Bio-Tech Consulting Inc.
Environmental and Permitting Services

October 23, 2023

Matt Young
Richland Developers – Florida, Inc.
400 N. Ashley Dr.
Suite 1750
Tampa, Florida 33602

Proj: Mount Dora North – Lake County, Florida
Section 26, Township 19 South, Range 27 East
(BTC File #1091-12)
Re: Environmental Assessment Report

Dear Matt:

In October of 2023, Bio-Tech Consulting, Inc. (BTC) conducted an environmental assessment of the approximately ±260-acre Mount Dora North site. This site is located in the City of Sorrento, north off of Sorrento Avenue, east off of Round Lake Road, and south off of Wolf Brand Road, within Section 26, Township 19 South, Range 27 East, Lake County, Florida (**Figures 1 and 2**). This environmental assessment included the following elements:

- **general review of site topography;**
- **review of soil types mapped within the site boundaries;**
- **evaluation of land use types/vegetative communities present;**
- **delineation of any on-site wetland/surface water communities;**
- **field review for occurrence of protected flora and fauna; and,**
- **an overview of potential development constraints.**

TOPOGRAPHY

Based upon a review of the USGS Topographic Map present in **Figure 3** (Sorrento, Florida Quadrangle), elevations on the subject property range from approximately +65 feet NGVD to +130 feet NGVD. In general, the subject site slopes downward from the southern portion of the site to the northern portion.

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

Jacksonville Office
11235 St Johns Industrial Pkwy N
Suite 2
Jacksonville, FL 32246

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

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

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

Land & Aquatic Management
3825 Rouse Road
Orlando, FL 32817

407.894.5969
877.894.5969
407.894.5970 fax

info@bio-techconsulting.com www.bio-techconsulting.com

SOILS

According to the Soil Survey of Lake County, Florida, prepared by the U.S. Department of Agriculture (USDA) and the Natural Resources Conservation Service (NRCS), six (6) soil types occur within the subject property boundaries (**Figure 4**). These soil types include the following:

- **Candler sand, 0 to 5 percent slopes (#8)**
- **Candler sand, 5 to 12 percent slopes (#9)**
- **Ona-Ona, wet, fine sand, 0 to 2 percent slopes (#33)**
- **Orlando fine sand, 0 to 5 percent slopes (#34)**
- **Placid sand, frequently ponded, 0 to 2 percent slopes (#38)**
- **Tavares sand, 0 to 5 percent slopes (#45)**

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

Candler sand, 0 to 5 percent slopes (#8) is a nearly level to gently sloping, excessively drained soil found on the rolling uplands of Florida's central ridge. The surface layer of this soil type generally consists of dark gray sand about 7 inches thick. The water table for this soil type is at a depth of more than 120 inches. Permeability is very rapid throughout the profile of this soil type.

Candler sand, 5 to 12 percent slopes (#9) is a sloping to strongly sloping, excessively drained soil found on the rolling uplands of Florida's central ridge. Typically, the surface layer of this soil type consists of dark gray sand about 5 to 6 inches thick. The water table for this soil type is at a depth of more than 120 inches. Permeability is very rapid throughout the profile of this soil type.

Ona fine sand (On) (#33) is a nearly level, poorly drained soil that has a layer stained with organic matter just below the surface. These soils usually occur on the flatwoods. The surface layer of this soil type generally consists of very dark gray fine sand about 6 inches thick. The water table for this soil type is normally at a depth of 10 to 40 inches for about 6 months, within a depth of 10 inches for 1 to 2 months, and below a depth of 40 inches the rest of the year. Permeability of this soil type is moderately rapid in the weakly cemented organic layers and rapid in all other layers.

Orlando fine sand, 0 to 5 percent slopes (#34) is a nearly level to gently sloping, well-drained soil. The surface layer is fine sand about 8 inches thick. The water table for this soil type is at a depth of more than 80 inches. This soil type is rapidly permeable throughout.

Placid sand, frequently ponded, 0 to 2 percent slopes (#38) is a nearly level, very poorly drained soil in low wet areas on the upland ridge and in the flatwoods. The surface layer of this soil type consists of sand about 18 inches thick. The upper 12 inches is black and the lower 6 inches is very dark gray mottled with very dark grayish brown and dark grayish brown. The water table for this

soil type is at the surface for the most of the year. During extended dry periods it is within a depth of 15 inches. Shallow water covers many areas for 4 to 6 months in wet seasons. Permeability of this soil type is rapid throughout.

Tavares sand, 0 to 5 percent slopes (#45) is a nearly level to gently sloping soil, moderately well drained soil. It has a very dark grayish-brown sandy surface layer approximately 7 inches thick. Below this layer are 4 levels of sand beginning at 7 inches, 25 inches, 34 inches, and 61 inches. The water table for this soil type is at a depth of 40 to 60 inches for more than 6 months out of the year and below 60 inches during dry periods. This soil type is rapidly permeable throughout.

The Florida Association of Environmental Soil Scientists (FAESS) considers the main components in the Ona-Ona, wet, fine sand, 0 to 2 percent slopes (#33) and the Placid sand, frequently ponded, 0 to 2 percent slopes (#38) soil types associated with the site to be hydric. This information can be found in the Hydric Soils of Florida Handbook, Fourth Edition (March 2007).

LAND USE TYPES/VEGETATIVE COMMUNITIES

The subject site currently supports seven (7) land use types/vegetative communities within its boundaries. These areas were identified utilizing the Florida Land Use, Cover and Forms Classification System, Level III (FLUCFCS, FDOT, January 1999) (**Figure 5**). The upland land use types/vegetative communities on the site are classified as Residential, Low Density (110), Open Land (190), Improved Pastures (211), Woodland Pastures (213), Nurseries and Vineyards (240) and Upland Hardwood Forests (420). The wetland/surface water land use type/vegetative community on the site is classified as Reservoirs (530). The following provides a brief description of the land use types/vegetative communities identified on the site.

Uplands:

110 Residential, Low Density

There are two single-family residences located within the project limits and they are best classified as Residential, Low Density (110). One house is located within each lot. Vegetative species observed include live oak (*Quercus virginiana*), red cedar (*Juniperus virginiana*), laurel oak (*Quercus laurifolia*), slash pine (*Pinus elliottii*), dwarf palmetto (*Sabal minor*), cabbage palm (*Sabal palmetto*), date palm (*Phoenix reclinate*), sweet viburnum (*Viburnum odoratissimum*), bahia grass (*Paspalum*), dogfennel (*Eupatorium capillifolium*), caesarweed (*Urena lobata*), beggars tick (*Bidens alba*), lantana (*Lantana camara*), prickly-pear cactus (*Opuntia humifusa*), common ragweed (*Ambrosia artemisiifolia*), American beautyberry (*Callicarpa americana*), and various ornamental species.

190 Open Land

The southernmost portion of the site contains an area that is best classified as the Open Land (190) FLUCFCS classification. This area is comprised of herbaceous vegetation, with some trees scattered throughout. Vegetative species observed in this area include Bahia grass (*Paspalum notatum*), laurel oak (*Quercus laurifolia*), beggars tick (*Bidens alba*), Caesar's weed (*Urena lobata*), lantana (*Lantana* spp.), dogfennel (*Eupatorium capillifolium*) and ragweed (*Ambrosia artemisiifolia*).

211 Improved Pastures

The majority of the subject site contains improved pastureland that is currently being utilized by grazing cattle and is most consistent with the Improved Pastures (211) FLUCFCS classification. Vegetative species identified within this community type include southern live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), lantana (*Lantana camara*), bahia grass (*Paspalum notatum*), cabbage palm (*Sabal palmetto*), American beautyberry (*Callicarpa americana*), beggarticks (*Bidens alba*), broomsedge (*Andropogon virginicus*), and rose natalgrass (*Melinis repens*).

213 Woodland Pastures

The eastern center of the property as well as majority of the southwestern parcel consists of a forested area most consistent with the Woodland Pastures (213) FLUCFCS classification. This community retains old-growth natural hardwood species and exhibits years of cattle use. Vegetative species identified within this community type include slash pine (*Pinus elliottii*), southern live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), lantana (*Lantana camara*), bahia grass (*Paspalum notatum*), cabbage palmetto (*Sabal palmetto*), American beautyberry (*Callicarpa americana*), beggarticks (*Bidens alba*), golden bamboo (*Phyllostachys auerea*), common banana (*Musa paradisiaca*), papaya (*Carica papaya*), sweet viburnum (*Viburnum ordoratissimum*), broomsedge (*Andropogon virginicus*), and rose natalgrass (*Melinis repens*).

240 Nurseries and Vineyards

The southern portion of the subject site contains an area containing greenhouses that are no longer in use and is best classified as Nurseries and Vineyards (240) per the FLUCFCS. Vegetative species observed within this community type include bahia grass (*Paspalum notatum*), laurel oak (*Quercus laurifolia*), cabbage palm (*Sabal palmetto*), beggars tick (*Bidens alba*), Caesar's weed (*Urena lobata*), lantana (*Lantana* spp.), dogfennel (*Eupatorium capillifolium*) and ragweed (*Ambrosia artemisiifolia*).

