

EW Consultants, Inc.
Natural Resource Management, Wetland, and Environmental Permitting Services



VILLAGE AT MIDWAY

Environmental Assessment

Prepared For:
Walton Development and Management

Prepared By:
EW Consultants, Inc.

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I. INTRODUCTION -

This Environmental Assessment documents and summarizes the various natural resources present on a piece of land referred to as The Village at Midway within the City of Fort Pierce, St. Lucie County, Florida. The project site, as shown on Figure 1 in Appendix A, is 516.3± acres, and is located south of and adjacent to the Ten-Mile Creek Stormwater Treatment Area, west of and adjacent to I-95, and north of (with the western portion adjacent to) Midway Road. Figure 2 in Appendix A is a 2014 aerial photo of the subject property and immediate surroundings.

II. GENERAL PROPERTY DESCRIPTION –

The property is comprised of two distinct areas; native upland and wetland habitats and pasture land east of the North St. Lucie Water Control District's (NSLWCD) Canal Number 93, and abandoned citrus groves west of the Canal Number 93. Electrical transmission lines run west-to-east on both pieces, as well as northwest-to-southeast on the piece of land east of the canal. While the western piece is abandoned groves with associated ponds and ditches, the eastern portion of the project site remains in native upland and wetland habitats, as well as improved pasture which is currently active. Detailed discussions of land cover types are described in subsequent sections of this report.

Surrounding land uses include the Corps of Engineers'/SFWMD Ten-Mile Creek Stormwater Treatment Area to the north, I -95 to the east, improved pasture and Midway Road to the south, and nursery and remnant citrus groves to the west.

III. SOIL TYPES –

A Soils Report produced by the United States Department of Agriculture/Natural Resources Conservation Service is provided in Appendix B of this report. The soils report identifies mainly sand-based and poorly drained soils throughout the project site.

IV. EXISTING LAND COVER TYPES –

Figure 3 in Appendix A provides an aerial view and nomenclature for the various types of land covers/FLUCCS which currently exist on-site.

The land cover types found on the project include:

Upland Inventory

211 Improved Pasture – ±90.3 Ac.

The southern and eastern portions of the project site consist of improved pasture, which is currently being used for cattle and horse grazing. The livestock is roaming free throughout a majority of the site and, as a result, the property shows signs of impact such as numerous trails. Some areas in the eastern portion of the property include composting piles consisting of discarded citrus. Vegetation consists primarily of pasture grasses. This category includes ditches associated with the agricultural practice.

211/832 Improved Pasture/Electrical Transmission Lines – ±2.6 Ac.

The eastern piece of land contains an east-west and northwest-southeast alignment of electrical power transmission lines. The underlying land use is improved pasture with similar characteristics to 211 described above.

224 Abandoned Groves – ±108.4 Ac.

The western parcel, west of Canal Number 93, consists largely of abandoned groves that have become overgrown with exotic plant species such as Brazilian pepper, as well as native species such as laurel oak and cabbage palm. No active management is apparent.

224/832 Abandoned Groves/Electrical Transmission Lines – ±15.4 Ac.

The western piece of land contains an east-west alignment of electrical power transmission lines. The underlying land use is abandoned groves with similar characteristics to 224 described above.

411 Pine Flatwoods – ±119.7 Ac.

This is a sub-category of the FLUCCS Upland Forests classification and includes areas where the tree canopy is dominated by slash pine (*Pinus elliottii*). The soil is typically poorly to moderately well-drained with occasional organic layers associated with the primarily sandy layers. The native areas of pine flatwoods are generally found in the northern half of the property, with scattered areas in the southern and southeastern portions of the site. While this area is in fairly good ecological condition and shows little signs of stress or invasive vegetation, the grazing and anthropogenic

activities have impacted the area somewhat. Slash pine (*Pinus elliottii* var. *densa*), saw palmetto (*Serenoa repens*), and gallberry (*Ilex glabra*) are the dominant plants species within this land cover category.

422 Brazilian Pepper – ±3.6 Ac.

Thickets of the exotic Brazilian pepper tree exist along I-95 in the eastern portion of the site. These trees typically dominate a landscape preventing desirable native plant species from establishing.

