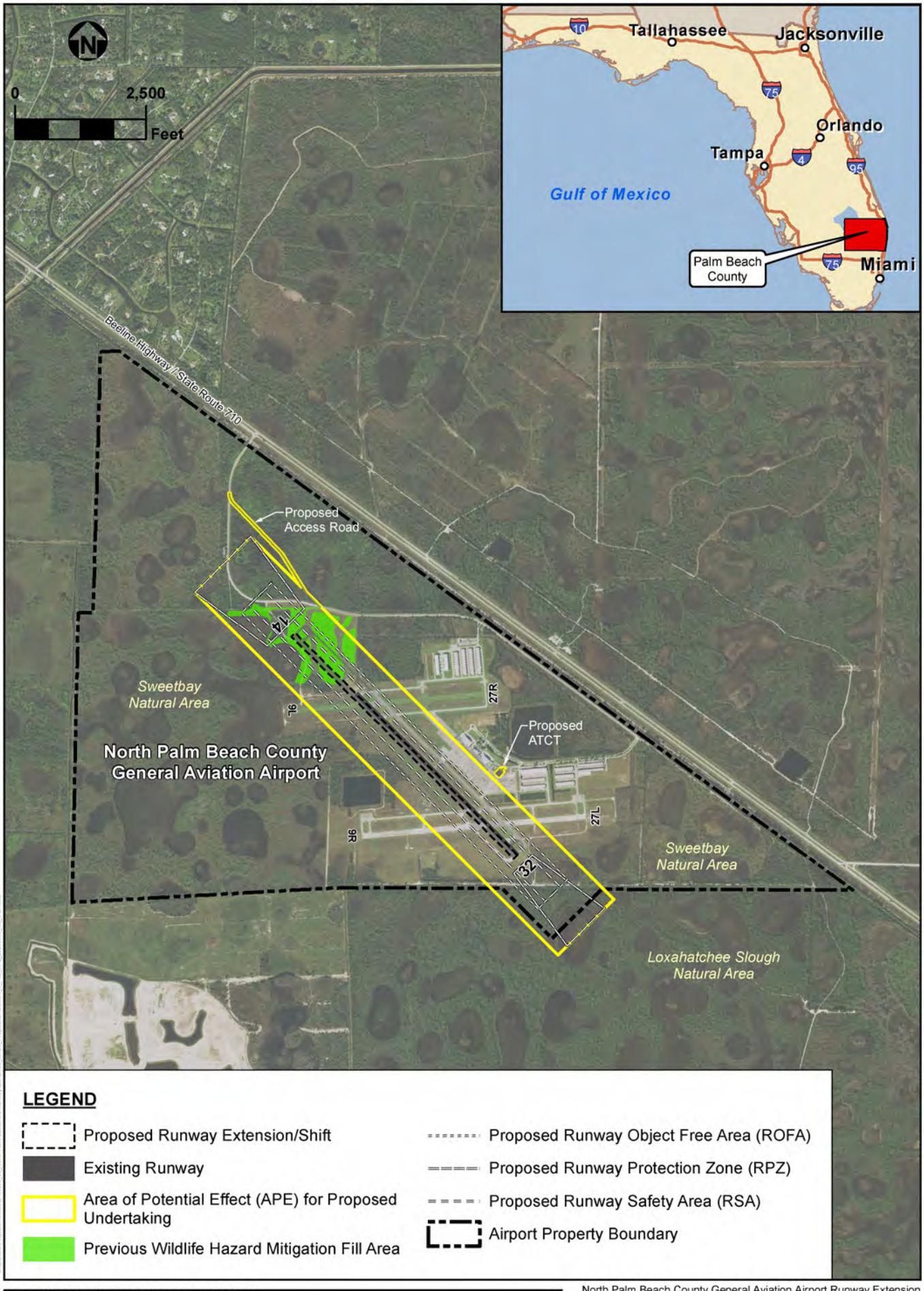


Source: US Census Bureau, 2020; USGS The National Map, 2020; ESA, 2020.

North Palm Beach County General Aviation Airport Runway Extension

FIGURE 1

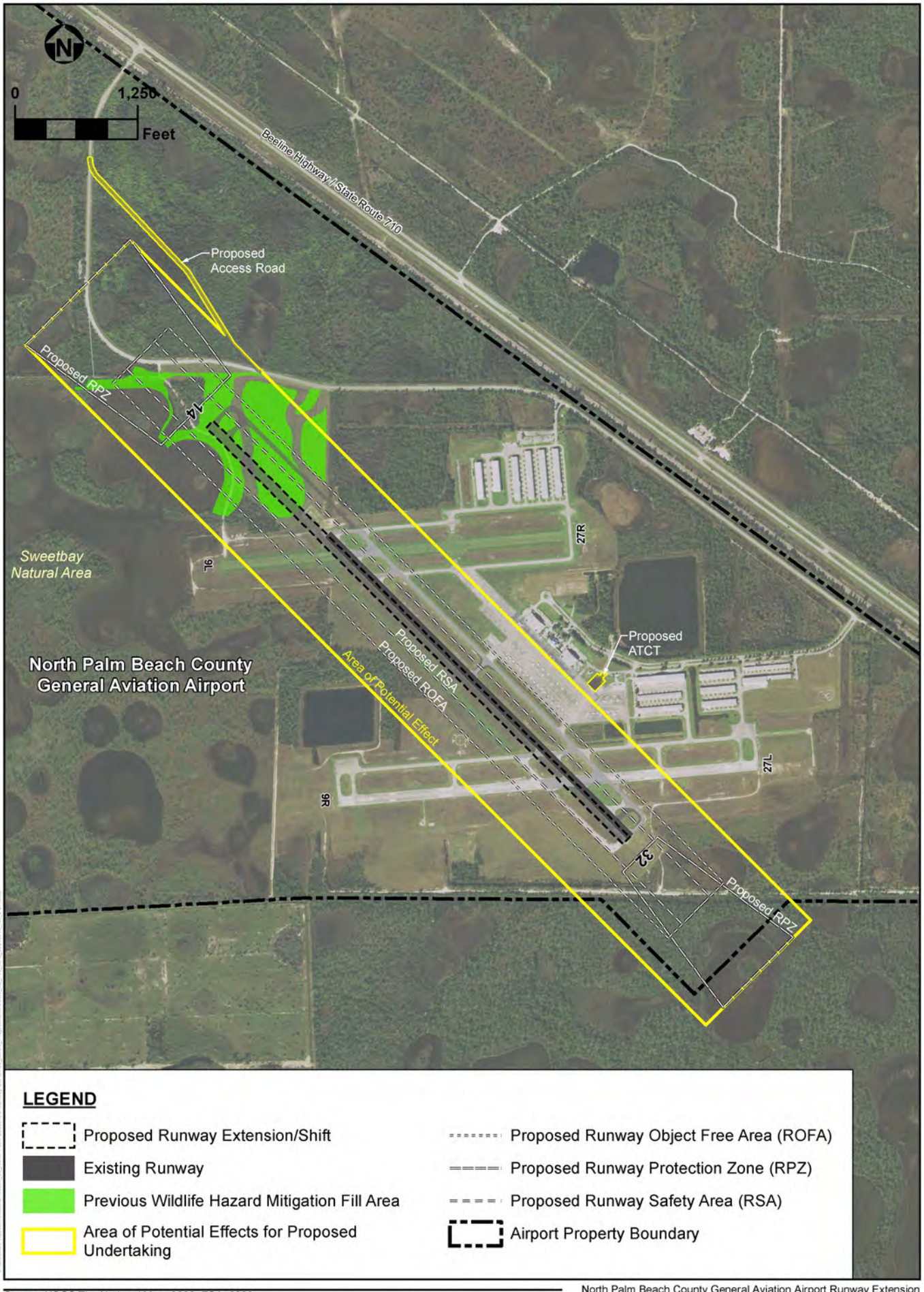
PROPOSED RUNWAY EXTENSION AT NORTH PALM BEACH COUNTY AIRPORT



Source: USGS The National Map, 2020; ESA, 2020

North Palm Beach County General Aviation Airport Runway Extension

FIGURE 2
PROPOSED AREA OF POTENTIAL EFFECTS



Source: USGS The National Map, 2020; ESA, 2020

North Palm Beach County General Aviation Airport Runway Extension

FIGURE 3

AREA OF POTENTIAL EFFECTS (ENLARGED VIEW)

CULTURAL RESOURCE ASSESSMENT
DESKTOP ANALYSIS
NORTH PALM BEACH COUNTY GENERAL AVIATION AIRPORT
RUNWAY EXTENSION AND CONNECTED ACTIONS
PALM BEACH COUNTY, FLORIDA

Prepared for:

Environmental Science Associates

Prepared by:

Archaeological Consultants, Inc.
8110 Blaikie Court, Suite A
Sarasota, Florida 34240

Project Manager – Marion Almy
Project Archaeologist – Elizabeth A. Horvath

April 2021

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Executive Summary

A desktop analysis for the North Palm Beach County General Aviation Airport Runway Extension and Connected Actions project, located in Palm Beach County, was conducted by Archaeological Consultants, Inc. (ACI) on behalf of Environmental Science Associates. This study, conducted in accordance with Section 106 of the *National Historic Preservation Act*, included the identification and description of all known archaeological sites and historic resources located within or proximate to the Area of Potential Effects (APE), as well as a discussion of potential archaeologically sensitive areas. Background research indicated that no archaeological sites have been recorded within or near the APE. There is a low probability for sites based on the environmental setting. A review of the property appraiser data suggests no potential for historic structures and the historic aerial photos and maps revealed no historic buildings or structures (FDOT 1986; State of Florida 1845d, 1846; USDA 1953a, 1953b; USGS 1945, 1950). There was also a low potential for archaeological and historic sites and a Cultural Resource Assessment Survey (CRAS) does not appear to be warranted for this project. However, if one is required as part of the permitting process, the fieldwork should meet the requirements of Chapters 267, 373 and 872.05, *Florida Statutes* (*FS*), Florida's Coastal Management Program, and implementing state regulations, for possible effects on historic properties listed, or eligible for listing, in the NRHP, or otherwise of historical, architectural or archaeological value, as well as the standards contained in Florida Division of Historical Resources' (FDHR) *Cultural Resource Management Standards and Operational Manual* (FDHR 2003). The report should also meet the specifications set forth in Chapter 1A-46, *Florida Administrative Code* (*FAC*).

Location and Environmental Setting

The APE is in Section 34 of Township 41 South, Range 41 East, and Sections 2, 3, and 11 of Township 42 South, Range 41 East (United States Geological Survey [USGS] Delta 2013) (**Figures 1 and 2**). It is located west of Beeline Highway and north of Northlake Boulevard. Much of the APE has already been cleared and leveled for airport facilities; the northwest end is pine flatwoods.

The APE has an elevation of six meters (20 feet) above mean sea level. It lies within the Eastern Valley physiographic region (White 1970). It is underlain by the shelly sediments of the Plio-Pleistocene that are surficially evidenced by shelly sand and clay (Florida Department of Environmental Protection [FDEP] 2001a, 2001b).

According to the U.S. Department of Agriculture (USDA), the APE is within the Riviera association that is made up of broad, low flatwoods and grassy sloughs interspersed with numerous grassed ponds and swampy areas. The natural vegetation is slash pine, cabbage palm, saw-palmetto, southern bayberry, inkberry, pineland threeawn, and other native grasses. Cypress, pickerelweed, St. Johnswort, corkweed, sand cordgrass, and other wetland grasses grow in the wet areas (McCollum et al. 1978). There are only three soil types within the property: Riviera fine sand, 0-2% slopes; Riviera fine sand, frequently ponded, 0-1% slopes; and Wabasso fine sand, 0-2% slopes. Their distribution is depicted on **Figure 3** (USDA 2018). The Riviera soils are nearly level, poorly drained, and occur in broad, low areas and in depressions. Wabasso sand is poorly drained and occurs in the flatwoods.

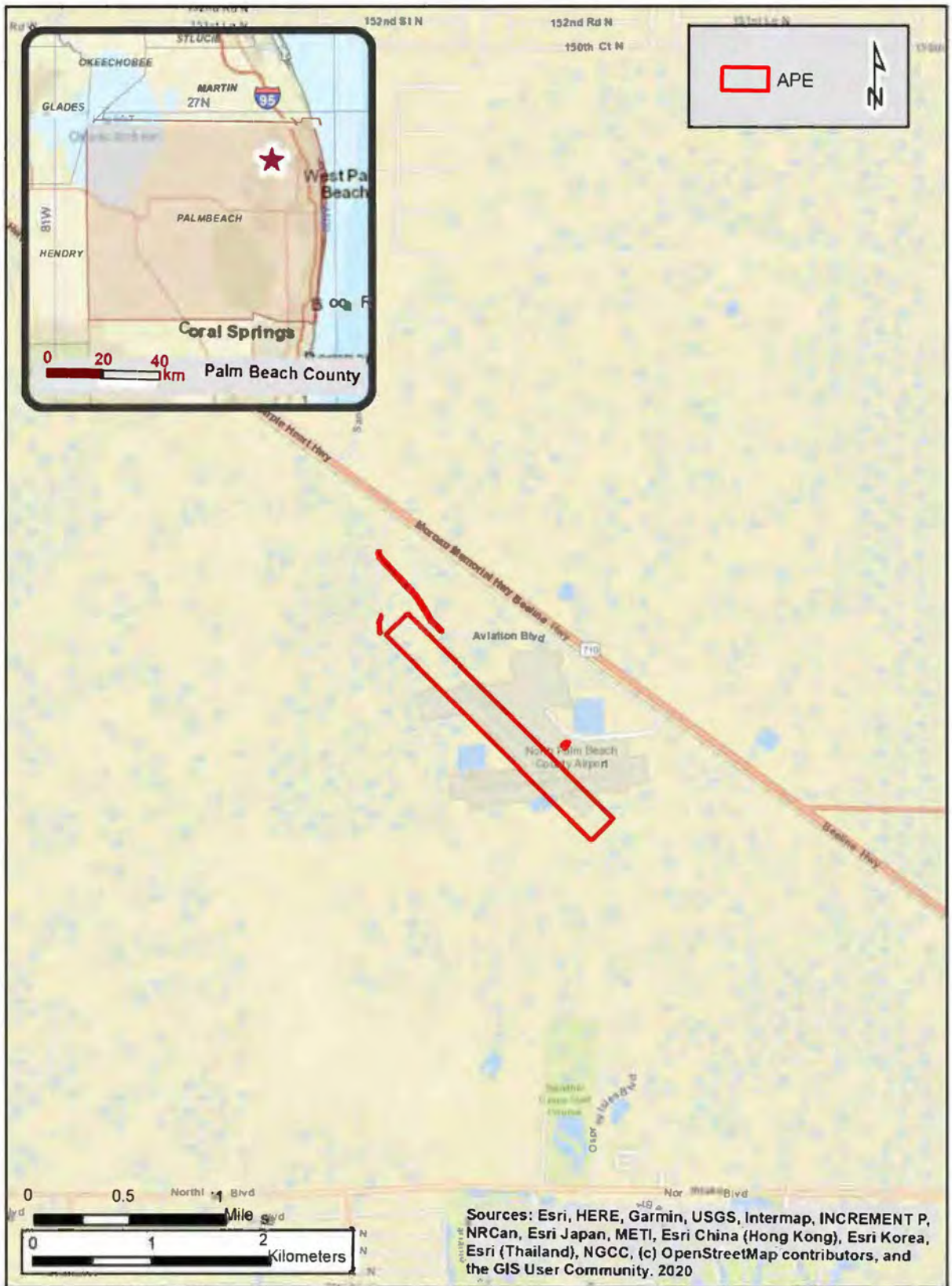


Figure 1. Location of the North Palm Beach County General Aviation Airport.

Figure 2. Environmental setting of the APE.

Figure 3. Soil type distribution.

