

Kelly Park Crossing

Development of Regional Impact

**Wildlife Habitat
Management Plan**

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For:

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1.0 Existing Conditions

The Kelly Park Crossing DRI is a 624.9-acre project in Orange County. The site is located in the City of Apopka, within Sections 11, 12, and 13 in Township 20 South and Range 27 East (Figures 1, 2, and 3). The site is bisected, east to west, by Kelly Park Road and is south of Ondich Road and north of Ponkan Road.

1.1 Vegetative Communities and Land Use Types

A variety of different vegetative communities/land use types exist within the boundaries of the Kelly Park Crossing DRI. These land use types were identified utilizing the Florida Land Use, Cover and Forms Classification System, Level III (FLUCFCS, FDOT, January 1999) (Figure 5). Based on existing technical data and our recent reviews, eight (8) different vegetative communities/land use types were identified on the site. The following provides brief descriptions for each of vegetative communities/land use types identified on the site:

1.1.1 Uplands

111 Single Family Residential

Three (3) home sites exist throughout the subject property. These land use types are most consistent with the Single Family Residential (111) FLUCFCS classification. The area includes various ornamental species along with bahiagrass (*Paspalum notatum*) and live oak trees (*Quercus virginiana*).

112 Mobile Home Units

Three (3) mobile homes exist throughout the subject property. These land use types are most consistent with the Mobile Home Units (112) FLUCFCS classification. The area includes some ornamental vegetation along with bahiagrass (*Paspalum notatum*).

211 Improved Pasture

The majority of the subject site is most consistent with the Improved Pasture (211) FLUCFCS classification. These areas are dominated by bahiagrass (*Paspalum notatum*), butterfly weed (*Asclepias humistrata*), dog fennel (*Eupatorium capillifolium*), blackberry (*Rubus betulifolius*) and prickly pear cactus (*Opuntia humifusa*). Widely scattered laurel oaks (*Quercus laurifolia*), black cherry (*Prunus serotina*) and live oaks (*Quercus virginiana*) are present throughout, which is typical for pastureland in this area of Central Florida.

251 Horse Farms

Five (5) areas within the subject are most consistent with the Horse Farm (251) FLUCFCS classification. These areas are consistent with the improved pasture classification described above; however, they differ in having associated buildings, barns, horse stalls, training centers boarding pens, etc.

425 Temperate Hardwoods

The forested areas within the subject site are most consistent with Temperate Hardwood (425) FLUCFCS classification. This community type has far more hard woods than pines and is generally a mixture of oaks. Common vegetation occurring in these areas includes oaks (*Quercus virginiana*, *Q. laurifolia*, and *Q. incana*), cabbage palm (*Sabal palmetto*), common ragweed (*Ambrosia artemisiifolia*), bahiagrass (*Paspalum notatum*), prickly pear cactus (*Opuntia humifusa*), caesar-weed (*Urena lobata*), Virginia creeper (*Parthenocissus quinquefolia*), muscadine grapevine (*Vitis rotundifolia*), wax myrtle (*Myrica cerifera*), dog fennel (*Eupatorium capillifolium*), broomsedge (*Andropogon virginicus*) and only widely scattered loblolly pine (*Pinus taeda*), loblolly pine (*Pinus taeda*) and slash pine (*Pinus elliotti*).

441 Coniferous Plantation

Two (2) areas in the southern portion (i.e., south of Kelly Park Road) of the subject property are most consistent with the Coniferous Plantation (441) FLUCFCS classification. These areas are dominated by widely spaced planted slash pines (*Pinus elliottii*). Other vegetative species that were identified within the understory include bahiagrass (*Paspalum notatum*), lantana (*Lantana camara*) and muscadine grapevine (*Vitis rotundifolia*).

742 Borrow Areas

Two (2) borrow pits most consistent with the Borrow Areas (742) FLUCFCS classification. These areas were primarily devoid of vegetation at the time of the on-site evaluations.

1.1.2 Surface Waters and Wetlands

616 Inland Ponds and Sloughs

There are three (3) areas within the subject site that are most consistent with the Inland Ponds and Sloughs (616) FLUCFCS classification. Two (2) areas are found within the northern portion of the subject site, while the third is found in the southern portion. These areas are generally natural wetland systems; however, the areas in the north have been altered to create cow ponds. Vegetation common within the open water systems (i.e., inland ponds) consists of fragrant water lily (*Nymphaea odorata*), pennywort (*Hydrocotyle umbellata*), southern cattail (*Typha latifolia*), primrose willow (*Ludwigia peruviana*), Carolina willow (*Salix carolinana*), maidencane (*Panicum hemitomon*), torpedo grass (*Panicum repens*) and wax myrtle (*Myrica cerifera*). Common species identified within the forested seepage slope areas (i.e., sloughs) consist of water oak (*Quercus nigra*), water tupelo (*Nyssa aquatica*), black tupelo (*Nyssa sylvatica*), Carolina willow (*Salix carolinana*), soft rush (*Juncus effuses*), Virginia chainfern (*Woodwardia virginica*) and netted chainfern (*Woodwardia areolata*).