437 Australian Pine – ±1.1 Ac.

Tall stands of the exotic Australian pine tree exists in the north-central and northwestern portions of the site. These trees typically dominate a landscape preventing desirable native plant species from establishing.

740 Disturbed Land – ±15.4 Ac.

The area surrounding the large off-site barrow pit is comprised of disturbed land. The area includes scattered native trees such as slash pines and laurel oaks, along with Brazilian pepper.

740/832 Disturbed Lands/Electrical Transmission Lines – ±0.4 Ac.

Just northwest of the large off-site barrow pit exists this land cover type. The underlying land use is disturbed lands with similar characteristics to 740 described above.

Other Surface Waters

524 Lakes Less than Ten Acres – ±2.5 Ac.

Two man-made lakes occur within the western piece of land that were likely used as part of the remnant citrus operation. One small pond exists in the south-central portion of the eastern piece. All are in fair to poor ecological condition due to the long-term agricultural impacts.

Wetland Inventory

617 Mixed Wetland Hardwoods – ±0.4 Ac.

A wetland located near the site's northeastern corner of property is somewhat degraded. Vegetation present includes Carolina willow (*Salix caroliniana*), Brazilian pepper (*Schinus terebinthifolius*), Primrose willow (*Ludwigia peruviana*), torpedo grass (*Panicum repens*), pickerelweed (*Pontederia cordata*), duck potato (*Sagittaria graminea*), swamp fern (*Blechnum serrulatum*), and water hyssops (*Bacopa* spp.).

625 Hydric Pine Flatwoods – ±115.8 Ac.

The northern half of the property is dominated by an ecosystem containing wetlands, hydric pine flatwoods, and pine flatwoods. This ecosystem is in good condition, but has been impacted by anthropogenic impacts, including historic logging, understory vegetation removal, and frequent off-road vehicle traffic. Within the hydric pine flatwoods habitat, the canopy consists of slash pines (*Pinus elliotti*) with an understory of gallberry (*Ilex glabra*), milkworts (*Polygala rugelii*), yellow-eyed grass (*Xyris* spp.), beakrush (*Rhynchospora* spp.), hat pins (*Eriocaulon* spp.), bog buttons (*Eriocaulon* spp.), bluestem grasses (*Andropogon* spp.), flat sedges (*Cyperus* spp.), wax myrtle (*Myrica cerifera*), and saw palmetto (*Serenoa repens*).

625/832 Hydric Pine Flatwoods/Electrical Transmission Lines – ±0.2 Ac.

The northeastern corner of the eastern piece of land contains this land cover type. The underlying land use is hydric pine flatwoods with similar characteristics to 625 described above.

641 Freshwater Marsh – ±21.1 Ac.

This is a sub-category of the FLUCCS wetlands classification and includes long-hydroperiod aquatic vegetation generally associated with depressional wetlands. These wetlands may contain water throughout the year and provide resident wildlife with water as well as foraging and nesting opportunities. The marsh wetlands primarily occur within the hydric pine flatwoods and pasture areas and are generally in fair-to-good condition. The vegetation in these marshes predominantly includes the following species as well as others that may not be specifically noted: wax myrtle (*Myrica cerifera*), chestnut sedge (*Fimbristylis spadicea*), seedbox (*Ludwigia alternifolia*), chalky bluestem (*Andropogon virginicus* var. *glaucus*), St. John's wort (*Hypericum brachyphyllum*), pickerelweed (*Pontederia cordata*), bladderwort (*Utricularia* spp.), maidencane (*Panicum hemitomon*), blue maidencane (*Amphicarpum muhlenbergianum*), Tracy's beakrush (*Rhynchospora tracy*), redroot (*Lachnanthes caroliana*), spatterdock (*Nuphar* spp.), corkwood (*Stillingia aquatica*), and duck potato (*Sagittaria graminea*).