The soils support different vegetative regimes, which in turn provide habitats for the local animal population, and thus provide essential food resources. However, the soils have variable suitability for openland, woodland, and wetland habitats. The habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses, and legumes, and wild herbaceous plants. The wildlife attracted to these areas include bobwhite quail, dove, sparrow hawk, meadowlark, field sparrow, cottontail, and cattle egret. Woodland wildlife habitat includes area of deciduous plants or coniferous plants or both and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include turkey, towhee, woodpeckers, owls, squirrels, gray fox, racoon, and deer. The habitat for wetland wildlife includes areas of open, marshy or swampy, shallow water areas. Wildlife in these areas include ducks, egrets, herons, kingfishers, alligators, and otters (Liudahl et al. 1998:Table 6). Riviera sand is rated fair for all habitats; Riviera, depressional is rate good for wetland habitats; Wabasso is rated fair for woodland habitats. They are rated poor or very poor for the habitats not mentioned.

Background Research and Literature Review

A review of pertinent archaeological and historical literature, records, and other documents and data pertaining to the general area was conducted. The focus of this desktop analysis was to ascertain the types of cultural resources known in the project vicinity, as well as the potential for the occurrence of yet unrecorded resources. Research included a review of sites listed in the NRHP and the Florida Master Site File (FMSF) (April 2021 GIS update); an examination the Palm Beach County Property Appraiser's data; soil survey information; plat map, field notes, and tract book records; historic aerial photos on file with the Publication of Archival Library and Museum Materials (PALMM); regional prehistories, histories, and site location predictive models; and relevant CRAS reports and manuscripts.

Archaeological and Historical Considerations

The archaeological background research indicated that no archaeological sites are located within the APE, and there are only two sites within 3.2 kilometers (2 miles) (**Figure 4**). 8PB11489 (Vavrus) is a campsite established for resource procurement (Mankowski and Longo 2005). It has been determined potentially eligible for listing in the NRHP by the State Historic Preservation Officer (SHPO). 8PB14419 (Lox Slough 1) is also listed as a procurement site that also has aboriginal ceramics. It was recorded during a reconnaissance survey of Loxahatchee Slough, although no copy of the report is available at the FMSF. **Table 3** provides a list of the CRAS projects conducted proximate to the APE.

Florida Atlantic University compiled the archaeological data within Palm Beach County and looked at the distribution of archaeological sites within different ecological systems. These systems were then divided into high, medium, and low probability areas in terms of aboriginal site location. Areas of high potential consisted of low and tropical hammocks and the coastal dune and strand areas. Moderate zones of archaeological potential consisted of pine forests, prairies, and dry marshes. The low probability areas consisted of wet prairies, swamps, marshes, ponds, and Florida scrub (Kennedy et al. 1991:5). One of the main factors in site selection was the ability of the land to produced food sources, not in terms of agricultural produce, but naturally occurring plants and animals. The sites reported south of Lake Okeechobee, in the Belle Glade area, were located in flood prone areas, but were generally proximate to a stream, and consisted of middens, mounds, and mounds with linear ridges (Kennedy et al. 1991:87). These site locations were chosen by better access to aquatic food resources. It should be noted that the settlement pattern noted below cannot be applied to sites of the Paleoindian and Early Archaic periods, which precede the onset of modern environmental conditions.

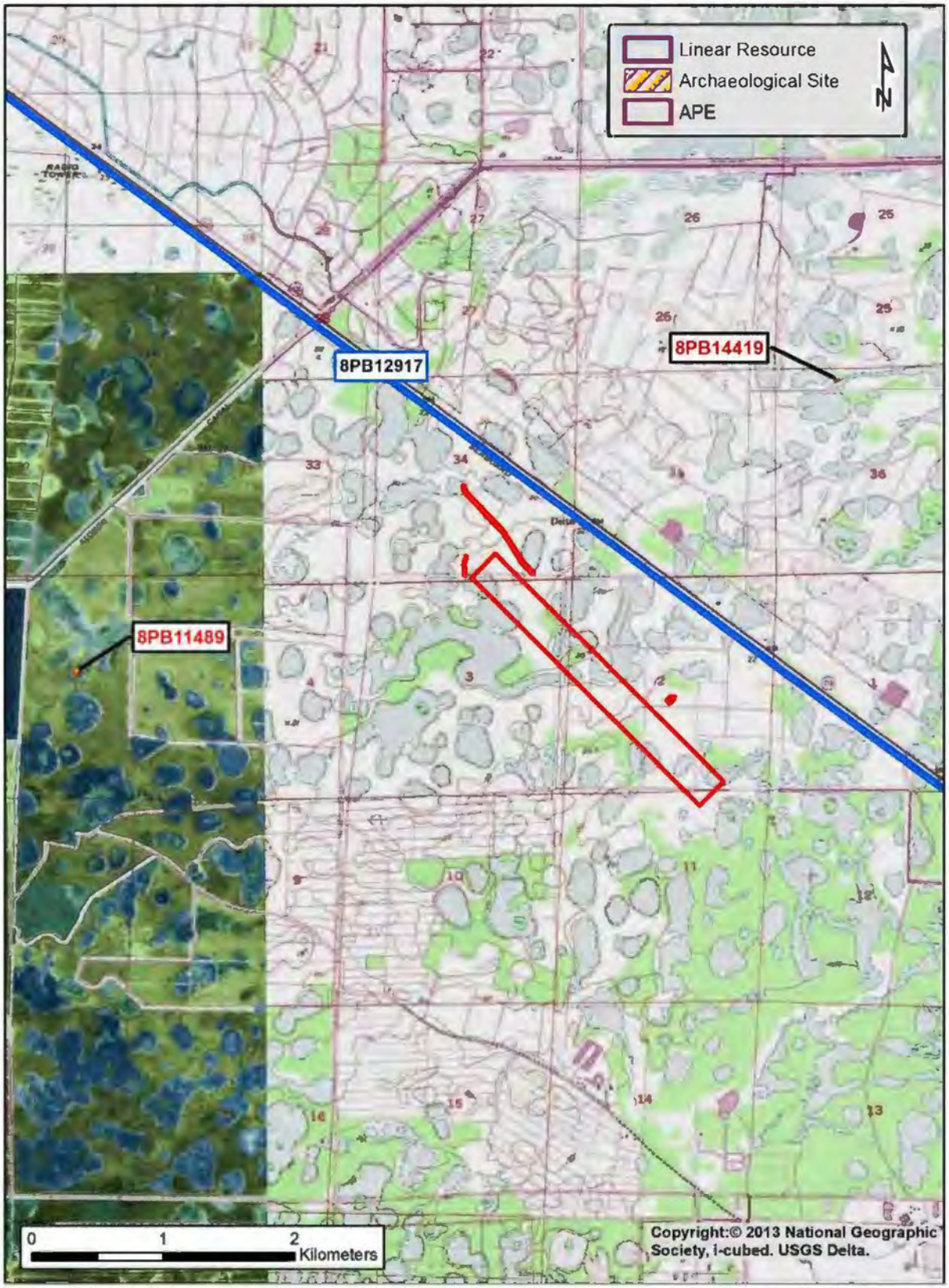


Figure 4. Location of the previously recorded cultural resources proximate to the APE.

Table 1. CRAS projects conducted proximate to the property.

REFERENCE	PROJECT	# of Newly Recorded Resources	# of Previously Recorded Resources
2807 / (Fuhrmeister and Hardin 1991)	A Cultural Resource Assessment Survey of the Proposed Crane-Bridge-Plumosus 230 KV Transmission Line Project Corridor, Palm Beach and Martin Counties, Florida	0	0
6173 / (Ambrosino and Estabrook 2000)	A Cultural Resource Assessment Survey of Eight Alternative Routes for State Road 7 from Okeechobee Boulevard (SR 704) to the Beeline Highway (SR 710) Palm Beach County, Florida	0	0
12752 / (Mankowski and Longo 2005)	A Phase I Archaeological Survey of the Vavrus North Parcel, Palm Beach County, Florida	1	0
9061 / (Labadia et al. 2003)	Phase I Cultural Resource Survey and Archaeological Inventory of the Onshore Florida Portion of the Proposed Seafarer U.S. Pipeline System Project in Palm Beach and Martin Counties, Florida	2	2
10954 / (Labadia et al. 2004)	Phase I Cultural Resources Survey and Archaeological Inventory of the Onshore Florida Portion of the Proposed Seafarer US Pipeline System Project in Palm Beach County, Florida	2	2
12730 / (Carr and Longo 2005)	A Phase I Archaeological Survey of the Vavrus South Parcel, Palm Beach County, Florida	0	0
19570 / (Janus Research 2012)	Cultural Resources Assessment Survey SR 710 (Beeline Highway) Project Development and Environment (PD&E) Study from Approximately One Mile East of SR 76 (Kanner Highway) to SR 708 (Blue Heron Blvd), in Martin and Palm Beach Counties	3	4
27198 / (Davenport and Green 2013)	Letter Report of Findings: Sandhill Crane West Restoration Project, Palm Beach County, Florida	0	0

ACI examined the site data in terms of distance to water and soil types using the April 2020 FMSF data, specifically looking at the distribution of sites withing the Easter Valley physiographic region. There are 144 sites recorded in this area with confirmed site locations and aboriginal in nature; historic sites were not included in this analysis. **Table 2** shows the distribution of the sites by water type and distance. As can been seen over 90% of the sites are within 100 m (328 ft) of a water sources, of which 55% are associated with swamps or wetlands. Creeks and sloughs account for another 27% of the sites. Over 7% are located along a river with another 7% being along the shore of Lake Worth.

Table 2. Site distribution by water type and distance.

	≤100 m (328 ft)		≤200 m (656 ft)		>200 m (656 ft)		Total	
Water type	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Creek/slough	37	25.69%	1	0.69%	1	0.69%	39	27.08%
Lake	1	0.69%		0.00%		0.00%	1	0.69%
Lake Worth	10	6.94%		0.00%		0.00%	10	6.94%
Ocean	3	2.08%		0.00%		0.00%	3	2.08%
River	10	6.94%	1	0.69%		0.00%	11	7.64%
Swamp/wetland	74	51.39%	2	1.39%	4	2.78%	80	55.56%
Total	**135**	**93.75%**	**4**	**2.78%**	**5**	**3.47%**	**144**	**100.00%**

Soil types and their drainage characteristics can also be used to assess the likelihood for aboriginal site occurrence (Almy 1978). However, it should be noted that this may not provide an accurate representation of their distribution. While we know the percentage of sites for each soil type, we do not know the percentage of each soil type that has been examined for archaeological resources. There are 43 soil types within the Eastern Valley of Palm Beach County; 33 of which have recorded archaeological sites (**Table 3**). It should be noted that many of these soil types are not suitable as site predictors, these are included in the "Other" category, which accounts for 8.3% of the area. These include varieties of made land, urban areas where soil types cannot be ascertained, and water bodies. Although water is a site predictor, one does not expect to find many sites in water, although they are known to occur. Many of the sites occurred on more than one soil type. This analysis only included the four types covering the greatest acreage for each site, which totaled 851 soil type occurrences. Column "1" indicates that this soil type had the greatest area of the site, and so on down the line, so that column "4" had the smallest site acreage. Within this study area, the poorly drained soils account for 58.7% of the area, with another 30.2% of the soils being very poorly drained. The remaining lands include 1.72% excessively drained, 0.75% moderately well drained, 0.25% somewhat poorly drained, and 0.06% well drained.

Table 3. Site distribution by drainage class and soil type.

DRAINAGE/Soil type, % slopes	% of area	Soils 1	2	3	4	Total	% of sites	difference
EXCESSIVELY DRAINED								
Palm Beach-Urban land complex, 0-8%	0.06%	2				2	0.98%	0.92%
St. Lucie-Paola-Urban land complex, 0-8%	1.66%	2	2			4	1.96%	0.30%
Total	**1.72%**	**4**	**2**	**0**	**0**	**6**	**2.94%**	**1.22%**
MODERATELY WELL DRAINED								
Pomello fine sand, 0-5%	0.75%	6				6	2.94%	2.19%
Total	**0.75%**	**6**	**0**	**0**	**0**	**6**	**2.94%**	**2.19%**
POORLY DRAINED								
Basinger fine sand, 0%-2%	4.87%		2		1	3	1.47%	-3.40%
Basinger-Urban land complex	0.78%					0	0.00%	-0.78%
Beaches	0.00%					0	0.00%	0.00%
Boca fine sand, 0%-2%	4.54%	5	2			7	3.43%	-1.11%
Hallandale fine sand, 0%-2%	1.18%	3		1		4	1.96%	0.78%
Holopaw fine sand, 0%-2%	2.25%	4				4	1.96%	-0.29%
Immokalee fine sand, 0%-2%	5.18%	10	1			11	5.39%	0.21%
Jupiter fine sand, 0%-2%	0.02%	1	1			2	0.98%	0.96%
Myakka fine sand, 0%-2%	7.11%		1	1		2	0.98%	-6.13%
Myakka-Urban land complex	0.61%					0	0.00%	-0.61%
Oldsmar sand, 0%-2%	2.29%		1			1	0.49%	-1.80%
Pineda fine sand, 0%-2%	4.04%	1	1			2	0.98%	-3.06%
Pinellas fine sand	2.23%	17	1	1		19	9.31%	7.09%
Pompano fine sand, 0%-2%	0.39%					0	0.00%	-0.39%
Riviera fine sand, 0%-2%	18.11%	25	10			35	17.16%	-0.96%
Riviera-Urban land complex	0.11%					0	0.00%	-0.11%
Wabasso fine sand	3.24%		1			1	0.49%	-2.75%
Winder fine sand, 0%-2%	1.75%	24	2	2		28	13.73%	11.97%
Total	**58.70%**	**90**	**23**	**5**	**1**	**119**	**58.33%**	**-0.37%**
SOMEWHAT POORLY DRAINED								
Canaveral-Urban land complex	0.25%	5	1			6	2.94%	2.69%
Total	**0.25%**	**5**	**1**	**0**	**0**	**6**	**2.94%**	**2.69%**

DRAINAGE/Soil type, % slopes	% of area	Soils				Total	% of sites	difference
		1	2	3	4			
VERY POORLY DRAINED								
Anclote fine sand	0.46%		2	1		3	1.47%	1.01%
Basinger and Myakka sands, depressional	3.07%	3	1	1		5	2.45%	-0.62%
Chobee fine sandy loam	0.33%		1	1		2	0.98%	0.65%
Floridana fine sand, frequently ponded (fp), 0%-1%	0.55%	3	1			4	1.96%	1.42%
Kesson mucky sand, tidal	0.10%	1	1			2	0.98%	0.88%
Okeelanta muck, drained, fp, 0%-1%	1.12%	2	2	1		5	2.45%	1.33%
Pahokee muck, drained, fp, 0%-1%	0.02%					0	0.00%	-0.02%
Riviera fine sand, fp, 0%-1%	22.87%	13	8	1		22	10.78%	-12.08%
Sanibel muck	0.23%		1	1		2	0.98%	0.75%
Tequesta muck, fp, 0%-1%	1.36%	1	1			2	0.98%	-0.38%
Terra Ceia muck, drained, fp, 0%-1%	0.07%					0	0.00%	-0.07%
Torry muck	0.01%					0	0.00%	-0.01%
Wulfert and Durbin muck, tidal	0.03%					0	0.00%	-0.03%
Total	**30.22%**	**23**	**18**	**6**	**0**	**47**	**23.04%**	-7.18%
WELL DRAINED								
Canaveral-Urban land complex	0.25%	5	1			6	2.94%	2.69%
Total	**0.25%**	**5**	**1**	**0**	**0**	**6**	**2.94%**	**2.69%**
OTHER								
Arents-Urban land complex, 0%-5%	2.60%	4				4	1.96%	-0.64%
Arents-Urban land complex, organic substratum	0.57%	2				2	0.98%	0.41%
Pits, 0%-5%	0.53%	1	1			2	0.98%	0.45%
Quartzipsamments, shaped, 0%-5%	0.77%	5	1			6	2.94%	2.17%
Udorthents, 2%-35%	0.35%					0	0.00%	-0.35%
Urban land	0.85%		1			1	0.49%	-0.36%
Water	2.62%	1				1	0.49%	-2.13%
Total	8.31%	13	3	0	0	16	7.84%	-0.46%
Grand Total	**100.00%**	**538**	**233**	**60**	**20**	**851**	**100.00%**	**0.00%**

As can been seen in the table, there is a relatively normal distribution of sites across the landscape. The more interesting differences are highlighted in red (preferred soils) or blue (less preferable). This is calculated by the percentage of sites minus the percent of area; anything with a difference of 2% or more is highlighted. The moderately well and somewhat poorly drained soils have a positive correlation with sites, but not nearly as high as some of the poorly drained soils. Winder sand has a 12% difference and Pinellas sand has a 7.1% difference. The very poorly drained soils overall have a negative correlation with sites, which is not unexpected. Specifically, the frequently ponded Riviera sand has a -12.1% difference. The other four avoided soils are Myakka (-6.1%), Basinger (-3.4%) and Pineda (-3.1%).