1.2 Listed Plants and Wildlife

Utilizing methodologies outlined in the Florida Fish and Wildlife Conservation Commission's (FWCC's) Wildlife Survey Methodology Guidelines for Section 18D of the Application for Development Approval (FGFWFC, 1988), an assessment for "listed" floral and faunal species occurring within the subject property boundaries was conducted. Particular attention was given to those listed species which have the potential to occur in Orange County. The review included direct observations, as well as observations for indirect evidence, such as tracks, burrows, tree markings and birdcalls that might indicate that a species is present. No plant species listed by either the Florida Department of Agriculture (FDA) or USFWS was observed on the site during the survey. The following is a list of those wildlife species identified during the evaluation of the site:

Reptiles and Amphibians

black racer (*Coluber constrictor*)

brown anole (*Anolis sagrei*)

fence lizard (*Sceloporus undulatus*)

gopher tortoise (*Gopherus polyphemus*) *

green anole (*Anolis caroliniana*)

green tree frog (*Hyla cinerea*)

six-lined racerunner (*Cnemidophorus sexlineatus sexlineatus*)

southern leopard frog (*Rana utricularia*)

southern toad (*Bufo terrestris*)

Birds

American Kestrel (*Falco sparverius*)

Black Vulture (*Coragyps atratus*)

Blue Jay (*Cyanocitta cristata*)

Cattle Egret (*Bubulcus ibis*)

Downey Woodpecker (*Picoides pubescens*)

Eastern Loggerhead Shrike (*Lanius ludovicianus migrans*)

Eastern Meadowlark (*Sturnella magna*)

Fish Crow (*Corvus ossifragus*)

Florida Sandhill Crane (*Grus canadensis pratensis*) *

Mourning Dove (*Zenaida macroura*)
Northern Bobwhite (*Colinus virginianus*)
Northern Cardinal (*Cardinalis cardinalis*)
Northern Mockingbird (*Mimus polyglottos*)
Pileated Woodpecker (*Dryocopus pileatus*)
Red-shouldered Hawk (*Buteo lineatus*)
Red-tailed Hawk (*Buteo jamaicensis*)
Tree Swallow (*Tachycineta bicolor*)
Turkey Vulture (*Cathartes aura*)
White-eyed Vireo (*Vireo griseus*)

Mammals

cotton mouse (*Peromyscus gossypinus*)
eastern cottontail (*Sylvilagus floridanus*)
eastern gray squirrel (*Sciurus carolinensis*)
nine-banded armadillo (*Dasybus novemcinctus*)
pocket gopher (*Geomys pinetis*)
raccoon (*Procyon lotor*)

Sherman's Fox Squirrel (*Sciurus niger shermani*)

Virginia opossum (*Didelphis virginiana*)

Three (3) of the above mentioned species were identified as listed in the Florida Fish and Wildlife Conservation Commission's (FWCC) Official List of Endangered and Potentially Endangered Fauna and Flora in Florida (May, 2011). These species are the gopher tortoise, sherman's fox squirrel and the Florida Sandhill Crane. The following provides a brief description of these species as they relate to development of the property. Potential additional wildlife issues pertaining to the development of the property will also be discussed below.

Gopher Tortoise (*Gopherus polyphemus*)

State Listed as "Threatened"

Currently the gopher tortoise (*Gopherus polyphemus*) is classified as a "Category 2 Candidate Species" by USFWS, and as of September 2007 is now classified as "Threatened" by FFWCC, and as "Threatened" by FCREPA. The basis of the "Threatened" classification by the FFWCC for the gopher tortoise is due to habitat loss and destruction of burrows. Gopher tortoises are commonly found in areas with well-drained soils associated with the pine flatwoods, pastures and abandoned orange groves. Several other protected species known to occur in Orange 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 (*Peromyscus floridanus*) and the gopher frog (*Rana capito*). However, none of these species were observed during the survey conducted. A number of tortoise burrows observed were recorded as active, inactive or abandoned. Formal surveys will be conducted within the upcoming months. Any gopher tortoises located within development tracts will be relocated to suitable on-site recipient areas prior to any earthwork. All on-site relocations will be coordinated and permitted with the FFWCC.