420 Upland Hardwood Forests

In the southern portion of the subject site lies an area that is most consistent with the Upland Hardwood Forests (420) FLUCFCS classification. This area is comprised of a sporadic to moderately dense canopy that is dominated by both large and small upland hardwood tree species. Vegetative species identified within this community type include live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), camphor tree (*Cinnamomum camphora*), cabbage palm (*Sabal palmetto*), common ragweed (*Ambrosia artemisiifolia*), Guinea grass (*Panicum maximum*), Caesar's weed (*Urena lobata*), Virginia creeper (*Parthenocissus quinquefolia*), beggarstick (*Bidens alba*), rosery pea (*Abrus precatorius*), and greenbrier vine *(Smilax* spp.).

Wetland/Surface Water:

530 Reservoirs

While there are no wetlands within the project site, multiple reservoirs can be found as watering holes for cattle. These surface water contain no vegetation with the exception of a narrow edge of wetland vegetation that consists mostly of torpedo grass (*Panicum repens*).

PROTECTED SPECIES

Using 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 (FWC's) Gopher Tortoise Permitting Guidelines (April 2023); an assessment for listed floral and faunal species was conducted at the site on September 21, 2023 (**Figure 6A**). This assessment 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 FWC's Official Lists - Florida's Endangered and Threatened Species (December 2022) and listed species that have the potential to occur in Lake County (**see attached Table 1**). No plant species listed as "Threatened" or "Endangered" by either The Florida Department of Agriculture and Consumer Services (FDACS) or U.S. Fish and Wildlife Service (USFWS) were identified on the site during the assessments conducted. The FDACS protection of listed plant species centers on preventing the illegal collection, transport and sale of the listed plants. The FDACS will issue permits for collection purposes. There are no regulations that prohibits the destruction of state-listed flora species as a result of proposed development activities.

The following is a list of those wildlife species identified on the site during the evaluation of the property:

Reptiles and Amphibians
black racer (*Coluber constrictor*)
brown anole (*Anolis sagrei*)
eastern rat snake (*Pantherophis alleghaniensis*)
gopher tortoise (*Gopherus polyphemus)*
green anole (*Anolis caroliniana*)

Birds
American Crow (*Corvus caurinus*)
Bald Eagle (*Haliaeetus leucocephalus*)
Black Vulture (*Coragyps atratus*)
Barn Swallow (*Hirundo rustica*)
Blue Jay (*Cyanocitta cristata*)
Northern Cardinal (*Cardinalis cardinalis*)
Red-shouldered Hawk (*Buteo lineatus*)
Southeastern American Kestrel (*Falco sparverius paulus*)
Turkey Vulture (*Cathartes aura*)

Mammals
coyote (*Canis latrans*)
eastern cottontail (*Sylvilagus floridanus*)
eastern gray squirrel (*Sciurus carolinensis*)
nine-banded armadillo (*Dasypus novemcinctus*)
northern raccoon (*Procyon lotor*)
southeastern pocket gopher (*Geomys pinetis*)
virginia opossum (*Didelphis virginiana*)

Three (3) of the above wildlife species, bald eagle (*Haliaeetus leucocephalus*), gopher tortoise (*Gopherus polyphemus*) and Southeastern American kestrel (*Falco sparverius paulus*) are identified in the FWC's Official Lists - Florida's Endangered and Threatened Species (December 2022).

The following provides a brief description of applicable species as they may 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 US Fish and Wildlife Service (USFWS) removed the Bald Eagle from the list of federally endangered and threatened species. Additionally, the Bald Eagle was removed from FWC'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 FWC's Bald Eagle rule (Florida Administrative Code 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 FWC adopted a new Bald Eagle Management Plan that was written to closely follow the federal guidelines. In November of 2017, the FWC 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 (FWC) 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 review of FWC's database (2015-2016 Nesting Season) and Audubon's Eagle Watch program database (2022 Nesting Season) for recorded Bald Eagle nests within the surrounding 660 feet of the subject site (**Figure 6B**). This review revealed that there are no Bald Eagle nests within 660 feet of the project site boundaries. Thus, no developmental constraints are expected with respect to Bald Eagle nests unless a new nest is found.

Gopher Tortoise (*Gopherus polyphemus*)
State Listed as "Threatened" by FWC

Currently the gopher tortoise (*Gopherus polyphemus*) is classified as a "Category 2 Candidate Species" by the USFWS, and as of September 2007 is now classified as "Threatened" by FWC, and as "Threatened" by Florida Committee on Rare and Endangered Plants and Animals (FCREPA). The basis of the "Threatened" classification by the FWC 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 known to occur in Lake County have a possibility of occurring in this area, as they are gopher tortoise commensal species. These species include the eastern indigo snake (*Drymarchon corais couperi*), Florida mouse (*Podomys floridanus*) and the gopher frog (*Rana capito*). However, none of these species were observed during the survey conducted.

The subject site was surveyed for the existence of gopher tortoises through the use of pedestrian transects. The survey covered approximately 100% of the suitable habitat present within the subject site boundaries. Based on the survey results, thirteen (13) active/inactive gopher tortoise burrows were observed and recorded using a handheld GPS (**Figure 6A**). Utilizing the factored occupation rate of 0.614 (*Auffenburg-Franz*), there is an estimated population of eight (8) tortoises on site.

For budgetary purposes, an estimated cost of off-site relocation is approximately $58,000.00 for the subject site; depending on the available recipient site at the time of permitting and the actual number of tortoises relocated. This cost includes permitting, excavation with a qualified biologist/FWC"authorized agent" and the recipient site fees.

The FWC provides three (3) options for developers that have gopher tortoises on their site. These options include: 1) avoidance (i.e., maintain at least a 25-foot distance from construction activities), 2) preservation of habitat and 3) off-site relocation. Based on the expected site development plan, the likely option to addressing the on-site gopher tortoise population is off-site relocation and would require that any gopher tortoise within 25 feet of proposed construction activities be relocated off-site to an approved recipient site. Relocation will need to be permitted through FWC prior to any on-site construction activities. A formal 100% gopher tortoise survey will be required by FWC in order to secure an off-site relocation permit.

If relocation efforts cannot be completed within 90 days of a formal gopher tortoise survey, FWC requires an additional survey to be conducted.

Indigo Snake (*Drymarchon couperi*)
Federally Listed as "Threatened" by USFWS

The indigo snake (*Drymarchon couperi*) is a federally threatened species. The basis for this listing was a result of dramatic population declines caused by over-collecting for the domestic and international pet trade as well as mortalities caused by rattlesnake collectors who gassed gopher tortoise burrows to collect snakes. Since its listing, habitat loss and fragmentation by residential and commercial expansion have become much more significant threats to the eastern indigo snake. This species is widely distributed throughout central and south Florida and primarily occurs in sandhill habitat in northern Florida and southern Georgia.

No evidence of eastern indigo snakes were observed within the site during the wildlife survey conducted by BTC. One gopher tortoise burrow was observed onsite. However, the site does not contain at least twenty-five (25) acres of suitable upland habitat to support this species. Based upon the USFWS's August 2013 Consultation Key for the Eastern Indigo Snake and that the property will not result in the removal of more than 25 acres of eastern indigo snake habitat and/or more than 25 gopher tortoise burrows, a key determination would result in a finding of "not likely to adversely affect."

During the ERP, State 404 or USACOE Dredge and Fill permit review process, the USFWS may determine that an Indigo Snake survey is required during the review of the project. The survey can be accomplished from October 1st thru April 30 for a minimum of five (5) surveys with 2 days of optimal weather (overnight low temperature above 60º F). It should also be noted that eastern indigo snake mitigation may be purchased in lieu of conducting the indigo snake survey. A FDEP 404 or USACOE Permit may also require following the Service's Standard Protection Measures for the Eastern Indigo Snake which will include, but not limited to, posting eastern indigo snake identification signage and educational material at the site, inspecting on-site holes and other refugia, as well as stopping construction to allow any indigo snake to safely vacate the project site. In addition, a FWC Conservation Permit to relocate Gopher tortoises will also contain permit conditions relating to the safety of indigo snakes.

Southeastern American Kestrel (*Falco sparverius paulus*)
State Listed as "Threatened" by FWC

According to the Ecology and Habitat Protection Needs of the Southeastern American Kestrel (*Falco sparverius paulus*) in Large Scale Development Sites in Florida, FWC Nongame Wildlife Technical Report No. 13 (March 1993), two (2) subspecies of the American kestrel occur regularly in state of Florida, *Falco sparverius paulus* and *F. s. sparverius*. Of the two, *F. s. paulus*, the Southeastern American Kestrel, is a permanent, non-migrating resident in Florida and is listed as "Threatened" by the FWC. In addition, the Southeastern American Kestrel is currently under consideration for federal listing under the Endangered Species Act. The population decline of the Southeastern American Kestrel in the state of Florida is primarily due to a reduction in suitable nest sites, in addition to a decline in foraging habitat quality.

