ATLANTIC
ENVIRONMENTAL
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ENVIRONMENTAL ASSESSMENT

On the

Nopetro Eco District Project Site
Indian River County, Florida
±1.24 Acres

±20-foot Easement Within
Parcel ID No.'s 33382500001009000001.0 & 33382500001002000003.0

Conducted for:

Mr. Thomas C. Yonge
Yonge Development Services, LLC
634 SW 137th Way
Gainesville, Florida 32669

Conducted by:

Atlantic Environmental of Florida, LLC
657 Montreal Avenue
Melbourne, Florida 32935

November 6, 2023

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November 6, 2023

Mr. Thomas C. Yonge
Yonge Development Services, LLC
634 SW 137th Way
Gainesville, Florida 32669
Via email: tom@ydsconsult.com

Re: Environmental Assessment
Nopetro Eco District
Indian River County, Florida
20-Foot Easement within Parcel ID No.'s 33382500001009000001.0 &
33382500001002000003.0
Atlantic Environmental File No. 23843

Dear Mr. Yonge:

Atlantic Environmental of Florida, LLC (Atlantic Environmental) has completed an environmental assessment and feasibility study of the above-referenced property, an approximately 1.24-acre swath of land located north of the Indian River County landfill off of 74th Avenue SW, Vero Beach, unincorporated Indian River County, Florida (Figures 1 and 2). The field assessment of this parcel, hereinafter referred to as "the Property", occurred on October 23, 2023. This study is intended to assess any reasonably ascertainable environmental issues that might influence the developability of the subject property. Following are the results of our study.

Topography and Soils

Figure 3 shows the USGS Topographical Map for the Property and surrounding areas. According to this map, the Property is relatively flat with a lower elevated area in its northern reaches. The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) map for Indian River County (Figure 4) depicts four soil types underlying the Property. Following is a description of the mapped soil types as occur in a natural environment.

Pepper sand (9)
The Pepper, non-hydric component makes up 70 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, and October. This soil does not meet hydric criteria.

The Pepper, hydric component makes up 15 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during June, July, August, and September. This soil meets hydric criteria.

Wabasso fine sand (13)
The Wabasso, non-hydric component makes up 70 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, and October. This soil does not meet hydric criteria.

The Wabasso, hydric component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, and August. This soil meets hydric criteria.

Pineda fine sand (16)
The Pineda component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during June, July, August, September, October, and November. This soil meets hydric criteria.

Manatee mucky loamy fine sand, depressional (53)
The Manatee component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during January, February, June, July, August, September, October, November, and December. This soil meets hydric criteria.

Past development and human activity within and adjacent to the Property appear to have altered some of the characteristics possessed by the underlying soils. However, in general, the soils underlying the Property appear consistent with the above descriptions.

Vegetation and Community Types

Different combinations of natural and human-influenced factors, such as surface elevation, hydrology, vegetative species and structure, soil characteristics, and degree and type of historical disturbance, will give rise to a variety of distinct ecological systems and functions, known as communities and land uses. The Florida Land Use, Cover, and Forms Classification System (FLUCFCS) organizes most of the major categories of communities and land uses into particular descriptions, each corresponding to a different code number. Using our field observations and the FLUCFCS system as a guideline, Atlantic Environmental has identified the on-site communities as they currently exist on the Property. Figure 5 depicts the code numbers of the on-site FLUCFCS categories, specifically, Other Pines (FLUCFCS Code Number 419), Wetlands (600), Hydric Pine Flatwoods (625), Freshwater Marsh (643), and Disturbed Land (740).

Following is a description of these classifications, as they exist on the Property, along with an assessment of the jurisdictional wetland status based on the rules and regulations of the St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) and the U.S. Army Corps of Engineers (USACE). In December 2020, the FDEP took over

a significant portion of the Section 404 federal permitting from USACE. The jurisdictional status of FDEP, from the State 404 Permitting perspective, will also be referenced below.

Other Pines (419)
Approximately 0.38 acres of the Property consists of this forested upland classification. Vegetation is dominated by slash pine, cabbage palm, Brazilian pepper, saw palmetto, earleaf acacia, raintree, cabbage palm, caesarweed, guineagrass, and air potato. This community type consists of upland habitat and will require no wetland permitting or mitigation for direct impacts.