Florida Sandhill Crane (*Grus canadensis canadensis*)

State Listed as "Threatened"

Several Sandhill Cranes have been observed foraging on the subject property. The Florida Sandhill Crane is a subspecies of Sandhill Crane that occurs exclusively and is resident to Florida (Stys 1997). Of the six (6) subspecies of Sandhill Crane, the Greater Sandhill Crane (*Grus canadensis tabida*) is the only other subspecies of Sandhill Crane that occurs regularly in Florida (Stys 1997). This subspecies is a winter migrant, arriving in Florida during late fall (October/November) and leaving in late February (Stys 1997). Since the Florida Sandhill Crane and Greater Sandhill Crane can not be distinguished from one another in the field, Stys (1997) recommends conducting surveys between May and September to validate the presence of this protected species. BTC has scheduled monthly monitoring for Florida Sandhill Crane nests throughout the planning and permitting stages of development.

Sherman's Fox Squirrel

State Listed as "Species of Special Concern"

The Sherman's Fox Squirrel is classified as a "Species of Special Concern" by the FFWCC. There are three (3) subspecies of fox squirrel in Florida. Only one, *Sciurus niger shermani*, occurs in central Florida. The fox squirrel's primary habitat is the longleaf pine, turkey oak, live oak, sandhill and flatwoods communities. Nesting is done in cavities of trees and also in nests constructed of leaves. Multiple Sherman's Fox Squirrels were observed within the temperate hardwoods community type in the northern region of the site and in the temperate hardwoods community type southern region. No specific evidence of nesting was noted. Typically, a management plan for this species centers around the preservation of as many of the existing live oaks and longleaf pines on the site as possible. As such, it does not appear that this species would be adversely affected by development of the property. In the event that some form of mitigation or management plan is required for this species, any of the proposed preservation areas, as well as additional landscape plantings within the site should be more than adequate.

1.2.1 Potential Wildlife Issues***Florida Black Bear (Ursus americanus floridanus)***

State Listed as "Threatened"

Based on our review of available databases, there are no Florida black bear telemetry, roadkill, or nuisance records within the subject site. There is one (1) nuisance report from 2003. This report is located on Kelly Park Road approximately 2.2 miles to the east of subject property (see Figure 7). Special attention will be given to determine if this species is present during the upcoming year; however, no evidence of this species has ever been noted during our initial evaluations.

Florida Scrub-Jay (*Aphelocoma coerulescens*)
State and Federally Listed as “Threatened”

Florida Scrub-Jays build their nests in dense shrubs, usually at low to mid-level heights. Usually the nest is located at the edge of a dense shrubby area, adjacent to bare ground or somewhat open areas. The nest is a bulky basket of twigs, usually taken from oak shrubs. The lining of the nest is a tightly woven cup of cabbage palm or saw palm fibers. The Scrub-Jays never reuse the nest or the materials. Scrub-Jays will not nest in the same exact location even if the nest is removed after use. The nesting season extends from March through June. The Florida Scrub-jay is strongly associated with several Florida scrub communities, and also will use adjacent non-scrub habitats of certain types. Please note, Scrub-Jays exist only in areas where one or more species of scrub oaks occur, even if only vestigially represented. Before the intrusion of humans, nearly all natural scrub communities were maintained by frequent natural fires. Florida Scrub-Jays are most abundant in open, oak dominated scrub communities of the interior and Atlantic coast sand ridges of the Peninsula.

Scrub-Jays have not been observed on the subject site and there are no reports of sightings or any other information that suggests that Scrub-Jays are utilizing the property. Scrub-Jays have been reported approximately 4.5 miles east-southeast of the subject site (FFWCC GIS database). Although there is no evidence of on-site populations, surveys to identify Florida Scrub-Jays will be conducted during the upcoming year in potential habitat.

Bald Eagle (*Haliaeetus leucocephalus*)
State and Federally Listed as “Threatened”

According the 2010 FFWCC Bald Eagle database, there are no nests on or in the vicinity of the project site. The nearest nest on record is located about two miles to the southeast. Surveys targeting eagles will be conducted during the upcoming year in those communities with adequate pine trees for nesting; however, no evidence of nesting has ever been noted during our previous evaluations.

Southeastern American Kestrel (Falco sparverius paulus)

State Listed as "Threatened"

Pursuant to the Ecology and Habitat Protection Needs of the Southeastern American Kestrel (*Falco sparverius paulus*) in Large Scale Development Sites in Florida, FFWCC 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 FFWCC. 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 consists of both Type I (i.e., Improved Pasture and Horse Farms) and Type II (Coniferous Plantation) habitats. Surveys for this species must be conducted between June and August to ensure that the northern migratory Kestrels have left Florida. The most recent survey was conducted in early spring, 2011. One (1) male Southeastern American Kestrel was observed during the spring, 2011 survey. No nesting structures were observed and no breeding activity was observed. Results indicate this is most likely the migratory subspecies of American Kestrel.

