

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



# **ENVIRONMENTAL ASSESSMENT**

## **WILLOW LAKES**

### **FORT PIERCE, FLORIDA**

**Prepared for:**

**Willow Lakes, LLC**

**Prepared by:**

**EW Consultants, Inc.**

March 2020/May 2026

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## **I. INTRODUCTION –**

This Environmental Assessment documents and summarizes the various natural resources and man-made alterations present on a property referred to as Willow Lakes. The project site, as shown on Figure 1, in Appendix A is  $\pm$  200.2 acres and is located at the northwest corner of I-95 and Midway Road (S.R. 709). The property lies within Sections 2 & 3, Township 36 South, Range 39 East in the City of Fort Pierce, St. Lucie County, Florida (see Figure 2, USGS Quadrangle Map in Appendix A).

## **II. GENERAL PROPERTY DESCRIPTION –**

The property is bounded to the north and west by undeveloped lands, to the east by Gordy Road and the southbound I-95 exit ramp to Midway Road, and to the south by Midway Road (please refer to Figure 3, 2026 Aerial Photograph, in Appendix A for existing and surrounding conditions). Since the last Environmental Assessment report in 2020, the land south of Midway Road (within the City of Port St. Lucie) has seen significant development in the form of the LTC Ranch DRI (a.k.a. Wylder) mixed-use project. Wylder Parkway, a.k.a. Arterial A, is now functional at its intersection with Midway Road connecting to Glades Cut-Off Road to the south through the Wylder development. The Wylder Parkway/Midway Road intersection is approximately 800 feet west of the west boundary of Willow Lakes.

The Willow Lakes property is undeveloped and is comprised of a combination of open and wooded pastures, areas dominated by exotic vegetation, man-made surface waters (ditches and a large pond), and freshwater wetlands. Electrical transmission lines are present on the site, as well; one set in a south-to-north orientation and one in a southeast-to-northwest orientation. Detailed discussions of land cover types are described in subsequent sections of this report.

## **III. SOIL TYPES -**

A Soils Report generated 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 soils and open water throughout the project site.

## **IV. EXISTING LAND COVER TYPES –**

The following is a summary of the land cover types and vegetative communities found on the subject site. Land cover and vegetation community classifications are mapped based on the Florida Land Use, Cover and Forms Classification System (FLUCCS) developed by the Florida Department of Transportation. Field reconnaissance and aerial photograph interpretation were employed in the mapping of the vegetative communities on the subject property.

There are several different FLUCCS classifications present on the site based on fieldwork conducted by EW Consultants, Inc. in May of 2026. They include Improved Pastures (code 211); Woodland Pastures (code 213); Pine Flatwoods (code 411); Brazilian Pepper (code 422); Reservoirs larger than 10 acres but less than 100 acres (code 533); and Freshwater Marshes (code 641). The Electrical Transmission Lines on-site (code 832) contain Improved Pasture (211), Woodland Pasture (213), and Freshwater Marsh (641) within their alignments. A graphic of the observed land cover types is included as Figure 4 in Appendix A of this report. The land cover types on the property are described as follows:

### ***211 Improved Pastures***

This is a sub-category of the FLUCCS Agriculture classification and includes areas that contain a sparse tree canopy or no tree canopy at all. Dominant vegetation includes a variety of non-native grass species that have been introduced to the property as forage for livestock as well as naturally occurring ruderal grasses and weeds. These species are typical of pasture lands in the region and includes, but is not limited to smut grass, Bahia grass, torpedo grass, Caesar-weed, beggars ticks, and ragweed. Native canopy trees that are present within this land cover type include slash pine, cabbage palm, laurel oak, and live oak. Other native species were also observed in areas where native trees occur and include saw palmetto, gallberry, grape vine, smilax vine, poison ivy, and swamp fern.

### ***213 Woodland Pastures***

This agricultural classification and includes areas where woodlands are used for cattle grazing. While the vegetative understory layer has been cleared, native canopy trees remain, and native grasses have partially regenerated. For the 213 areas on the subject site, the tree canopy is dominated by slash pine (*Pinus elliottii*) and can be found generally within the far western and far eastern edges of the site (small patches occur in the south-central portion of the site, as well), typically surrounded by improved pasture. These areas have been impacted by years of cattle grazing activities. Slash pine and various broomsedge and bluestem grasses are the dominant plants species within this land cover category.

### ***411 Pine Flatwoods***

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 sandy layers. The native areas of pine flatwoods are generally found in the north-central portion of the site. While most of this habitat appears to be in good ecological condition, lack of regular land management activities such as burning and roller-chopping have allowed the understory plants to dominate thus restricting native grasses from spreading. Slash pine (*Pinus elliottii*), saw palmetto (*Serenoa repens*), and gallberry (*Ilex glabra*) are the dominant plants species within this land cover category.

