



## Environmental Assessment

For the

# **New Smyrna Beach Endsley Station Property Volusia County, Florida**

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**Prepared For:**

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# Table of Contents

Page

<b>1.0 PROJECT INTRODUCTION.....</b>	<b>1</b>
<b>2.0 EXISTING SITE CONDITIONS.....</b>	<b>1</b>
2.1 Uplands.....	1
2.2 Wetlands.....	2
2.3 Surface Waters.....	2
<b>3.0 SOILS.....</b>	<b>2</b>
<b>4.0 WETLANDS AND SURFACE WATERS.....</b>	<b>3</b>
4.1 Methods and Jurisdiction.....	3
4.2 Wetland Impacts .....	3
<b>5.0 WILDLIFE OBSERVATIONS.....</b>	<b>4</b>
<b>6.0 PROTECTED SPECIES.....</b>	<b>4</b>
6.1 Protected Wildlife Species.....	5
6.2 Protected Plant Species.....	6
<b>7.0 CULTURAL RESOURCES.....</b>	<b>7</b>
<b>8.0 SUMMARY.....</b>	<b>7</b>
<b>Technical Literature References.....</b>	<b>8</b>

## **Appendices**

### **Appendix I - Figures**

- **Location Map**
- **Aerial Map**
- **Topographic Map**
- **Soils Map**
- **Habitat Map**
- **Wetland Map**

### **Appendix II – Cultural Resources**

## 1.0 PROJECT INTRODUCTION

The New Smyrna Beach Endsley Station Property is located in Volusia County, Florida, in Sections 19, 44, 45, 46 and 49, Township 17 South, Range 34 East. The subject property is approximately 101.18 acres in total size and consists of uplands, wetlands, surface waters and disturbed lands. The Property consists of the Volusia County Parcel ID # 1917342300004. The subject property is located to the west of US-1, to the east of South Myrtle Avenue, south of Lytle Avenue, and to the north of 10<sup>th</sup> Street (See attached Aerial Map and Topographic Map for details). The latitude and longitude coordinates for the approximate center of the project are 29°0'54.34"N 80°55'33.66"W and was determined via Google Earth.

The Client for the project is:

Elevation Development, LLC.  
Attn: Dan Eshleman  
189 South Orange Ave, Suite 1550  
Orlando, FL 32801

Atlantic Ecological Services (AES) conducted an Environmental Assessment (EA) on the New Smyrna Beach Endsley Station Property (herein referred to as the subject property). The field surveys were conducted on March 10 and 11, 2022. The subject property was reviewed to determine habitat type's present, boundaries of habitat types, wetland delineation, presence of or the potential for protected species, wildlife utilization of the site and other environmental constraints noted during the site visits. This EA report discusses the methods used to conduct the EA, the results thereof and includes several supplementary figures.

## 2.0 EXISTING SITE CONDITIONS

The subject property consists of undeveloped uplands and wetlands. The community and land use areas were categorized according to the Florida Department of Transportation (FDOT) (1991) *Florida Land Use, Cover and Forms Classification System* (FLUCFCS). The communities and land uses observed and delineated on the subject property are described in detail below and are shown on the attached Habitat Map.

### 2.1 Uplands

Pine – Mesic Oak (FLUCCS 414) – Approximately 19.72 acres of the property exist as pine – mesic oak. The canopy consists of slash pine (*Pinus elliottii*), red cedar (*Juniperus virginiana*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), and hackberry (*Celtis sp.*). The understory consists of saw palmetto (*Serenoa repens*), yaupon holly (*Ilex vomitoria*), Brazilian pepper (*Schinus terebinthifolia*), bracken fern (*Pteridium*), and Caesar weed (*Urena lobata*).

Temperate Hardwoods (FLUCCS 425) – Approximately 65.17 acres of the property exists as temperate hardwood hammock uplands. The canopy consists of live oak, pignut hickory (*Carya glabra*), southern magnolia (*Magnolia grandiflora*), laurel oak, sweetgum (*Liquidambar styraciflua*), hackberry, sabal palm (*Sabal palmetto*), and red cedar. The understory consists of gallberry, wild coffee (*Psychotria nervosa*), coontie palm (*Zamia pumila*), saw palmetto, bracken fern, sword fern (*Polystichum munitum*), Caesar weed, and blackberry (*Rubus sp.*).