Wetlands (600)
There are two smaller wetlands located within the central portion of the Property which are a combined 0.13 acres in size. Vegetation is dominated by chalky bluestem, gallberry, dahoon holly, Virginia chain fern, roadgrass, red root, beakrush, wax myrtle, and Brazilian pepper. While these wetlands extend off site, it appears they may each be isolated. FDEP will require that permits be acquired for any proposed impacts. If it is shown that these wetlands are less than 0.50 acres and isolated, no mitigation should be required. Under current FDEP guidelines, it appears this wetland is not federally jurisdictional through the State 404 Program. Lastly, Indian River County will also claim this wetland as jurisdictional and require a wetland resource permit for any impacts.

Hydric Pine Flatwoods (625)
Approximately 0.16-acres of a forested wetland is located on the southern portion of the Property. This wetland extends off-site to the east and west and is dominated by slash pine, Brazilian pepper, wax myrtle, punk tree, and Virgina chain fern. FDEP will require that permits be acquired and mitigation be provided if impacts are proposed within this wetland. Under current FDEP guidelines, it appears this wetland is not federally jurisdictional through the State 404 Program. Lastly, Indian River County will also claim this wetland as jurisdictional and require a wetland resource permit for any impacts.

Freshwater Marsh (643)
Approximately 0.09-acres of a freshwater marsh is located on the northern extent of the Property. This wetland is dominated by Brazilian pepper, wax myrtle, punk tree, pickerelweed, and beakrush. FDEP will require that permits be acquired and mitigation be provided if impacts are proposed within this wetland. Under current FDEP guidelines, it appears this wetland is not federally jurisdictional through the State 404 Program. Lastly, Indian River County will also claim this wetland as jurisdictional and require a wetland resource permit for any impacts.

Disturbed Land (740)
The southern extent of the Property has been historically disturbed and consists of a spoil bank and portion of an active landfill operation. This area, totaling $\pm$0.48 acres, is dominated by guineagrass, caesarweed, flannel weed, and other opportunistic weedy species. This community type consists of upland habitat and will require no wetland permitting or mitigation for direct impacts.

Protected Wildlife Species

A preliminary survey for listed species and suitable listed species habitats was completed on the Property. This survey resulted in the determination that the Property provides suitable foraging

habitat to support the below listed species found in east central Florida and the treasure coast.

Wading Birds

Wading birds, including little blue herons, tricolored herons, sandhill cranes, and wood storks, depend on freshwater marshes and shorelines for foraging and typically roost in forested wetland systems. It is possible that any or all of these birds use the on-site wetlands from time to time on an opportunistic foraging basis. However, the preliminary survey did not indicate that any of the above listed protected wading bird species are using the Property in a way that is significantly dependent upon on-site habitat. No nests of any of the listed species were observed on the Property, and no signs of these species were noted. The potential opportunistic usage should not trip a threshold to require compensatory mitigation for any of these species.

Wetlands

Wetlands, including those located on the Property, are protected by state, federal, and/or local government rules against impacts from development. Should development be proposed which would affect these natural resources, permits authorizing these impacts would be needed, and mitigation for alterations to these wetlands can be required. Following is a general discussion of mitigation alternatives that may be applicable to the wetlands proposed to be impacted by development of the Property.

Prior to impacting a wetland on a particular piece of property it is required that all efforts have been made to eliminate wetland impacts. If elimination of wetland impacts is not practicable, it is then required that site development alternatives be considered that reduce wetland impacts. This elimination and reduction exercise will be required should impacts to wetlands be proposed on the Property.

Once it has been determined that all reasonable efforts have been made to reduce wetland impacts, the wetland regulatory agencies will consider compensation for wetland impacts through compensatory mitigation. Although mitigation can take on many forms, mitigation usually consists of restoration, enhancement, creation, or preservation of wetlands, other surface waters, or uplands.

The amount of compensatory mitigation required is determined by the amount of biological lift needed to offset the proposed impacts. The quantity of biological lift required is dependent on the acreage of proposed wetland impact, the location and landscape support of the proposed impact site, the habitat value of the proposed impact site, the functionality of the proposed impact site, as well as the vegetative and hydrologic quality of wetlands proposed for impact.

To determine the amount of biological lift provided by a mitigation site, an applicant must consider all of the above criteria, as the mitigation site exists prior to mitigation action, and determine how the proposed mitigation action will biologically improve the mitigation site. If the biological lift provided by completing the mitigation action outweighs the biological loss incurred by the proposed impact, the regulatory agencies are expected to permit the proposed project.