In addition to the soil and water factors, it has been determined that oak/palm hammocks, with a slightly higher terrain than the surrounding lands have a high potential for archaeological sites. A review of the 1953 aerial, which shows much of the APE as undeveloped, was conducted to ascertain whether such features were present. **Figure 5** shows those areas that may have been small hammocks;

these have all been destroyed during airport construction. No hammocks appear within the area proposed for new construction.

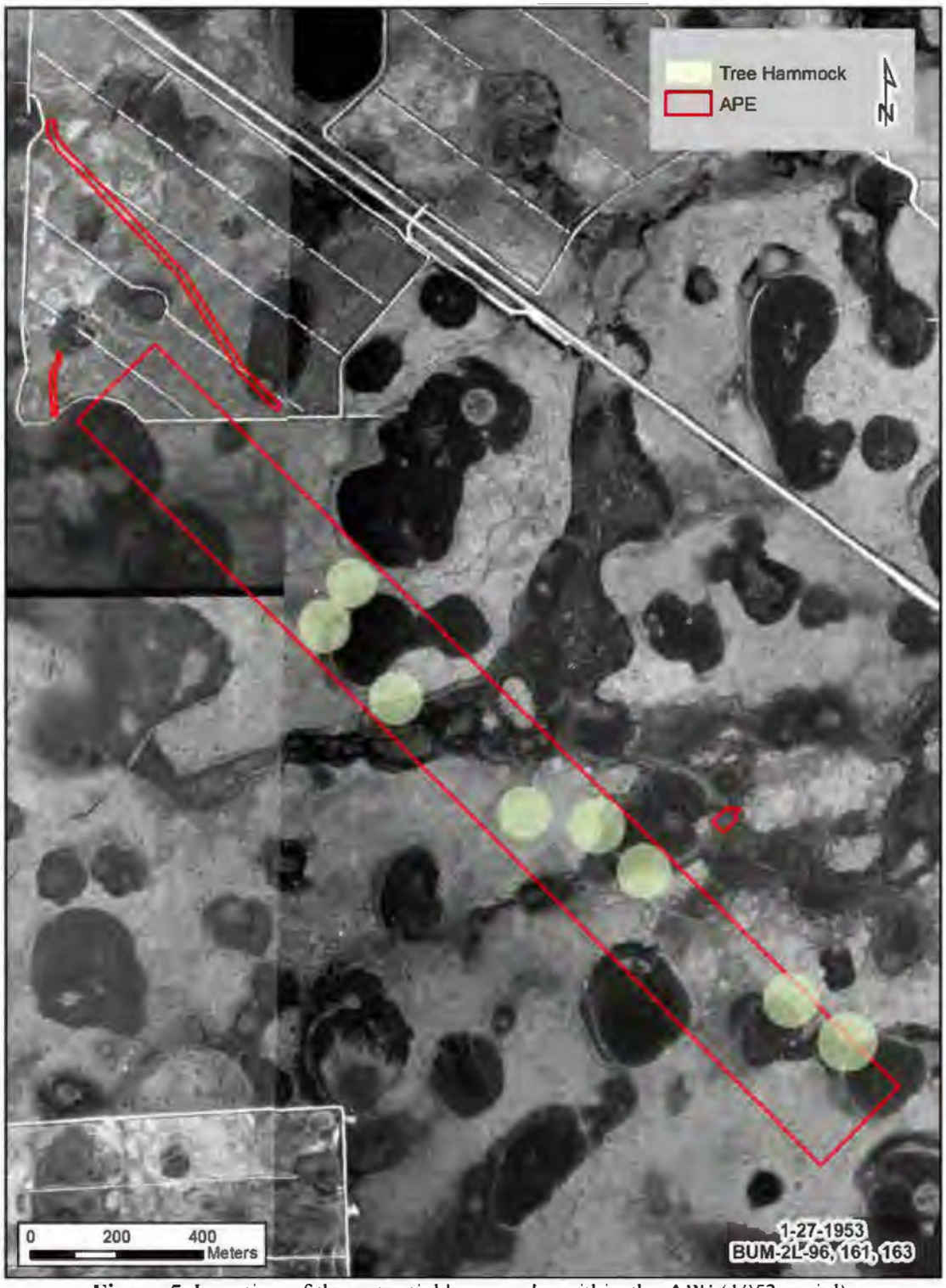


Figure 5. Location of the potential hammocks within the APE (1953 aerial).

Based on the environmental setting, the project APE was considered to have a low probability for aboriginal archaeological site occurrence. The preferred soil types are absent, and no evidence of hammocks is present. The potential for yet unrecorded historic period archaeological sites was also assessed and found to be low. The project area was initially surveyed in the 1845 by A.H. Jones and George MacKay (State of Florida 1845a, 1845b, 1845c). The plats depict no development within or near the APE (State of Florida 1845d, 1846) **(Figure 6)**. It was described as 2nd rate pine covered with sawpalmetto and interspersed with ponds and savannahs (State of Florida 1845a:547, 1845b:309-310). All of Sections 2, 3, and 11, and the east half of Section 34 were deeded to the Florida Coast Line Canal and Transportation Company in 1906; the west half of Section 34 was deeded to the Jacksonville, Tampa, and Key West Railway Company in 1881 (State of Florida n.d.:191-192). It is unlikely that either of these companies did anything with these tracts.

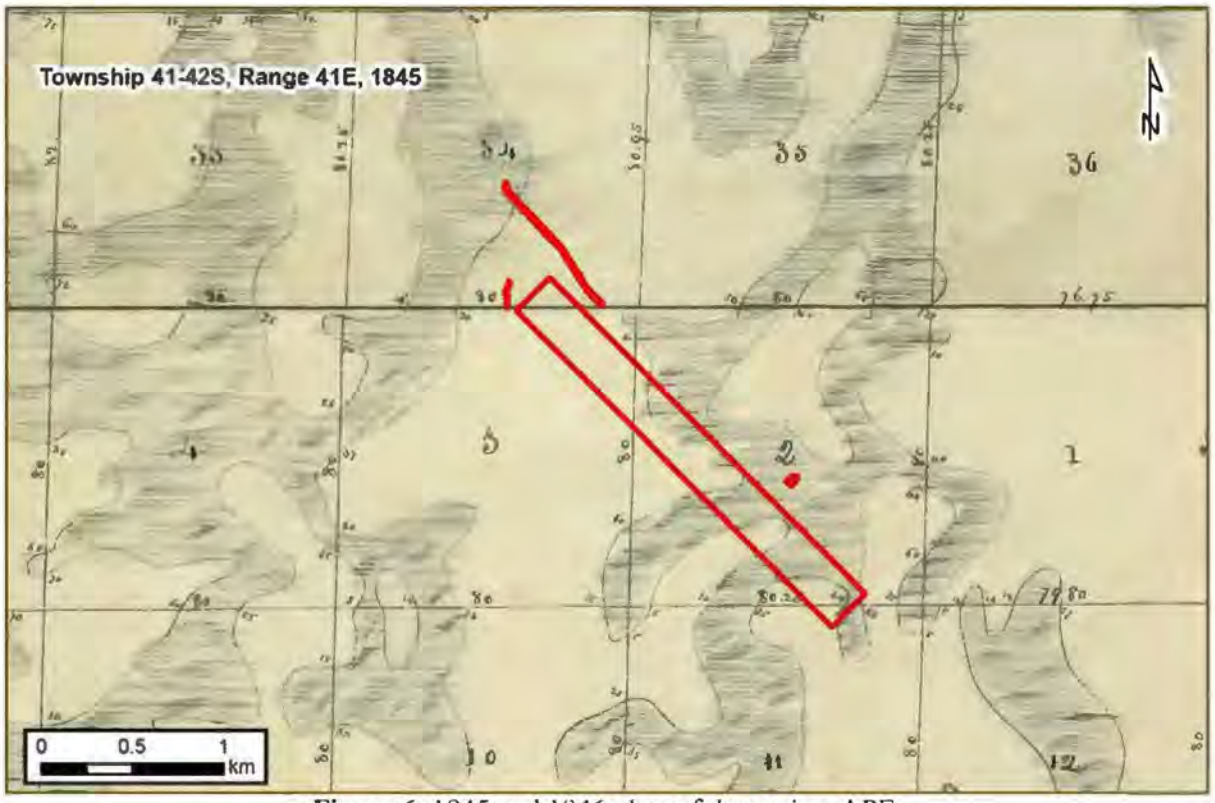


Figure 6. 1845 and 1846 plats of the project APE.

A review of the historic aerial photos available from the PALMM indicated that in 1953, the northwest portion of the APE appears to have been cleared for row crops or possible pines. No development of the remainder of the APE occurred until the construction of the airport. Although several dirt trails crossed the APE as of 1986 (FDOT 1986; USDA 1953a, 1953b).

Background research indicated that no recorded historic (50 years of age or more) resources (buildings, structures, cemeteries, bridges) are located within or adjacent to the APE. The Seaboard Air Line Railroad corridor (8PB12917) is located northwest of the APE. Although it has been determined eligible for listing in the NRHP, the proposed undertaking will have no direct or indirect affects to qualities that have been used to determine its significance. A review of the historic aerial photos available from the PALMM, historic quad maps, and the Palm Beach County property appraiser's data suggests no potential for historic resources within the APE (FDOT 1986; Jacks 2021; USDA 1953a, 1953b; USGS 1945, 1950) (see **Figure 5, Figure 7**).

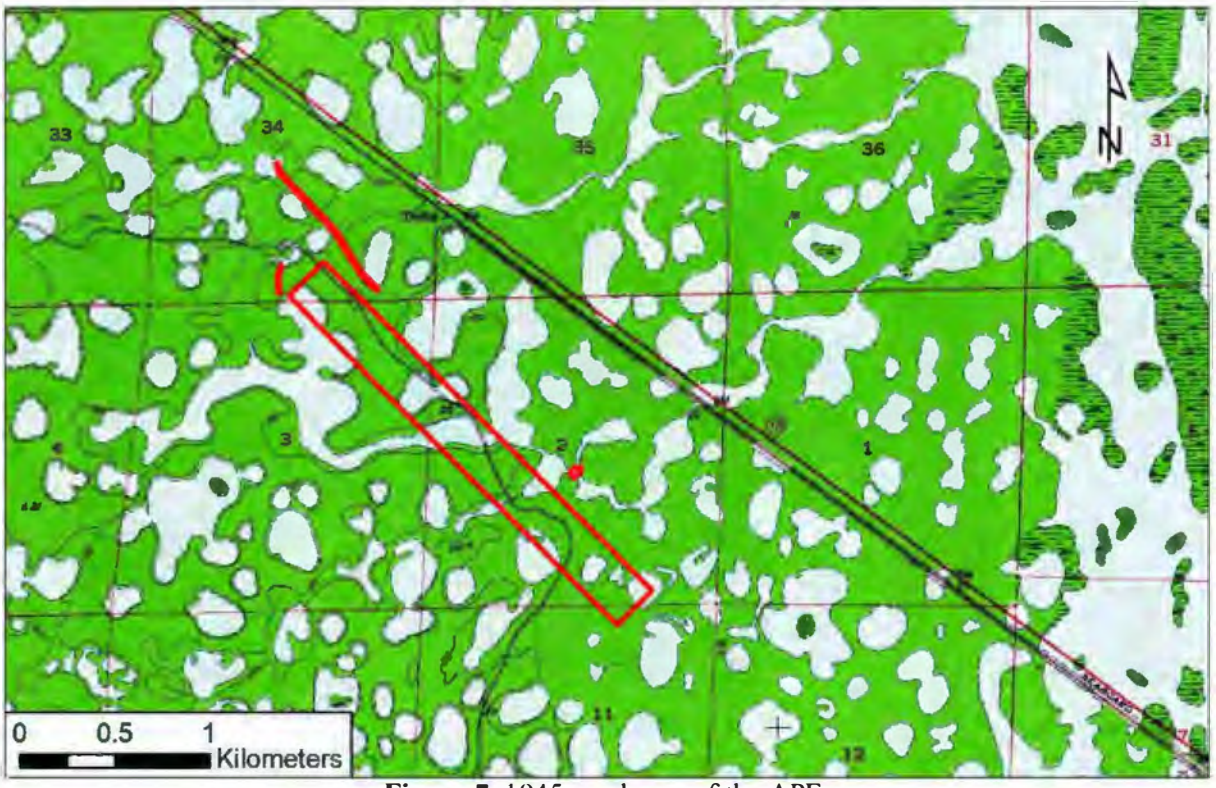


Figure 7. 1945 quad map of the APE.

Conclusions

The background research revealed no recorded archaeological sites or historic resources within the APE. Although there is a low potential for aboriginal and historic archaeological sites and a low potential for historic resources. As a result, a CRAS may not be necessary, but if required during the permitting process the fieldwork should meet the requirements of Chapters 267, 373, and 872.05, *FS*, Florida's Coastal Management Program, and implementing state regulations, for possible effects on historic properties listed, or eligible for listing, in the National Register of Historic Places (NRHP), or otherwise of historical, architectural or archaeological value, as well as the standards contained in FDHR's *Cultural Resource Management Standards and Operational Manual* (FDHR 2003); the report should also meet the specifications set forth in Chapter 1A-46, *FAC*.

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F-2: FAA - Tribal Coordination Letters

U.S. Department
of Transportation
**Federal Aviation
Administration**

Orlando Airports District Office
8427 South Park Circle, Suite 524
Orlando, FL 32819
Phone: (407) 487-7220
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July 27, 2021

[Sent via e-mail: section106@mcn-nsn.gov]

Ms. Corrain Loe-Zepeda
Tribal Historic Preservation Officer
Historic and Cultural Preservation Department
Muscogee (Creek) Nation Cultural Preservation
PO Box 580
Okmulgee, Oklahoma 74447

RE: Project Notice and Invitation for Consultation
Proposed Runway Extension and Related Improvements
North Palm Beach County General Aviation Airport (F45)
Palm Beach County, Florida

Dear Ms. Loe-Zepeda,

Palm Beach County has requested approval from the Federal Aviation Administration (FAA) to extend Runway 14-32 at the North Palm Beach County General Aviation Airport (F45). The federal actions associated with the proposed development project is an undertaking subject to the *National Historic Preservation Act* (Section 106) and its implementing regulations at 36 CFR Part 800. This letter is to inform the Muscogee (Creek) Nation of the proposed project and invite your Tribe to consult on the project.

Proposed Undertaking

The proposed development project would extend Runway 14-32 from its present length of 4,300 feet to 6,000 feet. The project's purpose is to better accommodate the needs of existing and other users that cannot use the airport or are required to use smaller aircraft when using the airport. Other related improvements include widening the runway from 60 feet to 100 feet, grading and drainage improvements, and relocating a section of the airport's entrance road. The proposed development project is depicted on the enclosed Figure 1. A more descriptive summary of the project and its individual elements is included with this letter.

Area of Potential Effect (APE)

The construction and operation of the proposed development project was reviewed to identify an APE for the evaluation of potential impacts on historic, archaeological, and cultural resources. Based on a review of the proposed project, the Direct Effects portion of the APE includes all areas where ground disturbance is expected to occur. This portion of the APE would those areas associated with runway and taxiway construction, the relocation of airport access and maintenance roads, and select removal of vegetation (e.g., trees) within the Runway Object Free Area and Runway Protection Zones. A majority of the Direct Effects portion of the APE was disturbed when the airport was

developed in the mid- to late 1980s. The Indirect Effects portion of the APE encompass an area around the runway likely to be exposed to increased noise (DNL 65 dB or higher), air emissions, light emissions, etc. The APE is depicted on Figure 2.