Disturbed Lands (FLUCCS 740) – Approximately 7.11 acres of the property exist as disturbed lands. The disturbed lands are located adjacent to the existing railroad. Vegetation included bahia grass (*Paspalum notatum*), red cedar, Brazilian pepper, beggarticks (*Bidens alba*), Caesar weed, and dog fennel (*Eupatorium capillifolium*).

Roads (FLUCCS 814) – There is a paved road in the northern central portion of the property that occupies 1.23 acres.

## **2.2 Wetlands**

Wetland Mixed Forest (FLUCCS 630) – Approximately 4.94 acres of the property exist as wetland mixed forest (hydric hammock). The canopy consists of laurel oak, American elm (*Ulmus americana*), sabal palm, red maple (*Acer rubrum*), sweetbay magnolia (*Magnolia virginiana*), hackberry, and live oak. The understory consists of dwarf palmetto (*Sabal minor*), yaupon holly, netted chain fern (*Woodwardia areolata*), Virginia chain fern (*Woodwardia virginica*), cinnamon fern (*Osmundastrum cinnamomeum*), beak sedge (*Rhynchospora sp.*), and lizard's tail (*Saururus cernuus*).

## **2.3 Surface Waters**

Ditch/Canal (FLUCCS 512) – Multiple man-made drainage ditches and canals are located on the property (approximately 3.01 acres total).

## **3.0 SOILS**

A discussion of each soil type present on the subject property is documented below. Please see the attached Soils Map within Appendix I for the location of each soil type.

Cocoa sand, 0 to 5 percent slope (15)– This is a nearly level to gently sloping soil. Typically, the surface layer is very dark gray sand about 6 inches thick. The subsurface layer is brown sand to a depth of 14 inches. Coquina limestone occurs at a depth of about 30 inches but varies in depth from 20 to 40 inches. Runoff is slow and permeability and infiltration is rapid. Available water content is low.

Cocoa-urban land complex (16)– This map complex is made up of long narrow ridges of nearly level to gently sloping Cocoa soils. In natural occurrences, these are well drained sandy soils about 40 inches thick over a layer of coquina rock. Depth to the water table is

more than 80 inches. Typically, the surface layer of Cocoa soil is very dark gray sand about 6 inches thick. The subsurface layer is brown sand to a depth of 14 inches. Coquina limestone is generally at a depth of 30 inches. Some not well drained patches have a seasonal high-water table between depths of 40 to 60 inches.

Riviera fine sand (55)– This is a poorly drain, nearly level soil. Slopes are smooth and are 0 to 2 percent. Typically, the surface layer is fine sand about 16 inches thick. The upper 4 inches is very dark grey and the lower 12 inches is dark gray. The subsurface layer is light brownish gray fine sand about 9 inches thick. The water table is within a depth of 10 inches for about 2 to 6 months and is within 40 inches for about 6 months during most years. The available water capacity is low. Permeability is rapid to a depth of about 36 inches, moderately rapid to 42 inches, and rapid below.

## **4.0 WETLANDS AND SURFACE WATERS**

### **4.1 Methods and Jurisdiction**

Criteria used to determine the presence of the boundaries of wetlands and surface waters were in accordance with Chapter 62-340 F.A.C. AES completed the wetland delineation on March 10 and 11, 2022.

Wetlands within the subject property are jurisdictional to the St. Johns River Water Management District (SJRWMD).

Based on preliminary desktop review, the wetland areas connect downstream to navigable waters via canals and ditches. It is assumed the wetlands will be claimed as Waters of the U.S. (WOTUS). An Approved Jurisdictional Determination through the Florida Department of Environmental Protection (FDEP) State 404 Program will be required to confirm federal jurisdiction.

### **4.2 Wetland Impacts**

Impacts to wetlands within the subject property will require permitting through the SJRWMD and FDEP State 404 Program. Impacts to wetlands are assessed under the Uniform Mitigation Assessment Method (UMAM) for these agencies. An initial assessment was completed for the property to be used for planning purposes. Since no site plan is currently developed for the site, the assessment was prepared using an assumed 1 acre of impact.



Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry's (DPI) *Notes on Florida's Endangered and Threatened Plants*. During the site reconnaissance, observations or evidence of protected species and the likelihood of occurrence of each protected species were noted. Further review was completed following the habitat mapping and descriptions.

## 6.1 Protected Wildlife Species

The protected animal species with at least some likelihood of occurrence are listed in Table 6.1.1, below. The likelihood of occurrence of each species is noted in the table and those species with at least a moderate likelihood of occurrence are discussed following the table.

Table 6.1.1: Protected wildlife species with the potential to occur on the New Smyrna Beach Endsley Station property, in Volusia County, Florida.

Species Name	Common Name	Agency Listing		Likelihood of Occurrence	Habitat
		FWC	FWS/NMFS		
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	T	T	Low	Scrub habitat
<i>Calidris canutus</i>	Red knot	T	T	Low	Red knots use several places as stopover stops in Florida as feeding grounds
<i>Drymarchon couperi</i>	Eastern indigo snake	T	T	Low	Pine flatwoods, hardwood forests, moist hammocks, and areas that surround cypress swamps
<i>Gopherus polyphemus</i>	Gopher Tortoise	T	T	Mod	longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes
<i>Laterallus jamaicensis ssp.</i>	Eastern black rail	T	T	Low	Marshes and wet meadows with shallow water
<i>Mycteria americana</i>	Wood stork	T	T	Low	Marshes, swamps, streams and mangroves
<i>Nerodia clarkii</i>	Atlantic salt marsh snake	T	T	Low	Coastal salt marshes

E= Endangered; T=Threatened; SSC=Species of Special Concern; CS=Candidate Species

Those species listed as having a moderate likelihood of occurrence or higher in Table 6.1 are listed as such due to presence of suitable habitat.

A gopher tortoise (*Gopherus polyphemus*) burrow survey was conducted on the subject property by an Authorized Gopher Tortoise Agent. The survey covered 100% of the



upland habitat found on the subject site. No potentially occupied gopher tortoise burrows were identified.

The FWC's Eagle Nest Locator website was queried for data regarding documented southern bald eagle (*Haliaeetus l. leucocephalus*) nests in the project vicinity. The southern bald eagle is protected under the Bald and Golden Eagle Protection Act (BGEPA). Development guidelines are required for any proposed projects with 330 feet for urban areas and 660 feet for non-urban areas. There is an eagle nest 0.5 miles from the subject property. No impacts to the bald eagle are anticipated.

## 6.2 Protected Vegetative Species

The protected plant species with at least some likelihood of occurrence are listed in Table 6.1.1, below. The likelihood of occurrence of each species is noted in the table and those species with at least a moderate likelihood of occurrence are discussed following the table.

Table 6.1.1: Protected wildlife species with the potential to occur on the New Smyrna Beach Endsley Station property, in Volusia County, Florida.

Species Name	Common Name	Agency Listing		Likelihood of Occurrence	Habitat
		FWC	FWS/NMFS		
<i>Cladonia perforata</i>	Perforate reindeer lichen		E	Low	Very dry, open sites on sand with little plant cover around it
<i>Deeringothamnus rugelii</i>	Rugel's pawpaw		E	Low	Poorly drained, slash pine and saw palmetto flatwoods in sandy soils
<i>Dicerandra immaculata</i>	Lakela's Mint		E	Low	Openings and shady areas where the wind or wildfire has cleared a partial or total space in the canopy in sand scrub habitat
<i>Polygala lewtonii</i>	Lewton's polygala		E	Low	Pyrogenic longleaf pine sandhill and turkey oak sandhill, less often in oak-hickory scrub habitats
<i>Warea carteri</i>	Carter's mustard		E	Low	Sandy areas in open scrub oak, sand scrub

E= Endangered; T=Threatened; SSC=Species of Special Concern; CS=Candidate Species

No federally protected plant species are expected to occur on the subject property.

