



April 26, 2021

Bobby Luthra  
**PIB Investment Brokers**  
1505 E. Robinson Street  
Orlando, Florida 32801

**Proj: Beeline & I-95 - Brevard County, Florida**  
**Section 10; Township 24 South; Range 35 East**  
**(BTC File #372-78)**  
**Re: Environmental Assessment Report**

Dear Mr. Luthra:

During April 2021, Bio-Tech Consulting, Inc. (BTC) conducted an Environmental Assessment of the Beeline & I-95 site. The approximately 212.21-acre subject property is located southeast of the Beachline Expressway and I-95 junction, and to the northwest of State Road 524, within Section 10; Township 24 South; Range 35 East, in Brevard County, Florida (**Figures 1, 2 & 3**). The subject site is entirely located within the City of Cocoa limits. The environmental assessment included the following elements:

- Review of soil types mapped within the site boundaries;
- Evaluation of land use types/vegetative communities present;
- Field review for occurrence of protected flora and fauna;
- Delineation of on-site wetland and surface water communities; and,
- Determination of environmental permitting constraints.

## SOILS

According to the Soil Survey of Brevard County, Florida, prepared by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), seven (7) soil types occur within the subject property boundaries (**Figure 4**). These soil types include the following:

Orlando: Main Office  
3025 East South Street  
Orlando, FL 32803

Vero Beach Office  
4445 N A1A  
Suite 221  
Vero Beach, FL 32963

Jacksonville Office  
1157 Beach Boulevard  
Jacksonville Beach, FL 32250

Tampa Office  
6011 Benjamin Road  
Suite 101 B  
Tampa, FL 33634

Key West Office  
1107 Key Plaza  
Suite 259  
Key West, FL 33040

Aquatic & Land  
Management Operations  
3825 Rouse Road  
Orlando, FL 32817

407.894.5969  
877.894.5969  
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- **Basinger Sand (#7)**
- **EauGallie sand (#17)**
- **Immokalee sand, 0 to 2 percent slopes (#28)**
- **Myakka sand, 0 to 2 percent slopes (#36)**
- **Myakka sand, depressional (#38)**
- **Tomoka muck, undrained (#67)**
- **Valkaria sand (#70)**

The following presents a brief description of the soil types mapped for the subject property:

**Basinger sand (#7)** is a nearly level, poorly drained sandy soil found in soughs of poorly defined drainageways and depressions in the flatwoods. The upper 2 inches of the surface layer of this soil type generally consists of very dark gray sand. The lower 6 inches of the surface layer generally consists of grayish brown sand. In most years the water table for this soil type is within a depth of 10 inches for 2 to 6 months of the year, and between 10 and 40 inches for 6 months or more. In dry seasons it is below a depth of 40 inches for short periods. This soil type is occasionally flooded for 2 to 7 days following heavy rains. Permeability of this soil type is very rapid.

**EauGallie sand (#17)** is a nearly level, poorly drained soil on broad, low ridges on the flatwoods. During most years, the water table for this soil type is within a depth of 10 inches of the surface for 1 to 4 months and between 10 and 40 inches of the surface for more than 6 months. In dry seasons it is below a depth of 40 inches. The permeability of EauGallie sand is rapid to a depth of 22 inches, moderate to moderately rapid from 22 to 35 inches, rapid from 35 to 55 inches, moderate to moderately rapid from 55 to 61 inches, and rapid below 61 inches.

**Immokalee sand, 0 to 2 percent slopes (#28)** is a nearly level, poorly drained sandy soil on broad areas on the flatwoods, on low ridges between sloughs, and in low narrow areas between sand ridges and lakes and ponds. The surface layer of this soil type consists of very dark gray and dark gray sand about 11 inches thick. During most years, the water table for this soil type is within a depth of 10 inches of the surface for 1 to 2 months and between 10 and 40 inches of the surface for more than half the time and during short, dry periods below 40 inches. The permeability of this soil type is moderate to moderately rapid in the weakly cemented layers and rapid in all other layers.

**Myakka sand, 0 to 2 percent slopes (#36)** is a nearly level, poorly drained sandy soil found in shallow depressions in the flatwoods. The upper 4 inches of the surface layer of this soil type generally consists of very dark gray sand. The lower 4 inches of the surface layer generally consists of dark gray sand. In most years this soil type is flooded for 6 to 12 months. In dry seasons it is deeper, but is seldom below a depth of 40 inches. The permeability of this soil type is rapid in the sandy layers to a depth of about 22 inches, moderate from about 22 to 46 inches, and rapid from about 46 to 63 inches.

**Myakka sand, depressional (#38)** is a nearly level, poorly drained sandy soil in depressions in the flatwoods. Most areas are small with only a few larger areas exceeding 50 acres in size. The soil is similar to Myakka sand, but located in lower elevations where water is capable of accumulating. In most years, the area is flooded for 6 to 12 months.

**Tomoka muck, undrained (#67)** is a nearly level, very poorly drained muck soil in broad flat marshes, small depressions, and swamps. Sandy and loamy layers are at a depth of 16 to 40 inches. The water table is within a depth of 10 inches for 9 to 12 months in most years, and water is frequently above the surface. In dry periods it is between 10 and 30 inches.

**Valkaria sand (#70)** is a nearly level, poorly drained soil in grassy sloughs, low palm hammocks and broad low areas. This soil type is frequently flooded for periods of 2 to 7 days following heavy rains. The water table is within a depth of 10 inches for 2 to 6 months of most years. In dry periods it is within a depth of 30 inches most of the time. The permeability of this soil type is rapid.

The Florida Association of Environmental Soil Scientists (FAESS) considers the main components of the Basinger sand (#7), Myakka sand, depressional (#38), Tomoka muck, undrained (#67), and Valkaria sand (#70) soil types associated with the property, to be hydric in nature. The FAESS also considers inclusions present within the EauGaillie sand (#17) soil type associated with the property, to be hydric in nature. This information can be found in the Hydric Soils of Florida Handbook, Fourth Edition, March 2007.