#### ***422 Brazilian Pepper***

This area on-site are dominated by the exotic Brazilian pepper tree. This tree tends to dominate a landscape once present, shading out the forest floor and prohibiting desirable native species from establishing. Therefore, these areas provide very little wildlife habitat potential. It is located within the eastern portion of the site adjacent to Gordy Road.

#### ***533 Reservoirs Larger Than 10 Acres/Less Than 100 Acres***

A man-made reservoir exists within the northeastern portion of the site just west of I-95/Gordy Road. It is generally rectangular in shape, and its banks consist of cattails, Carolina willow, primrose willow, torpedo grass, and other weedy species.

#### ***641 Freshwater Marshes***

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 or go completely dry during prolonged drought periods. Such habitats provide a variety of wildlife with foraging and nesting opportunities. The marsh wetlands occur throughout the site within the pasture areas (both improved and woodland) and are generally in poor to fair ecological condition due to the historic agricultural use of the site as well as the routine maintenance of the powerline easements. The vegetation in these marshes predominantly includes the following species: chestnut sedge (*Fimbristylis spadicea*), seedbox (*Ludwigia alternifolia*), St. John's wort (*Hypericum brachyphyllum*), pickerelweed (*Pontederia cordata*), bladderwort (*Utricularia* spp.), maidencane (*Panicum hemitomon*), Tracy's beakrush (*Rhynchospora tracy*), spatterdock (*Nuphar* spp.), corkwood (*Stillingia aquatica*), and duck potato (*Sagittaria graminea*). The landward extents of such wetlands were delineated via an informal wetland determination from the South Florida Water Management (SFWMD) in 2020.

#### ***832 Electrical Transmission Lines***

There are two sets of electrical transmission lines that are present within the project site; one aligned south-to-north within the eastern portion of the property and one aligned southeast-to-northwest located in the central and northwest portions of the project site. The land cover underneath the powerlines (and therefore within the easements of the powerlines) include Improved Pasture (211), woodland pasture (213), and Freshwater Marsh (641) as described above.

## V. LISTED SPECIES DISCUSSION –

Because of the various types of land cover found on the property, the project site provides potential foraging and nesting habitat for a variety of state and federally listed wildlife species. In particular, the on-site water resources (wetlands and reservoir) could provide habitat for several listed species, including a myriad of wading birds such as wood stork, roseate spoonbill, sandhill cranes, as well as various ibis and herons. No such species were observed on-site during the May 2026 site visit.

The site is located within the federal consultation area for the threatened Audubon's crested caracara bird which prefers open pasture with scattered and isolated cabbage palms. This type of land cover does exist on the project site necessitating a survey which was conducted several years ago and yielded no caracara nesting activities. In addition, recent caracara surveys performed on nearby sites along Midway Road just west of I-95 did not reveal nesting pairs of this species.

Upland areas, in particular the pine flatwoods and woodland pastures, serve as potential burrowing and foraging habitat for the state threatened gopher tortoise. During the May 2026 site visit, this species was confirmed burrowing within the project's upland areas. A systematic gopher tortoise survey will be required within the entire development footprint's upland areas prior to new construction activities, and tortoises will have to be relocated to a state-approved receiver site per Florida Fish & Wildlife Conservation Commission (FWWCC) guidelines.

While the bald eagle has been delisted, it remains protected under the Bald and Golden Eagle Protection Act. The subject property contains mature slash pines that could provide potential nesting opportunities for bald eagles and is located within a few miles of major foraging areas, such as the St. Lucie River and Indian River Lagoon, and numerous regional and local waterways. No bald eagle nests were observed on-site during the 2020 or 2026 site visits. The closest recorded nests are located to the southwest (SL009) along Glades Cut-Off Road and northeast (SL006) along just east of I-95 at 10-Mile Creek. A map showing bald eagle nests from the Audubon Florida's Eagle Watch program is attached as Figure 5 in Appendix A.

A search of the FWWCC water bird colonies database is shown on Figure 6 in Appendix A. The data reveal that numerous colonies within 20 miles of the project site have been documented, mainly along major waterways and wetland systems in the region. Since the foraging range of a wood stork is generally recognized as 18.6 miles from its colony, the project site is located within a wood stork foraging area. Therefore, aquatic features within the boundaries of the project site may be used as foraging areas by the wood stork as well as other wading birds. It should be noted that as of February of 2026, the wood stork is no longer federally protected under the Endangered Species Act, although it is still listed by the state of Florida.

Non-listed species observed on-site during the recent site visits include red-shouldered hawk, mourning dove, great egret, blue jay, mocking bird, pileated woodpecker, wild turkey, feral hogs (tracks and scat), white-tailed deer (tracks), coyote (scat), among others.

