



February 1, 2018

Greg M. Toepp, VP of Construction
McDonald Development
1540 International Parkway; Suite 2000
Lake Mary, Florida 32746

Proj: Goodman - Hancock Road Property - Lake County, Florida
Section 33, Township 22 South, Range 26 East
(BTC File #868-04)
Re: Preliminary Environmental Assessment Report

Dear Mr. Toepp:

During February of 2018, Bio-Tech Consulting, Inc. (BTC) conducted a preliminary environmental assessment of the approximately 9.37-acre Goodman – Hancock Road Property. This site is located along the eastern side of Hancock Road, approximately 1.0 mile south of State Road 50; within Section 33, Township 22 South, Range 26 East of Lake County, Florida (Figures 1, 2 & 3). This environmental assessment included the following elements:

- Review of soil types mapped within the property boundaries;
- Evaluation of land use types/vegetative communities present;
- Field review for occurrence of protected flora and fauna; and,
- Environmental constraints.

SOILS

According to the Soil Survey of Lake County, Florida, prepared by the U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), three (3) soil types exist within the subject property (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
407.894.5970 fax

- **Candler sand, 0 to 5 percent slopes (#8)**
- **Candler fine sand, 5 to 12 percent slopes (#9)**
- **Lake Sand, 0 to 5 percent slopes (#21)**

The following presents a brief description of each of the soil types mapped for the project 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 fine sand, 5 to 12 percent slopes (#9) is a sloping to strongly sloping, excessively drained soil found on the uplands. The surface layer of this soil type generally consists of dark grayish brown fine sand about 4 inches thick. The seasonal high water table for this soil type is at a depth of more than 80 inches. Permeability of this soil type is rapid in the surface and subsurface layers and is rapid to moderately rapid in the subsoil.

Lake sand, 0 to 5 percent slopes (#21) is a nearly level to gently sloping, well drained to excessively drained soil. Typically the surface layer of this soil type consists of dark brown 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.

The Florida Association of Environmental Soil Scientists (FAESS) does not consider the main components and/or inclusions present within any of the property's soil types 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 Goodman – Hancock Road project site currently supports three (3) land use types/vegetative communities. These land use types/vegetative communities were identified using the Florida Land Use, Cover and Forms Classification System, Level III (FLUCFCS, FDOT, 2004). The on-site upland land use types/vegetative communities are classified as Longleaf Pine – Xeric Oak (412), Coniferous Plantation (441), and Roads and Highways (814). No wetland/surface water land use types/vegetative communities exist on the project site. The following provides a brief description of the land use types/vegetative communities identified on the project site:

Uplands:

412 Longleaf Pine – Xeric Oak

The north central portion of the project site is most consistent with the Longleaf Pine – Xeric Oak (412) FLUCFCS classification. Although severely fire-suppressed, the vegetation within this remnant community type includes a canopy and sub-canopy of sand live oak (*Quercus geminata*) and Chapman oak (*Quercus chapmanii*), with an understory of bracken fern (*Pteridium aquilinum*), wiregrass (*Aristida stricta*), Adam’s needle (*Yucca filamentosa*), broomsedge (*Andropogon virginicus*), prickly-pear cactus (*Opuntia humifusa*), dogfennel (*Eupatorium capillifolium*), reindeer moss (*Cladina rangiferina*), wireweed (*Polygonella fimbriata*), and saw palmetto (*Serenoa repens*).

441 Coniferous Plantations

The northern and southern portions of the project site are most consistent with the Coniferous Plantation (441) FLUCFCS classification. The northern portion of the project site is an old citrus grove that has been planted recently with slash pines (*Pinus elliottii*). The southern portion of this vegetative community was planted more than 25 years ago based on historic aerial review. Over the years, this area has filled in with other species such as laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), black cherry (*Prunus serotina*), Spanish needles (*Bidens alba*), cabbage palm (*Sabal palmetto*), beautyberry (*Callicarpa americana*), saw palmetto (*Serenoa repens*) and muscadine grapevine (*Vitis rotundifolia*).

814 - Roads and Highways

The southern portion of the project site is a paved roadway. This roadway is most consistent with the Roads and Highways (814) FLUCFCS classification.

