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March 20 2023

Mr. Paul A. Kuck
Regal Marine Industries, Inc.
2300 Jetport Drive
Leesburg, Florida 32809

RE: **Regal Boats Expansion – New Pond
Environmental Due Diligence
Dewberry Job # 50150413**

Dear Mr. Kuck:

The property subject to this project assessment includes Orange County Parcel ID Number 31-23-30-0000-00-051, hereafter referred as project area (see attached **Regional Location Map** and **Aerial Location Map**). The project area is located west of Boggy Creek Road and southeast of the existing Regal Marine Industries, Inc. property, in Orange County, Florida. Dewberry environmental scientists reviewed the referenced project area to evaluate general site conditions and environmental constraints that may influence site development relative to wetlands and wildlife species; the review included any previous wetland and wildlife permitting. A site inspection was conducted on March 8, 2023. Assessments were conducted based on available published information online. The scope of the report contains only a review of natural environmental site conditions; an assessment review of potential environmental contamination, remediation assessment, or cultural/historical resource assessment was not conducted.

Currently, the project area consists primarily of a forested parcel of scattered trees and a generally open understory; the easternmost project area includes an isolated depressional forested wetland with exotic species encroachment. A swale drainage feature is located along the northeastern edge of the project area leading to an off-site drainage structure associated with Boggy Creek Road. Evidence of ongoing vegetative maintenance and removal efforts for nuisance species was observed throughout the majority of the project area.

Permitting Background

The project area does not have a known existing permit or other approvals with the South Florida Water Management District (SFWMD), U.S. Army Corps of Engineers (USACE), Florida Department of Environmental Protection (FDEP), Florida Fish and Wildlife Conservation Commission (FWC), or U.S. Fish and Wildlife Service (USFWS) based on available online resources. For further natural environmental permitting requirements, see individual sections below.

Soils

The Soil Survey of Orange County, Florida, available via the U.S Department of Agriculture's Natural Resources Conservation Service (NRCS) soil survey database, mapped the on-site soil types. The project area is comprised of 2 soil types: (34) Pomello fine sands, 0-5 percent slopes, A; (44) Smyrna-Smyrna wet fine sands, 0-2 percent slopes, A/D (see attached **Soils Map**).

Land Use

Land use and vegetative community types located within the subject project area were identified through the interpretation of aerial photographs and field verification. On-site land use forms were classified using the *Florida Land Use, Cover, and Forms Classification System* (FLUCCS), as defined by the Florida Department of Transportation (FDOT, 1999) designations, as well as the Florida Land Cover



Classification System (FWC, September 2018) Florida Natural Areas Inventory (FNAI) designations (see attached **Land Use Map**).

FLUCCS 420/Upland Hardwood Forest

This land use best describes the majority of the project area and surrounding parcels south and east. The canopy is primarily composed of a mix of slash pine (*Pinus elliottii*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), and cabbage palm (*Sabal palmetto*). The midstory and groundcover consist primarily of saw palmetto (*Serenoa repens*), greenbrier (*Smilax bona-nox*), juvenile oaks, and red maple (*Acer rebrum*).

FLUCCS 530/FNAI 3220 – Reservoirs

This land use classification best describes the stormwater drainage feature along the northeastern edge of the project area, adjacent to the commercial development to the north. This artificial swale leads off site to Boggy Creek Road.

FLUCCS 619/FNAI 7400 – Exotic Wetland Hardwoods

This isolated, depressional wetland exists on the eastern edge of the project area. The wetland is a mixture of native, exotic, invasive, and nuisance species including Virginia chain fern (*Woodwardia virginica*), red maple, water oak (*Quercus nigra*), cabbage palm, camphor tree (*Camphora officinarum*), and melaleuca (*Melaleuca quinquenervia*). Soils are primarily sandy with mucky-mineral sands containing organic matter in the upper eight inches and evidence of fill material in the lower quarter of the soil profile from the nearby abandoned railroad bed.

Jurisdictional Wetlands and Other Surface Waters Assessment

As part of the assessment, the project area was evaluated for the presence of wetlands and surface waters. This evaluation consisted of a desktop/literature review and a field survey conducted on March 8, 2023, to identify the location and extent of wetland and surface waters that may be present on site. Dewberry environmental scientists compared data with site conditions to estimate surface waters and wetlands that would be impacted by the proposed project. Potentially jurisdictional waters were delineated in accordance with the *State of Florida's Delineation of the Landward Extent of Wetlands and Surface Waters* (Chapter 62-340, Florida Administrative Code), State 404 Assumption Program (Chapter 62-331, Florida Administrative Code), and the USACE criteria (*1987 Wetland Delineation Manual and the October 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region*).