Wood Stork (Mycteria americana)

State and Federally Listed as "Endangered"

Based on our review of available databases, there is no record of a wood stork rookery on the project site. Special attention will be given to determine if this species is present during the upcoming year; however, no evidence of this species has ever been noted during our initial evaluations.

Eastern Indigo Snake (Drymarchon corais couperi)

State and Federally Listed as "Threatened"

The eastern indigo snake (*Drymarchon corais couperi*) is a large, docile, non-poisonous snake growing to a maximum length of about eight feet. The color in both young and adults is shiny bluish-black with some red or cream coloring about the chin and sides of the head. This species is known to occur throughout Florida and in the coastal plain of Georgia. Historically, the range also included southern Alabama, southern Mississippi, and the extreme southeastern portion of South Carolina. The indigo snake seems to be strongly associated with high, dry, well-drained sandy soils, closely paralleling the

sandhill habitat preferred by the gopher tortoise. During warmer months, indigos frequent streams and swamps and are occasionally found in pine flatwoods. Gopher tortoise burrows and other subterranean cavities are commonly used as dens and for egg laying.

The decline of the eastern indigo snake is attributed to a loss of habitat due to such uses as farming, construction, forestry, pasture, etc., and to over-collecting for the pet trade. The snake's large size and docile nature have made it much sought after as a pet. Both indigos and rattlers may utilize burrows created by gopher tortoises at certain times.

Wading Bird Rookeries

Based on our review of available databases, one off-site wading bird rookery was identified (see Figure 6). Per this 1999 data, a wading rookery exists over 9 miles to the north. This rookery appears to be utilized by Great Egrets, Cattle Egrets, Snowy Egrets and Little Blue Herons. Only two (2) of these birds, Little Blue Heron and Snowy Egret, are listed (both are "Species of Special Concern"). Based on the location of the rookery, there is a chance that on-site wetlands and pasture could be utilized as roosting or forage habitat. Special attention will be given to determine if these species is present during the upcoming year; however, neither the Little Blue Heron or Snowy Egret has been observed during our initial evaluations.

Gopher Tortoise Commensals

Although not observed or anticipated, several other listed species are recognized as "commensal species" with gopher tortoises. These species are sometimes present within gopher tortoise burrows, but may never be identified though standard surveys. Listed gopher tortoise commensals occurring in Central Florida include the gopher frog (*Rana capito*), Florida mouse (*Podomys floridanus*), and Florida pine snake (*Pituophis melanoleucus mugitus*).

2.0 Wildlife Management Areas

The Kelly Park Crossing DRI supports a few listed wildlife species; therefore, this Habitat Management Plan (HMP) was created. The purpose of this plan is to address any reasonably anticipated issues related to listed wildlife species. This includes providing habitat and/or enhancing habitat or providing alternative and higher-quality habitat so that the targeted species will not be harmed by the project.

2.1 Management Area Locations

In an effort to protect wildlife within the Kelly Park Crossing DRI, the operating entity incorporated a design that protects both, those listed species that are known to occupy the property and those other listed species that have reasonable potential to utilize the site. There are three different elements to this design; preservation of native habitat, enhancement of habitat, and species relocation where on-site management is not a viable option.

The design of the Kelly Park Crossing DRI includes the conservation of the highest quality native ecological communities that exist within the site. These conservation areas consist of two different “temperate hardwood” areas, which are the only remaining native ecological communities within the site. The larger of these two areas is approximately XX acres and is in the northwestern region of the project. The other area is approximately XX acres and is in the southern region of the site (Figure X). As these areas are native ecological communities, they provide the best opportunity to foster listed and other wildlife species that use or have the potential to use the site.

Aside from the two temperate hardwood areas, the remainder of the site consists of improved pastureland, pine plantation, single-family homes or other land uses that are “developed”. As these areas have significant limitations for management as ecological communities, the design focuses on these areas for the proposed development activities. Conversely, the design focuses habitat management opportunities toward the temperate hardwood areas.

2.1.1 Wildlife Use and Management

There have been observations of the Florida gopher tortoise and the Sherman's fox squirrel within the boundaries of the Kelly Park Crossing DRI. As these species are relatively sedentary, these observations provide reasonable assurance that there are resident populations within the site boundaries. Subsequent wildlife surveys have confirmed their presence and a management plan was designed to address the issues related to the proposed development and the needs of this species. This included consideration of the regulatory requirements of the Florida Fish and Wildlife Conservation Commission (FWCC).