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 (FFWCC) Gopher Tortoise Permitting Guidelines (April 2008 - revised January 2017); an assessment for “listed” floral and faunal species was conducted at the site on February 1, 2018. This assessment, which covered approximately 100% of the subject site’s developable area, included both direct observations and indirect evidence, such as tracks, burrows, tree markings and birdcalls that indicated the presence

of species observed (Figure 5). 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 (January 2017) that have the potential to occur in Lake County (Table 1).

No plant species listed by either The Florida Department of Agriculture (FDA) or U.S. Fish and Wildlife Service (USFWS) was identified on the project site during the assessment conducted. 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*)
green anole (*Anolis carolinensis*)

Birds

American Crow (*Corvus brachyrhynchos*)
Black Vulture (*Coragyps atratus*)
Blue Jay (*Cyanocitta cristata*)
Carolina Wren (*Thryothorus ludovicianus*)
Mourning Dove (*Zenaida macroura*)
Northern Cardinal (*Cardinalis cardinalis*)
Northern Mockingbird (*Mimus polyglottos*)
Pileated Woodpecker (*Dryocopus pileatus*)
Red-tailed Hawk (*Buteo jamaicensis*)

Mammals

eastern gray squirrel (*Sciurus carolinensis*)
nine-banded armadillo (*Dasypus novemcinctus*)
northern raccoon (*Procyon lotor*)
Virginia opossum (*Didelphis virginiana*)

None of the above species are identified in the FFWCC’s Official Lists - Florida’s Endangered Species, Threatened Species and Species of Special Concern (January 2017). The following provides a brief description of other wildlife species as they relate to the development of the Goodman – Hancock Road Property.

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 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 (Florida Administrative Code 68A-16.002 Bald Eagle (*Haliaeetus Leuchocephalus*)).

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 preliminary on-site review for "listed" species, BTC conducted a review for any FFWCC recorded Bald Eagle nests on or in the vicinity of the subject property (see attached). This review revealed no Bald Eagle nests, through the 2012-2013 nesting season, within one (1.0) mile of the subject site.

ENVIRONMENTAL CONSTRAINTS

The extent of the on-site wetlands/surface waters were aerial interpreted and field verified by BTC in accordance with local, state and federal guidelines. The extend of the on-site wetland/surface water limits will need to be field flagged, reviewed and approved by the various regulatory agencies during the permitting process. Permitting through Lake County, the St. Johns River Water Management District (SJRWMD) and the US Army Corp of Engineers (USACOE)

would be required to develop the property. The property resides in the Southern Ocklawaha River Drainage Basin.

St. Johns River Water Management District

An Environmental Resource Permit (ERP) will be required through the St. Johns River Water Management District (SJRWMD) for any wetland/surface water impacts (both direct and secondary) in association with the subject development. Impacts to the project's wetland/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. However, in the case of the subject property, no wetland/.surface waters exist within the project boundaries.

US Army Corps of Engineers

Permitting would also be required for the any wetland/surface water impacts by the US Army Corps of Engineers (USACOE). As the ERP is no longer a joint application between the SFWMD and the USACOE, the Corps will not be notified/copied upon submittal of the ERP application to the District. As with the District, it is anticipated that any impacts to the wetland communities would be permissible by the USACOE 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. However, in the case of the subject property, no wetland/.surface waters exist within the project boundaries.


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 boundary 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.