Based on the field assessment, the project area includes one jurisdictional wetland and one other surface water (OSW) that drains off site to the nearby roadway (see attached **Wetland and Surface Water Map**). The following includes a general description of on-site jurisdictional systems:

Wetland 1

Located at the eastern end of the project area, this wetland system can best be described as Exotic Wetland Hardwoods (FLUCCS 619/FNAI 7400). Species observed include melaleuca, red maple, water oak, laurel oak, and Virginia chain fern. Evidence of adventitious rooting and mucky mineral soils with diffuse boundaries were observed when delineating this wetland.

Other Surface Water

One OSW feature is present, located towards the northeastern edge of the project area. This feature is used to convey stormwater from the adjacent developed parcel toward Boggy Creek Road. This system is best classified as a man-made reservoir or swale, (FLUCCS 530/3220 – Reservoirs). Although the swale contains some native vegetation, it does not provide typical suitable wading and wetland-dependent bird foraging or nesting habitat due to the lack of ephemeral surface water present.



An Environmental Resource Permit (ERP) with the SFWMD is required should the project impact the jurisdictional wetland. It is anticipated the project may qualify for a General Permit under 62-330.474 'General Permit for Certain Minor Activities', pending the final scope of work. Additionally, although isolated, a permit for federal wetland impacts to waters of the U.S. (WOTUS) may be required with the FDEP under the implemented State 404 Assumption Program if a No Permit Required cannot be feasibly obtained. The State 404 Assumption Program currently has timeframes that exceed six to twelve months.

Mitigation Cost Estimates

If wetland impacts are considered federally jurisdictional under the State 404 Assumption Program and require mitigation, mitigation bank credits for state and federally regulated wetlands are recommended wherever possible, as opposed to an on-site mitigation plan per the mitigation hierarchy, *avoiding ongoing compliance and monitoring from on-site mitigation. The project area is located within the Boggy Creek cumulative impact basin and the Kissimmee Hydrologic Unit Code 03090101; the project area is within the service area for multiple mitigation banks. A federal Forested or Herbaceous credit is approximately \$50,000. Mitigation costs are estimated based on wetland scoring and acreage of impacts. Due to the wetland's location amongst industrial development, evidence of existing associated impacts from the abandoned railway and the presence of exotic and nuisance species and trash accumulation, the wetland system quality is anticipated to be relatively low.

Historic and Significant Tree Assessment

According to the Orange County Code of Ordinances (Chapter 15, Article VIII – Environmental Control) development projects removing “protected trees” require a Tree Removal Permit from the county. Furthermore, the County also includes additional protections/regulations regarding trees classified as “specimen”. Based on the field review, which included a preliminary general tree survey to identify the potential and extent of trees, the majority of the proposed project area consists of scattered canopy trees with an open midstory. Protected trees defined by the Orange County Code of Ordinances, are located on site, some of which may be considered specimen trees. Should trees be impacted during the proposed project, a formal tree survey and associated permits will be required prior to permit application submittal to Orange County..

Listed Flora and Fauna Species Analysis

Preliminary Data Collection and Field Review

Literature reviews, agency database searches, and field reviews were conducted to document the potential presence of federal and state protected species, their habitat, and any habitat within the study area that local municipalities may protect. A field review was conducted on March 8, 2023.

Reviewed information sources and databases included, but were not limited to, the following:

- Environmental Systems Research Institute (ESRI) World Imagery
- Florida Geographic Data Library
- USFWS Information for Planning and Consultation (IPaC) Datasets
- FNAI
- FWC Databases
 - Eagle Nest Locator Website
 - Water Bird Colony Locator Website
 - Florida Black Bear Roadkill Occurrences

Protected species were assessed based on data review, field observations, the presence of suitable habitat, and the species known ranges. All species potentially occurring on site have been assigned one of three categories: low likelihood of occurrence, moderate likelihood of occurrence, or high likelihood of occurrence. These categories are based on the following parameters:

- Low – The project is within the species' range, but limited habitat exists within or adjacent to the project limits; there are no documented occurrences of the species within the project and the species was not observed during the field reviews.
- Moderate – The project is within the species' range; some habitat exists within or adjacent to the project limits; there are no documented occurrences of the species within the project and the species was not observed during the field reviews.
- High – The project is within the species' range, suitable habitat exists within or adjacent to the project, there is a documented occurrence of the species near the project site, or the presence of this species is widely accepted in the surrounding area. The species may or may not have been observed on site or in-flight during surveys.