Sherman's Fox Squirrel Management

Current Condition:

The Sherman's fox squirrel was observed in the northern temperate hardwood area. This area includes a few different species of oaks but pines are absent. Subsequent to the original observations, additional and more intensive wildlife surveys were performed. The data collected indicates the on-site population of Sherman's fox squirrels is extremely limited. Only a couple of squirrels were directly identified.

Action:

The Kelly Park Crossing DRI's HMP was modified to address the needs of the Sherman's fox squirrel. It is well documented that the Sherman's fox squirrel is typically associated with forested habitat that includes a mixture of oaks and pines; however, such habitat does not exist within the boundaries of the project. The on-site only areas that even remotely resemble such habitat are the temperate hardwood areas. Therefore, the Kelly Park Crossing DRI's HMP was modified to include the conservation and enhancement of the northern temperate hardwood area for the purpose of fostering the success of the on-site fox squirrel population.

Of course, any measures or permitting required by the regulating agencies (e.g., FFWCC) will be added to the proposed plan. However, no such requirements have been indicated by any agency at this time.

Summary:

It should be noted that the Kelly Park Crossing DRI's design does not include impacts to any Sherman's fox squirrel habitat. Furthermore, the plan includes enhancement of existing habitat. Therefore, there is reasonable assurance that the project will not impact or degrade conditions for this species. In fact, through the proposed enhancement activities, the project should improve conditions for this species.

Florida Gopher Tortoise Management

Current Condition:

The Florida gopher tortoise was identified in several areas throughout the project site. The typical habitat for this species includes xeric plant communities, such as sandhill and scrub; however, these ecological communities do not exist on-site. Historically, the site probably once contained such habitat but these communities were converted to the current land forms (agriculture, etc.). The resident tortoises are a remnant population originating from those communities.

Action:

Pursuant to the proposed plan, the post-development land use forms and activities would not be conducive to maintaining a viable gopher tortoise population; therefore, off-site relocation is proposed. The reason for this plan of action is that there is no viable or practicable opportunity for on-site relocation. There are no on-site native ecological communities that are typical for populations of this species, so preservation of such habitat is not possible. Restoration of historic native habitat from the current land forms would take a long period of time and would be impractical because such activities would require extensive planting of native sandhill vegetative species. These types of habitats take years to mature. Additionally, the maintenance of these communities require

prescribed burning, which would conflict with adjacent land uses and the various urban elements of the proposed DRI (e.g., human allergy and respiratory issues and traffic hazard issues related to smoke).

Because of the combination of the absence of desirable typical habitat and potential conflicts with post-development activities, relocation of the tortoise population is the best management plan for this species. As always, the relocation plan shall adhere to all of the regulatory requirements of the FFWCC. This will include the submittal of an application for a relocation permit to the commission and a formal gopher tortoise survey (in accordance with FFWCC requirements) to identify the specific number of tortoises to be relocated. The recipient site will be highly desirable in that it will consist of typical gopher tortoise habitat that has been reviewed and approved by the FFWCC.

Summary:

Off-site relocation in accordance with all requirements of the FFWCC was determined to be the best option for the resident Florida gopher tortoise population. Off-site relocation was determined to be the best option because on-site relocation opportunities or preservation of the existing population is not a viable or practicable option. Additionally, relocation of the on-site population to an FFWCC-approved off-site recipient site would provide higher-quality habitat and a better opportunity for continued success and survivorship of this population.

Florida Sandhill Crane Management

Current Condition:

Sandhill Cranes have been observed within the project site; however, recent surveys have not verified the presence of the Florida Sandhill Crane, which, unlike the other subspecies, is listed as “Threatened” by the FFWCC. The Florida Sandhill Crane cannot be distinguished from other Sandhill Cranes through field observations. However, unlike the other subspecies, the Florida Sandhill Crane does not migrate and remain in Florida throughout the summer months. To identify the presence and nesting activity, surveys for the listed sandhill crane must be performed between January and June.

Surveys for the Florida Sandhill Crane have been recently initiated at the Kelly Park Crossing DRI for the specific purpose of determining the presence of this listed species. Additionally, surveys for Florida Sandhill Crane nests will occur during the nesting season.

Action:

Florida Sandhill Crane nesting surveys will continue from January to June in accordance with FFWCC guidelines. It is common for the Florida Sandhill Crane to utilize open pastures and similar agricultural areas for foraging and this is not a critical limiting factor for this species if such behavior is not associated with nesting. However, nesting by this listed species is a different issue. If on-site nesting is observed, the appropriate agencies (e.g., FFWCC) shall be contacted, and the project shall be modified (if necessary) so as to adhere to all of agency requirements. Typically, such requirements include the establishment of protective buffers around the location of any verified nest. Obviously, there have not been any nests currently identified so establishing buffers at this time is not possible.