Historic and Archaeological Resources in the APE

NRHP Search – A review of information contained in the Florida Master Site File showed no known resources within the APE or near the airport that are listed on the National Register of Historic Places (NRHP). The nearest National Register-eligible resource is the Seaboard Airline Railroad Station (PB12917), which is located approximately 9 miles east of the airport.

Cultural Resource Assessment Desktop Analysis – Archaeological Consultants, Inc. (ACI) prepared a desktop analysis for the proposed development project. The study included the identification and description of known archaeological sites and historic resources located within or proximate to the APE[1], as well as an evaluation of potential archaeologically sensitive areas. A copy of ACI's report is enclosed with this letter.

Background research did not identify any recorded archaeological sites within or near the APE. The report states there is a low probability for aboriginal and historic archaeological site occurrence in the APE. This is due to lack of preferred soil types; the area's low, wet setting; and no evidence of remaining hammocks in the APE. The potential for unrecorded historic period archaeological sites was also assessed and found to be low. A review of property appraiser data and aerial photographs and maps showed no indication historic buildings or structures. Because there is a low potential for archaeological and historic sites, ACI recommended that a Cultural Resource Assessment Survey (CRAS) does not appear to be warranted for this project. However, it was recommended that because the proposed project includes ground disturbance activities, special conditions be in place regarding unexpected discoveries during construction.

Consultation

Based on site conditions, a review of the proposed development project, and the research conducted, the FAA's preliminary determination is the undertaking would not affect historic properties or cultural resources. However, we are interested in knowing if the Muscogee (Creek) Nation has any concerns or interests related to the proposed project and would like to enter into Section 106 consultation. We welcome your knowledge and opinion on the APE, whether additional study is needed for this undertaking, and the effects of the proposed project. FAA appreciates your review of the enclosed project information and response within 30 days of receipt of this letter. Please direct correspondence and questions to me at (407) 487-7296 or peter.m.green@faa.gov.

Sincerely,

Peter M. Green, AICP
Environmental Protection Specialist

Enclosures

[1] Subsequent to the completion of ACI's Desktop Survey, the APE was enlarged slightly for FAA's consideration of potential indirect effects (e.g., aircraft noise). The Direct Effects portion of the APE (areas subject to disturbance) remain unchanged.

From: Section106
To: Green, Peter M (FAA)
Subject: Re: Section 106 Consultation - North Palm Beach County GA Airport Runway Extension
Date: Wednesday, September 08, 2021 10:29:20 AM

Good morning Mr. Green,

Thank you for sending the correspondence regarding the proposed extension of Runway 14-32 located at the North Palm Beach County General Aviation Airport in Palm Beach County, Florida. Palm Beach County is located within the Muscogee (Creek) Nation's historic area of interest and is of importance to us. After review, the Muscogee (Creek) Nation is unaware of any Muscogee sacred sites, burial grounds, or significant cultural resources located within the immediate project area. The Muscogee Nation concurs that there should be **no effects to any known historic properties** and that work should continue as planned. However, due to the historic presence of Muscogee people in the project area, inadvertent discoveries of cultural resources, human remains and related NAGPRA items may occur, even in areas of existing or prior development. Should this occur, the Muscogee (Creek) Nation requests that all work cease and our office as well as other appropriate agencies be notified immediately. Please feel free to contact me if there are any questions or concerns.

Thank you,

Robin Soweka, Jr.
Cultural Resource Specialist, Historic and Cultural Preservation Department
The Muscogee Nation
P.O. Box 580 | Okmulgee, OK 74447
T 918.732.7726 | F 918.758.0649
rosoweka@MuscogeeNation.com
MuscogeeNation.com

From: Green, Peter M (FAA) <peter.m.green@faa.gov>
Sent: Tuesday, July 27, 2021 2:08 PM
To: Section106 <Section106@muscogeenation.com>
Subject: Section 106 Consultation - North Palm Beach County GA Airport Runway Extension

Dear Ms. Loe-Zepeda

Palm Beach County (Florida) has requested approval from the Federal Aviation Administration to extend Runway 14-32 at the North Palm Beach County General Aviation Airport (F45). The federal actions associated with the proposed development project require consultation under Section 106 of the National Historic Preservation Act. FAA appreciates your review of the project and letting us know if the Muscogee (Creek) Nation has an interest in the project area and would like to participate

in the Section 106 consultation process.

Best regards,

Peter Green

Peter M. Green, AICP
Environmental Protection Specialist
Orlando Airports District Office
Federal Aviation Administration
8427 SouthPark Circle
Orlando, Florida 32819
407-487-7296
peter.m.green@faa.gov

U.S. Department
of Transportation
**Federal Aviation
Administration**

Orlando Airports District Office
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Fax: (407) 487-7135

July 27, 2021

[Sent via e-mail: THPOCompliance@semtribe.com]

Mr. Bradley Mueller
Compliance Review Supervisor
Tribal Historic Preservation Office
Seminole Tribe of Florida
30290 Josie Billie Highway, PMB 1004
Clewiston, Florida 33440

RE: Project Notice and Invitation for Consultation
Proposed Runway Extension and Related Improvements
North Palm Beach County General Aviation Airport (F45)
Palm Beach County, Florida

Dear Mr. Mueller,

Palm Beach County has requested approval from the Federal Aviation Administration (FAA) to extend Runway 14-32 at the North Palm Beach County General Aviation Airport (F45). The federal actions associated with the proposed development project is an undertaking subject to the *National Historic Preservation Act* (Section 106) and its implementing regulations at 36 CFR Part 800. This letter is to inform the Seminole Tribe of Florida of the proposed project and invite your Tribe to consult on the project.

Proposed Undertaking

The proposed development project would extend Runway 14-32 from its present length of 4,300 feet to 6,000 feet. The project's purpose is to better accommodate the needs of existing and other users that cannot use the airport or are required to use smaller aircraft when using the airport. Other related improvements include widening the runway from 60 feet to 100 feet, grading and drainage improvements, and relocating a section of the airport's entrance road. The proposed development project is depicted on the enclosed Figure 1. A more descriptive summary of the project and its individual elements is included with this letter.

Area of Potential Effect (APE)

The construction and operation of the proposed development project was reviewed to identify an APE for the evaluation of potential impacts on historic, archaeological, and cultural resources. Based on a review of the proposed project, the Direct Effects portion of the APE includes all areas where ground disturbance is expected to occur. This portion of the APE would those areas associated with runway and taxiway construction, the relocation of airport access and maintenance roads, and select removal of vegetation (e.g., trees) within the Runway Object Free Area and Runway Protection Zones. A majority of the Direct Effects portion of the APE was disturbed when the airport was

developed in the mid- to late 1980s. The Indirect Effects portion of the APE encompass an area around the runway likely to be exposed to increased noise (DNL 65 dB or higher), air emissions, light emissions, etc. The APE is depicted on Figure 2.

Historic and Archaeological Resources in the APE

NRHP Search – A review of information contained in the Florida Master Site File showed no known resources within the APE or near the airport that are listed on the National Register of Historic Places (NRHP). The nearest National Register-eligible resource is the Seaboard Airline Railroad Station (PB12917), which is located approximately 9 miles east of the airport.

Cultural Resource Assessment Desktop Analysis – Archaeological Consultants, Inc. (ACI) prepared a desktop analysis for the proposed development project. The study included the identification and description of known archaeological sites and historic resources located within or proximate to the APE[1], as well as an evaluation of potential archaeologically sensitive areas. A copy of ACI's report is enclosed with this letter.

Background research did not identify any recorded archaeological sites within or near the APE. The report states there is a low probability for aboriginal and historic archaeological site occurrence in the APE. This is due to lack of preferred soil types; the area's low, wet setting; and no evidence of remaining hammocks in the APE. The potential for unrecorded historic period archaeological sites was also assessed and found to be low. A review of property appraiser data and aerial photographs and maps showed no indication historic buildings or structures. Because there is a low potential for archaeological and historic sites, ACI recommended that a Cultural Resource Assessment Survey (CRAS) does not appear to be warranted for this project. However, it was recommended that because the proposed project includes ground disturbance activities, special conditions be in place regarding unexpected discoveries during construction.

Consultation

Based on site conditions, a review of the proposed development project, and the research conducted, the FAA's preliminary determination is the undertaking would not affect historic properties or cultural resources. However, we are interested in knowing if the Seminole Tribe of Florida has any concerns or interests related to the proposed project and would like to enter into Section 106 consultation. We welcome your knowledge and opinion on the APE, whether additional study is needed for this undertaking, and the effects of the proposed project. FAA appreciates your review of the enclosed project information and response within 30 days of receipt of this letter. Please direct correspondence and questions to me at (407) 487-7296 or peter.m.green@faa.gov.

Sincerely,

Peter M. Green, AICP
Environmental Protection Specialist

Enclosures

[1] Subsequent to the completion of ACI's Desktop Survey, the APE was enlarged slightly for FAA's consideration of potential indirect effects (e.g., aircraft noise). The Direct Effects portion of the APE (areas subject to disturbance) remain unchanged.

U.S. Department
of Transportation
**Federal Aviation
Administration**

Orlando Airports District Office
8427 South Park Circle, Suite 524
Orlando, FL 32819
Phone: (407) 487-7220
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July 27, 2021

[Sent via e-mail: leader.bs@sno-nsn.gov]

Brigita Leader, MS
Interim Director/TCNS Coordinator
Historic Preservation Office
Seminole Nation of Oklahoma
Post Office Box 1498
Wewoka, Oklahoma 74884

RE: Project Notice and Invitation for Consultation
Proposed Runway Extension and Related Improvements
North Palm Beach County General Aviation Airport (F45)
Palm Beach County, Florida

Dear Ms. Leader,

Palm Beach County has requested approval from the Federal Aviation Administration (FAA) to extend Runway 14-32 at the North Palm Beach County General Aviation Airport (F45). The federal actions associated with the proposed development project is an undertaking subject to the *National Historic Preservation Act* (Section 106) and its implementing regulations at 36 CFR Part 800. This letter is to inform the Seminole Nation of Oklahoma of the proposed project and invite your Tribe to consult on the project.

Proposed Undertaking

The proposed development project would extend Runway 14-32 from its present length of 4,300 feet to 6,000 feet. The project's purpose is to better accommodate the needs of existing and other users that cannot use the airport or are required to use smaller aircraft when using the airport. Other related improvements include widening the runway from 60 feet to 100 feet, grading and drainage improvements, and relocating a section of the airport's entrance road. The proposed development project is depicted on the enclosed Figure 1. A more descriptive summary of the project and its individual elements is included with this letter.

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Historic and Archaeological Resources in the APE

NRHP Search – A review of information contained in the Florida Master Site File showed no known resources within the APE or near the airport that are listed on the National Register of Historic Places (NRHP). The nearest National Register-eligible resource is the Seaboard Airline Railroad Station (PB12917), which is located approximately 9 miles east of the airport.

Cultural Resource Assessment Desktop Analysis – Archaeological Consultants, Inc. (ACI) prepared a desktop analysis for the proposed development project. The study included the identification and description of known archaeological sites and historic resources located within or proximate to the APE[1], as well as an evaluation of potential archaeologically sensitive areas. A copy of ACI's report is enclosed with this letter.

Background research did not identify any recorded archaeological sites within or near the APE. The report states there is a low probability for aboriginal and historic archaeological site occurrence in the APE. This is due to lack of preferred soil types; the area's low, wet setting; and no evidence of remaining hammocks in the APE. The potential for unrecorded historic period archaeological sites was also assessed and found to be low. A review of property appraiser data and aerial photographs and maps showed no indication historic buildings or structures. Because there is a low potential for archaeological and historic sites, ACI recommended that a Cultural Resource Assessment Survey (CRAS) does not appear to be warranted for this project. However, it was recommended that because the proposed project includes ground disturbance activities, special conditions be in place regarding unexpected discoveries during construction.

Consultation

Based on site conditions, a review of the proposed development project, and the research conducted, the FAA's preliminary determination is the undertaking would not affect historic properties or cultural resources. However, we are interested in knowing if the Seminole Nation of Oklahoma has any concerns or interests related to the proposed project and would like to enter into Section 106 consultation. We welcome your knowledge and opinion on the APE, whether additional study is needed for this undertaking, and the effects of the proposed project. FAA appreciates your review of the enclosed project information and response within 30 days of receipt of this letter. Please direct correspondence and questions to me at (407) 487-7296 or peter.m.green@faa.gov.

Sincerely,

Peter M. Green, AICP
Environmental Protection Specialist

Enclosures

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U.S. Department
of Transportation
**Federal Aviation
Administration**

Orlando Airports District Office
8427 South Park Circle, Suite 524
Orlando, FL 32819
Phone: (407) 487-7220
Fax: (407) 487-7135

July 27, 2021

[Sent via e-mail: lhaikey@pci-nsn.gov]

Mr. Larry D. Haikey
PBCI Tribal Historic Preservation Officer
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, Alabama 36502

RE: Project Notice and Invitation for Consultation

Proposed Runway Extension and Related Improvements
North Palm Beach County General Aviation Airport (F45)
Palm Beach County, Florida

Dear Mr. Haikey,

Palm Beach County has requested approval from the Federal Aviation Administration (FAA) to extend Runway 14-32 at the North Palm Beach County General Aviation Airport (F45). The federal actions associated with the proposed development project is an undertaking subject to the *National Historic Preservation Act* (Section 106) and its implementing regulations at 36 CFR Part 800. This letter is to inform the Poarch Band of Creek Indians of the proposed project and invite your Tribe to consult on the project.

Proposed Undertaking

The proposed development project would extend Runway 14-32 from its present length of 4,300 feet to 6,000 feet. The project's purpose is to better accommodate the needs of existing and other users that cannot use the airport or are required to use smaller aircraft when using the airport. Other related improvements include widening the runway from 60 feet to 100 feet, grading and drainage improvements, and relocating a section of the airport's entrance road. The proposed development project is depicted on the enclosed Figure 1. A more descriptive summary of the project and its individual elements is included with this letter.

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Cultural Resource Assessment Desktop Analysis – Archaeological Consultants, Inc. (ACI) prepared a desktop analysis for the proposed development project. The study included the identification and description of known archaeological sites and historic resources located within or proximate to the APE[1], as well as an evaluation of potential archaeologically sensitive areas. A copy of ACI's report is enclosed with this letter.

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Consultation

Based on site conditions, a review of the proposed development project, and the research conducted, the FAA's preliminary determination is the undertaking would not affect historic properties or cultural resources. However, we are interested in knowing if the Poarch Band of Creek Indians has any concerns or interests related to the proposed project and would like to enter into Section 106 consultation. We welcome your knowledge and opinion on the APE, whether additional study is needed for this undertaking, and the effects of the proposed project. FAA appreciates your review of the enclosed project information and response within 30 days of receipt of this letter. Please direct correspondence and questions to me at (407) 487-7296 or peter.m.green@faa.gov.

Sincerely,

Peter M. Green, AICP
Environmental Protection Specialist

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U.S. Department
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**Federal Aviation
Administration**

Orlando Airports District Office
8427 South Park Circle, Suite 524
Orlando, FL 32819
Phone: (407) 487-7220
Fax: (407) 487-7135

July 27, 2021

[Sent via e-mail: kevind@miccosukeetribe.com]

Mr. Kevin Donaldson
Environmental Specialist
Miccosukee Tribe of Indians of Florida
Tamiami Station
Post Office Box 440021
Miami, Florida 33144

RE: Project Notice and Invitation for Consultation
Proposed Runway Extension and Related Improvements
North Palm Beach County General Aviation Airport (F45)
Palm Beach County, Florida

Dear Mr. Donaldson,

Palm Beach County has requested approval from the Federal Aviation Administration (FAA) to extend Runway 14-32 at the North Palm Beach County General Aviation Airport (F45). The federal actions associated with the proposed development project is an undertaking subject to the *National Historic Preservation Act* (Section 106) and its implementing regulations at 36 CFR Part 800. This letter is to inform the Miccosukee Tribe of Indians of Florida of the proposed project and invite your Tribe to consult on the project.