Data and Survey Results

All species with the anticipated potential to occur on site or observed on site are listed in the attached **Table 1 – Observed and Potentially Occurring Species**. Further details regarding the explanation of protected species occurrence are provided below.

State and Federally Listed Plant Species (Listed Flora Species)

This project occurs within the USFWS Consultation Area (CA) for the Lake Wales Ridge plants; there are federally and state protected flora species within the regional area. These plants typically require fire-maintained scrub habitat. This project area, however, is primarily comprised of mixed oak and pine species and an understory containing mostly cabbage palm, saw palmetto, and saw greenbrier. Additionally, the site has been previously disturbed for railroad use and has remnants of the abandoned railroad bed. During the site visit, Dewberry environmental scientists preliminarily surveyed for any potentially protected plant species. No Federally-listed or State-listed plants were observed on site. Considering these facts, the project area has a low potential for listed plants to be located on site (see attached **Table 1**).

Protected Animal Species (Listed and Protected Fauna)

Federally Protected Species

The project occurs within multiple USFWS CAs for federally protected species including the Florida scrub-jay (*Aphelocoma coerulescens*), red-cockaded woodpecker (*Leuconotopicus borealis*), eastern indigo snake (*Drymarchon couperi*), and Everglade snail kite (*Rostrhamus sociabilis plumbeus*). The project is also located within multiple wood stork (*Mycteria americana*) Core Foraging Areas (CFAs) and within the range of the Eastern black rail (*Laterallus jamaicensis jamaicensis*). Based on the preferred habitat for these species and the observed site conditions there is limited suitable habitat for the majority of these federally listed species (see attached **Table 1**).

No documented bald eagle (*Haliaeetus leucocephalus*) nests are located within a 0.5-mile radius of the project, per the FWC and supplemental Audubon EagleWatch online databases. Therefore, it is anticipated that this species has a low occurrence and that the project will have “**no effect**” on the bald eagle. Additionally, due to the lack of scrub oak species or open canopy wetlands, the project is anticipated to have “**no effect**” on the Florida scrub-jay or everglade snail kite.

The project area is within the CA for the red-cockaded woodpecker. A few pine trees in excess of 6” diameter at breast height (DBH) exist in the project area. However, pine tree species comprise less than 50% of the tree canopy. During the field survey, no potential nest cavities were observed and there are no listed observances of red-cockaded woodpecker within 10 miles of the project site. Based on field observations, the project site lacks suitable foraging habitat. Therefore, the project is anticipated to have “**no effect**” on the red-cockaded woodpecker.

The project area is located within multiple wood stork CFA and within range of other protected wading and wetland-dependent birds including the Eastern black rail. During the site visit, no wood storks or other state or federally protected wading and wetland-dependent bird nests or rookeries were identified within the project area. One small depressional wetland exists on site; however, this area is highly disturbed from the adjacent railroad bed, is comprised of exotic and adventitious species and does not maintain standing water. Due to a lack of suitable foraging habitat within the project area the project is anticipated to have “**no effect**” on the wood stork as well as other listed wading and wetland-dependent bird species; no additional requirements with FWC or USFWS are anticipated.

The Eastern indigo snake is a federally protected species with a range that overlaps with the subject project area. Minimal potential habitat exists within the project area. During the field survey a preliminary gopher tortoise survey found no gopher tortoise burrows, which the species is known to reside in. Based on the USFWS north Florida *Eastern Indigo Snake Effect Determination Key* (dated August 13, 2013), due to the absence of gopher tortoise burrows, holes, cavities or other refugia, and assuming the USFWS’s latest **Standard Protection Measures for the Eastern Indigo Snake** (attached below) is implemented during construction, the project is anticipated to “**not likely to adversely affect**” the Eastern indigo snake.