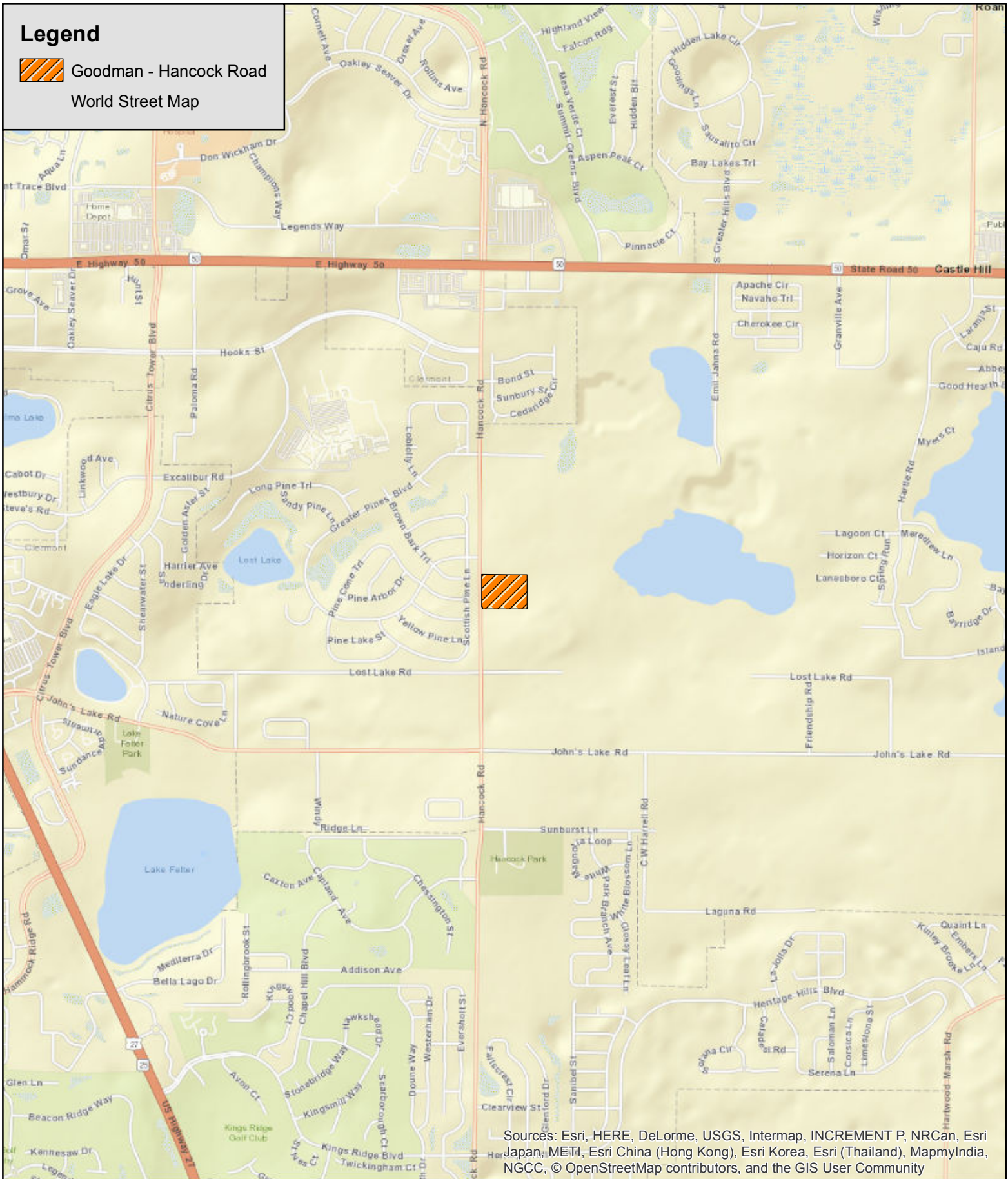
Regards,



Stephen Butler
Project Manager

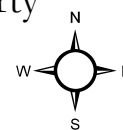
Legend

-  Goodman - Hancock Road
- World Street Map

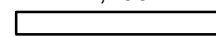


Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Goodman - Hancock Road Property Lake County, Florida Figure 1 Location Map