Summary:

As of the date of this document, there have not been any observations or reports of on-site nesting by the Florida Sandhill Crane. The current surveys for this listed subspecies will continue each year, January to June, throughout the permitting of the project. Any observed nests will be documented and brought to the attention of the appropriate regulatory agencies (e.g., FFWCC). All issues related to any Florida Sandhill Crane nesting will be addressed and resolved in accordance with agency requirements.

It should be noted that the Kelly Park Crossing DRI plan does not include any impacts to known Sandhill Crane nesting sites or other critical habitat used by this species. Additionally, the proposed design will be providing substantial open and green space, including two temperate hardwood areas that will remain in the post-development condition and will be available for use by any Florida Sandhill Cranes. Therefore, there are reasonable assurances that the project shall not impact this species and, should nesting

by this species be observed, all issues will be addressed and resolved by following the requirements of the associated regulatory agencies.

2.1.2 Potential Wildlife Use and Management

Southeastern American Kestrel

Current Condition:

One male Southeastern American Kestrel has been observed at the Kelly Park Crossing DRI but there has not been any evidence of on-site nesting by this species. Surveys for this listed subspecies (June – August) will continue throughout the duration of the project. The surveys are being performed in accordance with agency requirements and to identify any individuals and/or kestrel nests within the project.

Action:

Ongoing surveys for this subspecies will continue and any observations of nesting will be addressed and resolved in accordance with the regulatory requirements of the FFWCC. Additionally, the Kelly Park Crossing DRI HMP will conserve the highest quality native ecological communities (i.e., the temperate hardwood areas) in the post-development condition. To improve conditions and promote the success of the Southeastern American Kestrel, the HMP includes enhancement of some suitable post-development areas for the benefit of the Southeastern American Kestrel.

This avian subspecies is known to utilize open areas, including open areas within suburban and residential areas for foraging. American Kestrels are cavity nesters, so the availability of tree cavities (or manmade nest boxes) is important for nesting for this species. The Kelly Park Crossing DRI does contain open pasture that is consistent with the foraging requirements of the American Kestrel. However, on-site observations indicate that suitable nest structures are absent.

Summary:

The Kelly Park Crossing DRI will not impact any Southeastern Kestrel habitat and will benefit this listed subspecies by providing on-site post-development habitat that is suitable for foraging and nesting. As of the date of this document, only one Southeastern American Kestrel has been observed within the project site and there have not been any accounts of nesting. Surveys for this subspecies are ongoing and will continue through the duration of the project. Any observations of nesting kestrels will be documented and all issues will be addressed and resolved pursuant to the requirements of the FFWCC.

Florida Black Bear

Current Condition:

There have not been any observations or evidence of Florida Black Bears within the subject property. Minimal Florida Black Bear activity has been documented within one mile of the project site.

Action:

The following safety conditions will be followed to address any possible encounters with the Florida Black Bear:

- Proactive deterrent methods that reduce potential human-bear conflicts. This can be accomplished by providing residents and tenants with informational materials regarding bears and how to successfully coexist in bear country. Educational materials are available from FFWCC at the following address: <http://myfwc.com/wildlifehabitats/managed/bear/brochures/>
- Pursuant to Rule 68A-4.001(3), prohibit the placement of food or garbage in a manner that attracts black bears and is likely to create a public nuisance. This may be accomplished by:
 - Securing garbage in a shed, garage, or a wildlife resistant container
 - Putting garbage out on morning of rather than the night before pick-up
 - Securing commercial garbage in bear resistant dumpsters

- Protecting gardens, apiaries, compost and livestock with electric fencing
 - Feeding pets indoors or bringing in dishes after feeding
 - Cleaning grills and storing them in a locked, secure place
 - Removing wildlife feeders or making them bear resistant
 - Picking ripe fruit from trees and removing fallen fruit from the ground
- In order to ensure compliance with Rule 68A-4.001(3), the home owners association should institute ordinances that require businesses and residents to secure wildlife attractants.
 - Collaborate with the local sanitation services to implement the use of bear-resistant commercial garbage dumpsters and residential garbage canisters.

Summary:

The applicant will implement the above safety conditions to address any possible encounters with the Florida Black Bear.

Eastern Indigo Snake

Current Condition:

There have not been any observations or evidence of Eastern Indigo Snakes.