Proposed Undertaking

The proposed development project would extend Runway 14-32 from its present length of 4,300 feet to 6,000 feet. The project's purpose is to better accommodate the needs of existing and other users that cannot use the airport or are required to use smaller aircraft when using the airport. Other related improvements include widening the runway from 60 feet to 100 feet, grading and drainage improvements, and relocating a section of the airport's entrance road. The proposed development project is depicted on the enclosed Figure 1. A more descriptive summary of the project and its individual elements is included with this letter.

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NRHP Search – A review of information contained in the Florida Master Site File showed no known resources within the APE or near the airport that are listed on the National Register of Historic Places (NRHP). The nearest National Register-eligible resource is the Seaboard Airline Railroad Station (PB12917), which is located approximately 9 miles east of the airport.

Cultural Resource Assessment Desktop Analysis – Archaeological Consultants, Inc. (ACI) prepared a desktop analysis for the proposed development project. The study included the identification and description of known archaeological sites and historic resources located within or proximate to the APE[1], as well as an evaluation of potential archaeologically sensitive areas. A copy of ACI's report is enclosed with this letter.

Background research did not identify any recorded archaeological sites within or near the APE. The report states there is a low probability for aboriginal and historic archaeological site occurrence in the APE. This is due to lack of preferred soil types; the area's low, wet setting; and no evidence of remaining hammocks in the APE. The potential for unrecorded historic period archaeological sites was also assessed and found to be low. A review of property appraiser data and aerial photographs and maps showed no indication historic buildings or structures. Because there is a low potential for archaeological and historic sites, ACI recommended that a Cultural Resource Assessment Survey (CRAS) does not appear to be warranted for this project. However, it was recommended that because the proposed project includes ground disturbance activities, special conditions be in place regarding unexpected discoveries during construction.

Consultation

Based on site conditions, a review of the proposed development project, and the research conducted, the FAA's preliminary determination is the undertaking would not affect historic properties or cultural resources. However, we are interested in knowing if the Miccosukee Tribe of Indians of Florida has any concerns or interests related to the proposed project and would like to enter into Section 106 consultation. We welcome your knowledge and opinion on the APE, whether additional study is needed for this undertaking, and the effects of the proposed project. FAA appreciates your review of the enclosed project information and response within 30 days of receipt of this letter. Please direct correspondence and questions to me at (407) 487-7296 or peter.m.green@faa.gov.

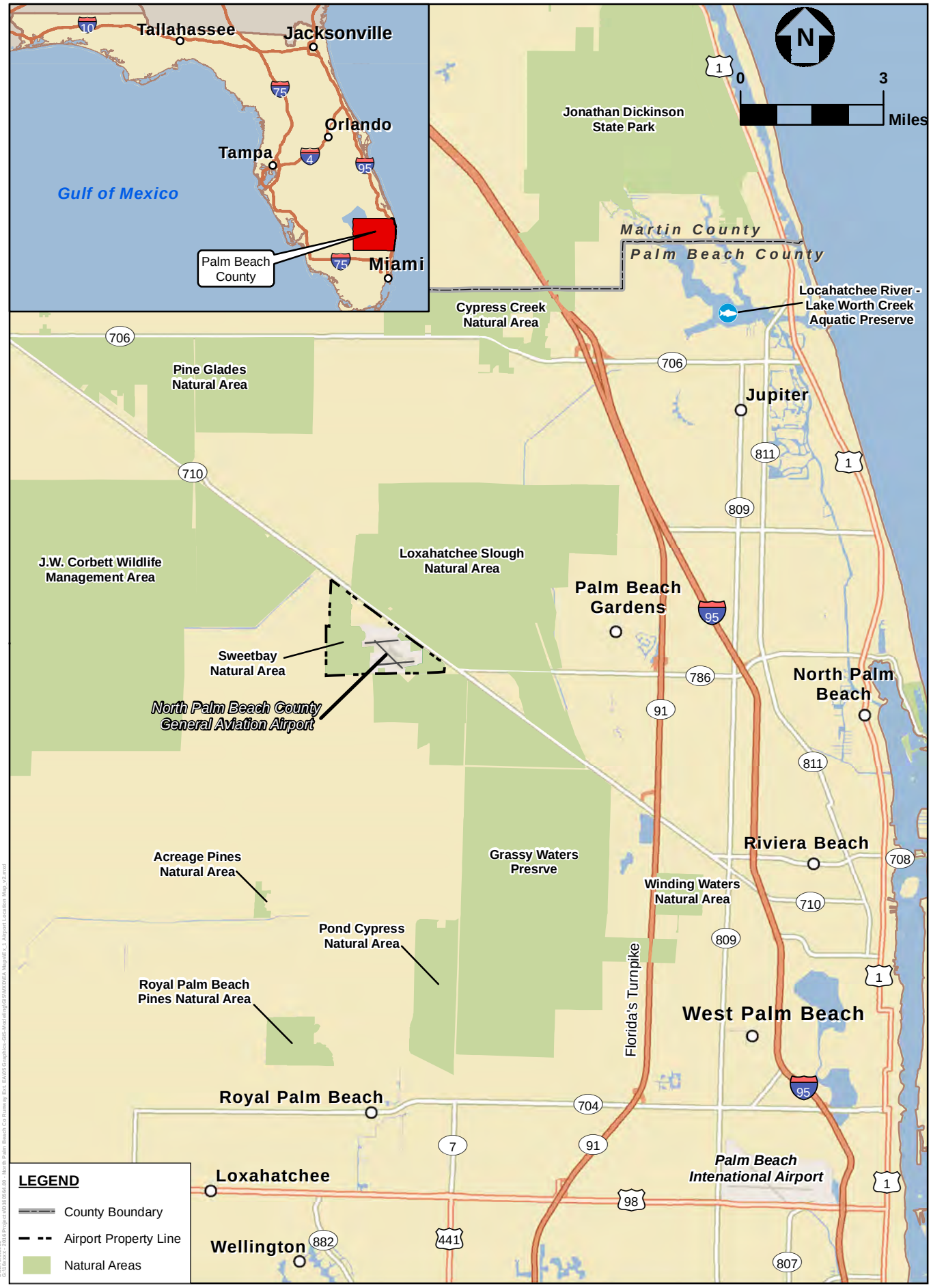
Sincerely,

Peter M. Green, AICP
Environmental Protection Specialist

Enclosures

[1] Subsequent to the completion of ACI's Desktop Survey, the APE was enlarged slightly for FAA's consideration of potential indirect effects (e.g., aircraft noise). The Direct Effects portion of the APE (areas subject to disturbance) remain unchanged.

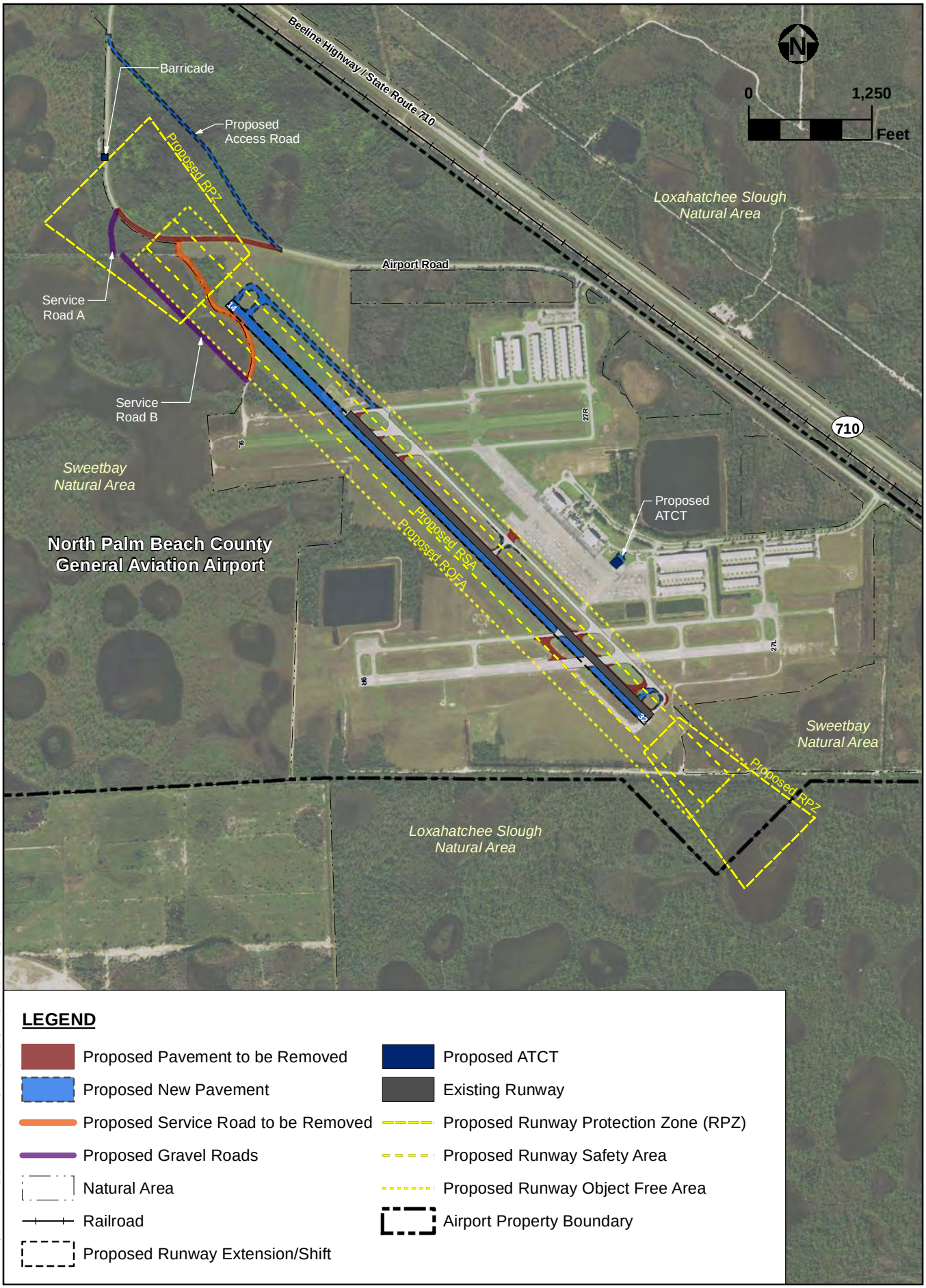
Tribal Coordination Letter Enclosures



Source: Esri; SFWMD, 2010; ESA, 2019

North Palm Beach County General Aviation Airport Runway Extension EA

AIRPORT LOCATION

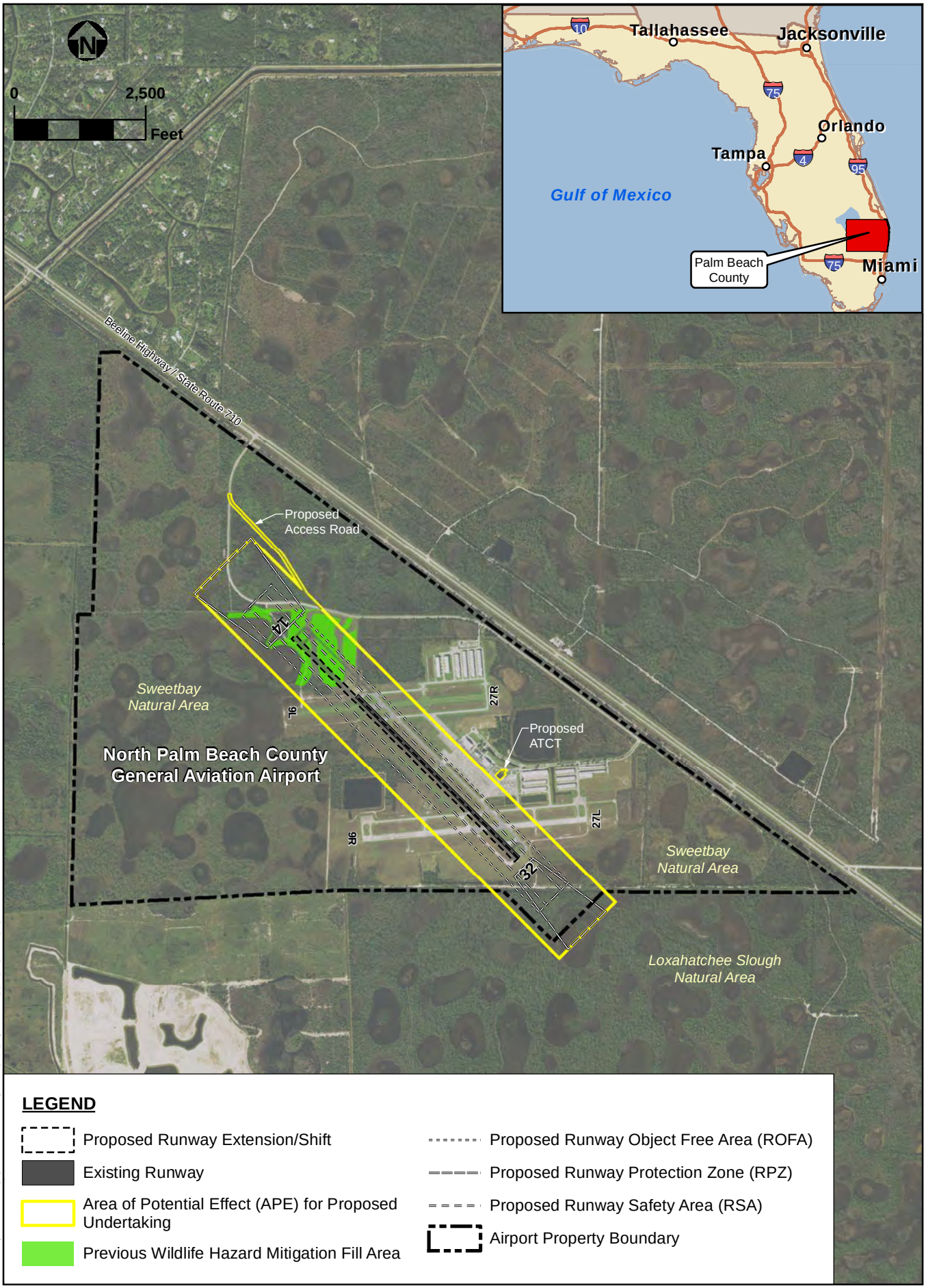


Source: US Census Bureau, 2020; USGS The National Map, 2020; ESA, 2020.