Southeastern American Kestrels build nests in dead trees (snags) in abandoned nest cavities previously excavated by woodpeckers. Kestrels have also been noted to utilize both abandoned and occupied buildings and man-made kestrel nest boxes as nest sites. In north-central Florida, the nests occur most frequently in longleaf pine, turkey oak or live oak snags and man-made structures. The breeding season for Southeastern American Kestrel begins near the end of January. No nesting material is brought into the nest; the eggs are laid directly on any debris present on the cavity floor. Incubation lasts for approximately 29-31 days. Hatchlings have pink skin and short, white down.

The young grow to their adult weight in 16-17 days and sustain flight 3-4 days post fledging. Both the male and female continue to bring food to the young for several weeks post-fledging until the juveniles disperse approximately 23-24 days post-fledging.

The Southeastern American Kestrel will often use the same territory year after year, and may remain on or near the territory year-round. They may remain paired year-round depending on foraging availability. The Southeastern American Kestrel prefers open habitats including pastures, open longleaf pine-turkey oak sandhill communities, grasslands and open sites within suburban and residential areas. They require the open area to have short vegetation, scattered perch sites, adequate prey and suitable nesting sites within close proximity to each other. The Southeastern American Kestrel habitat is broken down into two habitat types. These types are as follows:

TYPE I HABITAT. Upland plant communities with less than 10% canopy cover and with at least 60% herbaceous ground cover less than 25 cm in height.

TYPE II HABITAT. Open woodland communities with greater than 10% but less than 25% canopy cover and with at least 60% herbaceous ground cover less than 25 cm in height.

The subject site contains Type I (i.e., Improved Pasture). The subspecies of the kestrel could not be determined as both subspecies could be present in September. One kestrel was observed perched on a fence post during our wildlife survey. BTC recommends conducting a survey for this species between April and August to ensure that the northern migratory Kestrels have left Florida. In the event the Southeastern American Kestrel is found to be nesting on or near the subject site, a 492-foot buffer around the nest would be required. FWC is currently working on permitting Guidelines for this species, however nothing has been finalized or implemented. Once implemented, FWC will provide a mechanism for permitting and allowing mitigation as potential option in lieu of maintaining the 492-foot buffer.

USFWS CONSULTATION AREAS

The U.S. Fish and Wildlife Service (USFWS) has established “Consultation Areas” for certain listed species (**Figure 7**). Generally, these consultation areas only become an issue if USFWS consultation is required, which is usually associated with permitting through the U.S. Army Corps of Engineers (USACOE) or Florida Department of Environmental Protections (FDEP). The user of this report should be aware that 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 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 presents further information pertaining to species in which their USFWS consultation areas covers the subject property.

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 Snail Kites were observed on the site during the wildlife survey conducted by BTC. Since there is no suitable habitat for this species within the site boundary, a formal survey is not anticipated to be required by the USFWS or another agency.

Florida Scrub-Jay (*Aphelocoma coerulescens*)
Federally Listed as "Threatened" by USFWS

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 ft.) tall, covering 50% to 90 % of the area; bare ground or sparse vegetation less than 15 cm (6 in) tall covering 10% to 50% of the area; and scattered trees with no more than 20% canopy cover (Fitzpatrick et al. 1991).

Florida Scrub-Jays are most abundant in open, oak-dominated scrub communities of the interior and Atlantic coast sand ridges of the Peninsula. Florida Scrub-Jay habitat is broken down into three (3) types. These habitat types are the following:

- TYPE I HABITAT. Any upland plant community in which the percent cover of the substrate by scrub oak species is 15% or more.
- TYPE II HABITAT. Any plant community not meeting the definition of Type I habitat, in which one or more scrub oak species is represented.
- TYPE III HABITAT. Any upland or seasonally dry wetland within ¼ mile of any designated as Type I or Type II habitat.

No Florida Scrub-Jays were observed within the subject site during the cursory wildlife survey conducted by BTC. As there is no suitable habitat for this species within the limits of the site, it is not anticipated that a formal survey would be required by the USFWS or another agency to determine if Florida Scrub-Jays are utilizing any portions of the site.

Sand Skink *(Neoseps reynoldsi)*
Federally Listed as "Threatened" by USFWS

The subject site falls within the Sand Skink Consultation Area for the United States Fish and Wildlife Service (USFWS). The sand skink is listed as "Threatened" by the USFWS. The sand skink exists in areas vegetated with sand pine *(Pinus clausa)* - rosemary *(Ceratiola ericoides)* scrub or a long leaf pine *(Pinus palustris)* - turkey oak *(Quercus laevis)* association. Habitat destruction is the primary threat to this species' survival. Citrus groves, residential, commercial and recreational facilities have depleted the xeric upland habitat of the sand skink. All properties within the limits of this consultation area that are located at elevations greater than 80' and contain suitable (moderate-to-well drained) soils are believed by USFWS to be areas of potential sand skink habitat.

Although the subject site falls within the USFWS Sand Skink consultation area, no Sand Skinks were observed. However, the site is within the USFWS Sand Skink Consultation Area, most of site is above the 80-foot above sea level requirement and the uplands within the site contain appropriate soil types for the sand skink (Candler sand, 0 to 5 percent slopes (#8), Candler sand, 5 to 12 percent slopes (#9) and Tavares sand, 0 to 5 percent slopes (#45)). The majority of the site is covered in grass and soils are not visible, but the southernmost parcel contains appropriate soil types and habitat for the sand skink. Due to these factors, it is advisable to conduct a formal sand skink survey, as it may be required by federal, state, and/or local government permitting agencies. The survey will need to be conducted between March 1 and May 15, in which 2' x 2' boards will be placed in the open sandy areas at a density of approximately forty (40) boards per acre and checked once per week for four (4) consecutive weeks. The main objective of the survey is to determine whether sand skinks inhabit the subject site.

DEVELOPMENT CONSTRAINTS AND PERMITTING

The extent of the surface waters on the project site were delineated by BTC in accordance with local, state, and federal guidelines **(Figure 8)**. 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 on-site surface waters are located within the Wekiva River Nested hydrologic drainage basin (**Figure 9**).

St. Johns River Water Management District

An Environmental Resource Pemit (ERP) will be required through the St. Johns River Water Management District (SJRWMD) to authorize construction and operation of a stormwater management system for the site in association with a proposed project. 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. Impacts to the site's wetland and other surface water communities would be permittable 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 ERP process.

Florida Department of Environmental Protection

State 404 Program

Section 404 of the Clean Water Act (CWA) requires that federal authorization be obtained for all activities that propose the placement of dredged or fill material in "Waters of the United States" (WOTUS). The regulatory program established by CWA Section 404 is jointly implemented by the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE) and applies to regulated activities associated with development, water resource projects (dams, levees, etc.), infrastructure, and mining. Guidelines for permit review and

issuance are described in CWA Section 404(b)(1) Guidelines. Included in those guidelines is the mandate that wetland impacts are not permissible if (a) a practicable alternative exists that is less damaging to the aquatic environment, or (2) the nation's waters would be significantly degraded. This permit process includes the applicant's burden to justify jurisdictional wetland impacts with an alternative sites analysis that demonstrates the subject site is the most viable in the vicinity for the project, and will result in lesser environmental impacts compared to alternative site locations. The applicant is then required to demonstrate on-site avoidance and minimization of impacts, to the maximum practicable extent, while allowing for the project purpose.

CWA Section 404(b)(1) Guidelines also define conditions under which a State may assume the permitting authority under CWA Section 404. In December of 2020, the Florida Department of Environmental Protection (FDEP) assumed federal permitting authority for most wetland and surface water resources regulated exclusively under Section 404 of the Clean Water Act (CWA). The State 404 Program is a separate program and process from the existing State ERP Program described in the SJRWMD section above. Wetlands and surface water resources associated with tidal waters or traditional navigable waters are regulated under Section 10 of the Rivers and Harbors Act. For those waters ("retained waters"), including wetlands and/or other surface waters that fall within the 300-foot guideline established from the ordinary high-water mark or mean high tide line of the Section 10 waters, the USACE will retain federal permitting authority. It should be noted that regulated activities proposed in waters assumed by the State 404 Program are still required to meet all standards mandated under the CWA Section 404(b)(1) guidelines.

With respect to the subject site, as the onsite surface waters are not associated with Section 10 waters, the federal permitting authority will be 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. Once a site plan has been created, a Waters of the U.S. (WOTUS) Determination and "No Permit Required" can be submitted to determine jurisdictional and non-jurisdictional systems (interior, isolated). If FDEP concurs with BTC's position that these wetlands and/or other surface waters are non-jurisdictional per WOTUS, no federal permitting will be required and a "No Permit Required" letter can be requested from FDEP. If, however, FDEP disagrees with BTC's position and claims federal jurisdiction, then federal permitting through FDEP will be required. Please be advised that the State ERP is required prior to the issuance of the FDEP 404 Permit.