State Listed Species

The project is also within range for several state-protected species, including the gopher tortoise (*Gopherus polyphemus*), Florida pine snake (*Pituophis melanoleucus mugitus*), Florida sandhill crane (*Antigone canadensis pratensis*), southeastern American kestrel (*Falco sparverius paulus*), Florida burrowing owl (*Athene cunicularia*), and other state protected wading and wetland-dependent birds (addressed above). The project is also within “frequent” range of the Central Bear Management Unit (BMU) for the Florida black bear (*Ursus americanus floridanus*) (see attached **Table 1**).

During the preliminary survey, no potentially occupied gopher tortoise burrows or Florida burrowing owl burrows were observed within or adjacent to the project limits. The preliminary survey covered approximately 100% of the project area. However, in accordance with FWC regulation, no greater than 90 days prior to construction, an updated 100% survey of all potentially suitable gopher tortoise habitat should be performed. If potentially occupied gopher tortoise burrows are observed within or 25-ft adjacent to the project limits and cannot be avoided by the required 25-foot burrow protection buffer, permitted relocation coordination with FWC will be required. If Florida burrowing owls are observed, consultation with FWC will be required.

The project area is located within the “Frequent” range of the Central Florida BMU for the Florida black bear. The closest documented sightings occurred on June 1st and June 25th, 2018, within 10 miles of the project area. The closest documented black bear mortality is approximately 7 miles southeast of the project area. Due to the location of the project area between industrial development and a railroad yard, it is anticipated that the project will “**no adverse effect**” the black bear.

The project area contains minimal suitable habitat for the Florida pine snake. Due to the lack of gopher tortoise burrows and other refugia observed during the preliminary survey it is anticipated that the species has a low occurrence and no species-specific surveys are anticipated to be required for the Florida pine snake, provided the latest *FWC Species Conservation Measures and Permitting Guidelines* are followed during construction. This project is expected to have “**no adverse effect**” on the Florida pine snake.



The project area falls within the habitat range of the southeastern American kestrel, listed as threatened by FWC. Southeastern American kestrels' nest in abandoned woodpecker cavities and prefers open, scrub-like or pasture habitats with sparse ground vegetation for foraging. The project area includes trees; however, during the field survey no potential nest cavities were observed and the project area is primarily comprised of upland mixed forest that is not consistent with the species' preferred open canopy foraging habitat. Therefore, it is anticipated that the potential for the occurrence of SE American kestrel is low for the project.

Local, State and Federal Regulatory Permit Requirements and Timeframes

FWC regulates and permits impacts to state-only wetland-dependent protected species and is also the initial review agency for federal species during the State ERP review and under the delegated State 404 Assumption Program. Although not anticipated, FWC or USFWS species-specific surveys prior to construction may be required for the subject project. If FWC or USFWS requires species surveys, seasonal limitations may restrict survey timeframes for these (i.e., plants or southeastern American kestrel).

FWC permitted relocation will be required for any impacts to potentially occupied gopher tortoise burrows prior to development, if identified on site. Gopher tortoise permitting and relocation typically takes approximately 3 months to complete; however, winter weather constraints and recipient site capacity availability may increase timeframes. Although not anticipated, FWC may also require an Incidental Take Permit (ITP) for habitat degradation of other state-only upland dependent protected species, such as the Florida pine snake. An ITP for some species may require clearing and mass grading is completed in non-breeding seasons.

Mitigation Cost Estimates

Total costs for mitigation vary for each species, depending upon the acreage of habitat impact. Specific permit fees also range for some species depending on the number of nest sites and/or burrows impacted. Summaries are provided below for particular species where mitigation and permit fees are likely necessary:

- Gopher tortoise: Costs associated with relocation are on the rise, with significant increases for recipient site fees. Currently, recipient site relocation cost is approximately \$6,000 per tortoise; additional costs include gopher tortoise FWC permit/mitigation fee, consultant permitting and relocation efforts. A preliminary general wildlife survey did not identify any potentially occupied gopher tortoise burrows on site. An updated 100% species-specific Gopher Tortoise Survey is required to confirm accurate population density within 90-days prior to construction.

Confirmation of absence and survey requirements with FWC and/or USFWS is recommended during the project's planning phase.