## APPENDIX A

Figure 1 – Location Map

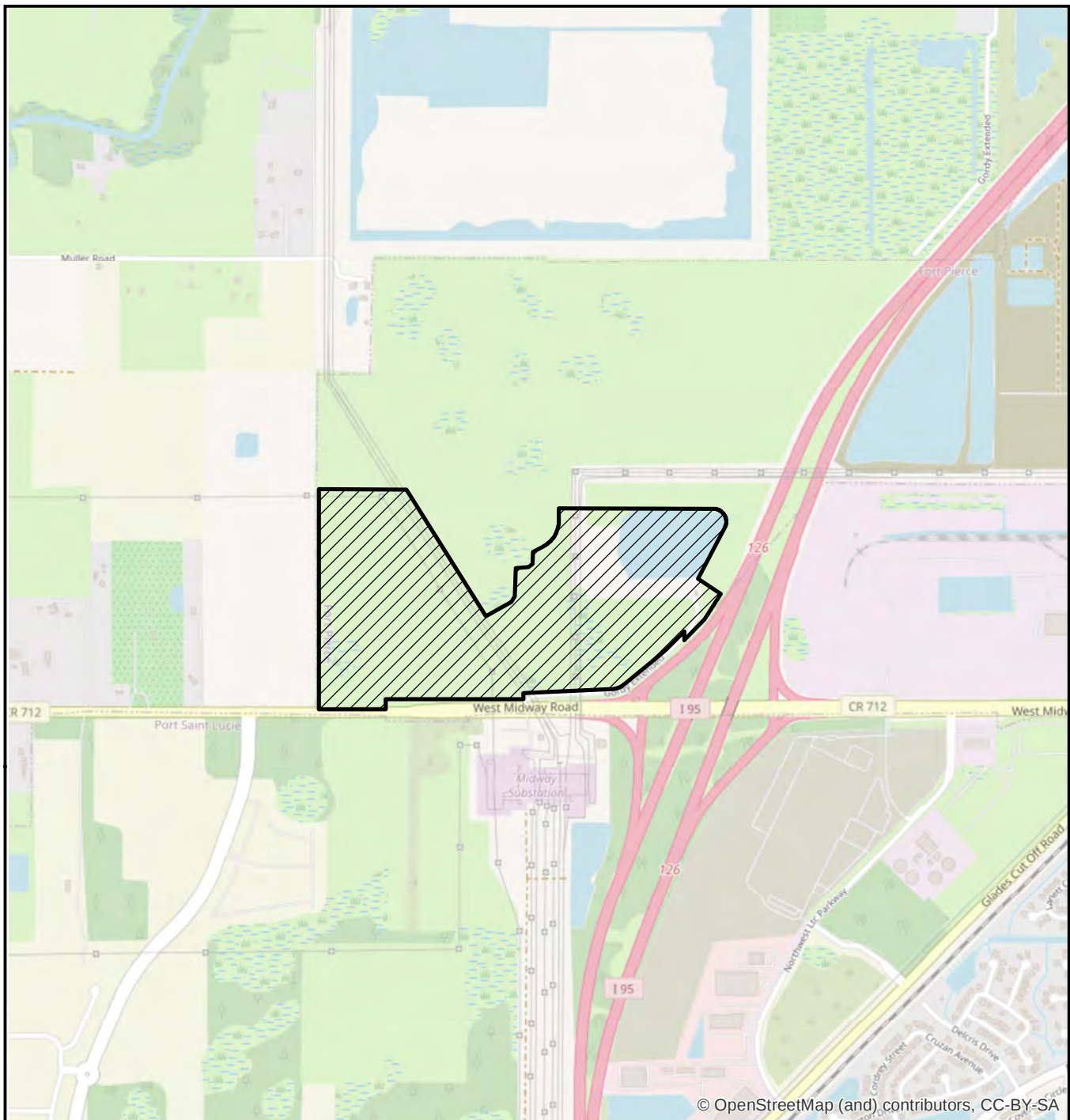
Figure 2 – USGS Quadrangle Map

Figure 3 – 2026 Aerial Photograph

Figure 4 – FLUCCS/Land Cover Map

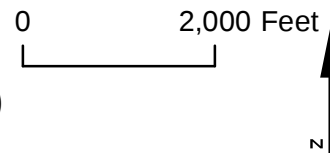
Figure 5 – Audubon's Eagle Nest Locations

Figures 6 – FFWCC Wading Bird Colonies



# LEGEND

 - SITE (200.2+/- AC)