2,100


 Feet

Project #: 868-04

Produced By: SEB

Date: 2/1/2018

Legend

 Goodman - Hancock Road

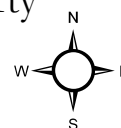


Goodman - Hancock Road Property

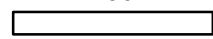
Lake County, Florida

Figure 2

2017 Aerial Photograph



130

 Feet

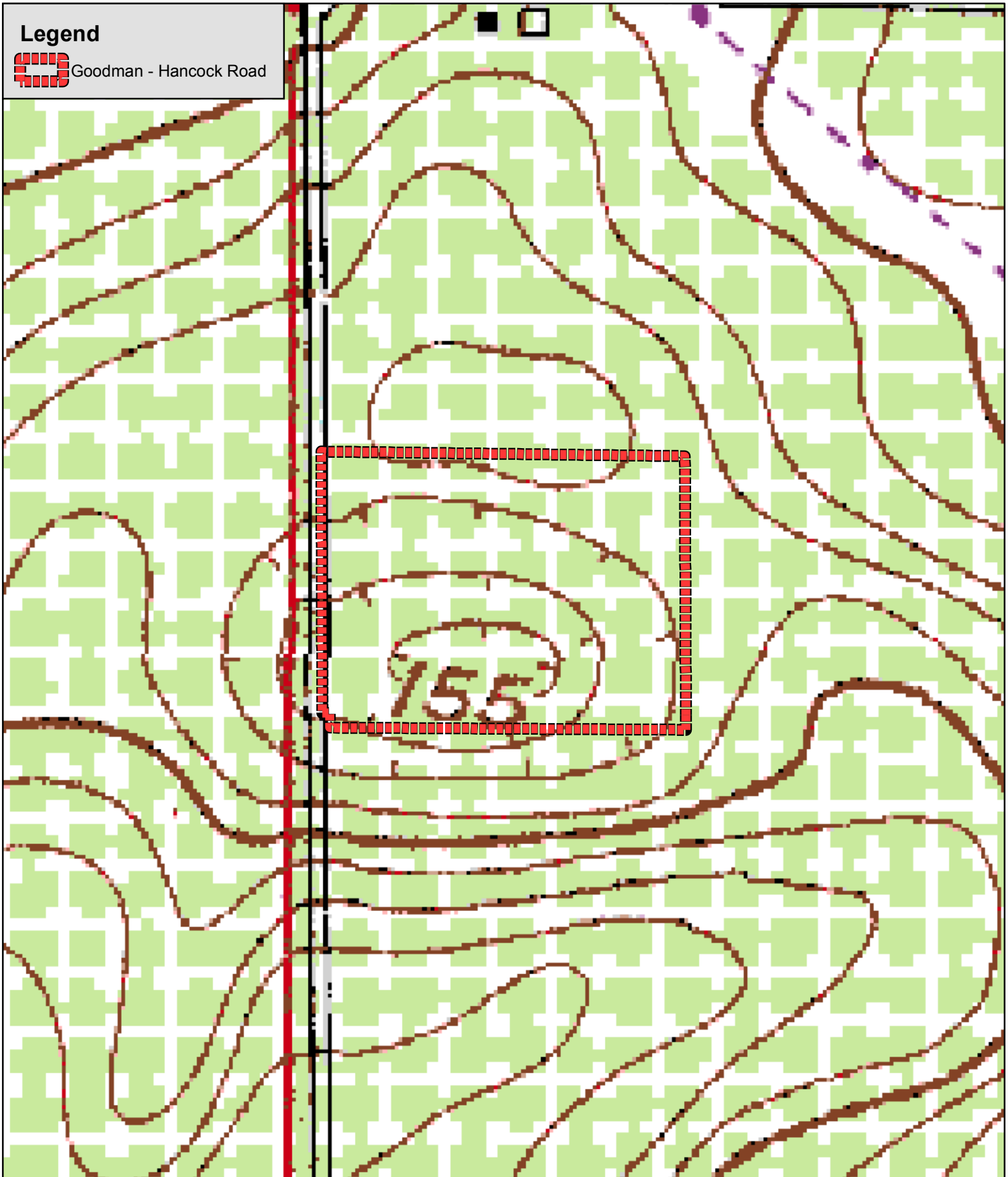
Project #: 868-04

Produced By: SEB

Date: 2/1/2018

Legend

 Goodman - Hancock Road

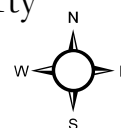


Goodman - Hancock Road Property

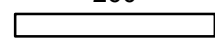