Summary of Environmental Findings

Jurisdictional Wetlands and Other Surface Waters Conclusions

One wetland and one artificial OSW were identified within the project area during the assessment. Impacts to jurisdictional systems will require approval via permitting with the state Chapter 62-330 (FDEP via ERP) and may require federal regulatory approval (if determined or assumed to be jurisdictional) via the FDEP via State 404 Assumption Program, as described in detail above, prior to construction. State ERP acquisition timeframes range from approximately 6-9 months and FDEP State 404 Assumption Program permits range from approximately 9-12 months. Adverse impacts to the wetland may require that federal mitigation be completed prior to construction. Should mitigation bank credits remain available, it is recommended that adverse impacts are mitigated through the purchase of wetland bank credits, if possible. Permit requirements are dependent on the final scope of work.



Protected Flora and Fauna Species Analysis Conclusions

During the March 8, 2023, site visit, a preliminary Gopher Tortoise Survey was performed. No potentially occupied gopher tortoise burrows were observed within or directly adjacent to the project area. However, in accordance with FWC regulation, an updated 100% Gopher Tortoise Survey will need to be performed within 90 days prior to construction. If potentially occupied burrows are observed during the updated survey and cannot be avoided by the required 25-foot protection buffer, coordination and permitting efforts with FWC will be required.

The USFWS's latest ***Standard Protection Measures for the Eastern Indigo Snake*** (attached below) should be implemented during construction. Although not anticipated due to the limited natural habitat on site, FWC or USFWS may require species-specific surveys or an ITP for habitat degradation of other protected species, such as the Florida pine snake, if applicable. An ITP for some species may require clearing and mass grading that is completed in non-breeding seasons.

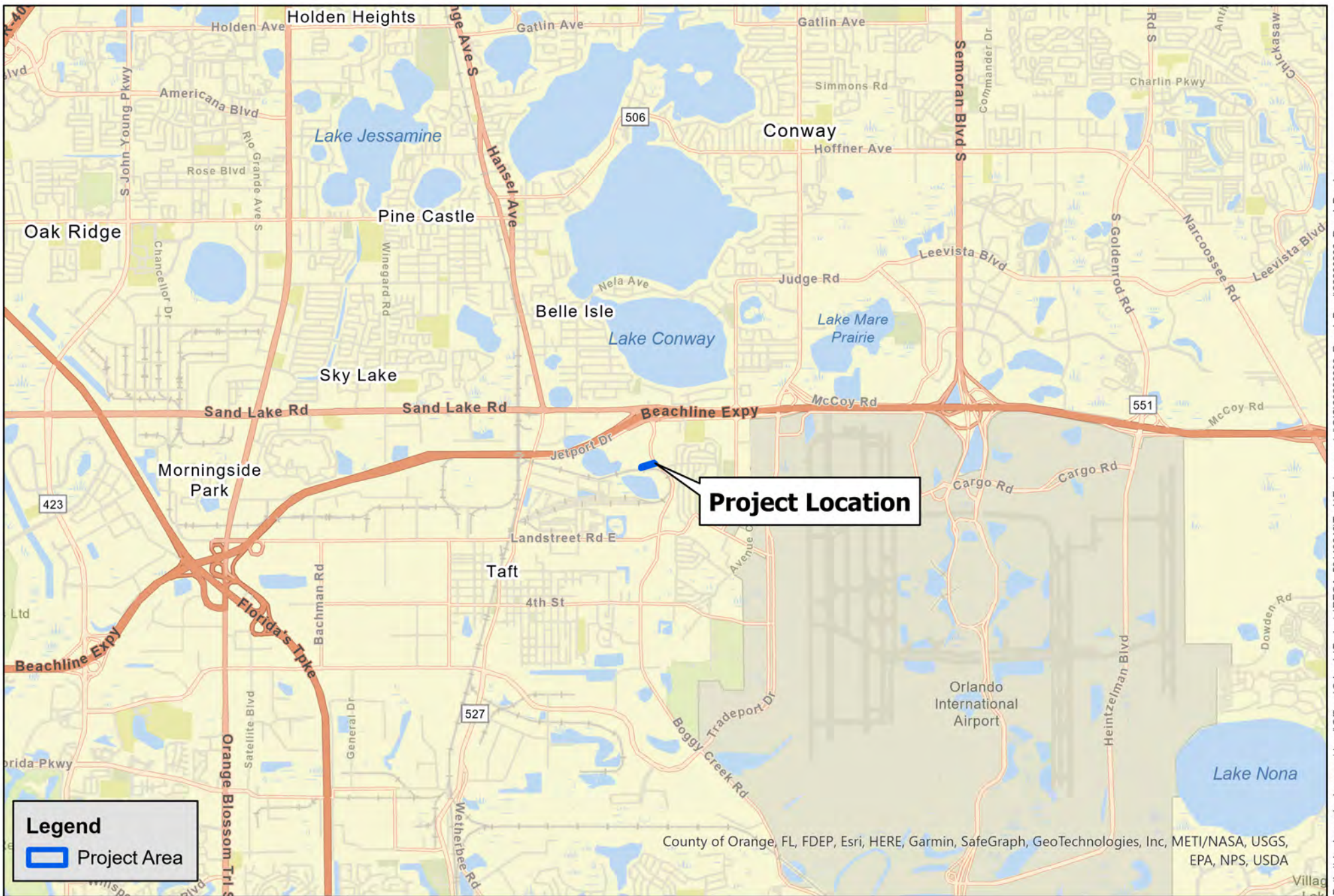
Should you have any questions regarding our findings, please feel free to reach out.