## WILLOW LAKES LOCATION MAP



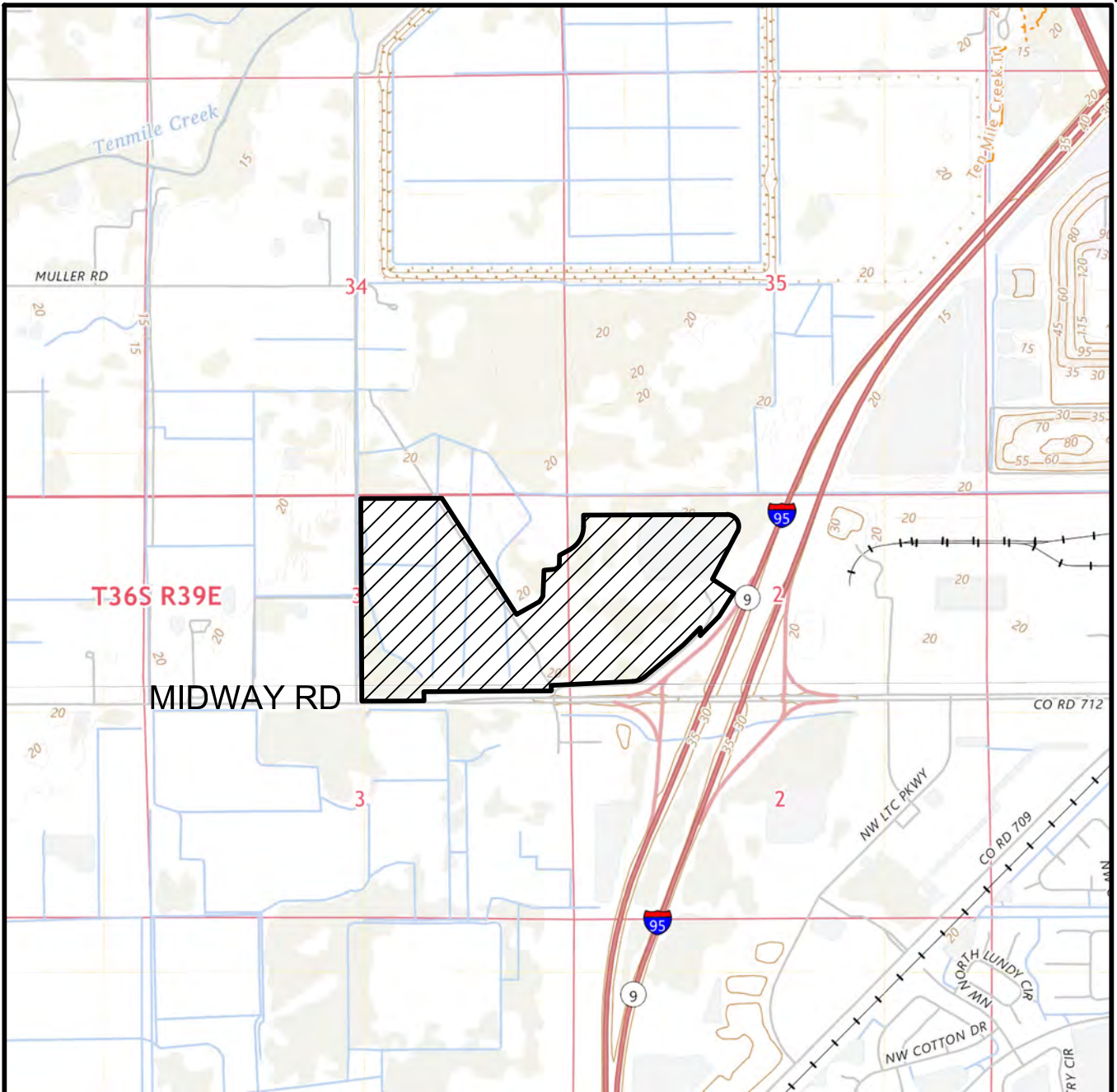
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**MAY 2026**

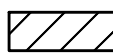
FIGURE

**1**



USGS QUAD "FORT PIERCE NW", SECTIONS 2 & 3, TOWNSHIP 36 SOUTH, RANGE 39 EAST, CITY OF FORT PIERCE, ST LUCIE COUNTY, FLORIDA, LATITUDE 27°22'35" LONGITUDE -80°25'04"

### LEGEND

 - SITE (200.2± AC)