Lake County, Florida

Figure 3

USGS Topographic Map



260

 Feet

Project #: 868-04

Produced By: SEB

Date: 2/1/2018




Bio-Tech Consulting Inc.
Environmental and Permitting Services




3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970

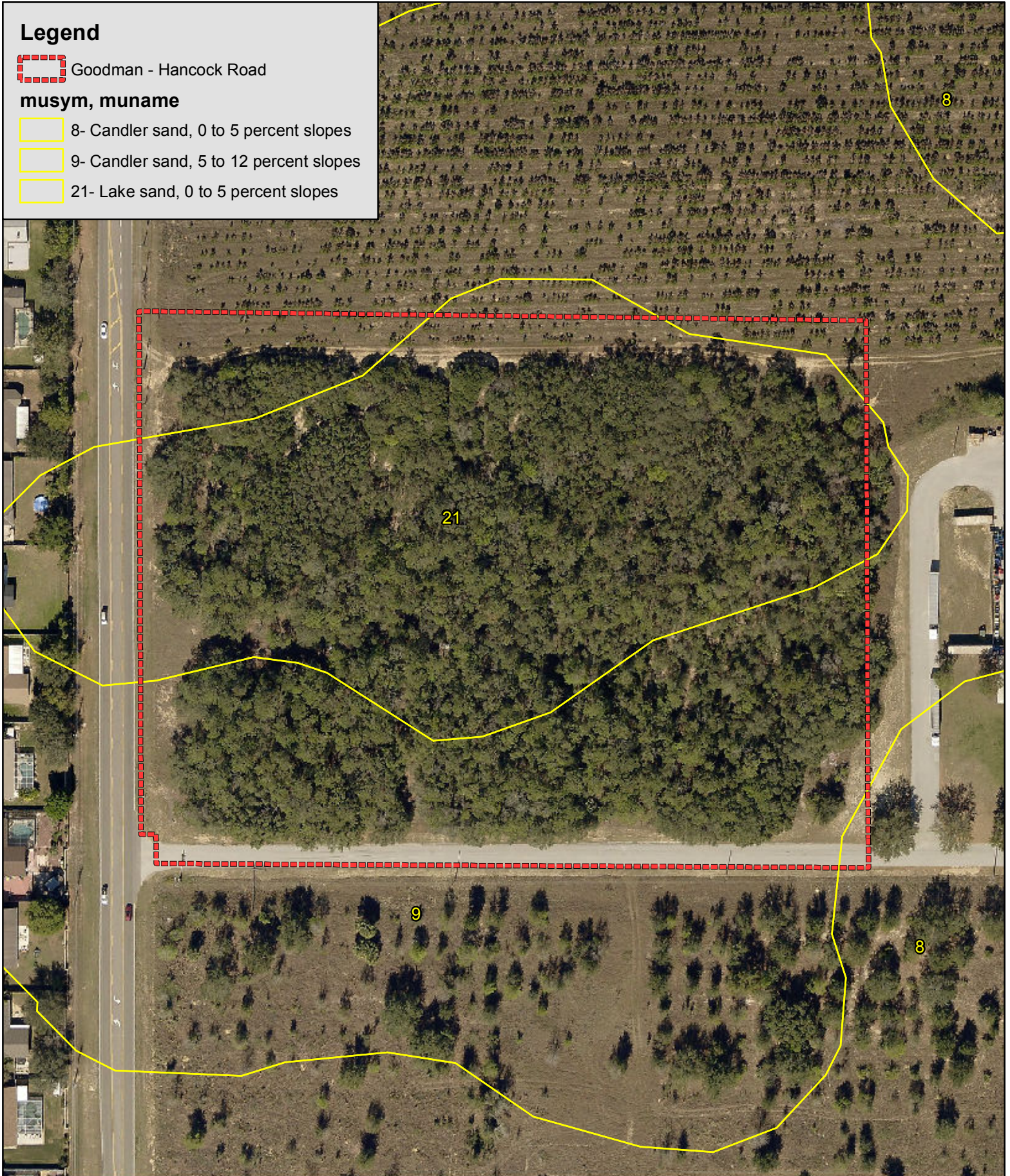
www.bio-techconsulting.com

Legend

 Goodman - Hancock Road

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-  8- Candler sand, 0 to 5 percent slopes
-  9- Candler sand, 5 to 12 percent slopes
-  21- Lake sand, 0 to 5 percent slopes