## LAND USE TYPES/VEGETATIVE COMMUNITIES

The Beeline & I-95 site currently supports six (6) land use types/vegetative communities within the subject property boundaries (**Figure 5**). These land use types were identified utilizing the Florida Land Use, Cover and Forms Classification System, Level III (FLUCFCS, FDOT, January 2004). The upland land use types within the subject property consist of Pine Flatwoods (411) and Hardwood - Conifer Mixed (434). The surface water and wetland land use types within the subject property consist of Willow and Elderberry (618), Hydric Pine Flatwoods (625), Wetland Forested Mixed (630), and Freshwater Marshes (641). The following provides a brief description of the land use types/vegetative communities identified on the site:

### Uplands:

#### ***411 – Pine Flatwoods***

The majority of the property is comprised of uplands which are best classified by the Pine Flatwoods (411) land use type, per the FLUCFCS. The western portion of this community type includes more pine trees in the canopy and the eastern portion contains a sparse pine canopy with a heavy concentration of gallberry (*Ilex glabra*). This community exhibited evidence of burn

activity in the past. Vegetative species within this land use type consists of slash pine (*Pinus elliottii*), longleaf pine (*Pinus palustris*), cabbage palm (*Sabal palmetto*), gallberry (*Ilex glabra*), Brazilian pepper (*Schinus terebinthifolia*), fetterbush (*Lyonia lucida*), bracken fern (*Pteridium aquilinum*), muscadine grapevine (*Vitis rotundifolia*), saw palmetto (*Serenoa repens*), johnsongrass (*Sorghum halepense*), winged sumac (*Rhus copallinum*), American beautyberry (*Callicarpa americana*), cogongrass (*Imperata cylindrica*), wiregrass (*Aristida stricta*), Carolina redroot (*Lachnanthes carolina*), runner oak (*Quercus pumila*), bahia grass (*Paspalum notatum*), chalky bluestem (*Andropogon virginicus*), dog fennel (*Eupatorium capillifolium*), St. Augustine grass (*Stenotaphrum secundatum*), caesarweed (*Urena lobata*), blackberry (*Rubus pensilvanicus*), rusty lyonia (*Lyonia ferruginea*), winged sumac (*Rhus copallinum*), dog fennel (*Eupatorium capillifolium*), and greenbrier (*Smilax* spp.)

#### **434 - Hardwood - Conifer Mixed**

The site contains forested areas which contain a mix of pines and hardwood species which are located on the east boundary and along the southern boundary. This land use type is best classified by the Hardwood - Conifer Mixed (434) land use type, per the FLUCFCS. Vegetative species within this land use type consists of water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), slash pine (*Pinus elliottii*), cabbage palm (*Sabal palmetto*), earpodtree (*Enterolobium contortisiliquum*), red cedar (*Juniperus virginiana*), Chinese tallowtree (*Triadica sebifera*), chinaberry (*Melia azedarach*), dahoon holly (*Ilex cassine*), gallberry (*Ilex glabra*), Brazilian pepper (*Schinus terebinthifolia*), fetterbush (*Lyonia lucida*), poison ivy (*Toxicodendron radicans*), bracken fern (*Pteridium aquilinum*), saw palmetto (*Serenoa repens*), johnsongrass (*Sorghum halepense*), winged sumac (*Rhus copallinum*), American beautyberry (*Callicarpa americana*), cogongrass (*Imperata cylindrica*), elderberry (*Sambucus nigra*), sword fern (*Nephrolepis cordifolia*), runner oak (*Quercus pumila*), chalky bluestem (*Andropogon virginicus*), dog fennel (*Eupatorium capillifolium*), caesarweed (*Urena lobata*), blackberry (*Rubus pensilvanicus*), rusty lyonia (*Lyonia ferruginea*), dog fennel (*Eupatorium capillifolium*), muscadine grapevine (*Vitis rotundifolia*), and greenbrier (*Smilax* spp.)

## **Wetlands/Surface Waters:**

### ***618 - Willow and Elderberry***

The site contains one (1) wetland area located on the southern boundary line which is best classified by the Willow and Elderberry (618) land use type, per the FLUCFCS. Vegetative species within this land use type include Mexican primrosewillow (*Ludwigia octovalvis*), Virginia chain fern (*Woodwardia virginica*), royal fern (*Osmunda regalis*), swamp sawgrass (*Cladium jamaicense*), sand cordgrass (*Spartina bakeri*), marsh pennywort (*Hydrocotyle vulgaris*), spadeleaf (*Centella asiatica*), St. John's-Wort (*Hypericum cistifolium*), duck potato (*Sagittaria lancifolia*), and pickerelweed (*Pontederia cordata*).

### ***625 - Hydric Pine Flatwoods***

Located in the northeastern portion of the site is a small wetland which is best classified by the Hydric Pine Flatwoods (625) land use type, per the FLUCFCS. Moderate levels of turbidity was observed along the portion of the wetland system which abuts the northern boundary. Vegetative species within this land use type include slash pine (*Pinus elliottii*), pond pine (*Pinus serotina*), cabbage palm (*Sabal palmetto*), melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolia*), swamp bay (*Persea palustris*), maidencane (*Panicum hemitomon*), blue maidencane (*Amphicarpum muhlenbergianum*), swamp fern (*Telmatoblechnum serrulatum*), wiregrass (*Aristida stricta*), Virginia chain fern (*Woodwardia virginica*), wax myrtle (*Morella cerifera*), sand cordgrass (*Spartina bakeri*), chalky bluestem (*Andropogon virginicus*), broomsedge (*Andropogon glomeratus*), Carolina redroot (*Lachnanthes caroliana*), hatpins (*Syngonanthus flavidulus*), beakrush (*Rhynchospora* spp.), soft rush (*Juncus effusus*), sedges (*Carex* spp.), St. John's-Wort (*Hypericum cistifolium*), swamp sawgrass (*Cladium jamaicense*), sword fern (*Nephrolepis cordifolia*), fetterbush (*Lyonia lucida*), and mermaid weed (*Proserpinaca palustris*).

### ***630 - Wetland Forested Mixed***

Within the central and western portions of the site there are two (2) wetlands which are best classified by the Wetland Forested Mixed (630) land use type, per the FLUCFCS. The wetland forested mixed system which abuts the northern boundary exhibited high levels of turbidity, likely due to runoff from construction associated with the Brightline high-speed passenger rail construction. Vegetative species within this land use type include slash pine (*Pinus elliottii*), swamp bay (*Persea palustris*), cabbage palm (*Sabal palmetto*), red maple (*Acer rubrum*), Brazilian pepper (*Schinus terebinthifolia*), melaleuca (*Melaleuca quinquenervia*), maidencane (*Panicum hemitomon*), blue maidencane (*Amphicarpum muhlenbergianum*), swamp fern (*Telmatoblechnum serrulatum*), Virginia chain fern (*Woodwardia virginica*), wax myrtle (*Morella cerifera*), sand cordgrass (*Spartina bakeri*), broomsedge (*Andropogon glomeratus*), fetterbush (*Lyonia lucida*),

chalky bluestem (*Andropogon virginicus*), Carolina redroot (*Lachnanthes caroliana*), hatpins (*Syngonanthus flavidulus*), beakrush (*Rhynchospora* spp.), soft rush (*Juncus effusus*), mermaid weed (*Proserpinaca palustris*), sedges (*Carex* spp.), St. John's-Wort (*Hypericum cistifolium*), and swamp sawgrass (*Cladium jamaicense*).