0 2000  
SCALE IN FEET



## WILLOW LAKES QUAD

Willow Lakes.dwg QUAD

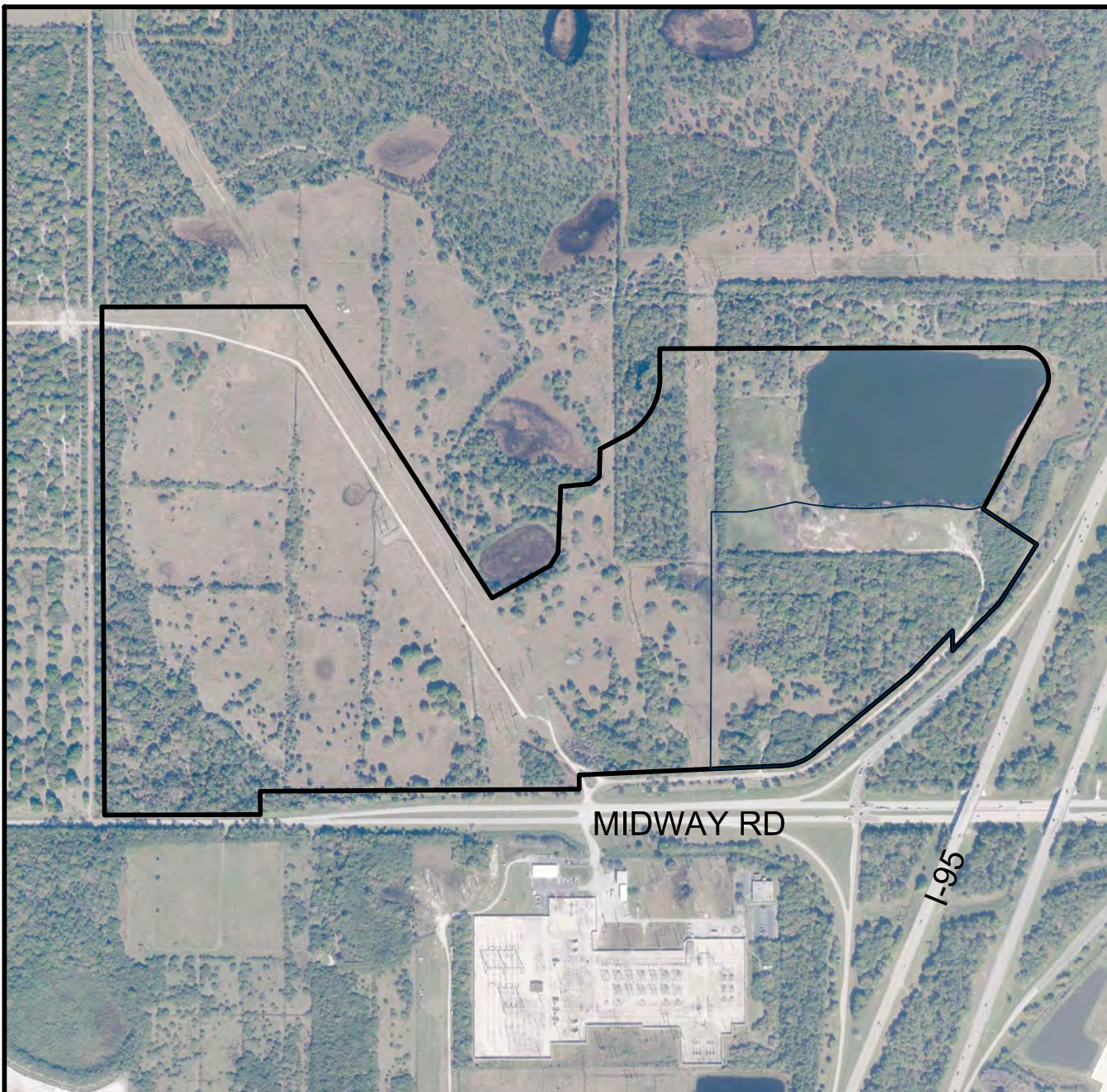


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**MAY 2026**

**FIGURE**

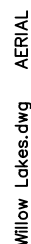
**2**



A horizontal scale bar with a thick black line. Above the left end is the number '0' and above the right end is the number '800'. Below the bar is the text 'SCALE IN FEET'.



# WILLOW LAKES AERIAL



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FIGURE

3



# LEGEND

- 211 - IMPROVED PASTURE (91.4± AC)
- 213 - WOODLAND PASTURES (39.6± AC)
- 411 - PINE FLATWOODS (7.9± AC)
- 422 - BRAZILIAN PEPPER (1.5± AC)
- 533 - RESERVOIRS MORE THAN 10ACS (19.6± AC)
- 641 - FRESHWATER MARSHES (3.7± AC)
- 832/211 - ELECTRICAL POWER TRANSMISSION LINE/IMPROVED PASTURE (33.1± AC)
- 832/213 - ELECTRICAL POWER TRANSMISSION LINE/WOODLAND PASTURES (0.8± AC)
- 832/641 - ELECTRICAL POWER TRANSMISSION LINE/FRESHWATER MARSHES (2.6± AC)
- TOTAL SITE (200.2± AC)**