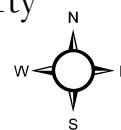


Goodman - Hancock Road Property

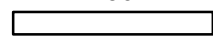
Lake County, Florida

Figure 4

USDA/NRCS Soils Map



130


 Feet

Project #: 868-04

Produced By: SEB

Date: 2/1/2018

Legend

 Goodman - Hancock Road

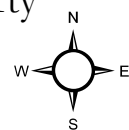


Goodman - Hancock Road Property

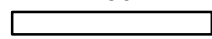
Lake County, Florida

Figure 5

Wildlife Survey



130






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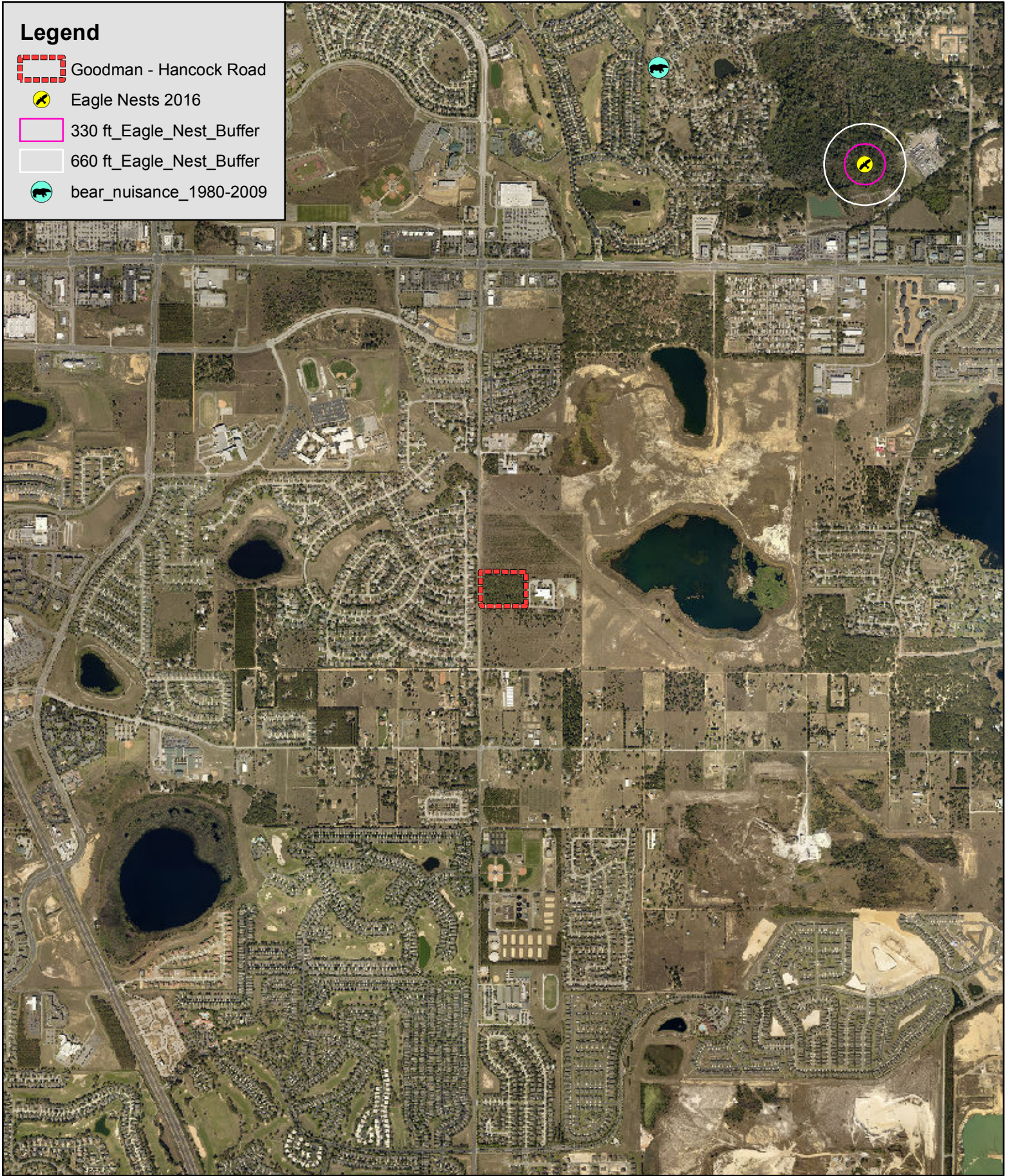
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Produced By: SEB