643 Wet Prairie – ±15.4 Ac.

This is a sub-category of the FLUCCS wetlands classification and includes short-hydroperiod aquatic vegetation generally associated with shallow depressional wetlands. Wet prairies usually hold several inches to a foot or more of water during the wet season, but may dry out completely (water table recedes below ground surface) for a majority of the year. The wet prairies on-site occur within the improved pastures and pine flatwood areas. Their ecological condition ranges from very poor (due to agricultural influences) to very good where surrounded by pine flatwoods or hydric pine flatwoods. Some of the plant species observed on the subject property that are typical within this classification include Tracy's beakrush (*Rhynchospora tracyi*), redroot (*Lachnanthes caroliniana*), yellow-eyed grass (*Xyris* spp.), pickerelweed (*Pontederia cordata*), Wax Myrtle (*Myrica cerifera*), St. John's Wort (*Hypericum cistifolium*), water hyssops (*Bacopa* spp.), primrose willow (*Ludwigia peruviana*), panic grass (*Panicum* spp.), Juncus rush (*Juncus* spp.), and blue maidencane (*Amphicarpum muhlenbergianum*).

643/832 Abandoned Groves/Electrical Transmission Lines – ±3.3 Ac.

The northwest-to-southeast transmission line alignment contains wetland areas. The underlying land use is wet prairie with similar characteristics to 643 described above.

V. PRESERVE AREA AND WETLAND IMPACT/MITIGATION –

The limits of the wetland areas are based on SFWMD (South Florida Water Management District) Environmental Resource Permit (ERP) No. 56-02538-P for the Provinces DRI. This active ERP provides for the preservation, impact, and subsequent mitigation of wetland areas on-site. Mitigation for proposed impacts to on-site wetlands have been addressed with the SFWMD through the preservation of 136.4 acres of land located in the northern portion of the property. This preservation area consists of a mosaic of upland pine flatwoods, hydric pine flatwoods, wet prairies and freshwater marshes. This preserve area will be placed in conservation easement in favor of the SFWMD, which provides for the perpetual management of the preserve area.

VI. WILDLIFE AND LISTED SPECIES EVALUATION

The data and field observations indicate that the property hosts a variety of wildlife species. The table below lists the species that were directly observed, photographed, or evidence of their presence was noted through indirect means, such as scat or prints. In general, the southern half of the property is dominated by active pastures that host both cattle and horses. The cattle and horses have free reign over the entire property and, as such, the whole site exhibits impacts to a greater or lesser degree, with the greatest impact in the southern portion. I-95's constant noise is

noticeable, and presumably disruptive, throughout the eastern portion of the property. The pine flatwoods host a number of hunting stations and the well-established paths indicating that trucks or similar vehicles go through the flatwoods on a regular basis. Given the anthropogenic disturbances, the site does not provide the habitat suitable to host a large number of listed species.

Common Name	Scientific Name	On-Site Locations	Legal Status	Occurrence
Raccoon	<i>Procyon lotor</i>	Throughout site	Not listed	Indirectly observed
Hog	<i>Sus scrofa</i>	Throughout site	Not listed	Indirectly observed
Coyote	<i>Canis latrans</i>	Eastern portion of site	Not listed	Indirectly observed
Black Racer	<i>Coluber constrictor</i>	Throughout site	Not listed	Directly observed
Double-Breasted Cormorant	<i>Phalacrocorax auritus</i>	Lake	Not listed	Directly observed
Florida Sandhill Crane	<i>Grus canadensis pratensis</i>	In/around wetlands and lake	State – Threatened	Directly observed
Great Egret	<i>Ardea alba</i>	In/around wetlands and lake	Not listed	Directly observed
White Ibis	<i>Eudocimus albus</i>	Near lake	Species of Special Concern – State	Directly observed
Cattle Egret	<i>Bubulcus ibis</i>	In/around ditches and in open pasture areas	Not listed	Directly observed
Mourning Dove	<i>Zenaidura macroura</i>	Throughout site	Not listed	Directly observed
Northern Mockingbird	<i>Mimus polyglottus</i>	Throughout site	Not listed	Directly observed
Brown Thrasher	<i>Toxostoma rufum</i>	Pine flatwoods	Not listed	Directly observed
Northern Cardinal	<i>Cardinalis cardinalis</i>	Pine flatwoods	Not listed	Directly observed
Blue Jay	<i>Cyanocitta cristata</i>	Throughout site	Not listed	Directly observed
Yellowthroat	<i>Geothlypis trichas</i>	Pine flatwoods	Not listed	Directly observed
Red-Tailed Hawk	<i>Buteo jamaicensis</i>	Throughout site	Not listed	Directly observed
Black Vulture	<i>Coragyps atratus</i>	Throughout site	Not listed	Directly observed
Turkey Vulture	<i>Cathartes aura</i>	Throughout site	Not listed	Directly observed
Gopher Tortoise	<i>Gopherus polyphemus</i>	Pine flatwoods, disturbed lands	Threatened – State	Directly observed