0 500  
SCALE IN FEET



GOOGLE EARTH IMAGERY DATED 2026

## WILLOW LAKES FLUCCS

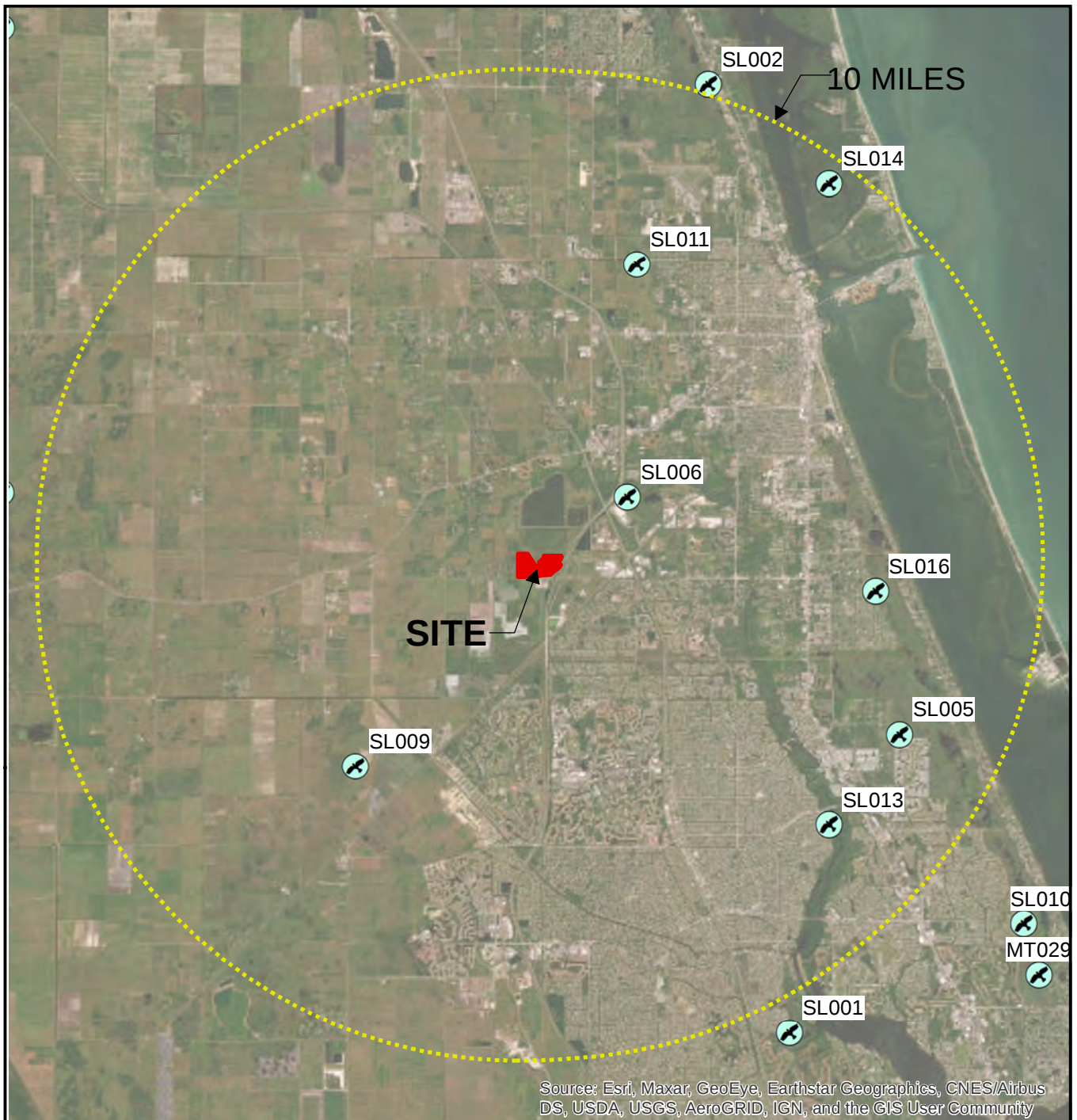


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FIGURE

4



0 3 Miles