North Palm Beach County General Aviation Airport Runway Extension

FIGURE 1

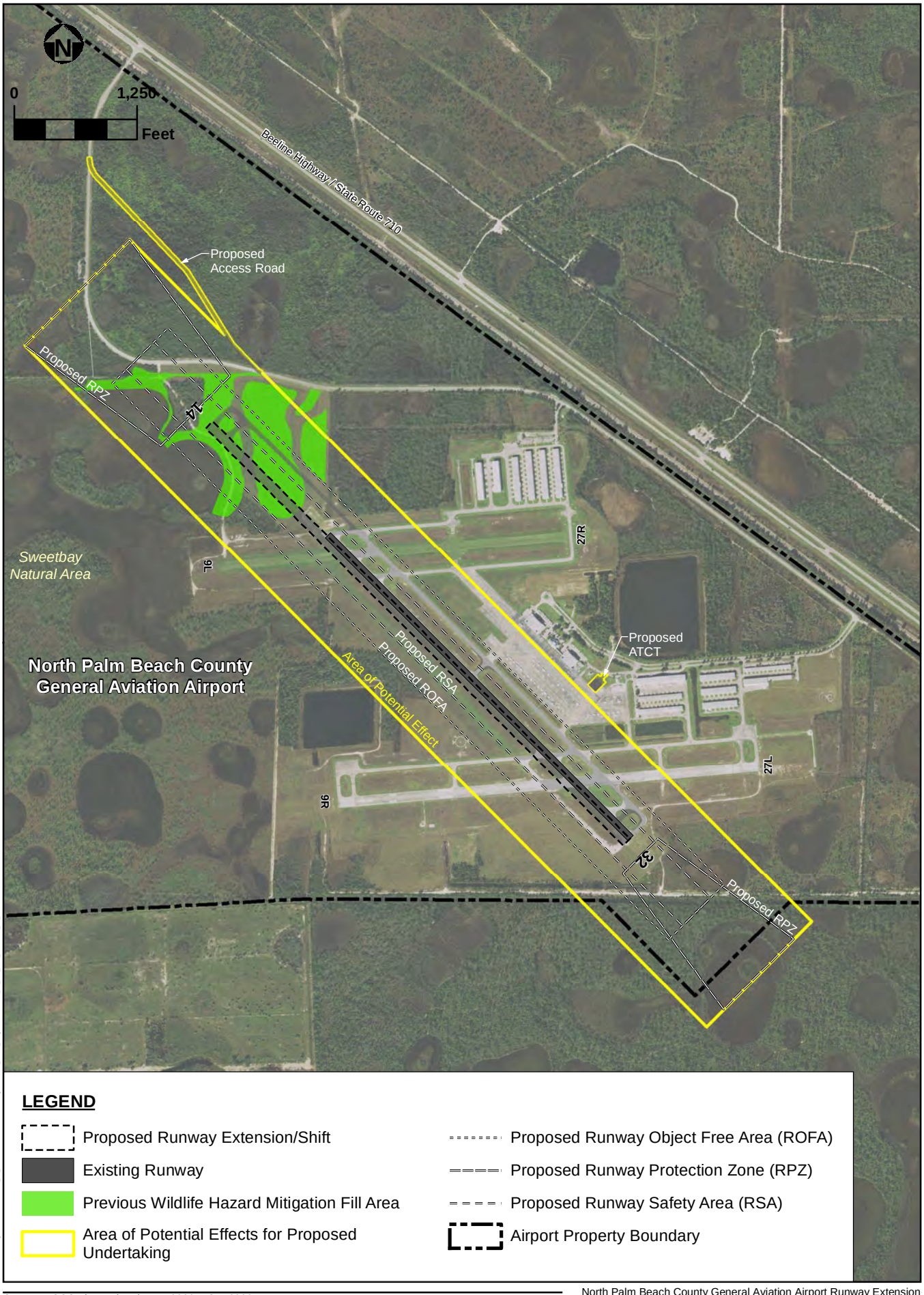
PROPOSED RUNWAY EXTENSION AT NORTH PALM BEACH COUNTY AIRPORT



Source: USGS The National Map, 2020; ESA, 2020

North Palm Beach County General Aviation Airport Runway Extension

FIGURE 2
PROPOSED AREA OF POTENTIAL EFFECTS



Source: USGS The National Map, 2020; ESA, 2020

North Palm Beach County General Aviation Airport Runway Extension

FIGURE 3

AREA OF POTENTIAL EFFECTS (ENLARGED VIEW)

CULTURAL RESOURCE ASSESSMENT
DESKTOP ANALYSIS
NORTH PALM BEACH COUNTY GENERAL AVIATION AIRPORT
RUNWAY EXTENSION AND CONNECTED ACTIONS
PALM BEACH COUNTY, FLORIDA

Prepared for:

Environmental Science Associates

Prepared by:

Archaeological Consultants, Inc.
8110 Blaikie Court, Suite A
Sarasota, Florida 34240

Project Manager – Marion Almy
Project Archaeologist – Elizabeth A. Horvath

April 2021

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Executive Summary

A desktop analysis for the North Palm Beach County General Aviation Airport Runway Extension and Connected Actions project, located in Palm Beach County, was conducted by Archaeological Consultants, Inc. (ACI) on behalf of Environmental Science Associates. This study, conducted in accordance with Section 106 of the *National Historic Preservation Act*, included the identification and description of all known archaeological sites and historic resources located within or proximate to the Area of Potential Effects (APE), as well as a discussion of potential archaeologically sensitive areas. Background research indicated that no archaeological sites have been recorded within or near the APE. There is a low probability for sites based on the environmental setting. A review of the property appraiser data suggests no potential for historic structures and the historic aerial photos and maps revealed no historic buildings or structures (FDOT 1986; State of Florida 1845d, 1846; USDA 1953a, 1953b; USGS 1945, 1950). There was also a low potential for archaeological and historic sites and a Cultural Resource Assessment Survey (CRAS) does not appear to be warranted for this project. However, if one is required as part of the permitting process, the fieldwork should meet the requirements of Chapters 267, 373 and 872.05, *Florida Statutes* (*FS*), Florida's Coastal Management Program, and implementing state regulations, for possible effects on historic properties listed, or eligible for listing, in the NRHP, or otherwise of historical, architectural or archaeological value, as well as the standards contained in Florida Division of Historical Resources' (FDHR) *Cultural Resource Management Standards and Operational Manual* (FDHR 2003). The report should also meet the specifications set forth in Chapter 1A-46, *Florida Administrative Code* (*FAC*).

Location and Environmental Setting

The APE is in Section 34 of Township 41 South, Range 41 East, and Sections 2, 3, and 11 of Township 42 South, Range 41 East (United States Geological Survey [USGS] Delta 2013) (**Figures 1 and 2**). It is located west of Beeline Highway and north of Northlake Boulevard. Much of the APE has already been cleared and leveled for airport facilities; the northwest end is pine flatwoods.

The APE has an elevation of six meters (20 feet) above mean sea level. It lies within the Eastern Valley physiographic region (White 1970). It is underlain by the shelly sediments of the Plio-Pleistocene that are surficially evidenced by shelly sand and clay (Florida Department of Environmental Protection [FDEP] 2001a, 2001b).

According to the U.S. Department of Agriculture (USDA), the APE is within the Riviera association that is made up of broad, low flatwoods and grassy sloughs interspersed with numerous grassed ponds and swampy areas. The natural vegetation is slash pine, cabbage palm, saw-palmetto, southern bayberry, inkberry, pineland threeawn, and other native grasses. Cypress, pickerelweed, St. Johnswort, corkweed, sand cordgrass, and other wetland grasses grow in the wet areas (McCollum et al. 1978). There are only three soil types within the property: Riviera fine sand, 0-2% slopes; Riviera fine sand, frequently ponded, 0-1% slopes; and Wabasso fine sand, 0-2% slopes. Their distribution is depicted on **Figure 3** (USDA 2018). The Riviera soils are nearly level, poorly drained, and occur in broad, low areas and in depressions. Wabasso sand is poorly drained and occurs in the flatwoods.

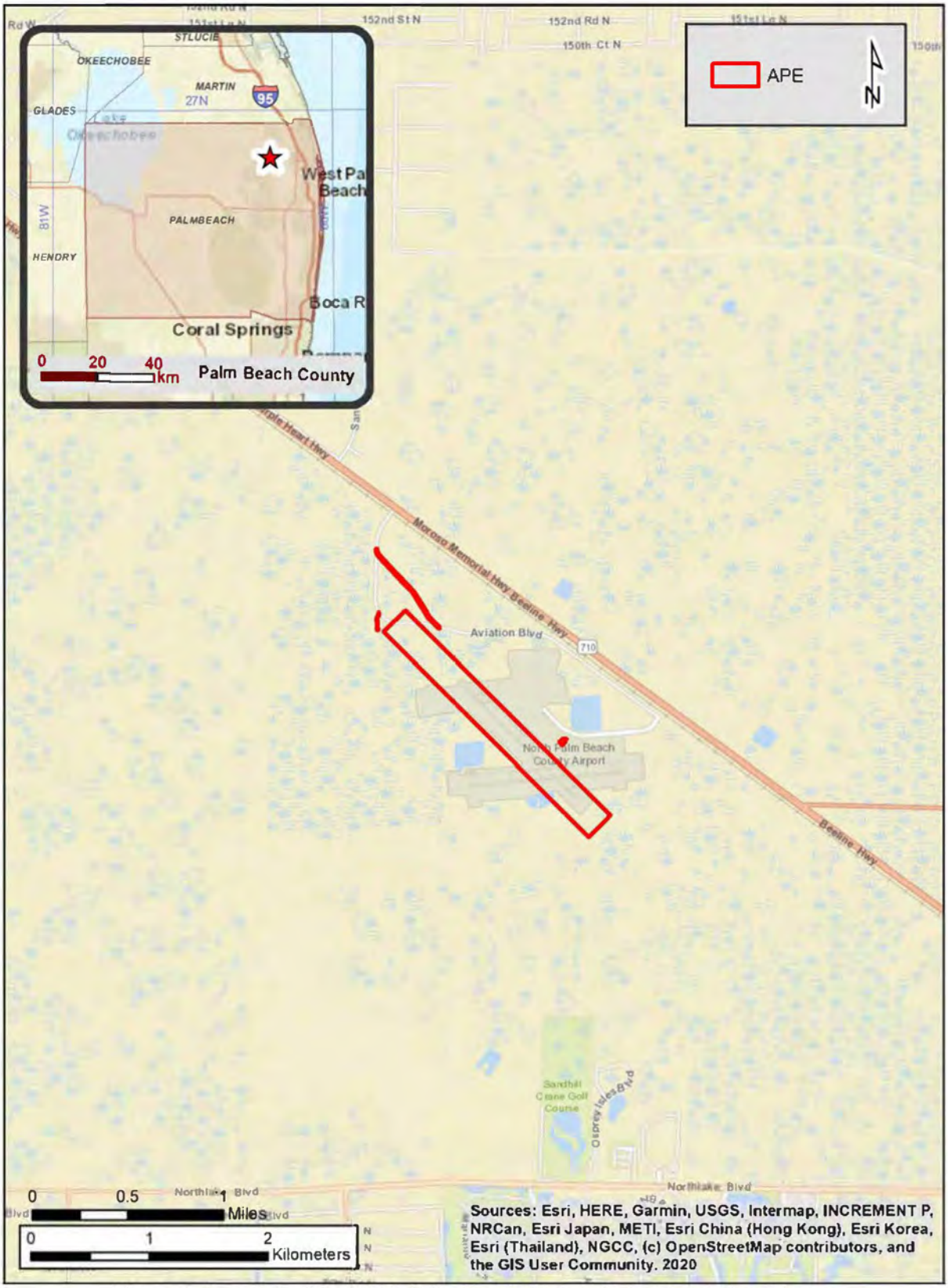


Figure 1. Location of the North Palm Beach County General Aviation Airport.

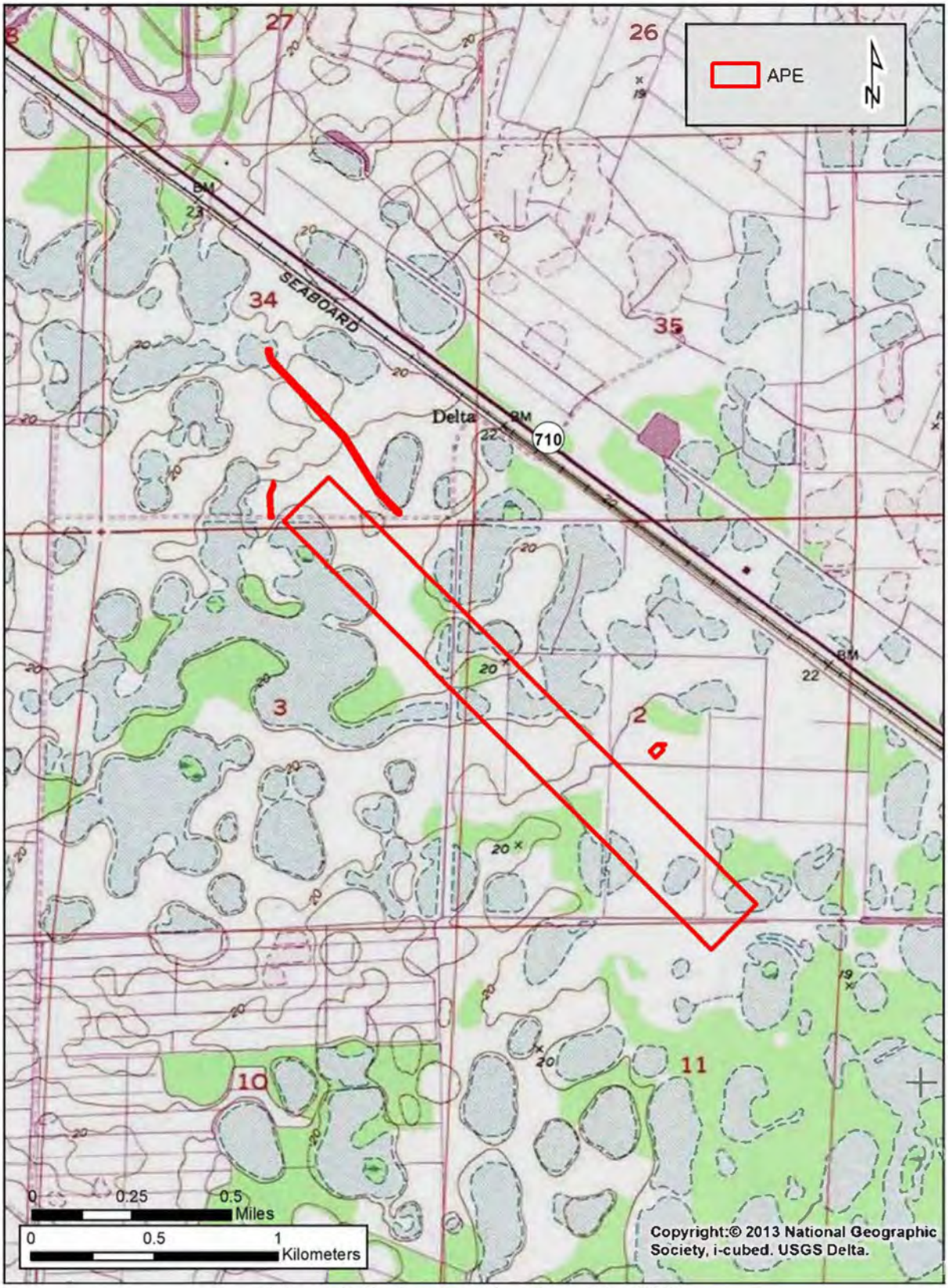


Figure 2. Environmental setting of the APE.