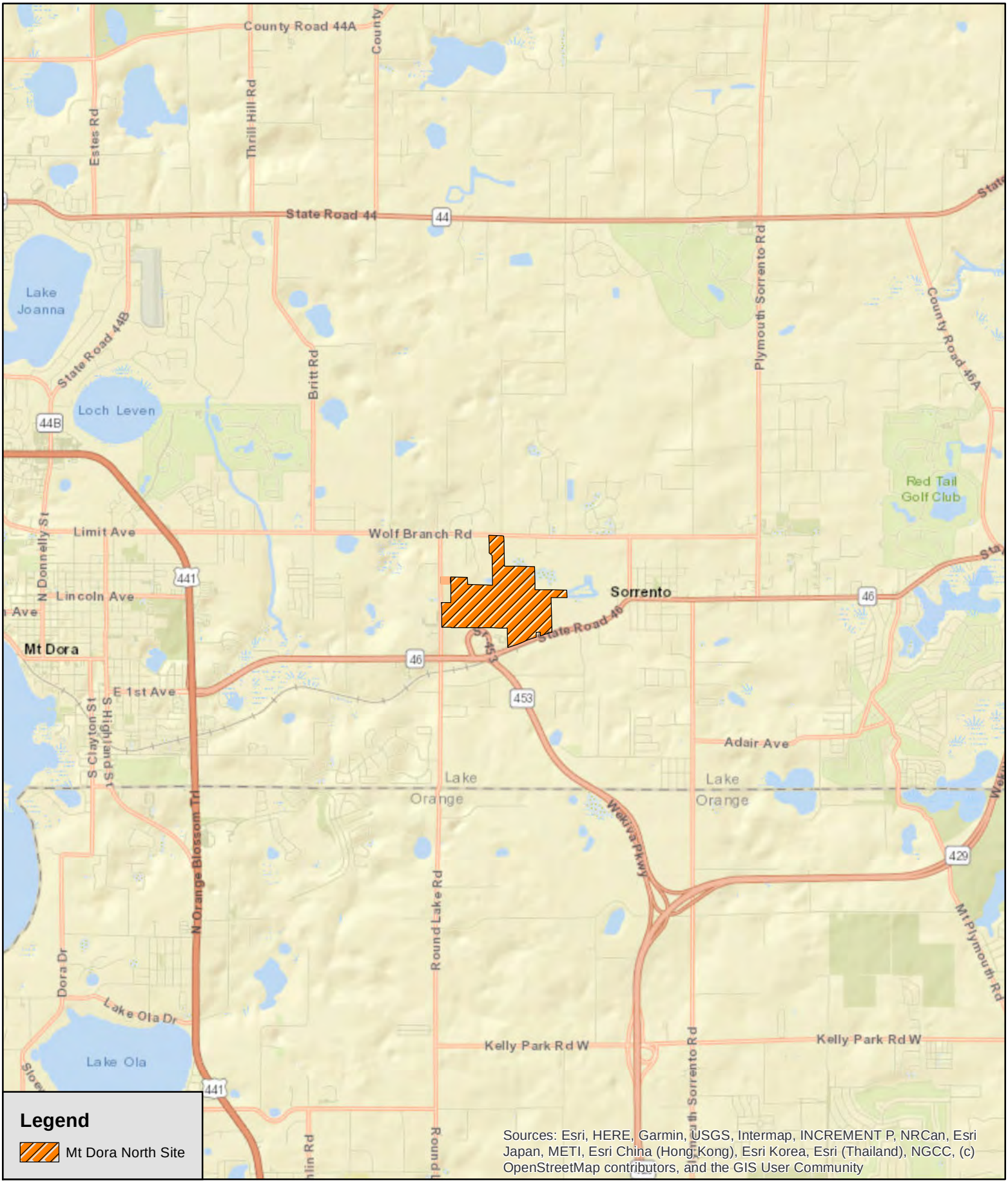
The environmental limitations described in this document are based on observations and technical information available on the date of the on-site evaluation. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through 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 on Table 1 (attached), 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,

Amanda Rolfs
Field Biologist

Mark Ausley
Director

Attachments:
Figure 1 – Location Map
Figure 2 – Aerial Map
Figure 3 – USGS Topographic Map
Figure 4 – USDA Soils Map
Figure 5 – FLUCFCS Map
Figure 6A – Wildlife Survey Map
Figure 6B – Wildlife Proximity
Figure 7 – USFWS Consultation Map
Figure 8 – Surface Waters Map
Figure 9 – Basin Map
Audubon Florida EagleWatch Nest Map
Wildlife Table 1



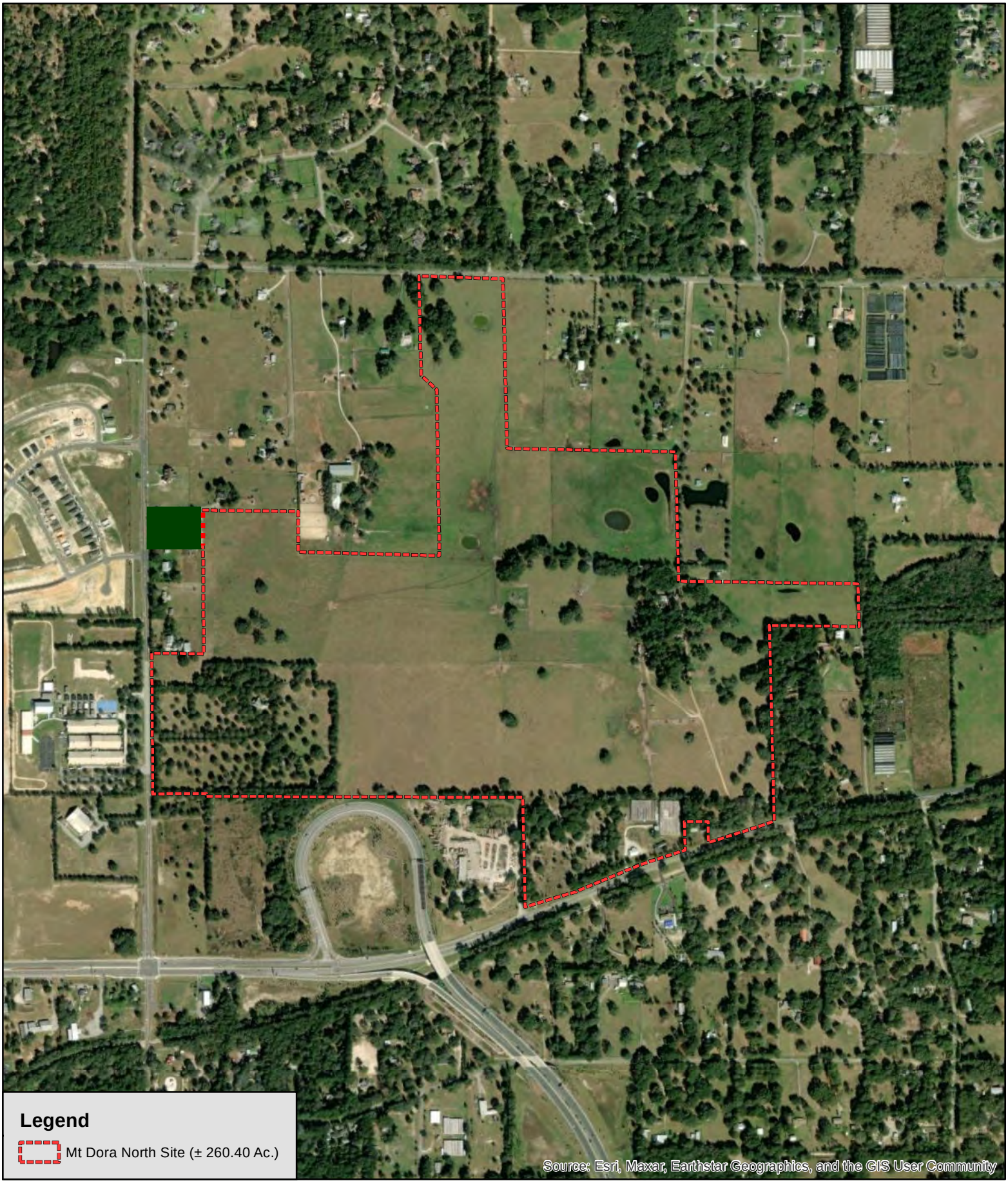
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 1
Location Map