Sincerely,

A handwritten signature in black ink, appearing to read "Nicole Gough", is written over a light blue horizontal line.

Nicole Gough
Senior Environmental Scientist
Dewberry Engineers Inc.

Attachments: **Regional Location Map**
Aerial Location Map
Soils Map
Land Use Map
Wetland and Surface Water Map
Table 1 - Observed and Potentially Occurring Species
USFWS Standard Protection Measures for the Eastern Indigo Snake

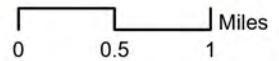


Regional Location Map

Regal Boats Expansion - New Pond

Orange County, FL

Saved: 3/20/2023



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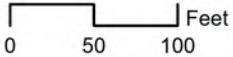
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State of Florida, Maxar, Microsoft

Aerial Location Map
Regal Boats Expansion - New Pond

Orange County, FL

Saved: 3/20/2023



Data Source: Dewberry
Image Source: ESRI





Legend

Project Area (Approximately 1.25 ac.)

Soils

34, Pomello Fine Sand, 0 to 5 percent slopes, A

44, Smyrna-Smyrna Wet, Fine Sand, 0 to 2 percent slopes, A/D

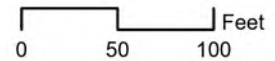
State of Florida, Maxar, Microsoft

Soils Map

Regal Boats Expansion - New Pond

Orange County, FL

Saved: 3/20/2023



Data Source: Dewberry, NRCS
Image Source: ESRI



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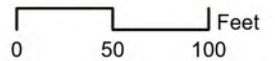


Land Use Map

Regal Boats Expansion - New Pond

Orange County, FL

Saved: 3/20/2023



Data Source: Dewberry; FDOT; FWC
Image Source: ESRI





Legend

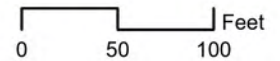
- Project Area (Approximately 1.25 ac.)
- Wetland
- OSW - Ditch

State of Florida, Maxar, Microsoft

Wetland & Other Surface Waters Map
Regal Boats Expansion - New Pond

Orange County, FL

Saved: 3/20/2023



Data Source: Dewberry
 Image Source: ESRI



Table 1: Observed and Potentially Occurring Species – Regal Boats Expansion New Pond