LEGEND

 EAGLE NESTING LOCATIONS 2017



**WILLOW LAKES**

**FL AUDUBON EAGLEWATCH DATABASE**



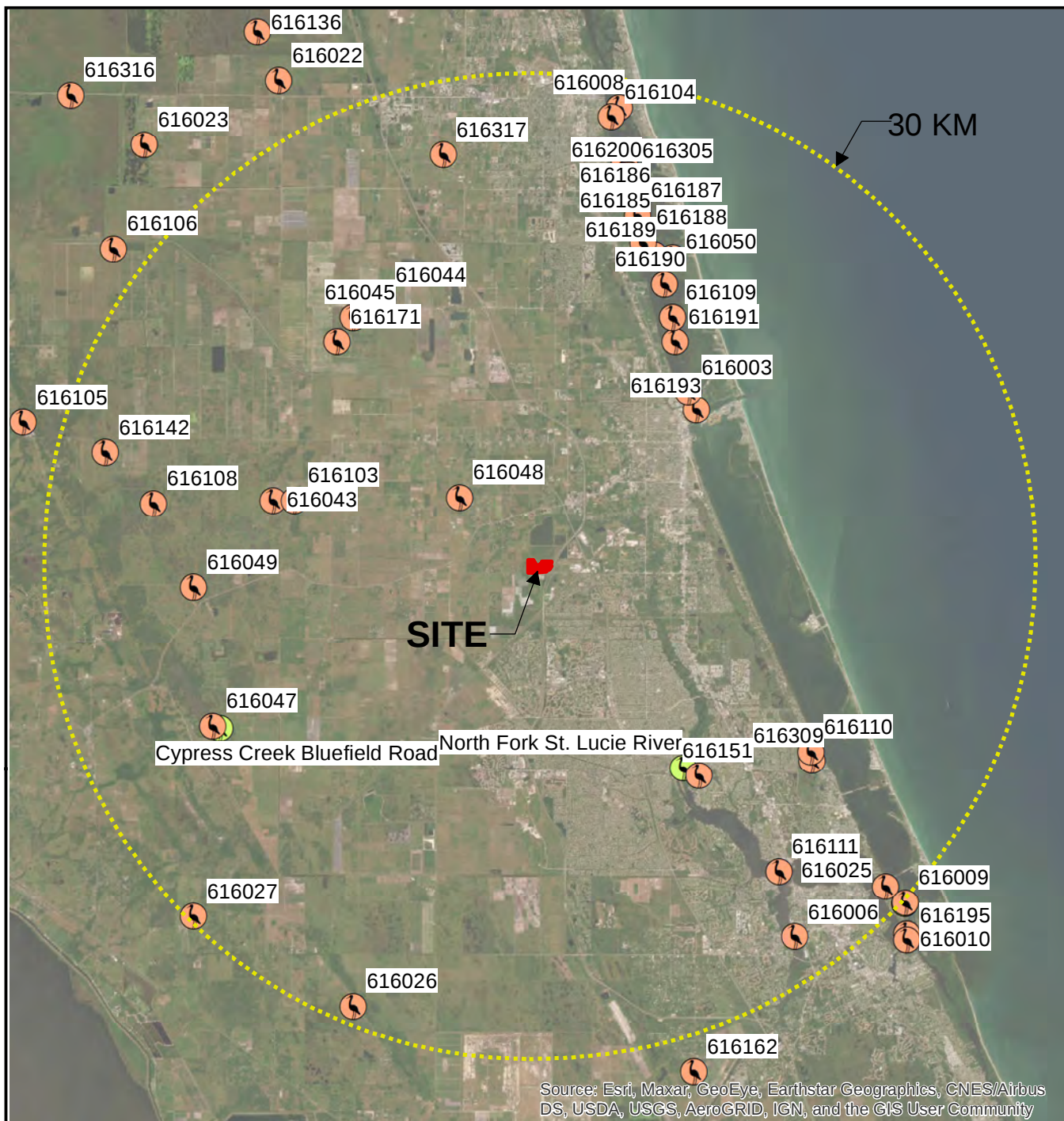
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**MAY 2026**