N
W E
S

1
Miles

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



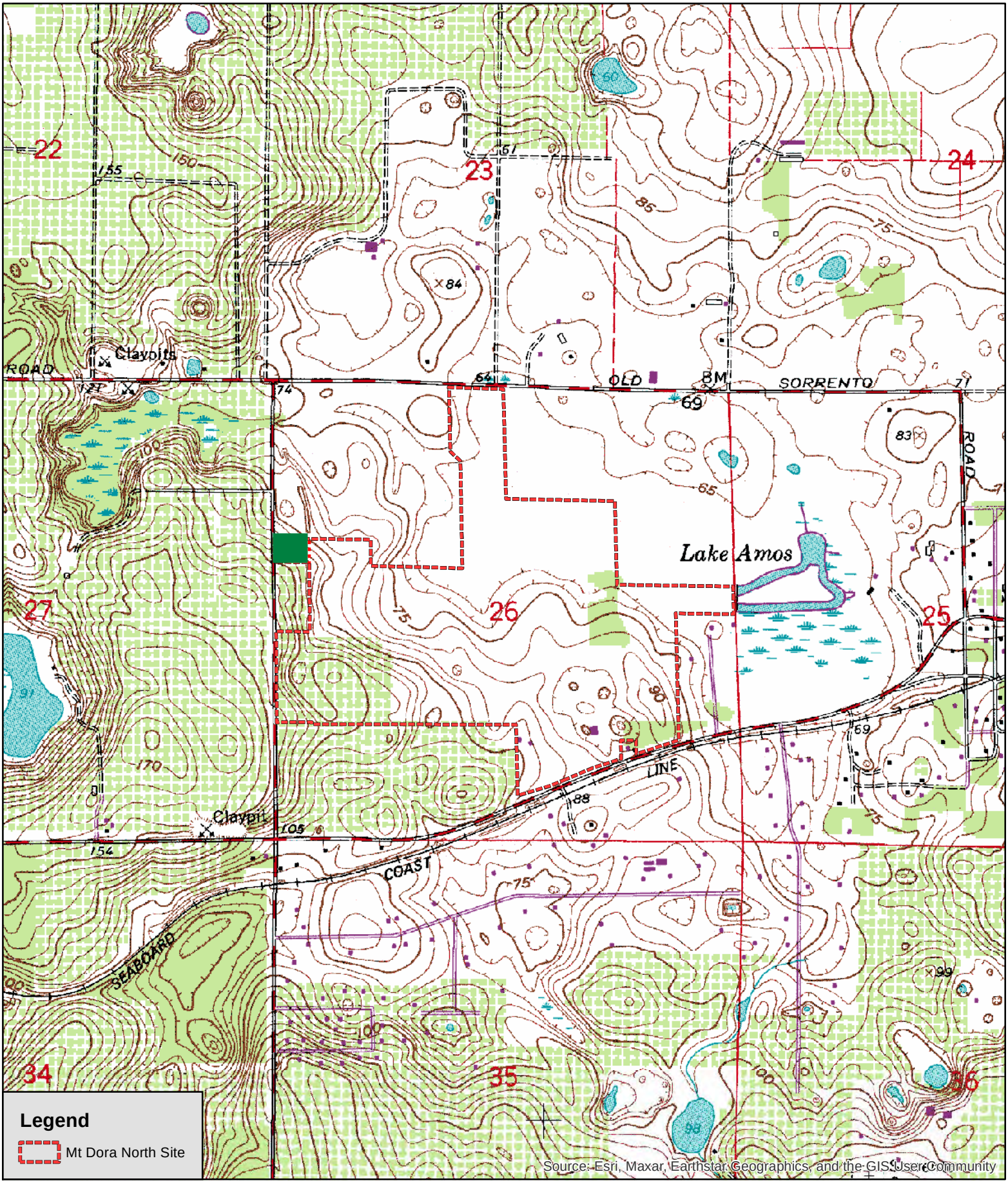
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 2
2022 Aerial Map

N
W E
S

1,000
Feet

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



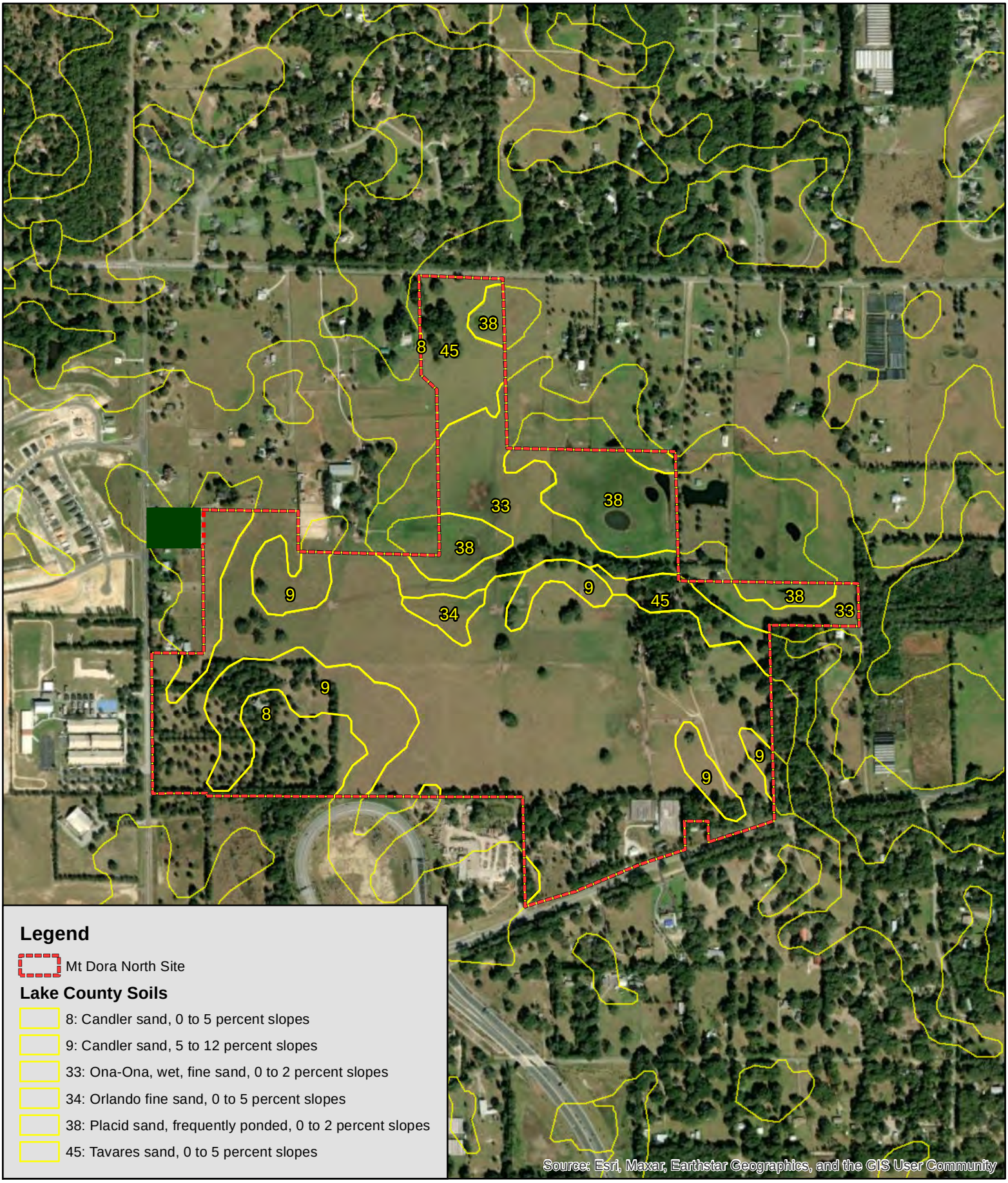
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 3
USGS Topographic Map