While their presence was not detected either directly or indirectly, a number of other species may occur due to the site's habitats. In particular, the pine flatwoods, ditches, and wetlands may provide habitat for a number of listed species, which are outlined in the below table.

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Common Name	Latin Name	Likely Location	Legal Status	Occurrence
Roseate Spoonbill	<i>Ajaia ajaja</i>	In/around wetlands and lake	Species of Special Concern – State	Not directly observed, but suitable habitat is present
Snowy Egret	<i>Egretta thula</i>	In/around wetlands and lake	Species of Special Concern – State	Not directly observed, but suitable habitat is present
Reddish Egret	<i>Egretta rufescens</i>	In/around wetlands and lake	Species of Special Concern – State	Not directly observed, but suitable habitat is present
Little Blue Heron	<i>Egretta caerulea</i>	In/around wetlands and lake	Species of Special Concern – State	Not directly observed, but suitable habitat is present
Tricolored Heron	<i>Egretta tricolor</i>	In/around wetlands and lake	Species of Special Concern – State	Not directly observed, but suitable habitat is present
Southeastern American Kestrel	<i>Falco sparverius paulus</i>	In/around open areas	Threatened – State	Not directly observed, but suitable habitat is present
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	In pine flatwoods; gopher tortoise commensal	Threatened – State and Federal	Not directly observed, but suitable habitat is present
Gopher Frog	<i>Rana capito</i>	In pine flatwoods; gopher tortoise commensal	Species of Special Concern – State	Not directly observed, but suitable habitat is present
American Alligator	<i>Alligator mississippiensis</i>	In ditches and lakes	State – Species of Special Concern, Federal – Threatened	Not directly observed, but suitable habitat is present

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A majority of the listed species observed on-site were foraging within the waterbodies, wetlands, and citrus composting piles. However, species observed and/or likely to occur demonstrate a propensity to take advantage of the forage opportunities in areas of relatively high human alteration and activity and are therefore able to adapt to any potential impacts the result from the proposed project.