### **641- Freshwater Marshes**

Scattered throughout the subject site are herbaceous wetlands which are best classified by the Freshwater Marshes (641) land use type, per the FLUCFCS. Significant evidence of feral hog damage was noted throughout these areas. Scattered canopy species within these wetlands include dahoon holly (*Ilex cassine*), loblolly bay (*Gordonia lasianthus*), loblolly pine (*Pinus taeda*), cabbage palm (*sabal palmetto*), pond pine (*Pinus serotina*), and slash pine (*Pinus elliottii*). button bush (*Cephalanthus occidentalis*), Virginia chain fern (*Woodwardia virginica*), nutrush (*scleria* spp.), hatpins (*Syngonanthus flavidulus*), maidencane (*Panicum hemitomon*), blue maidencane (*Amphicarpum muhlenbergianum*), fetterbush (*Lyonia lucida*), pickerelweed (*Pontederia cordata*), broomsedge (*Andropogon glomeratus*), St. John's-Wort (*Hypericum cistifolium*), sedges (*Carex* spp.), melaleuca (*Melaleuca quinquenervia*), Carolina redroot (*Lachnanthes caroliana*), chalky bluestem (*Andropogon virginicus*), brazilian pepper (*Schinus terebinthifolia*), gallberry (*Ilex glabra*), wax myrtle (*Morella cerifera*), Virginia chain fern (*Woodwardia virginica*), yellow-eyed grass (*Xyris caroliniana*), mermaid weed (*Proserpinaca palustris*), swamp sawgrass (*Cladium jamaicense*), sphagnum (*Sphagnum carolinianum*), saw palmetto (*Serenoa repens*), greenbrier (*Smilax* spp.), red ludwigia (*Ludwigia repens*), poison ivy (*Toxicodendron radicans*), and mermaid weed (*Proserpinaca palustris*).

### **PROTECTED SPECIES**

Utilizing methodologies outlined in the Florida's Fragile Wildlife (Wood, 2001); Measuring and Monitoring Biological Diversity Standard Methods for Mammals (Wilson, et al., 1996); and Florida Fish and Wildlife Conservation Commission's (FFWCC) Gopher Tortoise Permitting Guidelines (April 2008 - revised July 2020), an assessment for "listed" floral and faunal species occurring within the subject site boundaries was conducted on April 8, 9, and 21, 2021. The survey covered approximately 50 percent of the subject site's developable area, included both direct observations and indirect evidence, such as tracks, burrows, tree markings and vocalizations which indicated the presence of species observed. The assessment focused on species that are "listed" by the FFWCC's Official Lists - Florida's Endangered Species, Threatened Species and Species of Special Concern (December 2018) that have the potential to occur in Brevard County (attached Table 1).

No plant species listed as “Threatened” or “Endangered” by either The Florida Department of Agriculture (FDA) or U.S. Fish and Wildlife Service (USFWS) was identified on the site during the assessments conducted. However, one (1) fern species were identified that are listed as “Commercially Exploited” by the Florida Department of Agriculture and Consumer Services (FDACS). The harvesting of this species, royal fern (*Osmunda regalis*), for commercial gain is prohibited. However, the listing of this species poses no restrictions towards the development of the site. The following is a list of those wildlife species identified during the evaluation of the site:

### **Reptiles and Amphibians**

brown anole (*Norops sagrei*)  
eastern racer (*Coluber constrictor*)  
Florida leopard frog (*Lithobates sphenoccephalus sphenoccephalus*)  
gopher tortoise (*Gopherus polyphemus*)  
green anole (*Anolis carolinensis*)  
six-lined racerunner (*Cnemidophorus sexlineatus*)  
southern toad (*Anaxyrus terrestris*)

### **Birds**

American Crow (*Corvus caurinus*)  
Black Vulture (*Coragyps atratus*)  
Mourning Dove (*Zenaida macroura*)  
Northern Cardinal (*Cardinalis cardinalis*)  
Northern Mockingbird (*Mimus polyglottos*)  
Red-shouldered Hawk (*Buteo lineatus*)

### **Mammals**

black bear (*Ursus americanus floridanus*)  
common raccoon (*Procyon lotor*)  
eastern gray squirrel (*Sciurus carolinensis*)  
feral hog (*Sus scrofa*)  
marsh rabbit (*Sylvilagus palustris*)  
nine-banded armadillo (*Dasybus novemcinctus*)  
Virginia opossum (*Didelphis virginiana*)  
white-tailed deer (*Odocoileus virginianus*)

One (1) of the above species were identified in the FFWCC’s Official Lists - Florida’s Endangered Species, Threatened Species and Species of Special Concern (updated December 2018), the gopher tortoise (*Gopherus polyphemus*). The following provides a brief description of this species and other wildlife species as they relate to the development of the site.

**Bald Eagle (*Haliaeetus leucocephalus*)**

*State protected by F.A.C. 68A-16.002 and federally protected by both the Migratory Bird Treaty Act (1918) and the Bald and Golden Eagle Protection Act (1940)*

In August of 2007, the USFWS removed the Bald Eagle from the list of federally endangered and threatened species. Additionally, the Bald Eagle was removed from FFWCC’s imperiled species list in April of 2008. Although the Bald Eagle is no longer protected under the Endangered Species Act, it is still protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and FFWCC’s Bald Eagle rule (F.A.C. 68A-16.002 Bald Eagle (*Haliaeetus leucocephalus*)).

In May of 2007, the USFWS issued the National Bald Eagle Management Guidelines. In April of 2008, the FFWCC adopted a new Bald Eagle Management Plan that was written to closely follow the federal guidelines. In November of 2017, the FFWCC issued “A Species Action Plan for the Bald Eagle” in response to the sunset of the 2008 Bald Eagle Management Plan. Under the USFWS’s management plans, buffer zones are recommended based on the nature and magnitude of the project or activity. The recommended protective buffer zone is 660 feet or less from the nest tree, depending on what activities or structures are already near the nest. As provided within the above referenced Species Action Plan, the USFWS is the regulating body responsible for issuing permits for Bald Eagles. In 2017, the need to obtain a State permit (FFWCC) for the take of Bald Eagles or their nests in Florida was eliminated following revisions to Rule 68A-16.002, F.A.C. A USFWS Bald Eagle “Non-Purposeful Take Permit” is not needed for any activity occurring outside of the 660-foot buffer zone. No activities are permitted within 330 feet of a nest without a USFWS permit.

In addition to the on-site evaluation for listed species, BTC conducted a desktop review of FFWCC’s database and Audubon’s EagleWatch program database for recorded Bald Eagle nests within the surrounding 660 feet of the subject site. This review revealed that there are no Bald Eagle nests (through the 2016-2017 nesting season for FFWCC data and 2019-2020 nesting season for Audubon EagleWatch data) within 660 feet of the project site boundaries (**Figure 6** and attached Eaglewatch Search). Thus, no developmental constraints are expected with respect to Bald Eagle nests.