N
W E
S

1,500
Feet

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



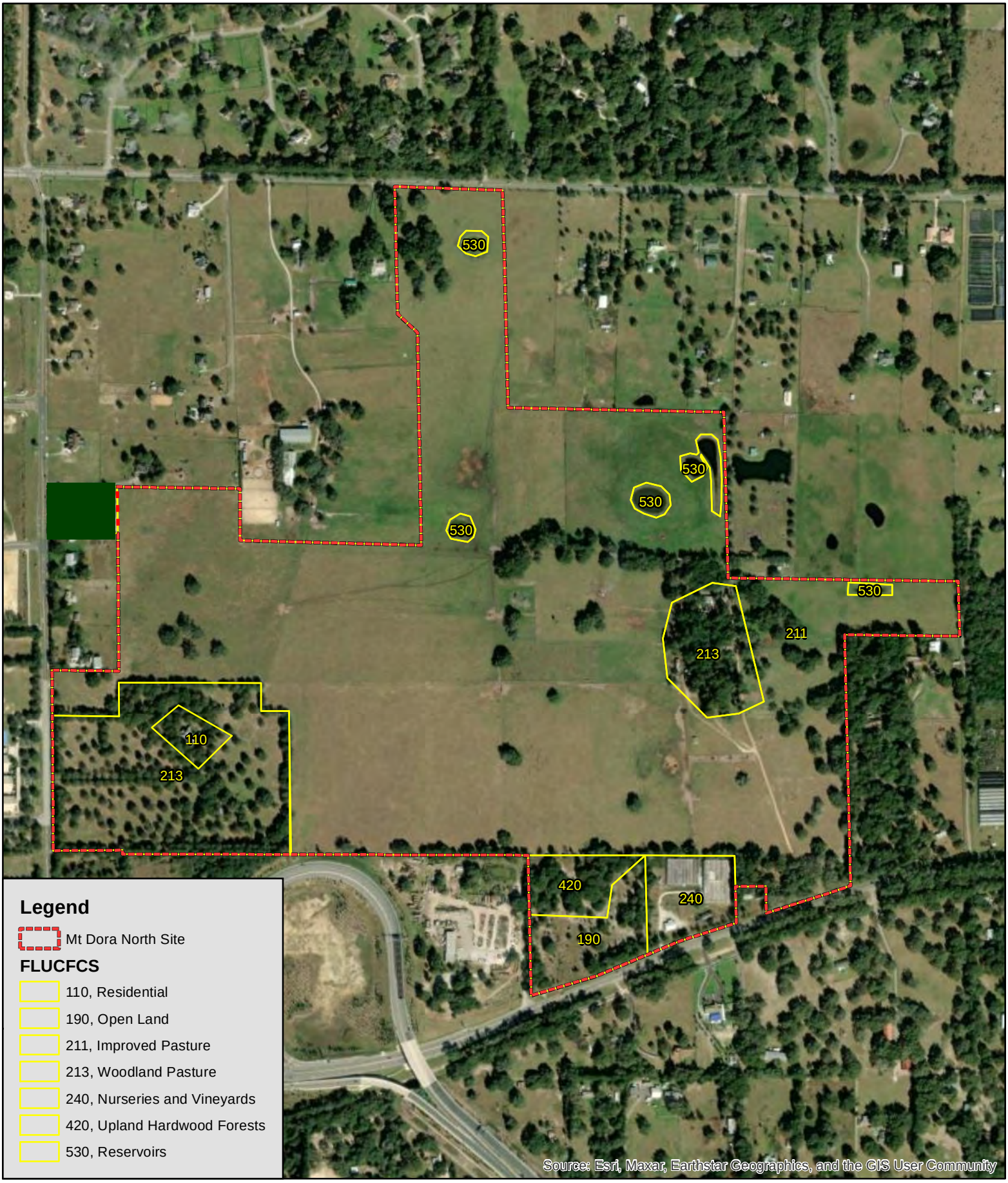
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 4
SSURGO Soils Map

N
W E
S

1,000 Feet

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



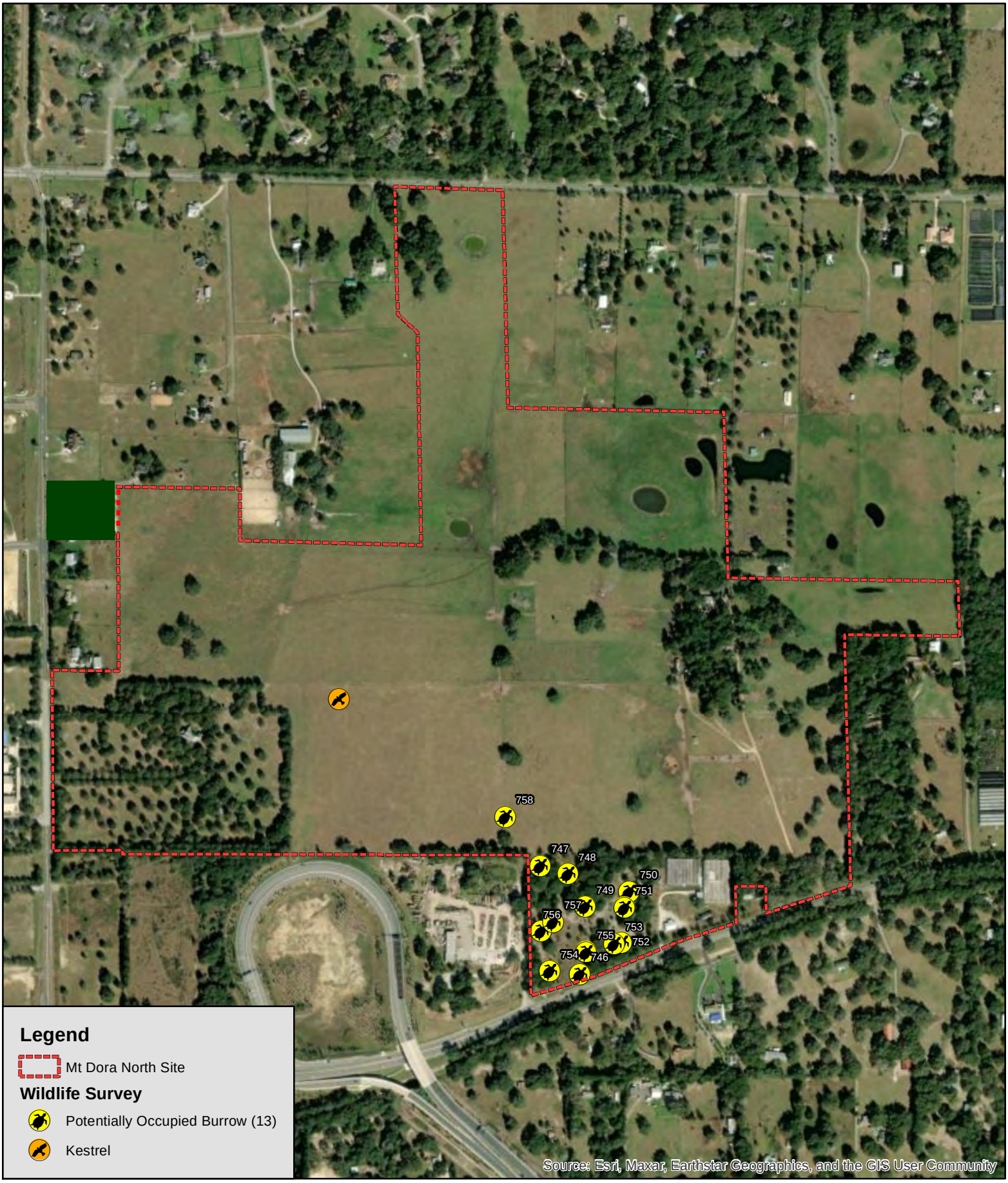
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 5
FLUCFCS Map

N
W E
S

750
Feet

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



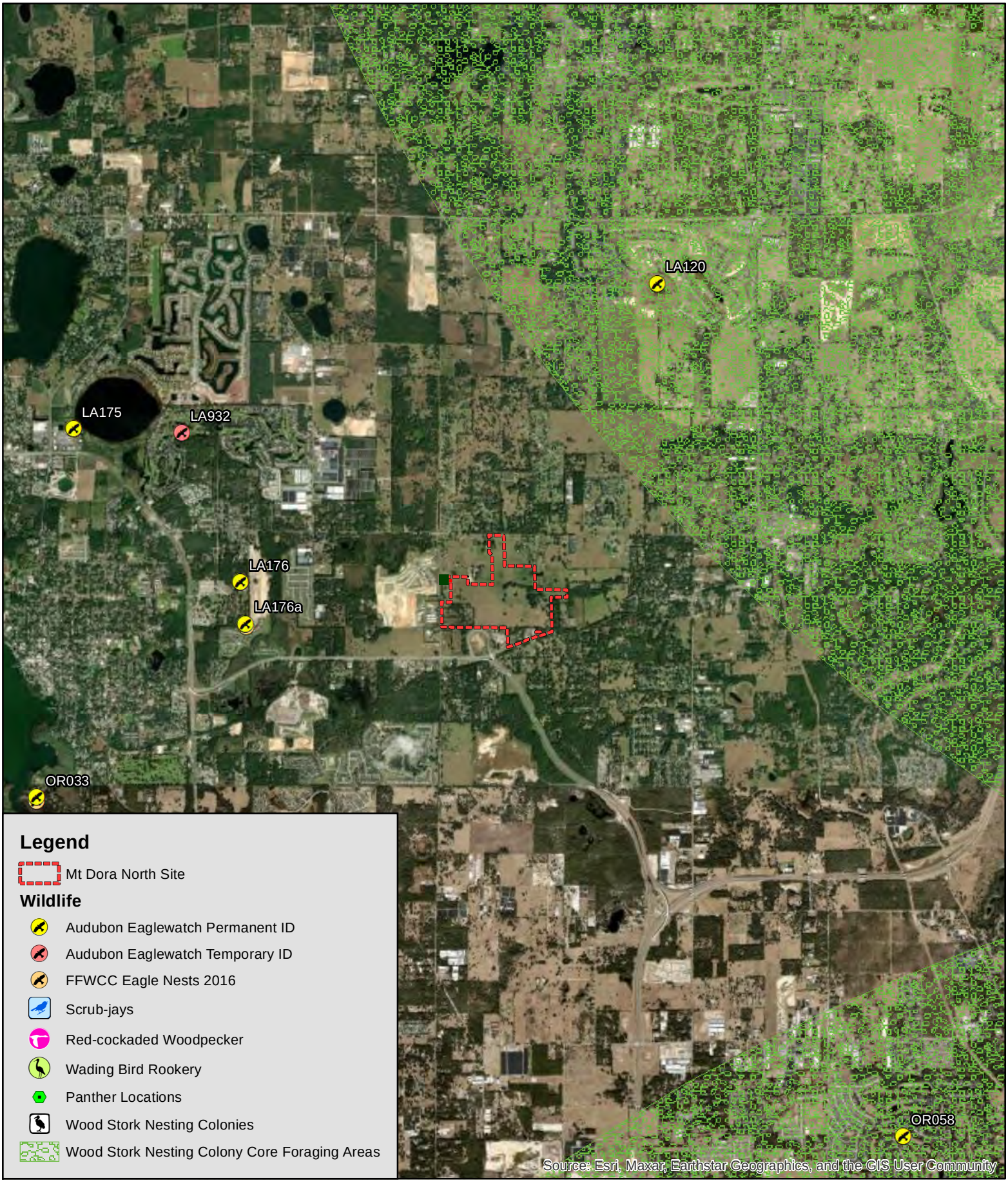
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 6A
Wildlife Survey