As for this particular site, FDEP will require that efforts be made to reduce wetland impacts to the greatest extent possible. Once such efforts have been made and proven to the regulatory agencies, an applicant can then propose impacts to wetlands in conjunction with providing compensatory mitigation for such impacts. With this having been said, if an applicant were to employ one of the

FDEP out-provisions in which mitigation were offered that has a greater long-term ecological value than that of the wetlands proposed for impact and mitigation that implements all or part of a plan that provides regional ecological value, one could bypass FDEP's elimination and reduction criteria. One method to employ this out-provision is to provide mitigation from a permitted mitigation bank. Considering the mitigation in this basin currently charges $250,000.00 per credit, Atlantic Environmental estimates mitigation costs to range from approximately $55,000.00 to $70,000.00 for direct and secondary impacts to all the on-site wetlands. Should a temporary construction easement be required to the east of the proposed project, it is anticipated that this temporary easement would need to be regraded to natural grade and subsequently replanted with desirable species. It is also possible that monitoring would be required in the temporarily impacted wetland areas upon the completion of restoration. Lastly, depending on future maintenance needs of this gas line, it is possible that the mitigation costs could be lowered if it can be shown that wetland conditions will prevail after construction is completed.

Conclusions

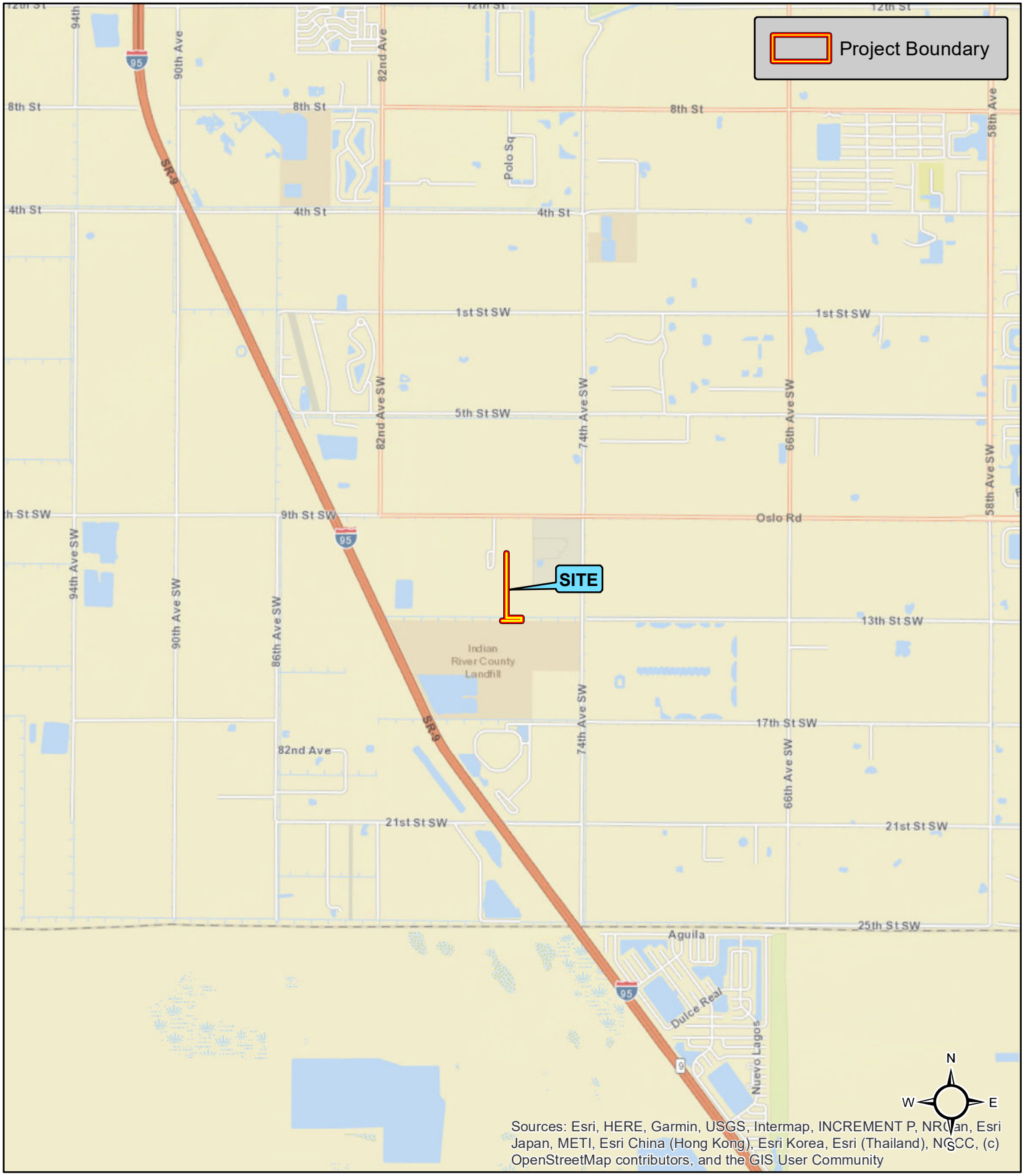
Atlantic Environmental determined that the Property contains ±0.86 acres of uplands and approximately 0.38 acres of wetlands. The Property also has the potential to support protected wildlife. However, no additional permitting related to listed species should be required. Impacts to wetlands must be addressed in the development process, through permitting, avoidance, mitigation, or some combination thereof.