**Gopher Tortoise (*Gopherus polyphemus*)**

*State Listed as “Threatened” by FFWCC*

Currently the gopher tortoise (*Gopherus polyphemus*) is classified as a “Category 2 Candidate Species” by USFWS, and as of September 2007 is now classified as “Threatened” by FFWCC. The basis of the “Threatened” classification by the FFWCC for the gopher tortoise is due to habitat loss and destruction of burrows. Gopher tortoises are commonly found in areas with well-drained soils associated with the pine flatwoods, pastures and abandoned orange groves. Several other

protected species have a possibility of occurring in this area, as they are gopher tortoise commensal species. However, none of these commensal species were observed during the survey conducted.

The subject property was surveyed for the existence of gopher tortoises through the use of pedestrian transects (**Figure 6**). The survey covered approximately 50 percent of the suitable habitat present within the subject property boundaries. Twenty-Three (23) active/inactive gopher tortoise burrows were observed and recorded using GPS technology. These burrows were concentrated along the southern boundary within a sandy berm and many of these burrows were located within 25 feet of the subject site property boundary.

The FFWCC provides three (3) options for developers that have gopher tortoises on their property. These options include: 1) avoidance (i.e., 25-foot distance from construction), 2) preservation of habitat, and 3) off-site relocation. Gopher tortoise surveys for permitting with FFWCC are valid for 90 days. BTC recommends that a 100 percent survey be conducted within 90 days of the start of construction to identify the total gopher tortoise population that exists within the subject site for FFWCC permitting purposes. As such, resolution of the gopher tortoise issue will need to be permitted through FFWCC prior to any construction activities.

#### **Wood Stork (*Mycteria americana*)**

*Federally Listed as “Threatened” by USFWS*

The subject site is shown to be located within a Wood Stork Nesting Colony Core Foraging Area. Wood Storks typically nest colonially in medium to tall trees that occur in stands located either in swamps or on islands surrounded by relatively broad expanses of open water (Ogden 1991; Rodgers et al. 1996). The Wood Stork (*Mycteria americana*) is listed as “Threatened” by the USFWS. Wood storks are large, long-legged wading birds, about 45 inches tall, with a wingspan of 60 to 65 inches. Their plumage is white except for black primaries and secondaries and a short black tail. The head and neck are largely unfeathered and dark gray in color. The bill is black, thick at the base, and slightly decurved. Wood Storks are birds of freshwater and estuarine wetlands, primarily nesting in cypress or mangrove swamps.

Successful breeding sites are those that have limited human disturbance and low exposure to land based predators. Because of their specialized feeding behavior, Wood Storks forage most effectively in shallow-water areas with highly concentrated prey. Typical foraging sites for the Wood Stork include freshwater marshes, depressions in cypress heads, swamp sloughs, managed impoundments, stock ponds, shallow-seasonally flooded roadside or agricultural ditches and narrow tidal creeks or shallow tidal pools. Good foraging conditions are characterized by water that is relatively calm, open, and having water depths between 5 and 15 inches (5 and 38 cm).

The USFWS identified core foraging area (CFA) around all known Wood Stork nesting colonies that is important for reproductive success. In Central Florida, CFAs include suitable foraging habitat (SFH) within a 15-mile radius of the nest colony; CFAs in North Florida include SFH within a 13-mile radius of a colony. The USFWS believes loss of suitable foraging wetlands within these CFAs may reduce foraging opportunities for the Wood Stork.

No Wood Storks were observed within the subject site during the wildlife survey conducted by BTC. Based on our review of available databases, there is record of two (2) Wood Stork rookeries close to the site. One is within 2.6 miles of the subject site and the other within 3 miles of the subject site. The USFWS and the Florida Department of Environmental Protection (FDEP) and U.S. Army Corps of Engineers (USACE) require that any impacts to on-site ditches and/or wetlands, which would eliminate a portion of the Wood Stork foraging habitat, be either mitigated through the purchase of mitigation credits or recreated elsewhere on-site so that there would be no net loss of Wood Stork foraging habitat. No Wood Storks were observed within the subject site during the wildlife survey conducted by BTC; however, mitigation for Wood Stork habitat may be required if ditches or wetlands are impacted and Section 404 permitting with the FDEP or Section 10 permitting with the USACE is necessary.

## **USFWS CONSULTATION AREAS**

The USFWS have established “consultation areas” for certain listed species. Generally, these consultation areas only become an issue if USFWS consultation is required, which is usually associated with federal Section 10 permitting with the USACE and Section 404 permitting through the FDEP. It should be noted that a listed species presence and need for additional review are often determined to be unnecessary early in the permit review process due to lack of appropriate habitat or other conditions. However, the USFWS makes the final determination. Consultation areas are typically very regional in size, often spanning multiple counties where the species in question is known to exist. Consultation areas by themselves do not indicate the presence of a listed species. They only indicate an area where there is a potential for a listed species to occur and that additional review might be necessary to confirm or rule-out the presence of the species. The additional review typically includes the application of species-specific criteria to rule-out or confirm the presence of the species in question. Such criteria might consist of a simple review for critical habitat types. In other cases, the review might include the need for species-specific surveys using established methodologies that have been approved by the USFWS.

The following provides a brief description of the respective species, its habitat, and the potential for additional review.

**Florida Scrub-jay (*Aphelocoma coerulescens*)**

*Federally Listed as “Threatened” by USFWS*

The subject site falls within the USFWS Consultation Area for the Florida Scrub-jay. Currently the Florida Scrub-jay is listed as threatened by the USFWS. Florida Scrub-jays are largely restricted to scattered, often small and isolated patches of sand pine scrub, xeric oak, scrubby flatwoods, and scrubby coastal stands in peninsular Florida (Woolfenden 1978a, Fitzpatrick et al. 1991). They avoid wetlands and forests, including canopied sand pine stands. Optimal Scrub-jay habitat is dominated by shrubby scrub, live oaks, myrtle oaks, or scrub oaks from 1 to 3 m (3 to 10 feet) tall, covering 50 percent to 90 percent of the area; bare ground or sparse vegetation less than 15 cm (6 in.) tall covering 10 percent to 50 percent of the area; and scattered trees with no more than 20 percent canopy cover (Fitzpatrick et al. 1991).

A call recording was played during the wildlife survey at various locations throughout the subject site and no Florida Scrub-jays were observed during the cursory survey conducted by BTC. No suitable habitat exists within the limits of the site and it is not anticipated that a formal survey would be required by the USFWS or another agency to determine if any Florida Scrub-jays utilize any portions of the site.

**Everglade Snail Kite (*Rostrhamus sociabilis*)**

*Federally Listed as “Endangered” by USFWS*

The subject site falls within the USFWS Consultation Area for the Everglade Snail Kite. Currently the Snail Kite is listed as “Endangered” by the USFWS. Snail Kites are similar in size to Red-shouldered Hawks. All Snail Kites have deep red eyes and a white rump patch. Males are slate gray, and females and juveniles vary in amounts of white, light brown, and dark brown, but the females always have white on their chin. Kites vocalize mainly during courtship and nesting. They may occur in nearly all of the wetlands of central and southern Florida. They regularly occur

in lake shallows along the shores and islands of many major lakes, including Lakes Okeechobee, Kissimmee, Tohopekaliga (Toho) and East Toho. They also regularly occur in the expansive marshes of southern Florida such as Water Conservation Areas 1, 2, and 3, Everglades National Park, the upper St. John’s River marshes and Grassy Waters Preserve.