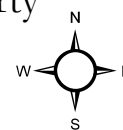
Date: 2/1/2018

Legend

-  Goodman - Hancock Road
-  Eagle Nests 2016
-  330 ft_Eagle_Nest_Buffer
-  660 ft_Eagle_Nest_Buffer
-  bear_nuisance_1980-2009



Goodman - Hancock Road Property
Lake County, Florida
Figure 6
Wildlife Proximity Map



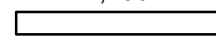
2,100
 Feet
Project #: 868-04
Produced By: SEB
Date: 2/1/2018

Table 1 :		Potentially Occuring Listed Wildlife and Plant Species in Lake County, Florida	
Scientific Name	Common Name	Federal Status	State Status
<u>FISH</u>			
<i>Pteronotropis welaka</i>	bluenose shiner	N	ST
<u>REPTILES</u>			
<i>Alligator mississippiensis</i>	American alligator	SAT	FT(S/A)
<i>Drymarchon corais couperi</i>	eastern indigo snake	LT	FT
<i>Gopherus polyphemus</i>	gopher tortoise	C	ST
<i>Lampropeltis extenuata</i>	short-tailed snake	N	ST
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	N	ST
<i>Plestiodon reynoldsi</i>	sand skink	LT	FT
<u>BIRDS</u>			
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	LT	FT
<i>Athene cunicularia floridana</i>	Florida burrowing owl	N	ST
<i>Egretta caerulea</i>	little blue heron	N	ST
<i>Egretta tricolor</i>	tricolored heron	N	ST
<i>Falco sparverius paulus</i>	southeastern American kestrel	N	ST
<i>Grus canadensis pratensis</i>	Florida sandhill crane	N	ST
<i>Haliaeetus leucocephalus</i>	bald eagle	N	**
<i>Mycteria americana</i>	wood stork	LT	FT
<i>Pandion haliaetus</i>	osprey	N	SSC*
<i>Picoides borealis</i>	red-cockaded woodpecker	LE	FE
<i>Sterna antillarum</i>	least tern	N	ST
<u>MAMMALS</u>			
<i>Sciurus niger shermani</i>	Sherman's fox squirrel	N	SSC
<i>Trichechus manatus</i>	West Indian manatee	LE	FE
<u>VASCULAR PLANTS</u>			
<i>Bonamia grandiflora</i>	Florida bonamia	LT	E
<i>Carex chapmanii</i>	Chapman's Sedge	N	T
<i>Centrosema arenicola</i>	Sand Butterfly Pea	N	E
<i>Chionanthus pygmaeus</i>	pygmy fringe tree	LE	E
<i>Clitoria fragrans</i>	scrub pigeon-wing	LT	E
<i>Coelorachis tuberculosa</i>	Piedmont Jointgrass	N	T
<i>Cucurbita okeechobeensis</i>	Okeechobee Gourd	LE	E
<i>Drosera intermedia</i>	spoon-leaved sundew	N	T
<i>Eriogonum longifolium</i> var <i>gnaphalifolium</i>	scrub buckwheat	LT	E
<i>Hartwrightia floridana</i>	hartwrightia	N	T
<i>Hasteola robertorum</i>	Florida hasteola	N	E
<i>Illicium parviflorum</i>	star anise	N	E
<i>Monotropa hypopithys</i>	piresap	N	E
<i>Najas filifolia</i>	narrowleaf naiad	N	T
<i>Nemastylis floridana</i>	Celestial Lily	N	E
<i>Nolina brittoniana</i>	Britton's beargrass	LE	E
<i>Panicum abscissum</i>	Cutthroat Grass	N	E
<i>Paronychia chartacea</i> ssp <i>chartacea</i>	paper-like nailwort	LT	E
<i>Polygala lewtonii</i>	Lewton's polygala	LE	E
<i>Prunus geniculata</i>	scrub plum	LE	E

<i>Pteroglossaspis ecristata</i>	Giant Orchid	N	T
<i>Salix floridana</i>	Florida willow	N	E
<i>Sideroxylon alachuense</i>	Silver Buckthorn	N	E
<i>Stylisma abdita</i>	scrub stylisma	N	E
<i>Vicia ocalensis</i>	ocala vetch	N	E
<i>Warea amplexifolia</i>	clasping warea	LE	E
<i>Warea carteri</i>	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.