Common Name	Scientific Name	Federally ESA or MBTA*	State Status	Likelihood of Occurrence/Habitat Utilization
Britton's Beargrass	<i>Nolina brittoniana</i>	Endangered	Endangered	Low
Florida Beargrass	<i>Nolina atopocarpa</i>	Not Listed	Threatened	Low
Carter's Mustard	<i>Warea carteria</i>	Endangered	Endangered	Low
Florida Bonamia	<i>Bonamia grandiflora</i>	Threatened	Endangered	Low
Ashe's Savory	<i>Calamintha ashei</i>	Not Listed	Threatened	Low
Many-flowered Grass Pink	<i>Calopogon multiflorus</i>	Not Listed	Threatened	Low
Sandlace	<i>Polygonella myriophylla</i>	Endangered	Endangered	Low
Yellow Fringe-less Orchid	<i>Platanthera integra</i>	Not Listed	Endangered	Low
Giant Orchid	<i>Pteroglossaspis ecristata</i>	Not Listed	Threatened	Low
Lewton's Polygala	<i>Polygala lewtonii</i>	Endangered	Endangered	Low
Pigeon Wings	<i>Clitoria fragrans</i>	Threatened	Endangered	Low
Paper-like Nailwort	<i>Paronychia chartacea</i> var. <i>chartacea</i>	Threatened	Endangered	Low
Pinewoods bluestem	<i>Andropogon arctatus</i>	Not Listed	Threatened	Low
Scrub Lupine	<i>Lupinus aridorum</i>	Endangered	Endangered	Low
Nodding Pinweed	<i>Lechea cernua</i>	Not Listed	Threatened	Low
Pygmy Fringe-tree	<i>Chionanthus pygmaeus</i>	Endangered	Endangered	Low
Scrub Buckwheat	<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	Threatened	Endangered	Low
Beautiful Pawpaw	<i>Deeringothamnus pulchellus</i>	Endangered	Endangered	Low
Sand Butterfly Pea	<i>Centrosema arenicola</i>	Not Listed	Endangered	Low
Hartwrightia	<i>Hartwrightia floridana</i>	Not Listed	Threatened	Low
Celestial Lily	<i>Nemastylis floridana</i>	Not Listed	Endangered	Low
Star Anise	<i>Illicium parviflorum</i>	Not Listed	Endangered	Low
Cutthroatgrass	<i>Coleataenia abscissa</i>	Not Listed	Endangered	Low
Clasping Warea	<i>Warea amplexifolia</i>	Endangered	Endangered	Low
Florida Spiny-pod	<i>Matelea floridana</i>	Not Listed	Endangered	Low
Bald Eagle	<i>Haliaeetus leucocephalus</i>	MBTA	Not Listed	Low
Eastern Indigo Snake	<i>Drymarchon couperi</i>	Threatened	Threatened	Low
Eastern Black Rail	<i>Laterallus jamaicensis jamaicensis</i>	Threatened	Threatened	Low
Florida Black Bear	<i>Ursus americana floridana</i>	Not Listed	Not Listed; Other	Low
Florida Burrowing Owl	<i>Athene cunicularia</i>	MBTA	Threatened	Low
Florida Pine Snake	<i>Pituophis melanoleucus mugitus</i>	Not Listed	Threatened	Low
Florida Sandhill Crane	<i>Antigone canadensis pratensis</i>	Not Listed	Threatened	Low
Florida Scrub-Jay	<i>Aphelocoma coerulescens</i>	Threatened	Threatened	Low
Red-cockaded Woodpecker	<i>Picoides borealis</i>	Endangered	Endangered	Low
Gopher Tortoise	<i>Gopherus polyphemus</i>	Not Listed	Threatened	Moderate
Little Blue Heron	<i>Egretta caerulea</i>	Not Listed	Threatened	Low
Osprey	<i>Pandion haliaetus</i>	MBTA	Not Listed	Low
Roseate Spoonbill	<i>Platalea ajaja</i>	Not Listed	Threatened	Low
Southeastern American Kestrel	<i>Falco sparverius paulus</i>	MBTA	Threatened	Low
Swallow Tail Kite	<i>Elandoides forficatus</i>	MBTA	Not Listed	Low
Tricolored Heron	<i>Egretta tricolor</i>	Not Listed	Threatened	Low

Wood Stork	<i>Mycteria americana</i>	Threatened	Threatened	Low
Everglade Snail Kite	<i>Rostrhamus sociabilis</i>	Endangered	Endangered	Low

*Note: MBTA = Protected under Migratory Bird Treaty Act; active nest removal requires permitting through USFWS.

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE U.S. Fish and Wildlife Service

March 23, 2021

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov; Georgia Field Office: gaes_assistance@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or approval from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or approval from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11 x 17in or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat.

These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida and Georgia. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas and often move seasonally between upland and lowland habitats, particularly in the northern portions of its range (North Florida and Georgia). Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Reliance on xeric sandhill habitats throughout the northern portion of the range in northern Florida and Georgia is due to the dependence on gopher tortoise burrows for shelter during winter. Breeding occurs during October through February. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. Taking of eastern indigo snakes is prohibited by the Endangered Species Act without a permit is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes. Â
- Immediately notify supervisor or the applicants designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicants designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office: (904) 731-3336

Panama City Field Office: (850) 769-0552

South Florida Field Office: (772) 562-3909

Georgia Field Office: (706) 613-9493

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5 x 11in paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC or GADNR websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicants designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.