No Everglade Snail Kites were observed within the subject site during the wildlife survey conducted by BTC and no suitable habitat exists within the subject property. As such, it is not anticipated that a formal snail kite survey would be required by the USFWS or another agency.

**Audubon’s Crested Caracara (*Polyborus plancus audubonii*)**  
*Federally Listed as “Threatened” by USFWS*

The subject site falls within the USFWS Consultation Areas for the Audubon’s Crested Caracara. Currently the Audubon’s Crested Caracara is listed as threatened by the USFWS due primarily to habitat loss. The Audubon’s Crested Caracara commonly occurs in dry or wet prairie areas with scattered cabbage palms, lightly wooded areas with saw palmetto, scrub oaks and cypress. The Audubon’s Crested Caracara also uses improved or semi-improved pasture with seasonal wetlands. Audubon’s Crested Caracaras construct new nests each nesting season, often in the same tree as the previous year.

Although the subject site falls within the USFWS Audubon’s Crested Caracara consultation area, no crested caracaras were observed and within the project boundaries. Particular attention was given to the cabbage palms on the project during the wildlife survey and no evidence of nesting activity was observed. A formal survey could be required by the USFWS or another agency to determine if any Audubon’s Crested Caracara utilize any portions of the site.

**ENVIRONMENTAL CONSTRAINTS**

The surface waters have been delineated by BTC with pink flagging tape in the field (**Figure 7**) and will need to be reviewed by the appropriate regulatory agencies. Permitting through the St. Johns River Water Management District (SJRWMD), and the FDEP would be required to develop the project site. The site resides within the St. Johns River (Canaveral Marshes to Wekiva) drainage basin.

**St. Johns River Water Management District**

The Environmental Resource Permit (ERP) program regulates activities involving the alteration of surface water flows. This includes new activities in uplands that generate stormwater runoff from upland construction, as well as dredging and filling in wetlands and other surface waters. An ERP will be required through the SJRWMD for all wetland and/or other surface water impacts (both direct and secondary) in association with any development activity. Impacts to the project’s wetland and/or other surface water communities would be permissible by SJRWMD as long as the issues of elimination and reduction of wetland impacts have been addressed and as long as the mitigation offered is sufficient to offset the functional losses incurred via the proposed impacts. Coordination with the Division of Historical Resources (DHR) and the FFWCC will be necessary as part of the permitting process.

## **Florida Department of Environmental Protection**

### **State 404 Program**

In December of 2020, the Florida Department of Environmental Protection (FDEP) “assumed” federal permitting authority for all wetland and surface water resources under Section 404 of the Clean Water Act (CWA). The State 404 Program is a separate program from the existing ERP Program described above. For those project’s whose wetland and surface water resources are associated with tidal waters or traditional navigable waters, under Section 10 of the Rivers and Harbors Act, the USACE will “retain” federal permitting authority. These “retained” resources also include wetlands and/or other surface waters that fall within the 300 foot guide line established from the ordinary high water mark or mean high tide line of the retained waters.

With respect to the subject site, it is anticipated that the on-site other surface waters will fall under the regulatory authority of the Section 404 Program. The federal permitting authority has been assumed by the FDEP under Section 404. Currently, FDEP considers all wetland and/or surface water resources to be federally jurisdictional unless the applicant provides documentation proving otherwise. A jurisdictional determination in the form of a No Permit Required (NPR) verification will be required to make this determination and confirm what we anticipate to be non-jurisdictional wetlands located on the subject property.

The environmental limitations described in this document are based on observations and technical information available on the date of the on-site evaluation. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through field delineation and/or on-site review by the pertinent regulatory agencies. The wildlife surveys conducted within the subject property boundaries do not preclude the potential for any listed species, as noted in the attached wildlife Table, currently or in the future. Should you have any questions or require any additional information, please do not hesitate to contact our office at (407) 894-5969. Thank you.

Regards,



David Holly  
Project Manager



John Miklos  
Project Manager

Attachments

# FIGURES



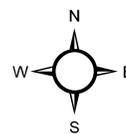


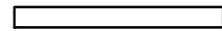
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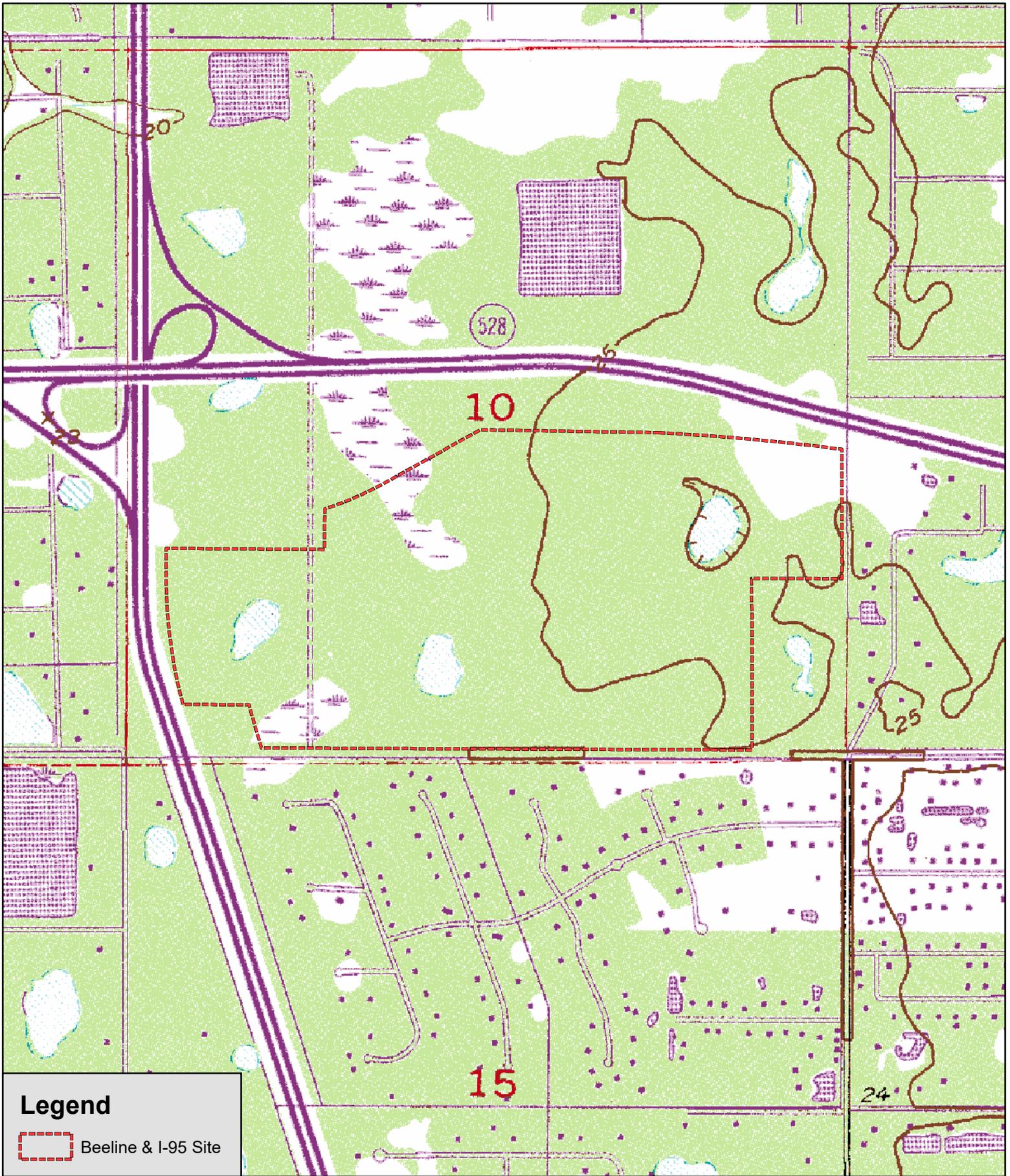
 Beeline & I-95 Site (± 212.21 Ac.)