As the next step in the development process as it relates to environmental issues, Atlantic Environmental recommends delineating the on-site wetlands. Should you have any questions or need additional information, please do not hesitate to contact our office. We look forward to working further with you on this project.

Sincerely,

David G. Purkerson, MS, PWS
Vice President/Biologist

Jon H. Shepherd, MS, PWS
President/Ecologist



Project: Nopetro Eco District

Figure 1: Location Map

0 0.25 0.5 1 Miles

Indian River County, Florida

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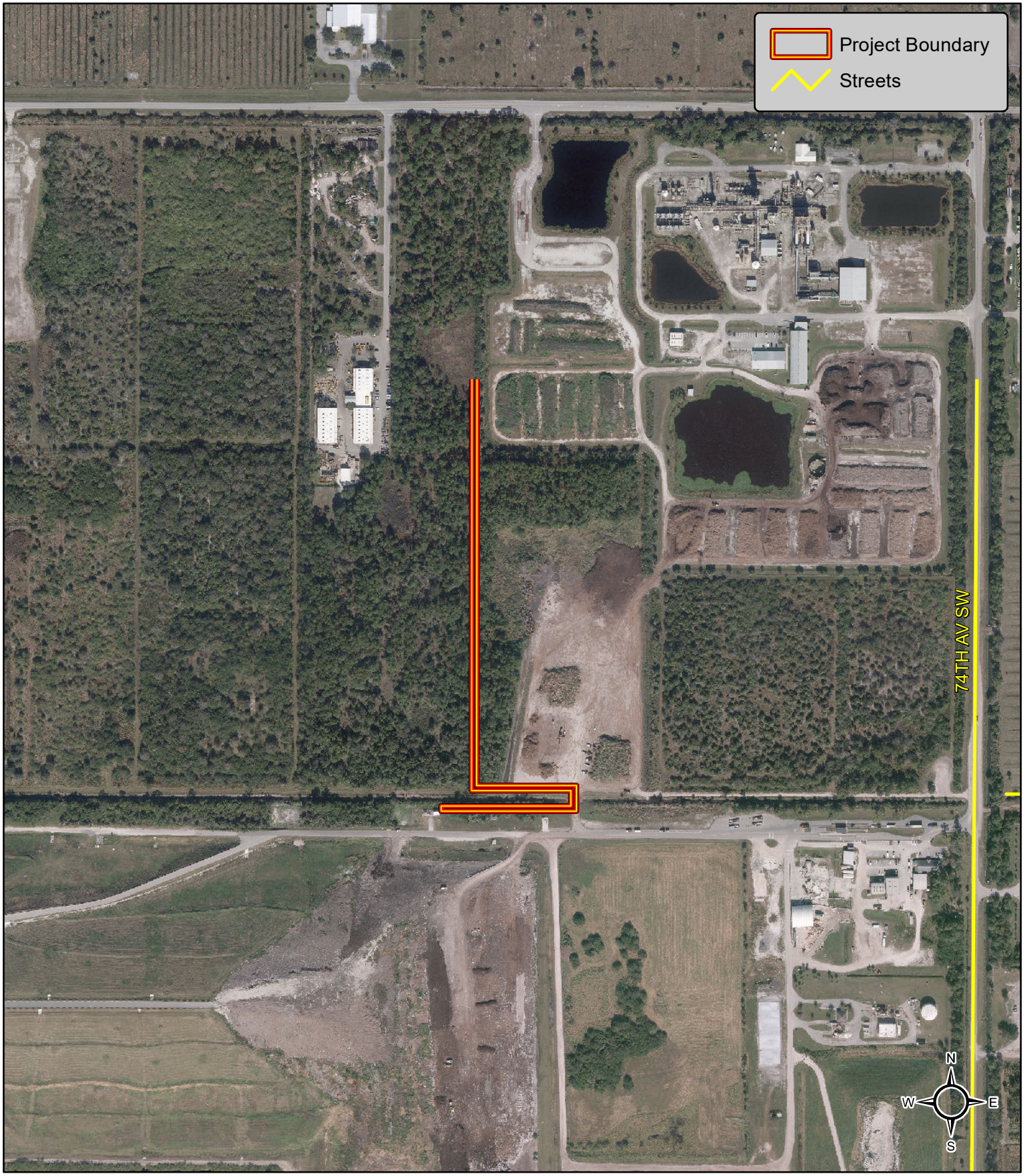