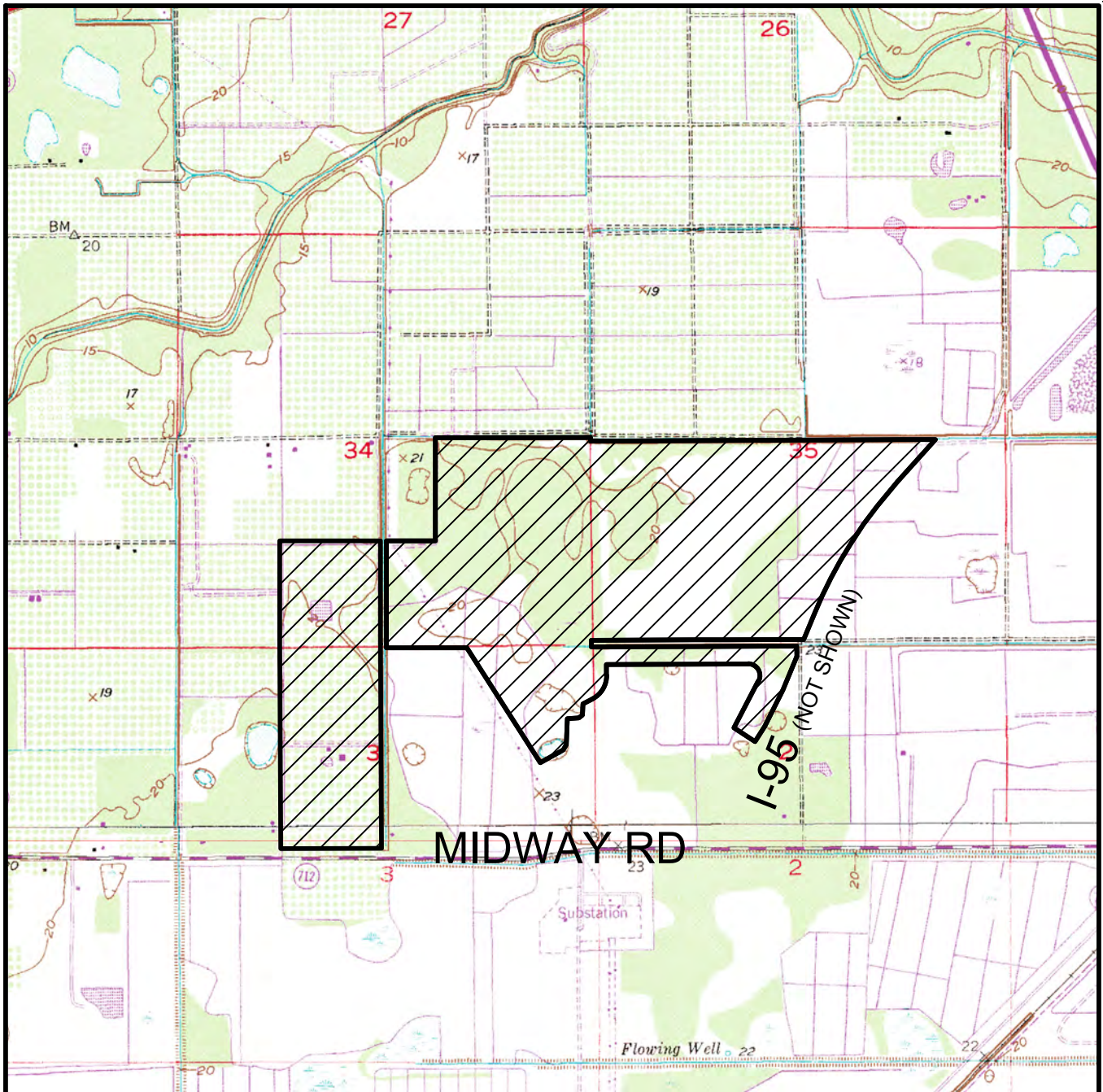
The Florida Fish and Wildlife Conservation Commission waterbird colony locator and bald eagle nest databases have no records of nests occurring on the subject property (please see Figure 4 in Appendix A). However, the site is within core foraging area for the protected wood stork, which is typically recognized as being 18.6 miles from their rookery sites.

APPENDIX A

Figure 1: Location Map

Figure 2: Aerial photograph

Figure 3: FLUCCS Map



USGS QUAD MAP "FORT PIERCE NW" SECTIONS 34 & 35, TOWNSHIP 35 SOUTH, RANGE 39 EAST, SECTIONS 2 & 3, TOWNSHIP 36 SOUTH, RANGE 39 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA, LATITUDE 27°23'04" LONGITUDE -80°24'55"

LEGEND

 - SITE (516.3± AC)