**Bio-Tech Consulting Inc.**  
Environmental and Permitting Services  
3025 E. South Street Orlando, FL 32803  
Ph: 407-894-5969 Fax: 407-894-5970  
www.bio-techconsulting.com

Beeline & I-95 Site  
Brevard County, Florida  
Figure 2  
2020 Google Earth Aerial Map



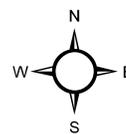
 800 Feet  
Project #: 372-78  
Produced By: JDH  
Date: 1/27/2021

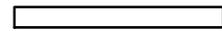


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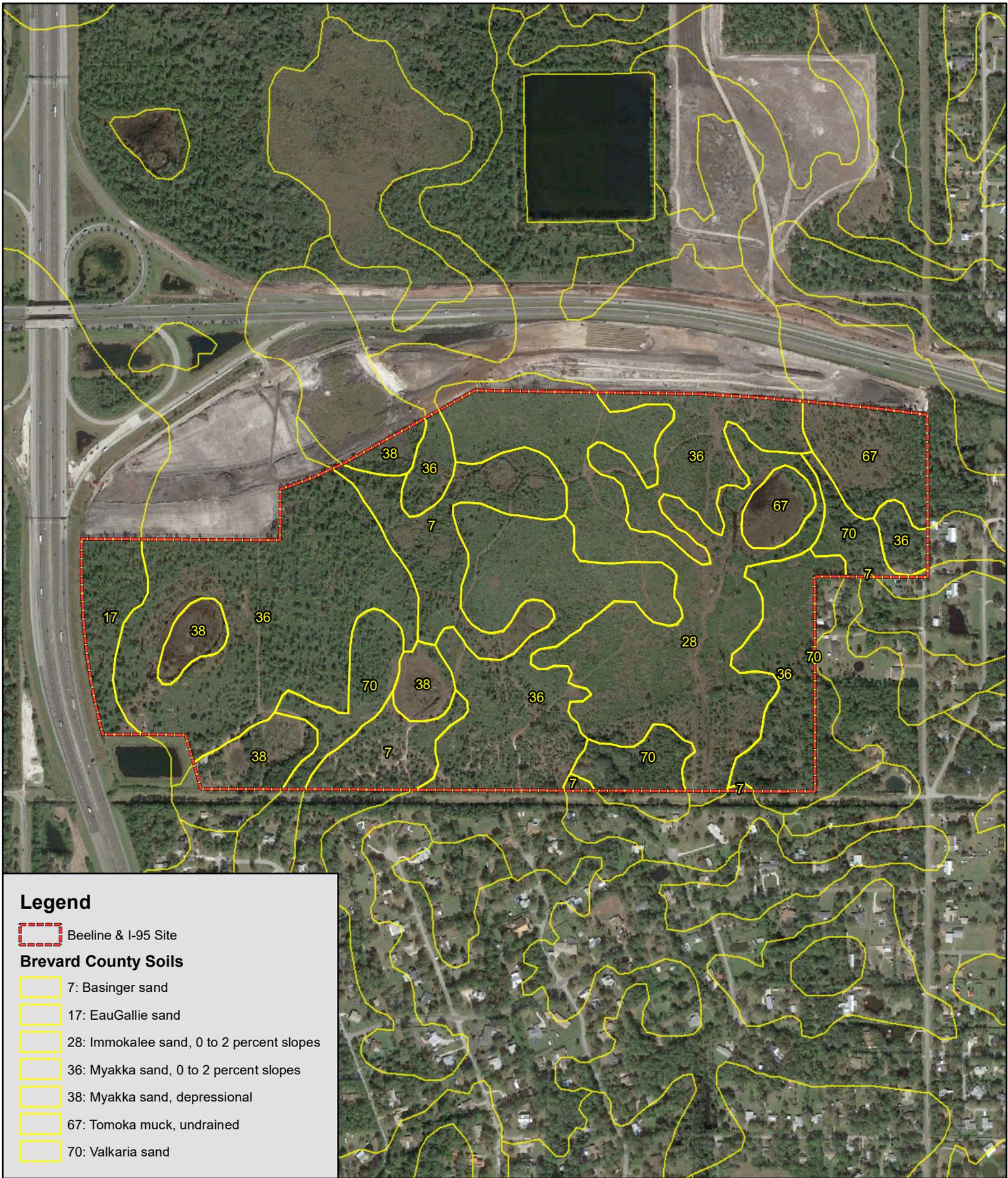
 Beeline & I-95 Site

Beeline & I-95 Site  
 Brevard County, Florida  
 Figure 3  
 USGS Topographic Map



 1,000 Feet

Project #: 372-78  
 Produced By: JDH  
 Date: 1/27/2021



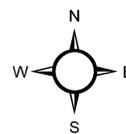
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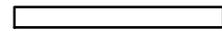
 Beeline & I-95 Site

**Brevard County Soils**

-  7: Basinger sand
-  17: EauGallie sand
-  28: Immokalee sand, 0 to 2 percent slopes
-  36: Myakka sand, 0 to 2 percent slopes
-  38: Myakka sand, depressional
-  67: Tomoka muck, undrained
-  70: Valkaria sand