N
W E
S

750
Feet

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



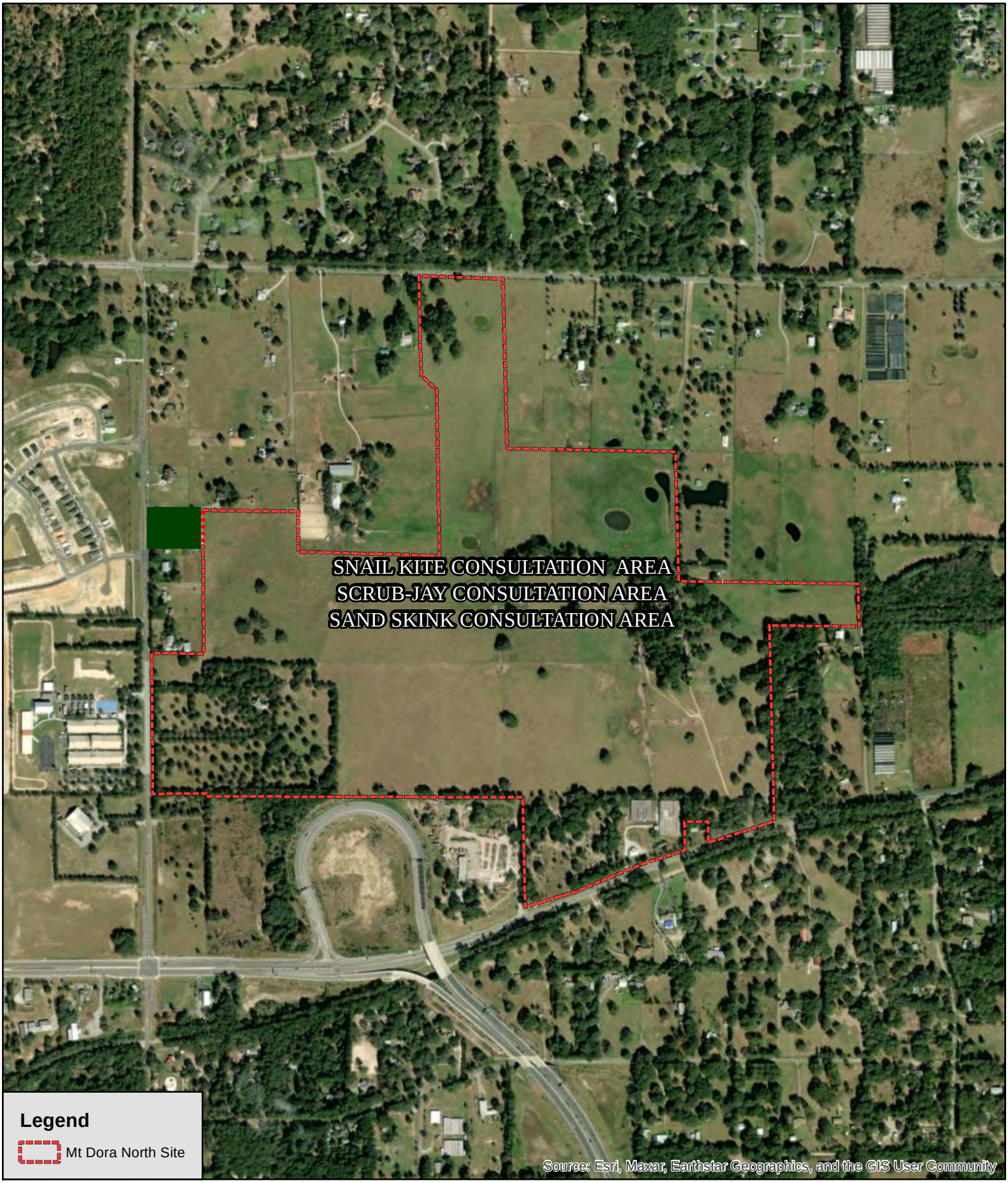
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 6B
Wildlife Proximity

N
W E
S

1
Miles

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



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

Mt Dora North Site
Lake County, Florida
Figure 7
USFWS Consultation Areas

N
W E
S

1,000
Feet

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023

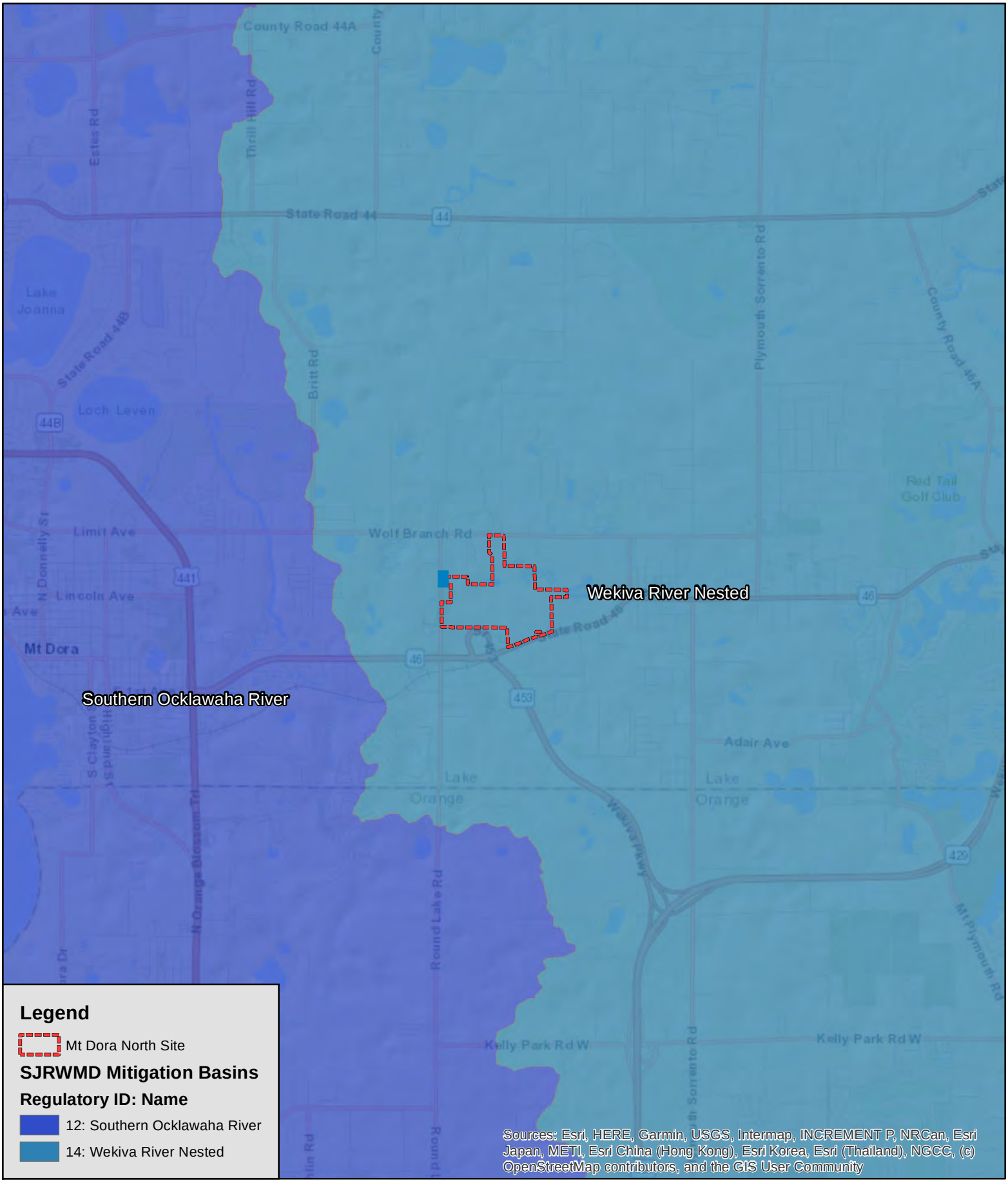
Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