Action:

Although there were no observations of indigo snakes during any of the surveys or other visits to the Kelly Park Crossing DRI property, this species is sometimes found in gopher tortoise burrows. Since gopher tortoises are known to exist within the property, appropriate attention regarding the potential presence of this species will be provided during any relocation efforts. In general, protection for this species centers on informing construction workers the difference between indigo snakes and other species (e.g., black racers) during site development. This can be accomplished by providing brochures to the contractors and posting informative signage in the construction areas describing the

eastern indigo snake. In any event, all actions relative to indigo snake or gopher tortoise issues will be resolved in accordance with the requirements and guidelines of the FFWCC and all other appropriate agencies.

Gopher Tortoise Commensals

Current Condition:

There have not been any observations or evidence of listed Gopher Tortoise Commensals.

Action:

If any listed commensal species is observed, the appropriate wildlife agencies will be immediately contacted. All issues related to the presence of any observed listed species will be addressed pursuant to the requirements of the FFWCC and the USFWS. If required, appropriate habitat protection or mitigation will be provided. The Kelly Park Crossing DRI plan will include relocation of gopher tortoises, if approved by the FFWCC. Any and all listed commensal species (with the exception of the indigo snake) that are found during relocation will be relocated with the gopher tortoises, subject to the guidelines and/or requirements of the respective wildlife agencies.

3.0 Wetlands, Impacts, & Management

The Kelly Park Crossing DRI project includes 1.90 acres of wetlands and 3.11 acres of surface waters. The proposed project design will include certain unavoidable impacts to a relatively small area of these wetlands and surface waters. These impacts are required to facilitate basic design requirements, roadway access to major roadways, minimum roadway turning radii to meet minimum safety requirements, and other design characteristics necessary to meet local, regional and other agency requirements. However, the project design will incorporate practicable design alternatives to minimize these impacts.

3.1 Impacts

Certain wetland impacts are anticipated to be unavoidable in the final design. These impacts will be limited to small, isolated wetland systems that exist throughout the subject property. These wetland areas provide relatively lower function than larger systems. Additionally, small, isolated wetlands are more difficult to maintain in the post-development condition. This is because they become land-locked within development. Access for non-avian wildlife is typically reduced and it is typically difficult to maintain appropriate hydroperiods in smaller systems.

As required by the respective regulating agencies, wetland impacts that cannot be practicably avoided will require mitigation. As required by the respective agencies, the amount of mitigation will be determined through the methods required by existing legislation (e.g., the State of Florida's Uniform Mitigation Assessment Methodology, Chapter 62-345, Florida Statutes).

3.2 Wetland Management and Monitoring

The wetlands (1.00 acres) and surface waters (0.60 acres) to exist in the post construction condition will be preserved and enhanced. This will include the remaining freshwater marshes, slash pine swamp and the canal within the subject property. The quality of the systems being preserved and enhanced is greater than the quality of the systems being impacted. The preserved and enhanced systems will also be monitored and maintained in perpetuity in conjunction with the SJRWMD permit and conservation easement conditions. These conditions will ensure that the preserved and enhanced wetlands will remain in a natural and undisturbed state. Specific management practices being employed within the preserved and enhanced wetland areas include hand clearing and/or herbicide application as required. These management practices will be performed in an effort to control and eradicate any establishment of nuisance, noxious, invasive or opportunistic species within these areas.

3.2.1 Monitoring

Several methods will be utilized in order to monitor the condition and status of the upland and wetland preservation areas. The following paragraphs will describe these methods: Vegetative Surveys, Hydrological Surveys, and Wildlife Surveys.

Vegetative Surveys

A qualitative vegetative survey will be performed throughout the Preservation Areas during each separate monitoring event. Observations of vegetative cover will be recorded and evaluated in order to determine the status of the particular area. Photographic documentation and notes of vegetation health will be recorded in order to achieve an overall view and analysis of these areas.

Hydrological Surveys

Staff Gauges will be established within certain Wetland Preservation Areas. The placement of the staff gauges will be strategic in order to get a complete analysis of the water levels within the wetland systems.

Wildlife Surveys

General wildlife observations will be recorded as well as the type (i.e. roosting, calls, rooting, rubs, scats, tracks, and activity). Genus and species will be provided in a table. The location of the wildlife within the Upland and Wetland Preservation Areas will also be recorded.

3.2.2 Reporting

An annual monitoring report for the Wetland Preservation Areas will be submitted to the District for a period of five years. The records of the monitoring information will include the following:

- 1) The date, exact place, and time of sampling or measurements.
- 2) The person responsible for performing the sampling measurements.
- 3) The analytical techniques or methods used.

- 4) The result of such analyses including:
 - a) Panoramic photographs of the upland/wetland areas.
 - b) Qualitative analysis of all vegetation.
 - c) Wildlife utilization.
 - d) A description of any problems encountered during the evaluation.