## 7.0 CULTURAL RESOURCES

A master file search was reviewed by the Division of Historical Resources (DHR) for potential of cultural resources. There are two identified resources within the subject property and one resource located abutting the subject property. A brief summary table is provided below:

Resource ID	Location	Name	Status
V007056	Within property	Turnbull Canal	Eligible – listed August 24, 2007
V007592	Within property	West Smyrna Track	Not Eligible
V010230	Abutting property	Myrtaceae Scatter	Insufficient Info

A Phase 1 Cultural Resource Assessment (CRA) may be required on the subject property to determine if the resources above, or any unknown resources, would affect potential development of the site.

## 8.0 SUMMARY

The New Smyrna Beach Endsley Station Property is located in Volusia County, Florida. The subject property is approximately 101.18 acres in total size and consists of uplands, wetlands, surface waters, and disturbed lands.

The subject property includes 4.94 acres of forested wetlands. Impacts to wetlands will require permitting through the SJRWMD and FDEP State 404 Program. Impacts would require compensatory mitigation.

A 100% gopher tortoise survey was completed on the subject property, and no potentially occupied burrows were identified. Surveys are valid for a period of 90 days. Prior to construction an updated 100% survey will be required. If potentially occupied gopher tortoise burrows are found within planned construction areas, and adjacent 25 feet, FWC permitting and relocation to a permitted recipient site would be required.

No other protected fauna species are anticipated to be impacted by the proposed project.

No federally protected flora species are anticipated on the subject property.

Cultural resources were identified within and abutting the subject property. It is anticipated a Phase 1 CRA will be required to determine any potential impacts to cultural resources.

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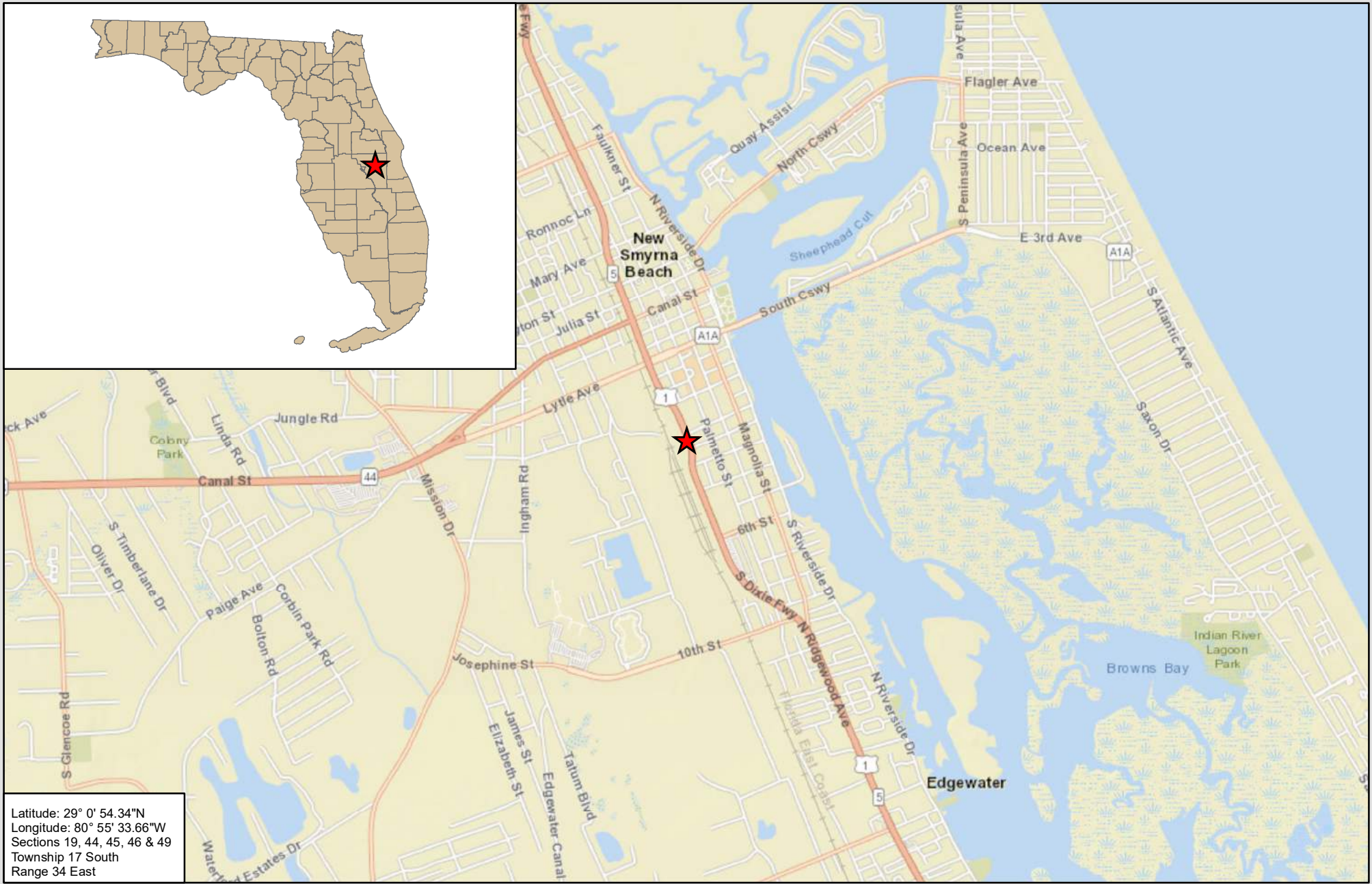
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## **APPENDIX I**