Project: Nopetro Eco District

Figure 2: Aerial Map

0 250 500 1,000 Feet

2021 Aerial, Indian River County, Florida

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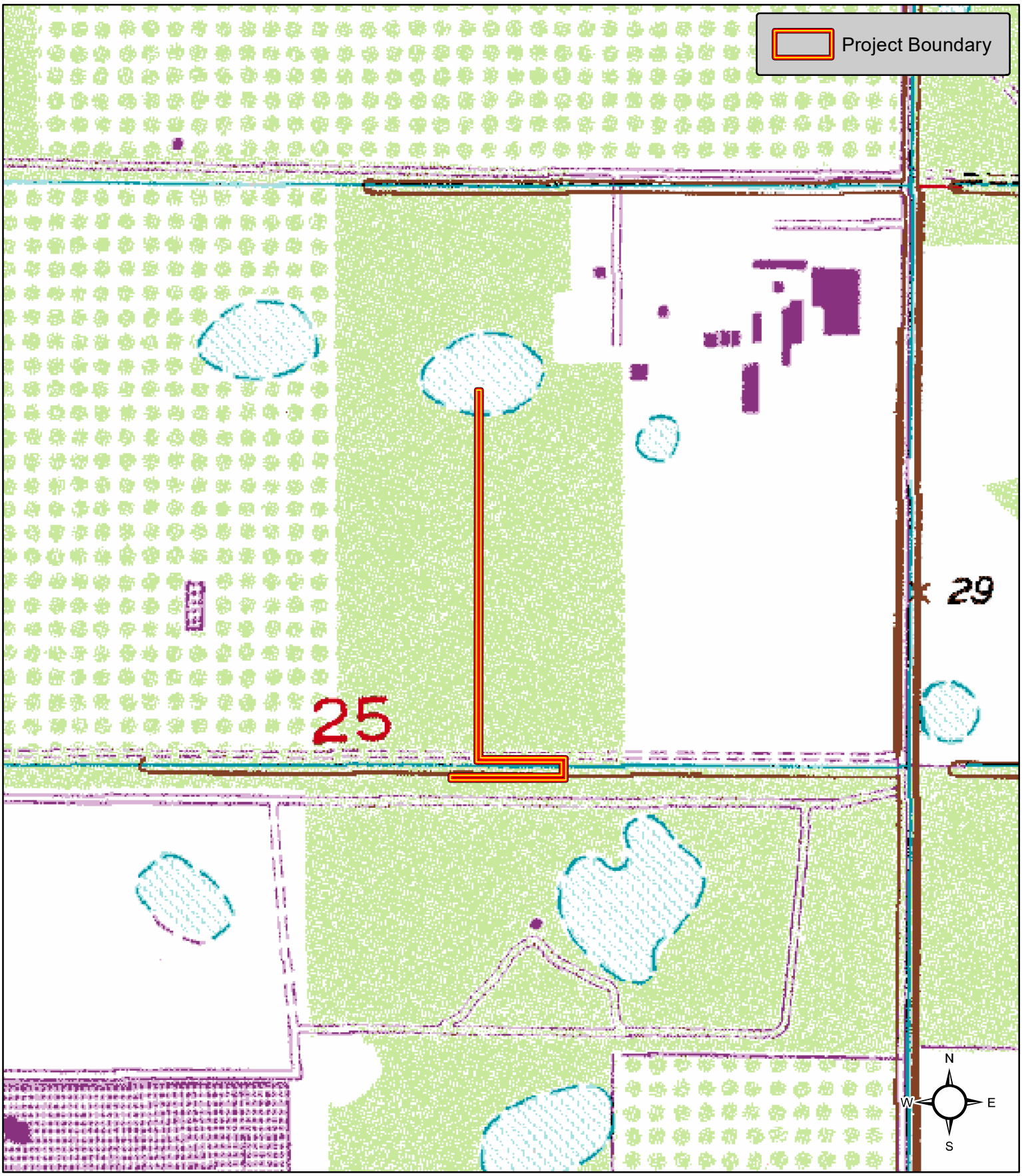