The intent of this project is to provide the District with qualitative results of the Wetland Preservation Areas. Perpetual maintenance will be performed on a regular basis in order to ensure the integrity and viability of the preservation areas. To demonstrate that the mitigation is successful, the following criteria must be maintained.

- 1) 0% coverage of Category 1 exotic vegetation immediately following a maintenance activity.
- 2) Coverage of exotic species shall not exceed 5% and coverage of nuisance plant species shall not exceed 10% of total cover between maintenance activities.

The Category I and Category II designations of Invasive Plant Species is from the List generated by the Florida Exotic Pest Plant Council in 2009. Category I exotics are defined as plants that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. Category II exotics are defined as plants that have increased in abundance or frequency, but have yet altered Florida plant communities to the extent shown by Category I species.

The annual report will also include Photographic Documentation, Water Level Data and Observed Wildlife.

3.3 Buffer Zone/Preserved Uplands Management

The Kelly Park Crossing DRI management plan will include the control of undesirable vegetation in the upland areas that are immediately adjacent to the wetlands that will remain in the post-development condition. This restoration will be done through the removal of the cattle and elimination of woodland pasture management activities, such as mowing and similar activities that hinder the success of native upland vegetation.

Additionally, nuisance and exotic species will be eliminated through hand-removal and selective application of safe and appropriate herbicides. These activities will promote the recruitment and growth of native desirable species.

As indicated in the preceding sections, upland buffer zones will be provided between all construction activities and those wetlands that will remain in the post-development condition. These upland buffer zones will be a minimum of 15 feet in width and average 25 feet in width. The only exceptions to these specifications will be where unavoidable wetland impacts occur.

In areas lacking gopher tortoises mowing and some of the other activities will be eliminated to allow some vertical growth to native vegetative cover, which will create habitat that is more conducive to nesting and dunning, and will provide better cover for many native wildlife species. Additionally, the natural regeneration of native species will be further promoted by allowing native plants to achieve flowering and seeding heights; much of which was reduced or eliminated by grazing.

The upland buffer zones will be maintained in perpetuity and protected by several mechanisms. During construction, these areas will be protected by requisite silt fences and/or other BMP's (Best Management Practices) in accordance with existing regulations and requirements. Additionally, conservation easements or other legal mechanisms will be provided to protect these areas.

3.4 Mitigation

Any wetland impacts will be offset through enhancement and preservation of the remaining wetlands and upland communities. Enhancement of these areas will be accomplished through the removal of cattle, elimination of woodland pasture management, and a maintenance program that will control nuisance and exotic species and encourage the establishment and growth of native desirable species. In the current situation, cattle actively use the wetland and adjacent upland areas. This use allows significant amounts of nitrogenous wastes to enter these wetlands directly and through surface water runoff. Eliminating the cattle from the wetlands and surrounding upland areas will improve water quality and vegetative composition. Additionally, the

elimination of the other agricultural practices will eliminate the potential for related chemical pollutants entering the wetland areas.

Currently, several wetlands that are proposed to remain in the post-development condition contain significant amounts of nuisance and exotic species, including Peruvian primrose, Carolina willow, bladderpod, tropical soda apple, cattail and caesar-weed. An active maintenance plan will be implemented to control problematic species. Selective hand-removal of undesirables and the use of herbicides approved for use in wetlands will promote the recruitment and growth of desirable wetland vegetation. If necessary, some supplemental planting will be included in appropriate areas.

In addition to the wetland mitigation, upland mitigation will be provided through enhancement, and preservation of upland areas adjacent to wetland areas. Descriptions of the mitigation techniques are provided in the Wetland Buffers & Management section of this document. All wetland, upland buffer, and any other mitigation areas will be protected through homeowner's association documents, conservation easements, or other legal mechanisms. Conservation Easements will be dedicated to a public entity (e.g., FWCC, the City of Apopka, SJRWMD, Orange County, etc.) All maintenance activities will occur in perpetuity, pursuant to the requirements of the regulating agencies.

4.0 Summary

The Kelly Park Crossing DRI Wildlife Habitat Management Plan provides equitable and practical opportunities for the creation of a large-scale development while maintaining existing wildlife and wetland resources, including foraging, nesting, and other supporting habitats. The plan minimizes impacts to wetlands and water resources to the greatest extent practical and provides compensation for all unavoidable wetland impacts. The wetland areas that remain in the post-development condition will be enhanced to promote wetland functions, including wildlife habitat. The plan also addresses specific and general wildlife and support habitat and provides a long-term plan for the continued maintenance and protection of these areas. The plan also addresses regional concerns through specific protective mechanisms and habitat management. The Kelly Park Crossing DRI plan is consistent with the objectives of the East Central Florida Regional Planning Council in

that it will support and promote the future well-being of environmental resources in this region of Central Florida.