Beeline & I-95 Site  
 Brevard County, Florida  
 Figure 4  
 SSURGO Soils Map



 800 Feet

Project #: 372-78  
 Produced By: JDH  
 Date: 1/27/2021

**Legend**

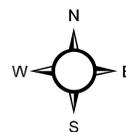
 Beeline & I-95 Site

**FLUCFCS Classification**

-  411: Pine Flatwoods
-  434: Hardwood - Conifer Mixed
-  618: Willow and Elderberry
-  625: Hydric Pine Flatwoods
-  630: Wetland Forested Mixed
-  641: Freshwater Marshes



Beeline & I-95 Site  
Brevard County, Florida  
Figure 5  
FLUCFCS Map

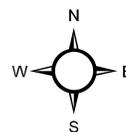


810  
 Feet

Project #: 372-78  
Produced By: DPH  
Date: 4/26/2021

**Legend**

-  Beeline & I-95 Site
-  GT Burrow (23)
-  Eaglewatch Temporary ID
-  330 ft. Buffer
-  660 ft. Buffer
-  Wood Stork Nesting Colony Core Foraging Areas

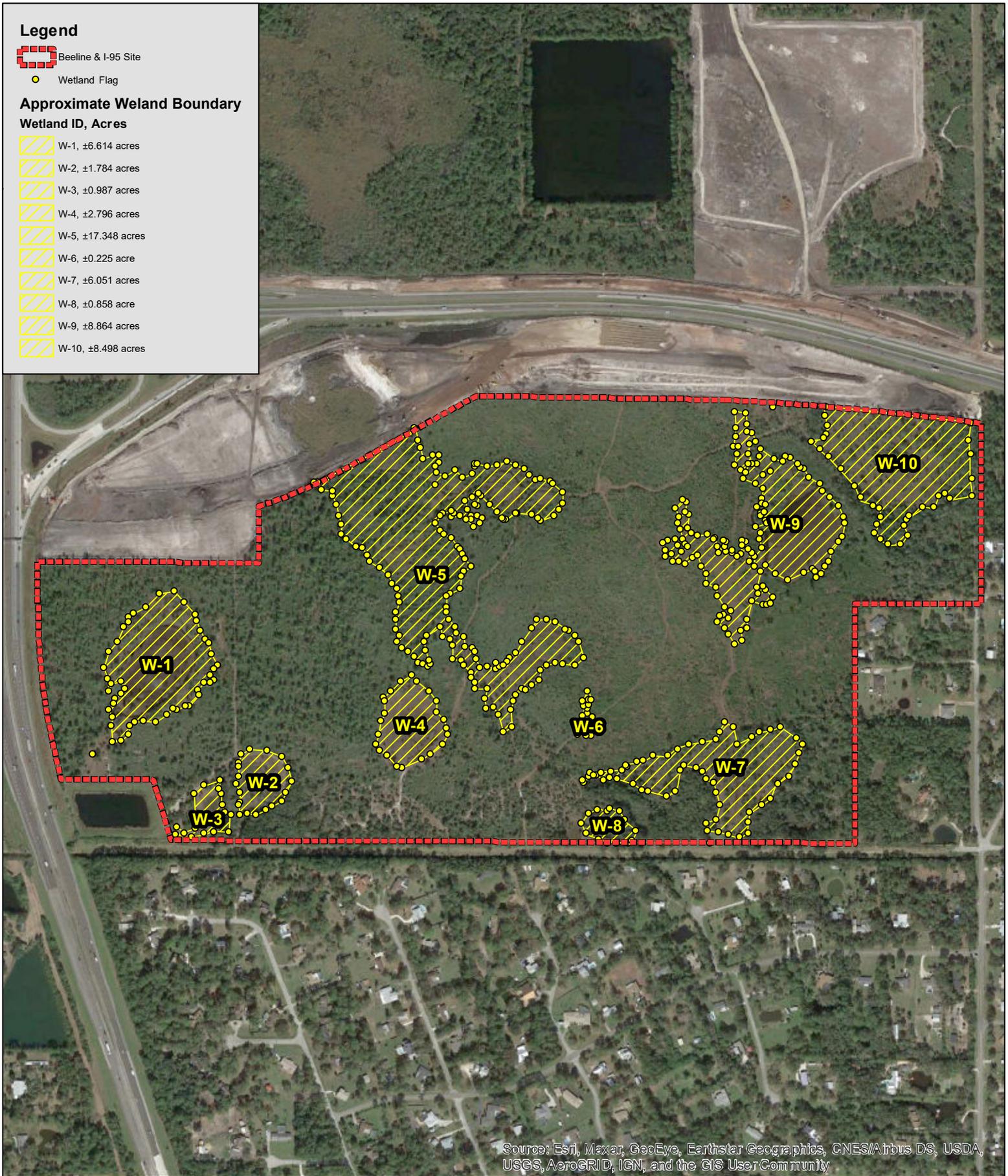


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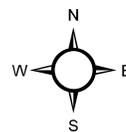
-  Beeline & I-95 Site
-  Wetland Flag

**Approximate Wetland Boundary**

Wetland ID, Acres
 W-1, ±6.614 acres
 W-2, ±1.784 acres
 W-3, ±0.987 acres
 W-4, ±2.796 acres
 W-5, ±17.348 acres
 W-6, ±0.225 acre
 W-7, ±6.051 acres
 W-8, ±0.858 acre
 W-9, ±8.864 acres
 W-10, ±8.498 acres



Source: ESRI, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS UserCommunity