Mt Dora North Site
Lake County, Florida
Figure 8
Surface Waters

N
W E
S

750
Feet

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023



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

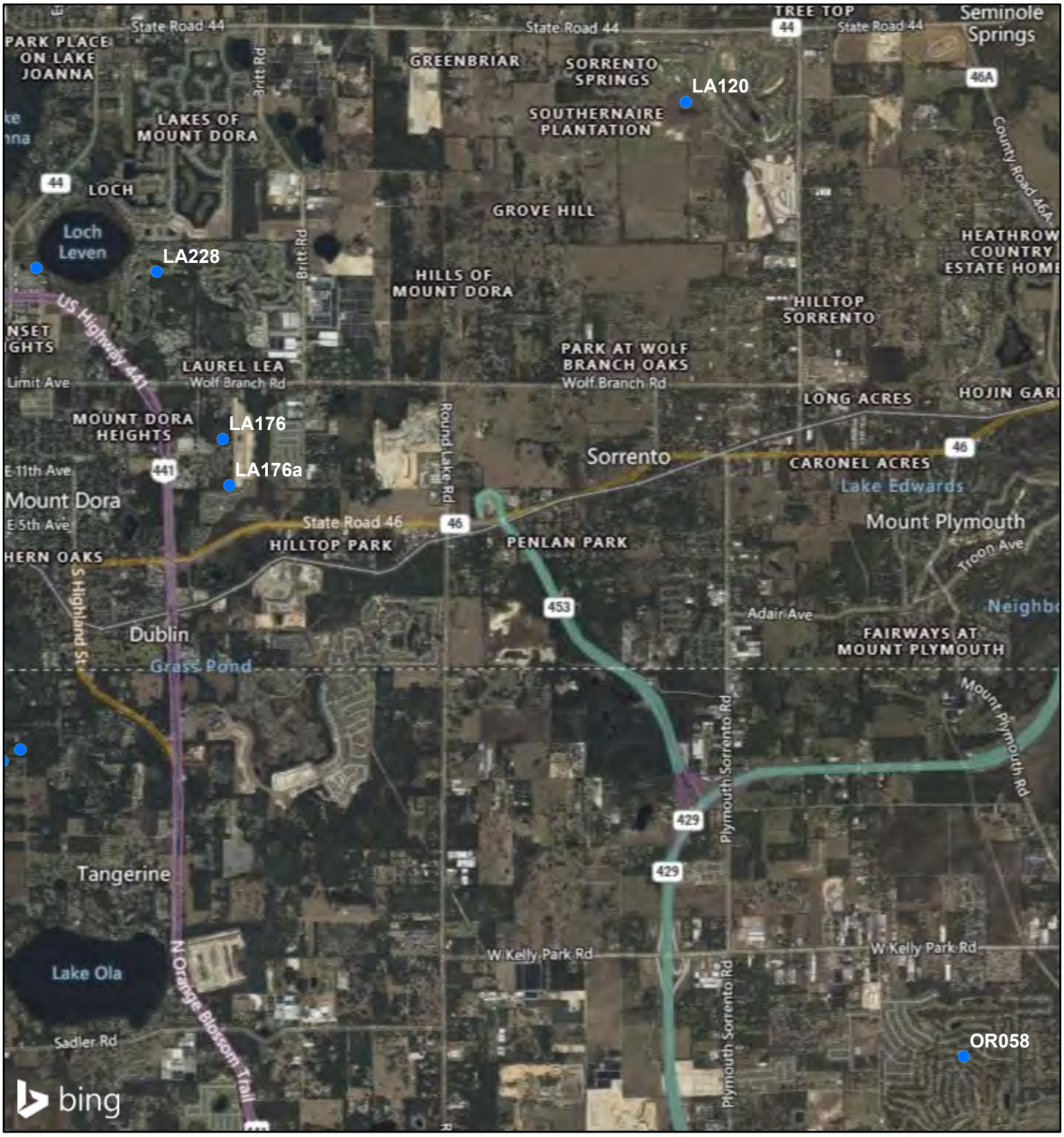
Mt Dora North Site
Lake County, Florida
Figure 9
SJRWMD Mitigation Basins

N
W E
S

1
Miles

Project #: 1091-12
Produced By: JDH
Date: 10/23/2023

EagleWatch Map



10/23/2023, 2:35:48 PM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Bald Eagle Nest Locations

- Permanent

Table 1 :	Potentially Occuring Listed Wildlife and Plant Species in Lake County, Florida		
Scientific Name	**Common Name**	**Federal Status**	**State Status**
FISH			
Pteronotropis welaka	Bluenose Shiner	N	ST
REPTILES			
Alligator mississippiensis	American Alligator	SAT	FT(S/A)
Drymarchon corais couperi	Eastern Indigo Snake	LT	FT
Gopherus polyphemus	Gopher Tortoise	C	ST
Lampropeltis extenuata	Short-Tailed Snake	N	ST
Pituophis melanoleucus mugitus	Florida Pine Snake	N	ST
Plestiodon reynoldsi	Sand Skink	LT	FT
BIRDS			
Antigone canadensis pratensis	Florida Sandhill Crane	N	ST
Aphelocoma coerulescens	Florida Scrub-Jay	LT	FT
Athene cunicularia floridana	Florida Burrowing Owl	N	ST
Egretta caerulea	Little Blue Heron	N	ST
Egretta tricolor	Tricolored Heron	N	ST
Falco sparverius paulus	Southeastern American kestrel	N	ST
Grus americana	Whooping Crane	XN	FXN
Mycteria americana	Wood Stork	LT	FT
Picoides borealis	Red-Cockaded Woodpecker	LE	FE
MAMMALS			
Trichechus manatus	West Indian Manatee	LT	FT
VASCULAR PLANTS			
Bonamia grandiflora	Florida bonamia	LT	E
Carex chapmanii	Chapman's Sedge	N	T
Centrosema arenicola	Sand Butterfly Pea	N	E
Chionanthus pygmaeus	pygmy fringe tree	LE	E
Clitoria fragrans	scrub pigeon-wing	LT	E
Coelorachis tuberculosa	Piedmont Jointgrass	N	T
Coeleataenia abscissa	Cutthroat Grass	N	E
Cucurbita okeechobeensis	Okeechobee Gourd	LE	E
Eriogonum longifolium var *gnaphalifolium*	Scrub Buckwheat	LT	E
Hartwrightia floridana	Hartwrightia	N	T
Hasteola robertiorum	Florida Hasteola	N	E
Illicium parviflorum	Star Anise	N	E
Justicia cooleyi	Cooley's Water-Willow	LE	E
Lechea cernua	Nodding Pinweed	N	T
Matelea floridana	Florida Spiny-Pod	N	E
Monotropa hypopithys	Pinesap	N	E
Najas filifolia	Narrowleaf Naiad	N	T
Nemastylis floridana	Celestial Lily	N	E
Nolina brittoniana	Britton's Beargrass	LE	E
Paronychia chartacea ssp *chartacea*	Paper-Like Nailwort	LT	E
Pecluma plumula	Plume Polypody	N	E
Pecluma ptilota var. bourgeauana	Comb Polypody	N	E
Polygala lewtonii	Lewton's Polygala	LE	E
Polygonella myriophylla	Small's Jointweed	LE	E
Prunus geniculata	Scrub Plum	LE	E
Pteroglossaspis ecristata	Giant Orchid	N	T
Salix floridana	Florida Willow	N	E
Sideroxylon alachuense	Silver Buckthorn	N	E
Stylisma abdita	Scrub Stylisma	N	E
Vicia ocalensis	Ocala Vetch	N	E
Warea amplexifolia	Clasping Warea	LE	E
Warea carteri	Carter's Warea	LE	E

FEDERAL LEGAL STATUS

LE-Endangered: species in danger of extinction throughout all or a significant portion of its range.

LT-Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
SAT-Endangered due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

C-Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
XN-Non-essential experimental population.
N-Not currently listed, nor currently being considered for listing as Endangered or Threatened.

STATE LEGAL STATUS - ANIMALS

FE- Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
FT- Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
FXN- Federal listed as an experimental population in Florida
FT(S/A)- Federal Threatened due to similarity of appearance
ST- State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.
SSC-Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* for Pandion haliaetus (Osprey) indicates that this status applies in Monroe county only.)
N-Not currently listed, nor currently being considered for listing.

*** 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)*

STATE LEGAL STATUS - PLANTS

E-Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.
T-Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.
N-Not currently listed, nor currently being considered for listing.