Project: Nopetro Eco District

Figure 3: USGS Topo Map

0 250 500 1,000 Feet

Oslo Quadrangle, Indian River County, Florida

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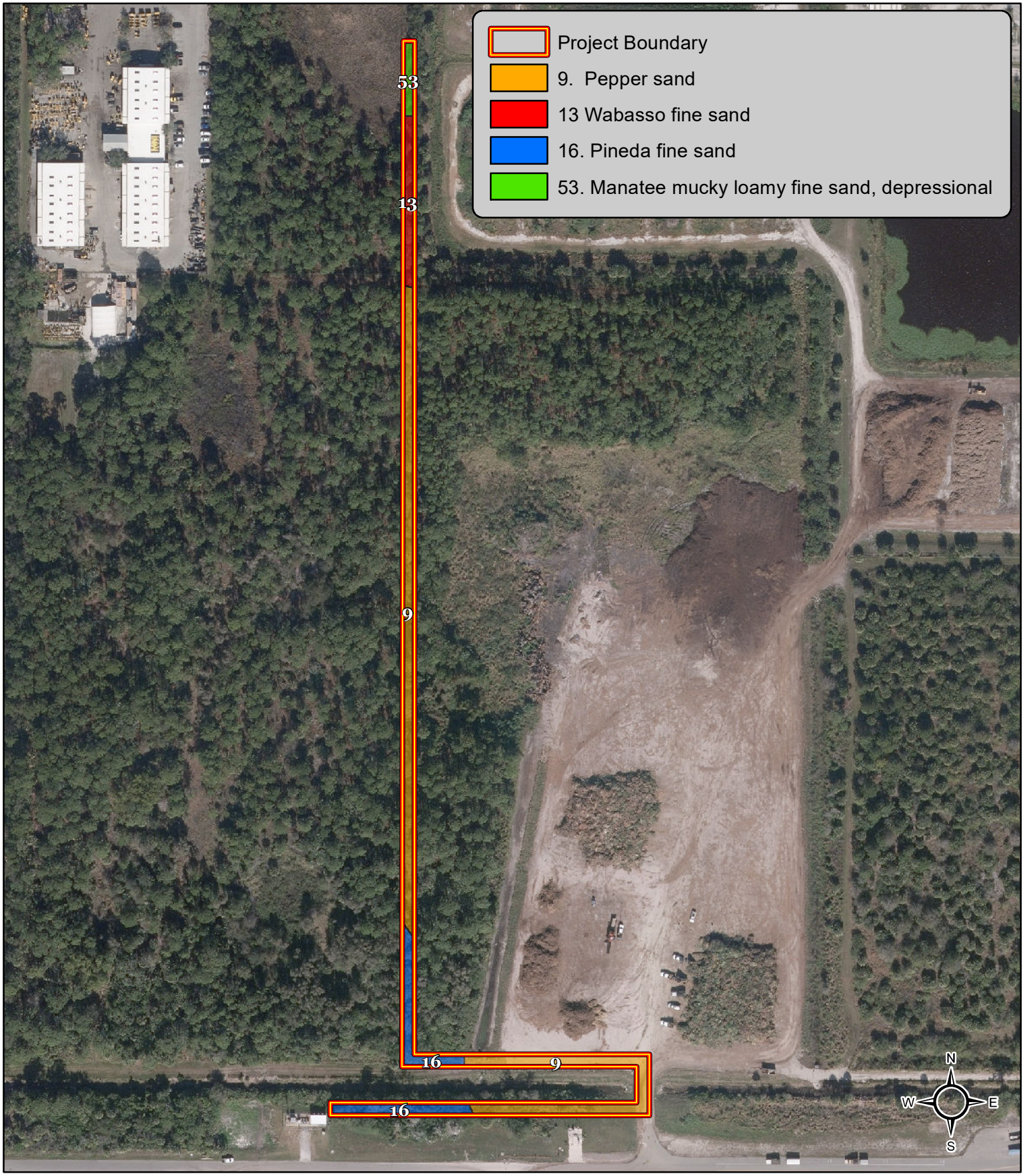