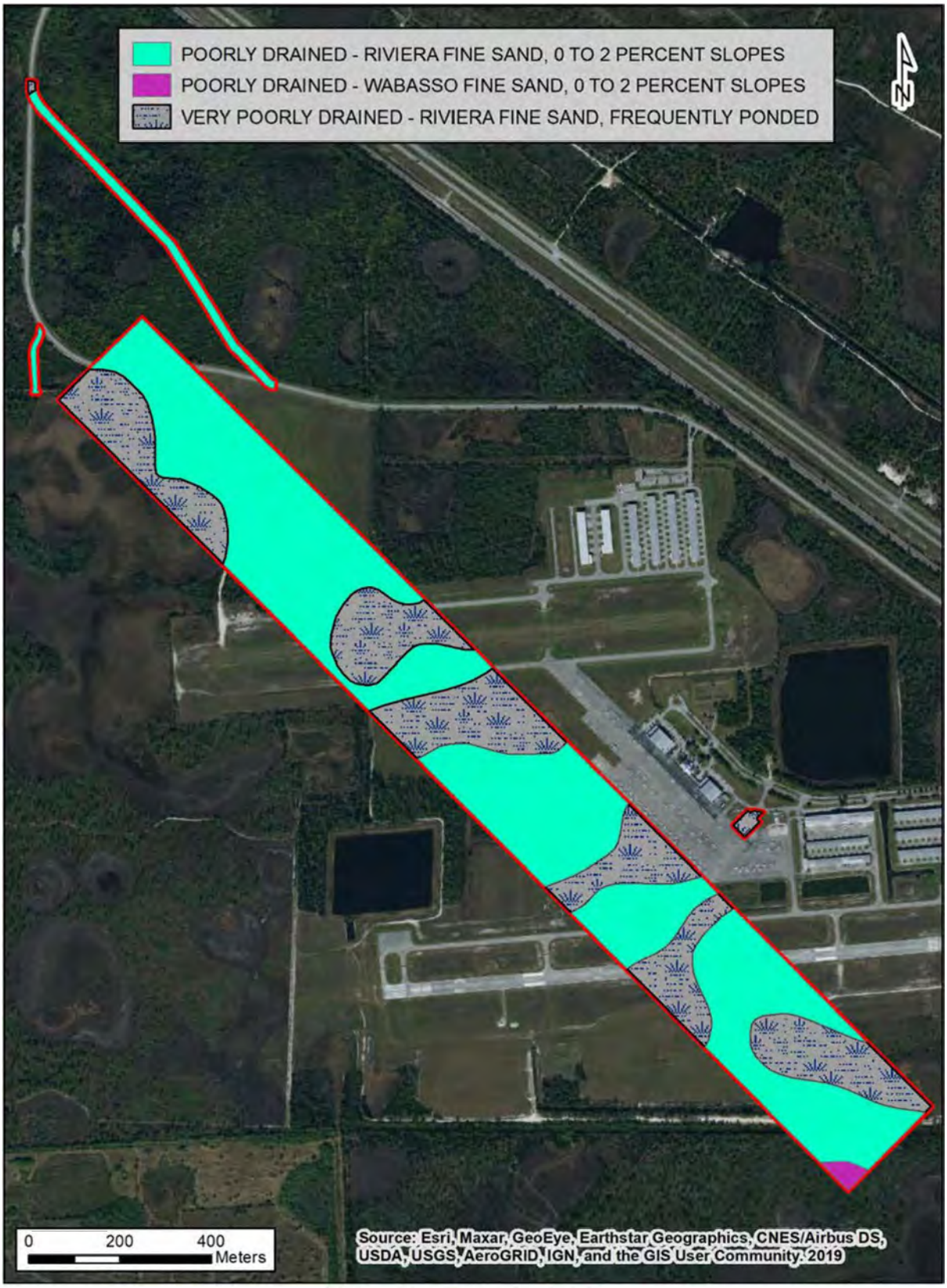


Figure 3. Soil type distribution.

The soils support different vegetative regimes, which in turn provide habitats for the local animal population, and thus provide essential food resources. However, the soils have variable suitability for openland, woodland, and wetland habitats. The habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses, and legumes, and wild herbaceous plants. The wildlife attracted to these areas include bobwhite quail, dove, sparrow hawk, meadowlark, field sparrow, cottontail, and cattle egret. Woodland wildlife habitat includes area of deciduous plants or coniferous plants or both and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include turkey, towhee, woodpeckers, owls, squirrels, gray fox, racoon, and deer. The habitat for wetland wildlife includes areas of open, marshy or swampy, shallow water areas. Wildlife in these areas include ducks, egrets, herons, kingfishers, alligators, and otters (Liudahl et al. 1998:Table 6). Riviera sand is rated fair for all habitats; Riviera, depressional is rate good for wetland habitats; Wabasso is rated fair for woodland habitats. They are rated poor or very poor for the habitats not mentioned.

Background Research and Literature Review

A review of pertinent archaeological and historical literature, records, and other documents and data pertaining to the general area was conducted. The focus of this desktop analysis was to ascertain the types of cultural resources known in the project vicinity, as well as the potential for the occurrence of yet unrecorded resources. Research included a review of sites listed in the NRHP and the Florida Master Site File (FMSF) (April 2021 GIS update); an examination the Palm Beach County Property Appraiser's data; soil survey information; plat map, field notes, and tract book records; historic aerial photos on file with the Publication of Archival Library and Museum Materials (PALMM); regional prehistories, histories, and site location predictive models; and relevant CRAS reports and manuscripts.

Archaeological and Historical Considerations

The archaeological background research indicated that no archaeological sites are located within the APE, and there are only two sites within 3.2 kilometers (2 miles) (**Figure 4**). 8PB11489 (Vavrus) is a campsite established for resource procurement (Mankowski and Longo 2005). It has been determined potentially eligible for listing in the NRHP by the State Historic Preservation Officer (SHPO). 8PB14419 (Lox Slough 1) is also listed as a procurement site that also has aboriginal ceramics. It was recorded during a reconnaissance survey of Loxahatchee Slough, although no copy of the report is available at the FMSF. **Table 3** provides a list of the CRAS projects conducted proximate to the APE.

Florida Atlantic University compiled the archaeological data within Palm Beach County and looked at the distribution of archaeological sites within different ecological systems. These systems were then divided into high, medium, and low probability areas in terms of aboriginal site location. Areas of high potential consisted of low and tropical hammocks and the coastal dune and strand areas. Moderate zones of archaeological potential consisted of pine forests, prairies, and dry marshes. The low probability areas consisted of wet prairies, swamps, marshes, ponds, and Florida scrub (Kennedy et al. 1991:5). One of the main factors in site selection was the ability of the land to produced food sources, not in terms of agricultural produce, but naturally occurring plants and animals. The sites reported south of Lake Okeechobee, in the Belle Glade area, were located in flood prone areas, but were generally proximate to a stream, and consisted of middens, mounds, and mounds with linear ridges (Kennedy et al. 1991:87). These site locations were chosen by better access to aquatic food resources. It should be noted that the settlement pattern noted below cannot be applied to sites of the Paleoindian and Early Archaic periods, which precede the onset of modern environmental conditions.

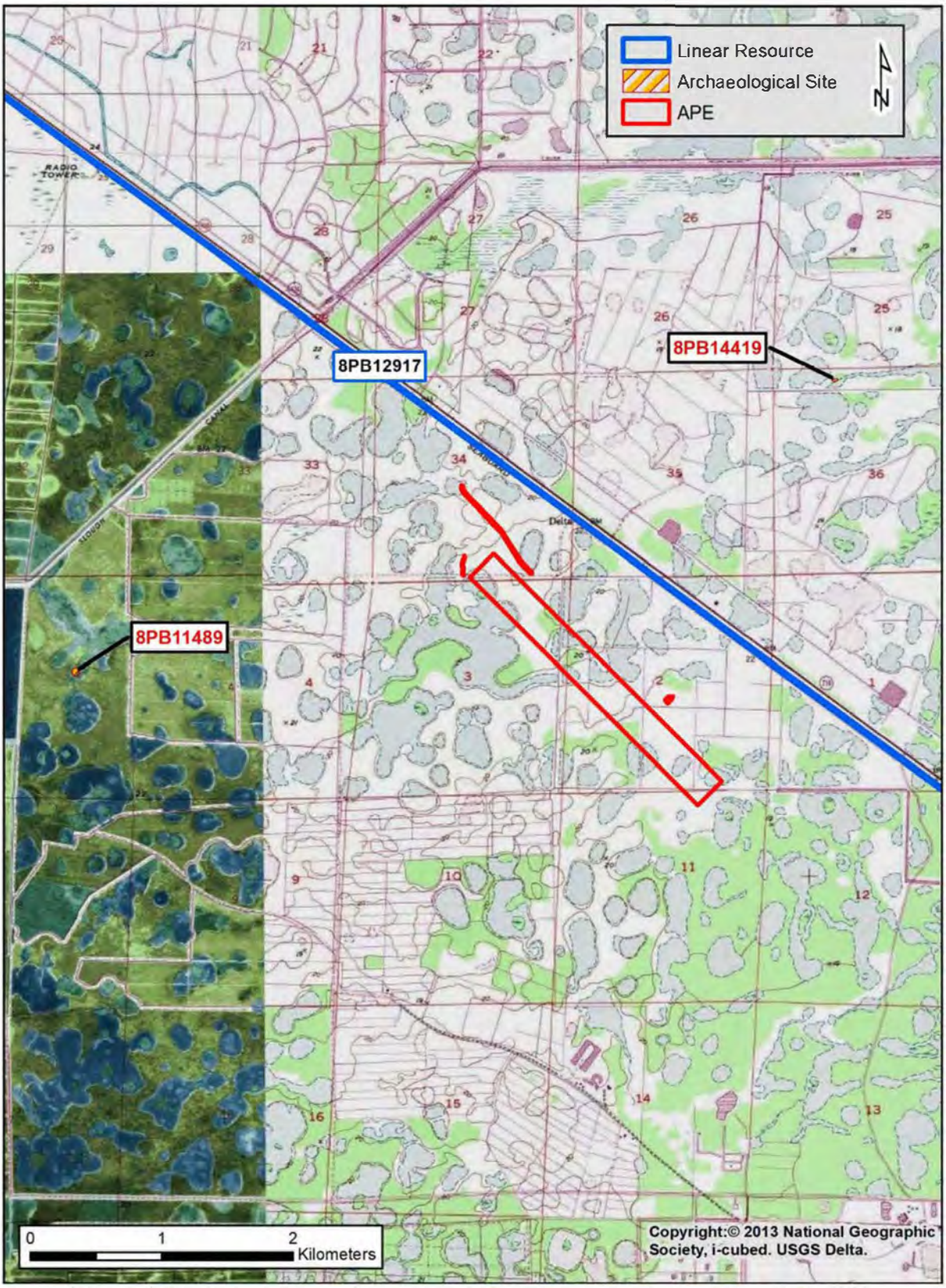


Figure 4. Location of the previously recorded cultural resources proximate to the APE.

Table 1. CRAS projects conducted proximate to the property.

REFERENCE	PROJECT	# of Newly Recorded Resources	# of Previously Recorded Resources
2807 / (Fuhrmeister and Hardin 1991)	A Cultural Resource Assessment Survey of the Proposed Crane-Bridge-Plumosus 230 KV Transmission Line Project Corridor, Palm Beach and Martin Counties, Florida	0	0
6173 / (Ambrosino and Estabrook 2000)	A Cultural Resource Assessment Survey of Eight Alternative Routes for State Road 7 from Okeechobee Boulevard (SR 704) to the Beeline Highway (SR 710) Palm Beach County, Florida	0	0
12752 / (Mankowski and Longo 2005)	A Phase I Archaeological Survey of the Vavrus North Parcel, Palm Beach County, Florida	1	0
9061 / (Labadia et al. 2003)	Phase I Cultural Resource Survey and Archaeological Inventory of the Onshore Florida Portion of the Proposed Seafarer U.S. Pipeline System Project in Palm Beach and Martin Counties, Florida	2	2
10954 / (Labadia et al. 2004)	Phase I Cultural Resources Survey and Archaeological Inventory of the Onshore Florida Portion of the Proposed Seafarer US Pipeline System Project in Palm Beach County, Florida	2	2
12730 / (Carr and Longo 2005)	A Phase I Archaeological Survey of the Vavrus South Parcel, Palm Beach County, Florida	0	0
19570 / (Janus Research 2012)	Cultural Resources Assessment Survey SR 710 (Beeline Highway) Project Development and Environment (PD&E) Study from Approximately One Mile East of SR 76 (Kanner Highway) to SR 708 (Blue Heron Blvd), in Martin and Palm Beach Counties	3	4
27198 / (Davenport and Green 2013)	Letter Report of Findings: Sandhill Crane West Restoration Project, Palm Beach County, Florida	0	0

ACI examined the site data in terms of distance to water and soil types using the April 2020 FMSF data, specifically looking at the distribution of sites withing the Easter Valley physiographic region. There are 144 sites recorded in this area with confirmed site locations and aboriginal in nature; historic sites were not included in this analysis. **Table 2** shows the distribution of the sites by water type and distance. As can been seen over 90% of the sites are within 100 m (328 ft) of a water sources, of which 55% are associated with swamps or wetlands. Creeks and sloughs account for another 27% of the sites. Over 7% are located along a river with another 7% being along the shore of Lake Worth.

Table 2. Site distribution by water type and distance.

	≤100 m (328 ft)		≤200 m (656 ft)		>200 m (656 ft)		Total	
Water type	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Creek/slough	37	25.69%	1	0.69%	1	0.69%	39	27.08%
Lake	1	0.69%		0.00%		0.00%	1	0.69%
Lake Worth	10	6.94%		0.00%		0.00%	10	6.94%
Ocean	3	2.08%		0.00%		0.00%	3	2.08%
River	10	6.94%	1	0.69%		0.00%	11	7.64%
Swamp/wetland	74	51.39%	2	1.39%	4	2.78%	80	55.56%
Total	**135**	**93.75%**	**4**	**2.78%**	**5**	**3.47%**	**144**	**100.00%**

Soil types and their drainage characteristics can also be used to assess the likelihood for aboriginal site occurrence (Almy 1978). However, it should be noted that this may not provide an accurate representation of their distribution. While we know the percentage of sites for each soil type, we do not know the percentage of each soil type that has been examined for archaeological resources. There are 43 soil types within the Eastern Valley of Palm Beach County; 33 of which have recorded archaeological sites (**Table 3**). It should be noted that many of these soil types are not suitable as site predictors, these are included in the "Other" category, which accounts for 8.3% of the area. These include varieties of made land, urban areas where soil types cannot be ascertained, and water bodies. Although water is a site predictor, one does not expect to find many sites in water, although they are known to occur. Many of the sites occurred on more than one soil type. This analysis only included the four types covering the greatest acreage for each site, which totaled 851 soil type occurrences. Column "1" indicates that this soil type had the greatest area of the site, and so on down the line, so that column "4" had the smallest site acreage. Within this study area, the poorly drained soils account for 58.7% of the area, with another 30.2% of the soils being very poorly drained. The remaining lands include 1.72% excessively drained, 0.75% moderately well drained, 0.25% somewhat poorly drained, and 0.06% well drained.

Table 3. Site distribution by drainage class and soil type.

DRAINAGE/Soil type, % slopes	% of area	Soils 1	2	3	4	Total	% of sites	difference
EXCESSIVELY DRAINED								
Palm Beach-Urban land complex, 0-8%	0.06%	2				2	0.98%	0.92%
St. Lucie-Paola-Urban land complex, 0-8%	1.66%	2	2			4	1.96%	0.30%
Total	**1.72%**	**4**	**2**	**0**	**0**	**6**	**2.94%**	**1.22%**
MODERATELY WELL DRAINED								
Pomello fine sand, 0-5%	0.75%	6				6	2.94%	2.19%
Total	**0.75%**	**6**	**0**	**0**	**0**	**6**	**2.94%**	**2.19%**
POORLY DRAINED								
Basinger fine sand, 0%-2%	4.87%		2		1	3	1.47%	-3.40%
Basinger-Urban land complex	0.78%					0	0.00%	-0.78%
Beaches	0.00%					0	0.00%	0.00%
Boca fine sand, 0%-2%	4.54%	5	2			7	3.43%	-1.11%
Hallandale fine sand, 0%-2%	1.18%	3		1		4	1.96%	0.78%
Holopaw fine sand, 0%-2%	2.25%	4				4	1.96%	-0.29%
Immokalee fine sand, 0%-2%	5.18%	10	1			11	5.39%	0.21%
Jupiter fine sand, 0%-2%	0.02%	1	1			2	0.98%	0.96%
Myakka fine sand, 0%-2%	7.11%		1	1		2	0.98%	-6.13%
Myakka-Urban land complex	0.61%					0	0.00%	-0.61%
Oldsmar sand, 0%-2%	2.29%		1			1	0.49%	-1.80%
Pineda fine sand, 0%-2%	4.04%	1	1			2	0.98%	-3.06%
Pinellas fine sand	2.23%	17	1	1		19	9.31%	7.09%
Pompano fine sand, 0%-2%	0.39%					0	0.00%	-0.39%
Riviera fine sand, 0%-2%	18.11%	25	10			35	17.16%	-0.96%
Riviera-Urban land complex	0.11%					0	0.00%	-0.11%
Wabasso fine sand	3.24%		1			1	0.49%	-2.75%
Winder fine sand, 0%-2%	1.75%	24	2	2		28	13.73%	11.97%
Total	**58.70%**	**90**	**23**	**5**	**1**	**119**	**58.33%**	**-0.37%**
SOMEWHAT POORLY DRAINED								
Canaveral-Urban land complex	0.25%	5	1			6	2.94%	2.69%
Total	**0.25%**	**5**	**1**	**0**	**0**	**6**	**2.94%**	**2.69%**