FIGURE

**5**



# LEGEND



FFWCC WADING BIRD ROOKERIES 1999

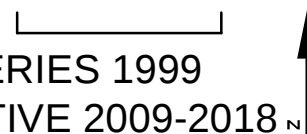


USFWS WOST COLONIES ACTIVE 2009-2018

## WILLOW LAKES

## WADING BIRDS

0 7 Miles



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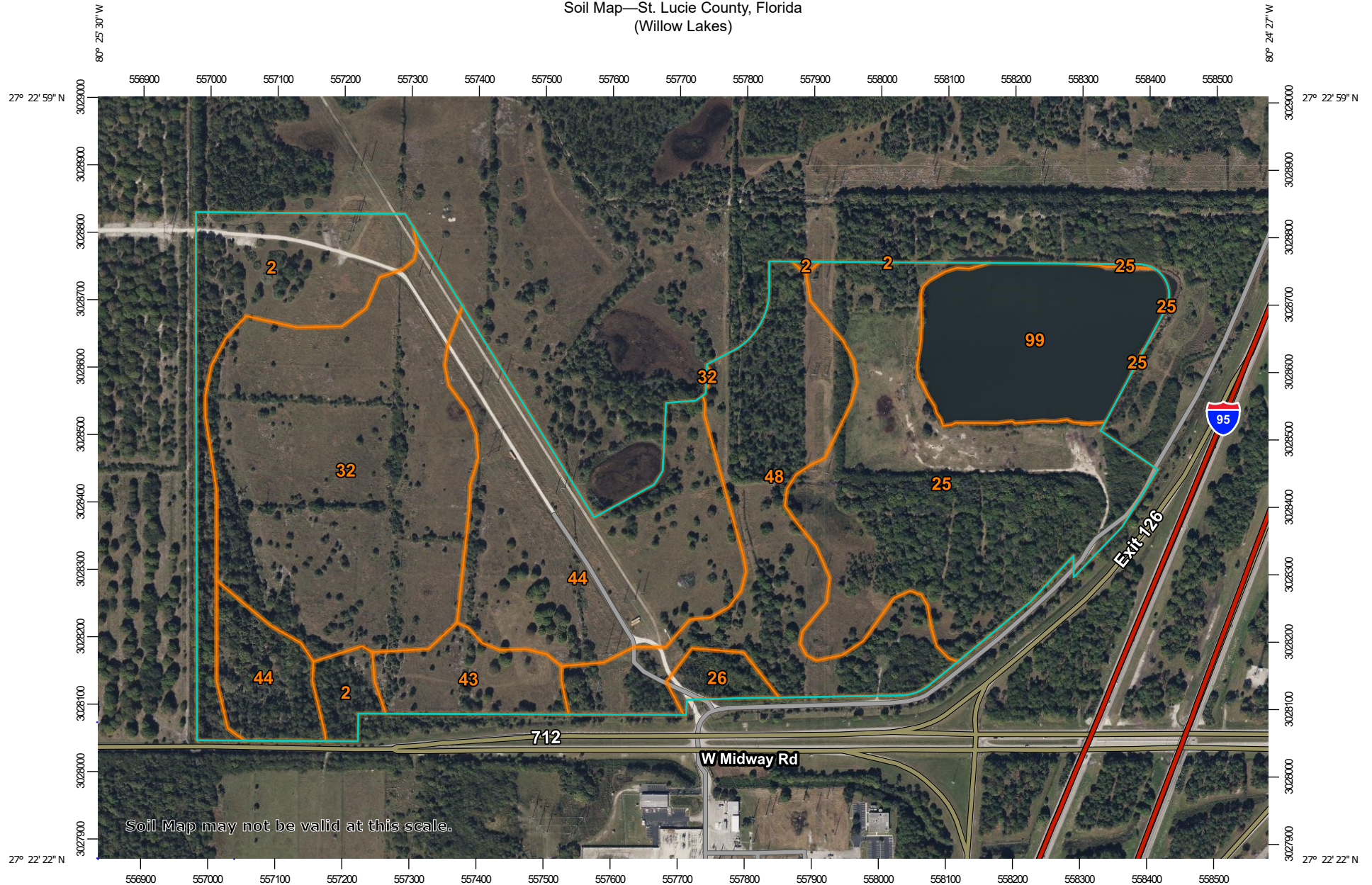
FIGURE

**6**

# APPENDIX B

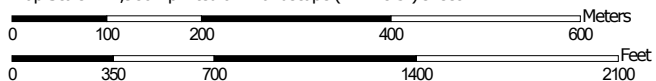
USDA/NRCS Soils Report

Soil Map—St. Lucie County, Florida  
(Willow Lakes)



Soil Map may not be valid at this scale.

Map Scale: 1:7,980 if printed on A landscape (11" x 8.5") sheet.



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



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

5/22/2026  
Page 1 of 3

Soil Map—St. Lucie County, Florida  
(Willow Lakes)

## 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

### 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:

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 19, Aug 29, 2025

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

Date(s) aerial images were photographed: Jan 18, 2022—Jan 30, 2022

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

| Map Unit Symbol                    | Map Unit Name                       | Acres in AOI | Percent of AOI |
|------------------------------------|-------------------------------------|--------------|----------------|
| 2                                  | Ankona and Farmton sands            | 19.2         | 9.6%           |
| 25                                 | Nettles and Oldsmar sands           | 41.0         | 20.5%          |
| 26                                 | Oldsmar sand, depressional          | 2.3          | 1.2%           |
| 32                                 | Pineda sand, 0 to 2 percent slopes  | 45.4         | 22.7%          |
| 43                                 | Susanna and Wauchula sands          | 7.0          | 3.5%           |
| 44                                 | Tantile and Pomona sands            | 37.3         | 18.6%          |
| 48                                 | Wabasso sand, 0 to 2 percent slopes | 29.5         | 14.7%          |
| 99                                 | Water                               | 18.8         | 9.4%           |
| <b>Totals for Area of Interest</b> |                                     | <b>200.5</b> | <b>100.0%</b>  |