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Figure 4: NRCS Soils Map

0 100 200 400 Feet

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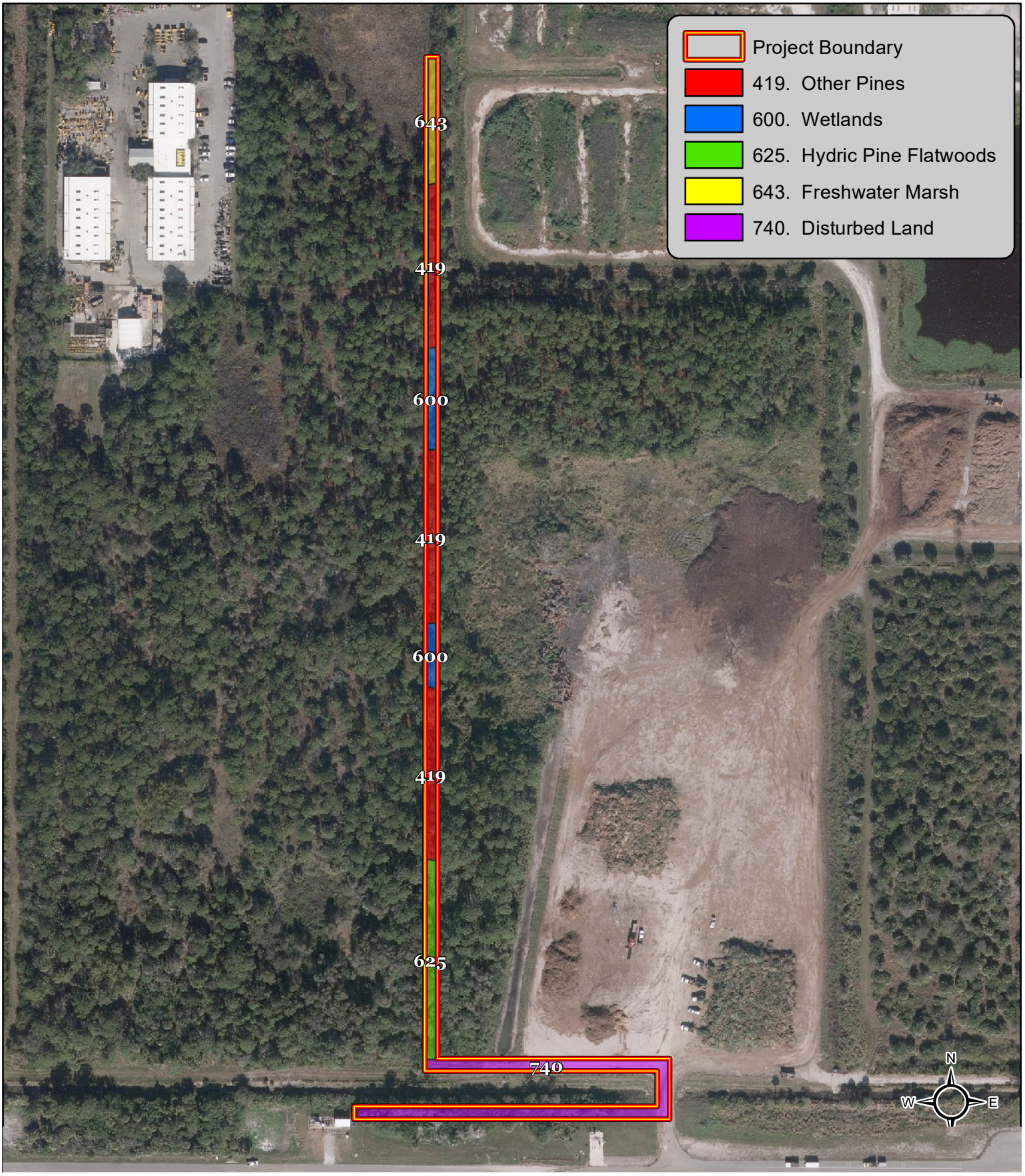