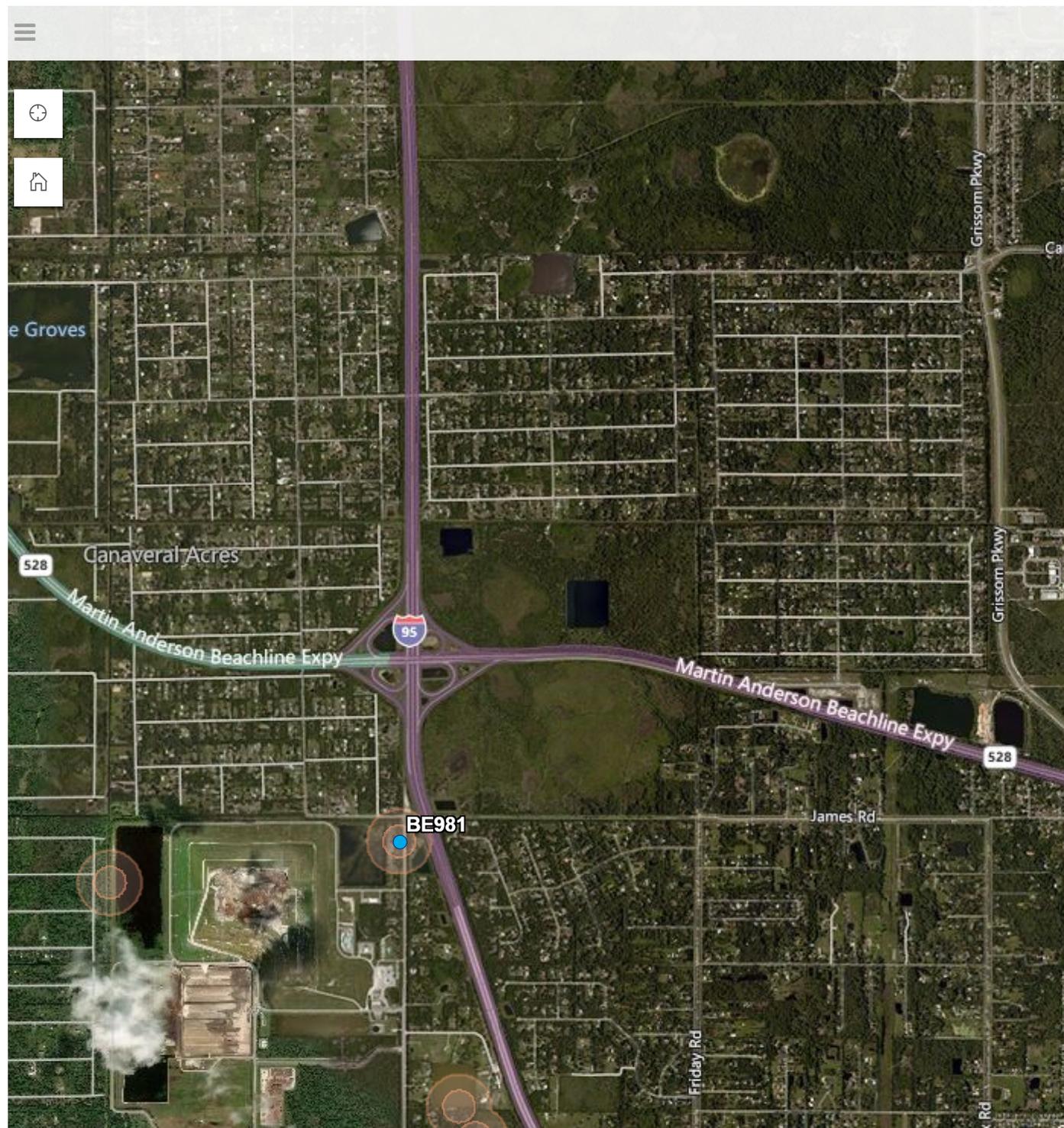
# AUDUBON EAGLEWATCH SEARCH RESULTS

To learn more about EagleWatch or to get involved please visit the Audubon Center for Birds of Prey [website](#).

This nest map includes all nests documented by the Florida Fish and Wildlife Conservation Commission (FWC). Accuracy of the nest locations varies based on documentation method but is generally estimated to be within 0.1 miles of the true location. Not all Bald Eagle nests in Florida have been documented by FWC. Non-documented nests receive the same level of protections as FWC documented nests. To report a new or undocumented Bald Eagle nest, please contact the EagleWatch Program Manager at [eaglewatch@audubon.org](mailto:eaglewatch@audubon.org) or FWC at [BaldEagle@MyFWC.com](mailto:BaldEagle@MyFWC.com).

For nests monitored by EagleWatch, the nest data provided is current through the 2019-2020 nesting season. For additional information, please contact the EagleWatch Program Manager at [eaglewatch@audubon.org](mailto:eaglewatch@audubon.org) or 407-644-0190. Nests monitored only by FWC will show FWC's most recent aerial survey data.

**Disclaimer: The nest data provided here is for informational purposes only and is provided "as is" without a warranty of any kind, either expressed or implied. Audubon EagleWatch assumes no responsibility, and shall not be liable for any damage caused by the use of information provided. Any persons or**



# POTENTIALLY OCCURRING SPECIES IN BREVARD COUNTY, FL

**Table 1:**

**Potentially Occurring Listed Wildlife and Plant Species in  
Brevard County, Florida**

Scientific Name	Common Name	Federal Status	State Status	Occurrence Status
<b>FISH</b>				
<i>Acipenser oxyrinchus</i>	Atlantic sturgeon	LE	FE	C
<b>REPTILES</b>				
<i>Alligator mississippiensis</i>	American alligator	T(S/A)	FT(S/A)	C
<i>Caretta caretta</i>	loggerhead sea turtle	LT	FT	C
<i>Chelonia mydas</i>	green sea turtle	LT	FT	C
<i>Dermochelys coriacea</i>	leatherback sea turtle	LE	FE	C
<i>Drymarchon corais couperi</i>	eastern indigo snake	LT	FT	C
<i>Gopherus polyphemus</i>	gopher tortoise	C	ST	C
<i>Lepidochelys kempii</i>	Kemp's ridley sea turtle	LE	FE	P
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	N	ST	C
<b>BIRDS</b>				
<i>Platalea ajaja</i>	roseate spoonbill	N	ST	C
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	LT	FT	C
<i>Polyborus plancus audubonii</i>	Audubon's crested caracara	LT	FT	C
<i>Charadrius melodus</i>	piping plover	LT	FT	P
<i>Egretta caerulea</i>	little blue heron	N	ST	C
<i>Egretta rufescens</i>	reddish egret	N	ST	C
<i>Egretta tricolor</i>	tricolored heron	N	ST	C
<i>Falco sparverius paulus</i>	southeastern American kestrel	N	ST	P
<i>Grus canadensis pratensis</i>	Florida sandhill crane	N	ST	C
<i>Haematopus palliatus</i>	American oystercatcher	N	ST	P
<i>Haliaeetus leucocephalus</i>	bald eagle	N	**	C
<i>Mycteria americana</i>	wood stork	LT	FT	C
<i>Pandion haliaetus</i>	osprey	N	SSC*	C
<i>Picoides borealis</i>	red-cockaded woodpecker	LE	FE	C
<i>Rynchops niger</i>	black skimmer	N	ST	C
<i>Athene cunicularia</i>	burrowing owl	N	ST	P
<i>Sterna antillarum</i>	least tern	N	ST	C
<b>MAMMALS</b>				
<i>Eubalaena glacialis</i>	North Atlantic right whale	LE	FE	C
<i>Peromyscus polionotus niveiventris</i>	southeastern beach mouse	LT	FT	C
<i>Sciurus niger shermani</i>	Sherman's fox squirrel	N	SSC	P
<i>Trichechus manatus (Trichechus manatus latirostris)</i>	West Indian manatee (Florida manatee)	E, PT	FE	C

\*\* See Rank and Status Explanations and Definitions, Special Animal Listings - Federal and State Status

## County Occurrence Status

### Vertebrates and Invertebrates:

**C = (Confirmed)** Occurrence status derived from a documented record in the FNAI data base.

**P = (Potential)** Occurrence status derived from a reported occurrence for the county or the occurrence lies within the published range of the taxon.

**N = (Nesting)** For sea turtles only; occurrence status derived from documented nesting occurrences.