### **FIGURES**





Latitude: 29° 0' 54.34"N  
Longitude: 80° 55' 33.66"W  
Sections 19, 44, 45, 46 & 49  
Township 17 South  
Range 34 East

Image Source: ESRI 2020  
Date: 3-15-22

0 1,500 3,000  
Feet



# Location Map Endsley Station Volusia County, Florida



WWW.ATLANTICECO.COM  
904-347-9133 | jody@atlanticeco.com  
201 Basque Rd | St. Augustine, FL 32080





Image Source: 2018  
Date: 3-8-22

0 350 700  
Feet



# Aerial Map Endsley Station Volusia County, Florida



WWW.ATLANTICECO.COM  
904-347-9133 | jody@atlanticeco.com  
201 Basque Rd | St. Augustine, FL 32080





Image Source: 2018  
Date: 3-8-22

0 500 1,000  
Feet



# Topographic Map Endsley Station Volusia County, Florida



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201 Basque Rd | St. Augustine, FL 32080





Image Source: 2018  
Date: 3-8-22

0 350 700  
Feet



# Soil Map Endsley Station Volusia County, Florida



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Image Source: 2018  
Date: 3-8-22

0 350 700  
Feet



## Habitat Map Endsley Station Volusia County, Florida



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Image Source: 2018  
Date: 3-8-22

0 350 700  
Feet



# Wetland Map Endsley Station Volusia County, Florida



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**APPENDIX II**

**CULTURAL RESOURCE ASSESSMENT**









AR=3  
 SS=2  
 CM=0  
 RG=3  
 BR=0  
 Total=8

## Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
VO07056	AR	TURNBULL CANAL SYSTEM	New Smyrna Beach		Eligible	NR Listed - Aug 24, 2007
VO07468	SS	702 South Myrtle Avenue	702 S Myrtle AVE, New Smyrna Beach	c1945 Frame Vernacular	Not Eligible	
VO07470	SS	826 South Myrtle Avenue	826 S Myrtle AVE, New Smyrna Beach	c1930 Frame Vernacular	Not Eligible	
VO07592	AR	West Smyrna Track	New Smyrna Beach		Not Eligible	
VO07599	RG	Florida East Coast Railroad Buildings	New Smyrna Beach	Historical District - 5 Contrib Resources	Insufficient Info	
VO10229	RG	Canal near West 7th Street	New Smyrna Beach	Linear Resource - 1 Contrib Resources	Insufficient Info	
VO10230	AR	Myrtaceae Scatter	New Smyrna Beach		Insufficient Info	
VO10240	RG	South Myrtle Avenue	New Smyrna Beach	Linear Resource	Not Eligible	