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Figure 5: Land Use (FLUCFCS) Map

0 100 200 400 Feet

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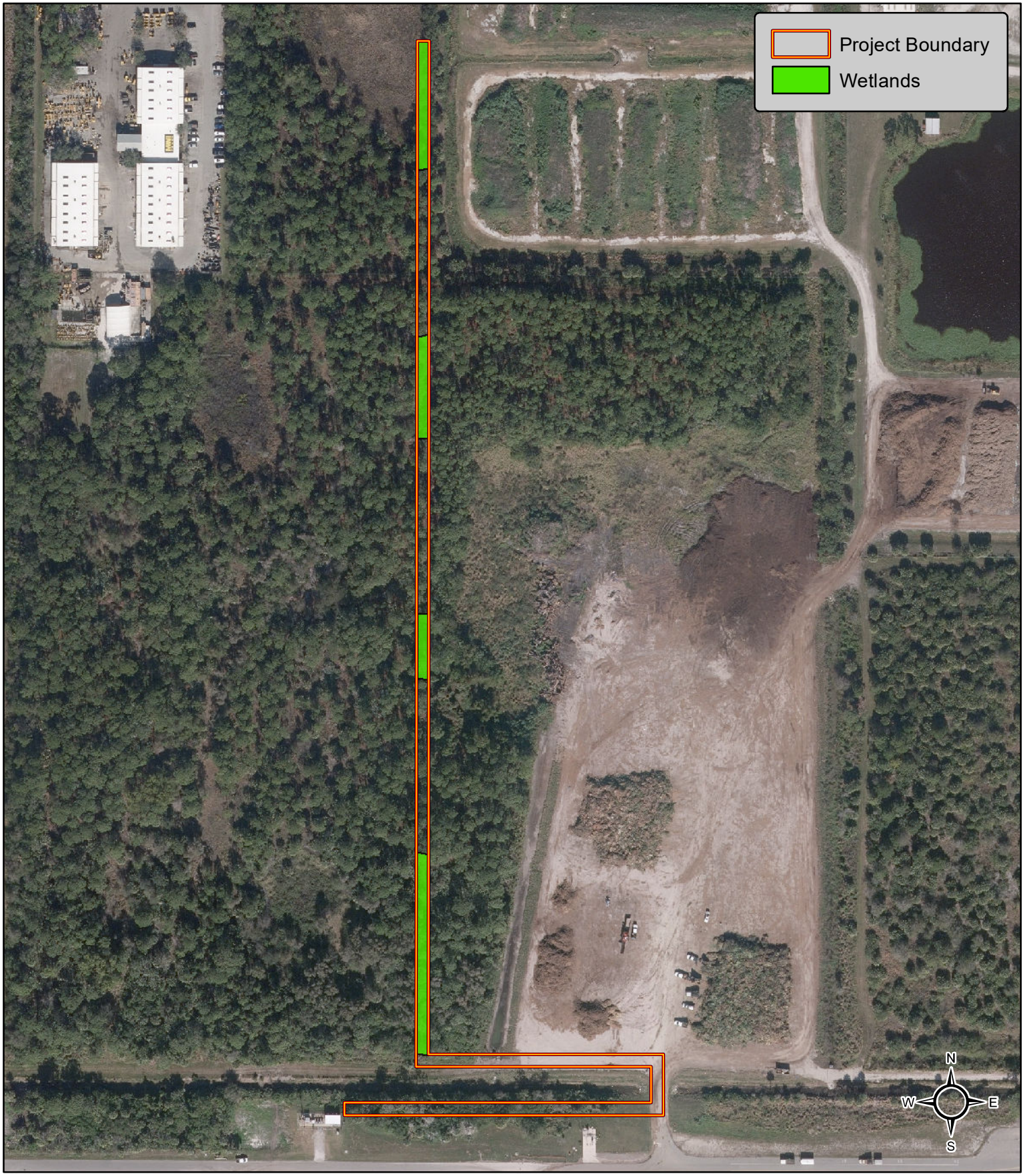

Project: Nopetro Eco District

Figure 6: Wetlands Map

0 100 200 400 Feet

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