DRAINAGE/Soil type, % slopes	% of area	Soils				Total	% of sites	difference
		1	2	3	4			
VERY POORLY DRAINED								
Anclote fine sand	0.46%		2	1		3	1.47%	1.01%
Basinger and Myakka sands, depressional	3.07%	3	1	1		5	2.45%	-0.62%
Chobee fine sandy loam	0.33%		1	1		2	0.98%	0.65%
Floridana fine sand, frequently ponded (fp), 0%-1%	0.55%	3	1			4	1.96%	1.42%
Kesson mucky sand, tidal	0.10%	1	1			2	0.98%	0.88%
Okeelanta muck, drained, fp, 0%-1%	1.12%	2	2	1		5	2.45%	1.33%
Pahokee muck, drained, fp, 0%-1%	0.02%					0	0.00%	-0.02%
Riviera fine sand, fp, 0%-1%	22.87%	13	8	1		22	10.78%	-12.08%
Sanibel muck	0.23%		1	1		2	0.98%	0.75%
Tequesta muck, fp, 0%-1%	1.36%	1	1			2	0.98%	-0.38%
Terra Ceia muck, drained, fp, 0%-1%	0.07%					0	0.00%	-0.07%
Torry muck	0.01%					0	0.00%	-0.01%
Wulfert and Durbin muck, tidal	0.03%					0	0.00%	-0.03%
Total	**30.22%**	**23**	**18**	**6**	**0**	**47**	**23.04%**	-7.18%
WELL DRAINED								
Canaveral-Urban land complex	0.25%	5	1			6	2.94%	2.69%
Total	**0.25%**	**5**	**1**	**0**	**0**	**6**	**2.94%**	**2.69%**
OTHER								
Arents-Urban land complex, 0%-5%	2.60%	4				4	1.96%	-0.64%
Arents-Urban land complex, organic substratum	0.57%	2				2	0.98%	0.41%
Pits, 0%-5%	0.53%	1	1			2	0.98%	0.45%
Quartzipsamments, shaped, 0%-5%	0.77%	5	1			6	2.94%	2.17%
Udorthents, 2%-35%	0.35%					0	0.00%	-0.35%
Urban land	0.85%		1			1	0.49%	-0.36%
Water	2.62%	1				1	0.49%	-2.13%
Total	8.31%	13	3	0	0	16	7.84%	-0.46%
Grand Total	**100.00%**	**538**	**233**	**60**	**20**	**851**	**100.00%**	**0.00%**

As can been seen in the table, there is a relatively normal distribution of sites across the landscape. The more interesting differences are highlighted in red (preferred soils) or blue (less preferable). This is calculated by the percentage of sites minus the percent of area; anything with a difference of 2% or more is highlighted. The moderately well and somewhat poorly drained soils have a positive correlation with sites, but not nearly as high as some of the poorly drained soils. Winder sand has a 12% difference and Pinellas sand has a 7.1% difference. The very poorly drained soils overall have a negative correlation with sites, which is not unexpected. Specifically, the frequently ponded Riviera sand has a -12.1% difference. The other four avoided soils are Myakka (-6.1%), Basinger (-3.4%) and Pineda (-3.1%).

In addition to the soil and water factors, it has been determined that oak/palm hammocks, with a slightly higher terrain than the surrounding lands have a high potential for archaeological sites. A review of the 1953 aerial, which shows much of the APE as undeveloped, was conducted to ascertain whether such features were present. **Figure 5** shows those areas that may have been small hammocks;

these have all been destroyed during airport construction. No hammocks appear within the area proposed for new construction.

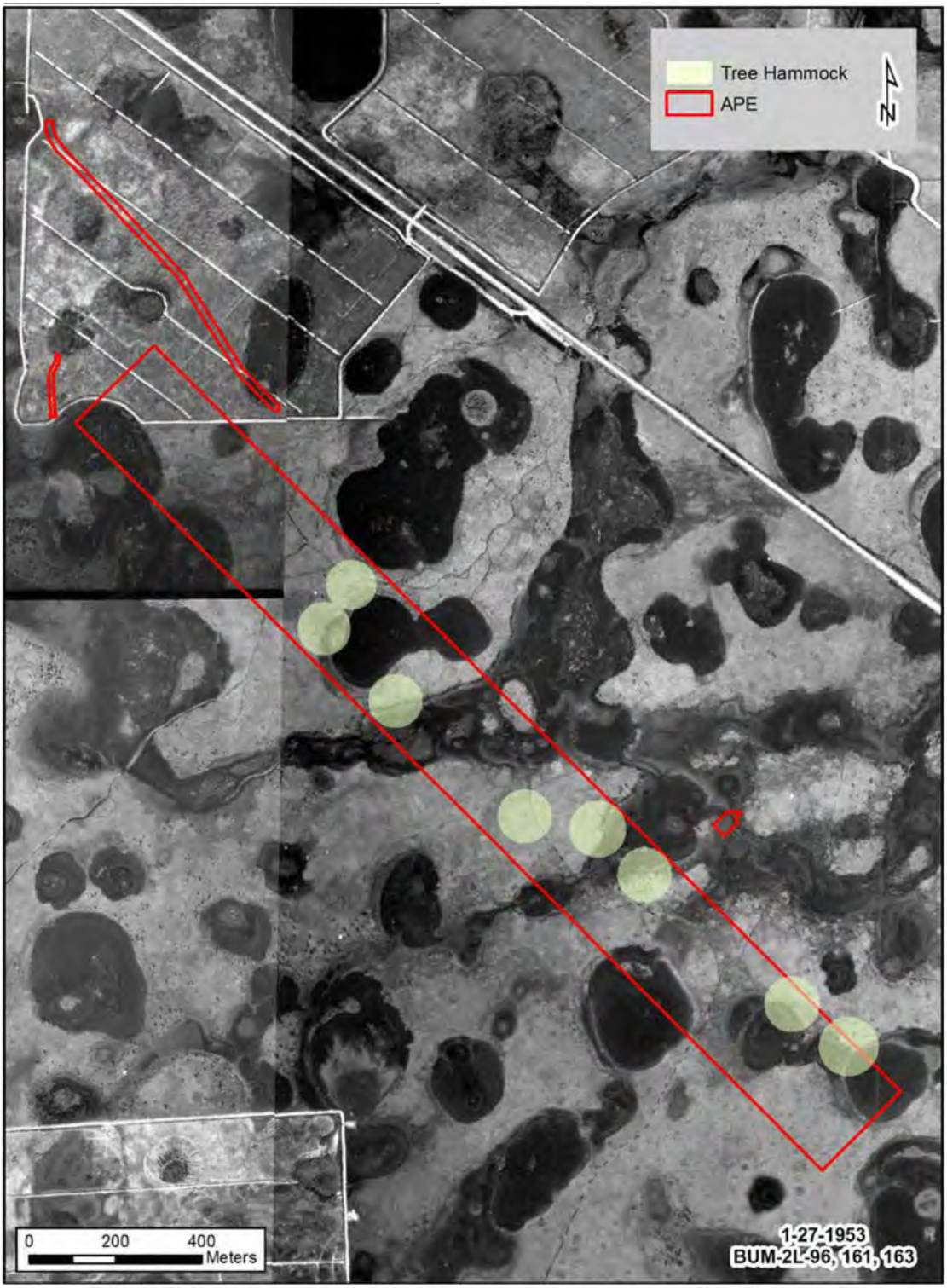


Figure 5. Location of the potential hammocks within the APE (1953 aerial).

Based on the environmental setting, the project APE was considered to have a low probability for aboriginal archaeological site occurrence. The preferred soil types are absent, and no evidence of hammocks is present. The potential for yet unrecorded historic period archaeological sites was also assessed and found to be low. The project area was initially surveyed in the 1845 by A.H. Jones and George MacKay (State of Florida 1845a, 1845b, 1845c). The plats depict no development within or near the APE (State of Florida 1845d, 1846) **(Figure 6)**. It was described as 2nd rate pine covered with sawpalmetto and interspersed with ponds and savannahs (State of Florida 1845a:547, 1845b:309-310). All of Sections 2, 3, and 11, and the east half of Section 34 were deeded to the Florida Coast Line Canal and Transportation Company in 1906; the west half of Section 34 was deeded to the Jacksonville, Tampa, and Key West Railway Company in 1881 (State of Florida n.d.:191-192). It is unlikely that either of these companies did anything with these tracts.

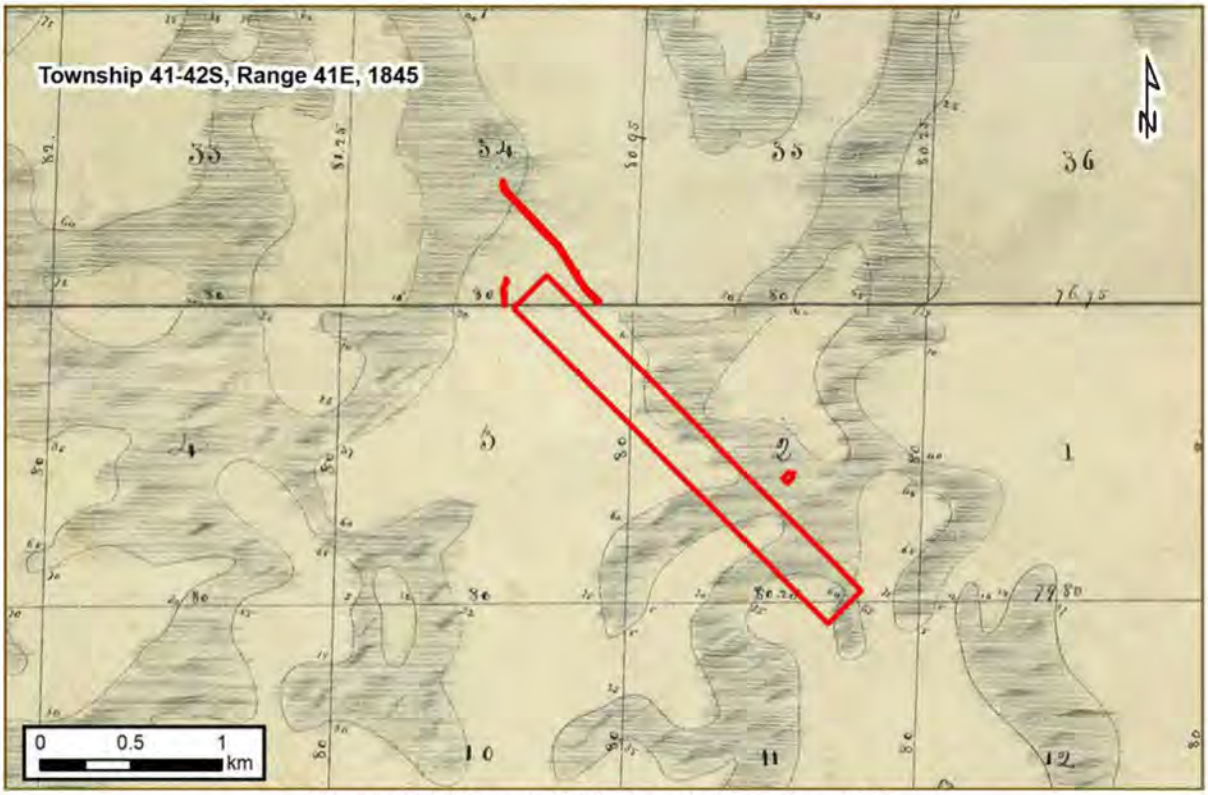


Figure 6. 1845 and 1846 plats of the project APE.

A review of the historic aerial photos available from the PALMM indicated that in 1953, the northwest portion of the APE appears to have been cleared for row crops or possible pines. No development of the remainder of the APE occurred until the construction of the airport. Although several dirt trails crossed the APE as of 1986 (FDOT 1986; USDA 1953a, 1953b).

Background research indicated that no recorded historic (50 years of age or more) resources (buildings, structures, cemeteries, bridges) are located within or adjacent to the APE. The Seaboard Air Line Railroad corridor (8PB12917) is located northwest of the APE. Although it has been determined eligible for listing in the NRHP, the proposed undertaking will have no direct or indirect affects to qualities that have been used to determine its significance. A review of the historic aerial photos available from the PALMM, historic quad maps, and the Palm Beach County property appraiser's data suggests no potential for historic resources within the APE (FDOT 1986; Jacks 2021; USDA 1953a, 1953b; USGS 1945, 1950) (see **Figure 5, Figure 7**).

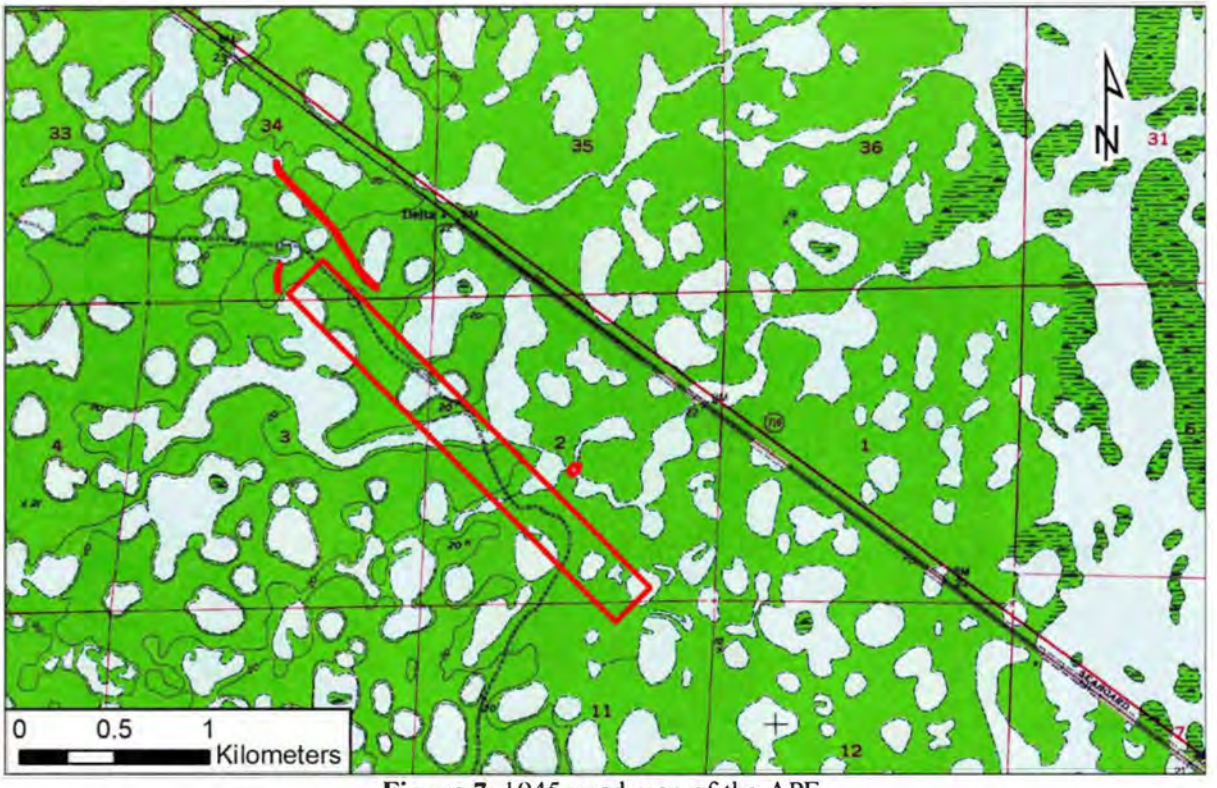


Figure 7. 1945 quad map of the APE.

Conclusions

The background research revealed no recorded archaeological sites or historic resources within the APE. Although there is a low potential for aboriginal and historic archaeological sites and a low potential for historic resources. As a result, a CRAS may not be necessary, but if required during the permitting process the fieldwork should meet the requirements of Chapters 267, 373, and 872.05, *FS*, Florida's Coastal Management Program, and implementing state regulations, for possible effects on historic properties listed, or eligible for listing, in the National Register of Historic Places (NRHP), or otherwise of historical, architectural or archaeological value, as well as the standards contained in FDHR's *Cultural Resource Management Standards and Operational Manual* (FDHR 2003); the report should also meet the specifications set forth in Chapter 1A-46, *FAC*.

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