VILLAGE AT MIDWAY

LOCATION MAP

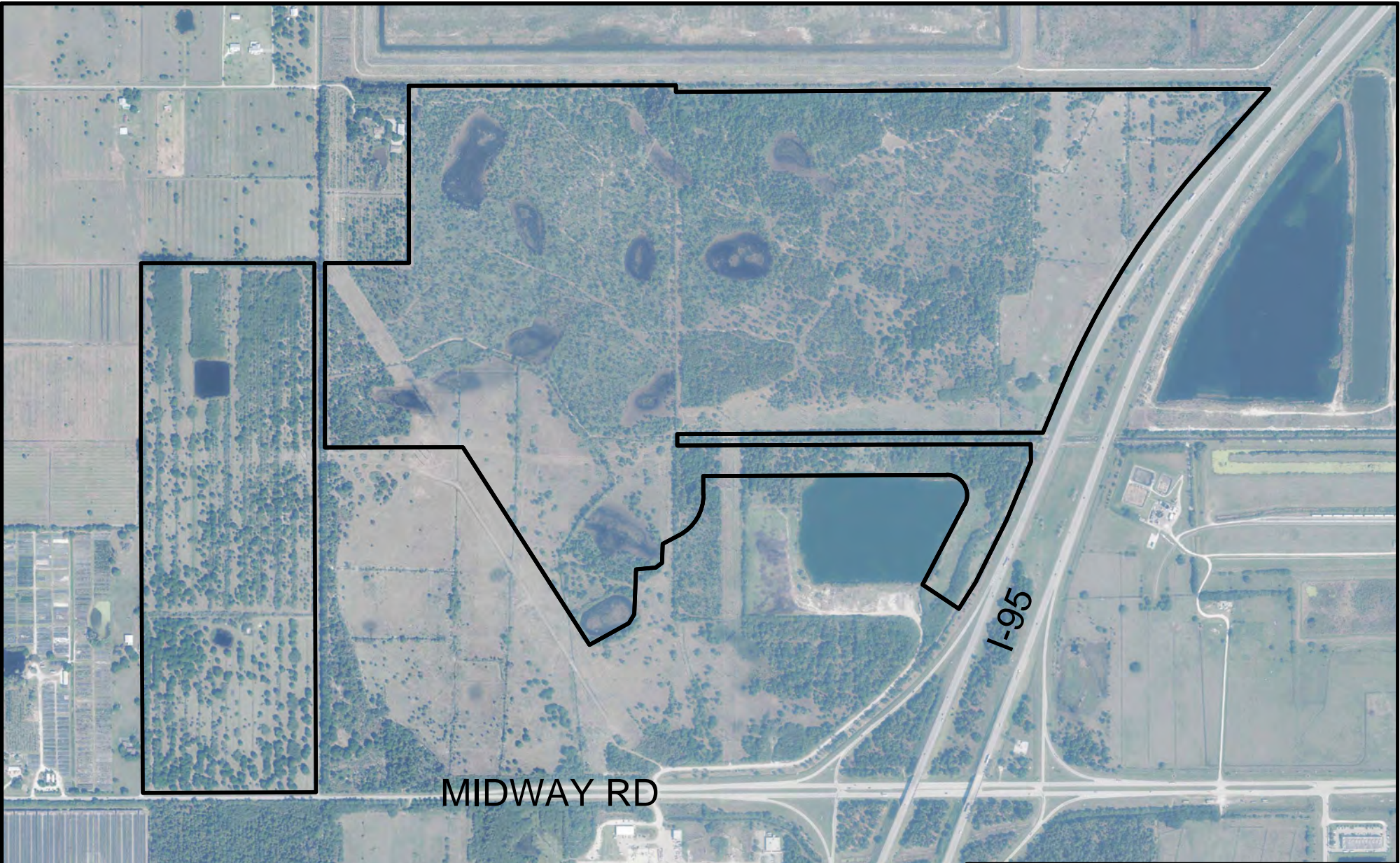


VILLAGES AT MIDWAY.dwg LOCATION



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 FIGURE
1



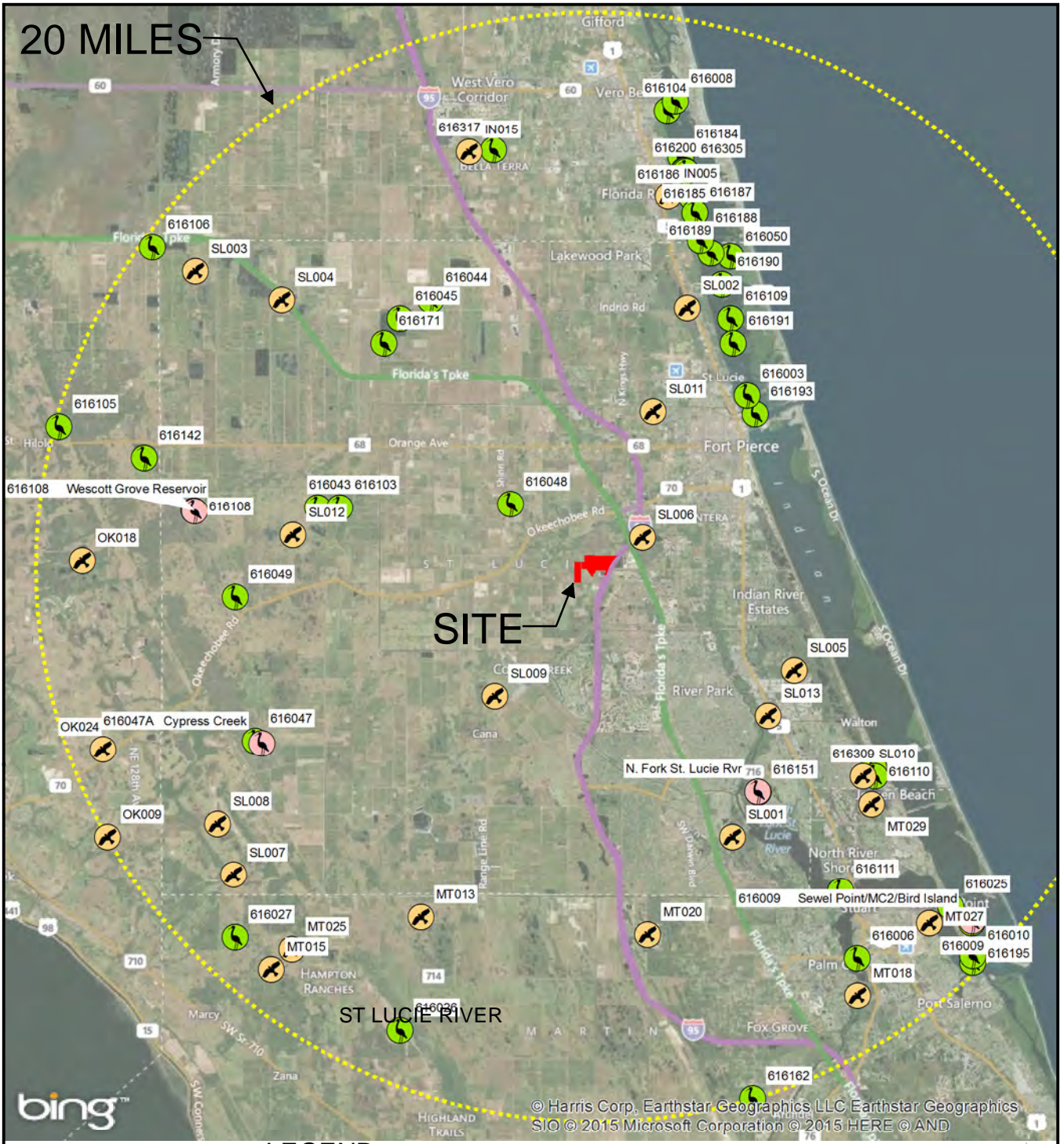
ST LUCIE COUNTY AERIALS DATED 2014






VILLAGE AT MIDWAY AERIAL

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FIGURE
2



LEGEND

-  FFWCC WOODSTORK NESTING COLONIES 1999
-  FFWCC EAGLE NESTING
-  FFWCC WADING BIRD ROOKERY



VILLAGE AT MIDWAY

EAGLES & WADING BIRDS MAP



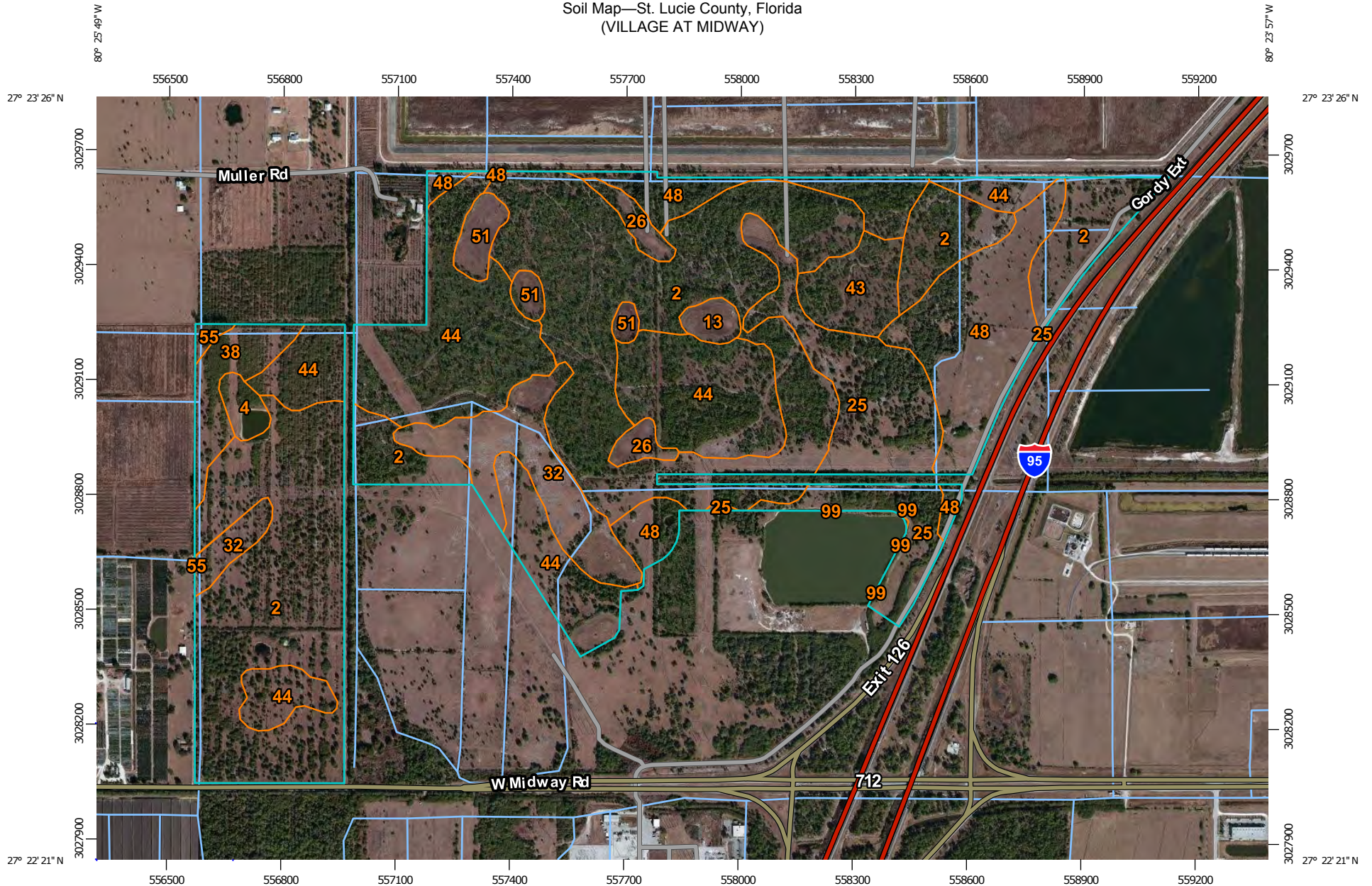
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 FIGURE
4

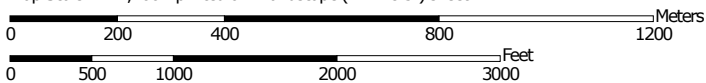
APPENDIX B

USDA Soils Report

Soil Map—St. Lucie County, Florida
(VILLAGE AT MIDWAY)



Map Scale: 1:14,100 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Soil Map—St. Lucie County, Florida
(VILLAGE AT MIDWAY)


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 6, Sep 9, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 15, 2010—Mar 13, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

St. Lucie County, Florida (FL111)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ankona and Farmton sands	218.8	42.4%
4	Arents, 0 to 5 percent slopes	3.8	0.7%
13	Floridana sand, depressional	3.6	0.7%
25	Nettles and Oldsmar sands	45.9	8.9%
26	Oldsmar sand, depressional	6.8	1.3%
32	Pineda sand	31.6	6.1%
38	Riviera fine sand, 0 to 2 percent slopes	11.8	2.3%
43	Susanna and Wauchula sands	13.2	2.6%
44	Tantile and Pomona sands	109.7	21.2%
48	Wabasso sand, 0 to 2 percent slopes	61.4	11.9%
51	Waveland-Lawnwood complex, depressional	8.6	1.7%
55	Winder loamy sand	1.2	0.2%
99	Water	0.1	0.0%
Totals for Area of Interest		516.4	100.0%