MYAKKA PARK

Section 29, Township 40 South, Range 21 East
Charlotte County, Florida

Development Suitability Report

May 2019

Prepared for:

RWA Engineering
6610 Willow Park Drive, Suite 200
Naples, FL 34109

Prepared by:

DexBender
4470 Camino Real Way, Suite 101
Fort Myers, FL 33966
(239) 334-3680

Introduction

DexBender has conducted a preliminary review of the 128.58± acre property consisting of Parcel Identification Number 402129300001. This evaluation consisted of mapping potential jurisdictional wetlands and preliminary observations of listed species and their potential habitat. Our evaluation is based on site inspections conducted on May 7, 9, and 23, 2019 and our past experiences with the regulatory agencies.

Location

The 128.58± acre parcel is located within a portion of Section 29, Township 40 South, Range 21 East, Charlotte County, Florida (Figure 1). The property is bordered by Spire Street to the west and Gallagher Boulevard to the south. Scattered single family homes are present along both streets. The Myakka River flows along the north and east property lines.

Property Overview

A review of historic aerials of the property indicate that in 1975 the property was relatively undisturbed, dominated by forested communities, and that the surrounding road network had been constructed. Between 1998 and 2004 the forested cover in the majority of the southern portion of the site was substantially reduced, apparently due to wildfire(s) as evidenced by numerous fire break plow lines. By 2004 a dredge spoil temporary containment and permanent disposal area were under construction. Between 2009 and 2010 and again in 2014 additional spoil was added to the areas and/or the existing spoil was reshaped. In early 2019 the containment area was being utilized for material dredged from access channels to the Gulf Cove waterway system as authorized by Florida Department of Environmental Protection (DEP) Environmental Resource Permit number 08-0336110-001 and United States Army Corps of Engineers (COE) Dredge and Fill Permit number SAJ-1996-01905(SP-MMB).

Soils

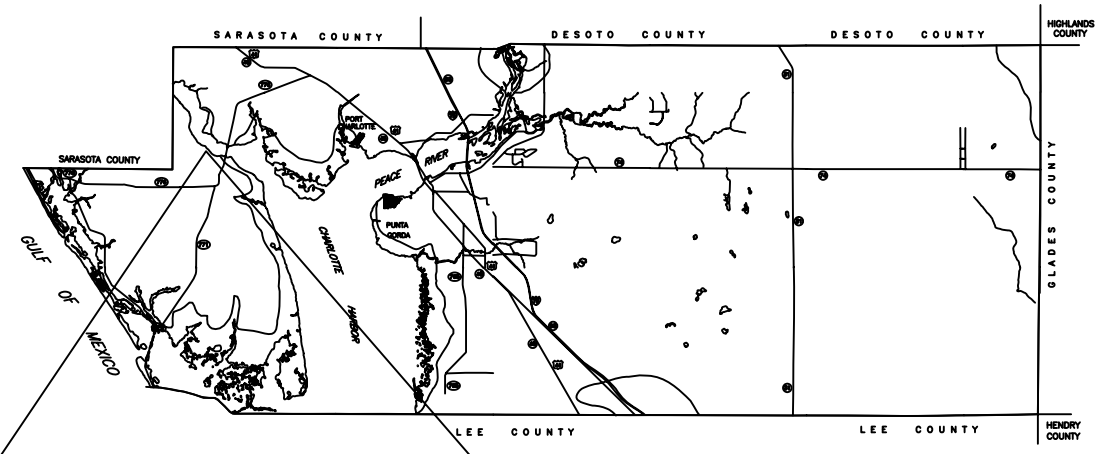
The Soil Survey of Charlotte County, Florida depicts four soil types as occurring on-site. None of the soil types are considered to be hydric (wetland) soils by the Hydric Soils of Florida Handbook. These soils are considered to be non-hydric (upland) soils. Under native conditions the soil survey describes these soils as typically occurring in palmetto prairies and upland pine flatwoods. This soils information is provided for general informational purposes and the accuracy of the soils mapping contained in the Soil Survey of Charlotte County, Florida has not been confirmed.

Hydrology

In southwest Florida there is a distinct difference in rainfall (and therefore water levels) between the dry season (October through May) and the wet season (June through September). No standing water was observed on-site and ground water levels appeared to be at least 24 inches below grade.

SECTION: 29
TOWNSHIP: 40 S
RANGE: 21 E

Myakka Park



CHARLOTTE COUNTY

Project Location

FOR CONCEPTUAL PLANNING PURPOSES ONLY

May 15, 2019 2:53:09 p.m.
Drawing: RWA7LOCATION.DWG

Figure 1. Location Map

DEXBENDER ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

Vegetation

The predominant upland and wetland vegetation associations were mapped in the field on 2017 digital color 1" = 400' scale aerial photography. The property boundary was obtained from RWA Engineering and inserted into the digital aerial. Twenty seven vegetation associations were identified using the Florida Land Use, Cover and Forms Classification System (FLUCCS). Figure 2 depicts the approximate location and configuration of these vegetation associations and Table 1 summarizes the acreages by FLUCCS Code. A brief description of each FLUCCS Code is provided below. In order to minimize redundancy only the base FLUCCS Codes are described (i.e. description provided for FLUCCS Code 321 but not for FLUCCS Codes 321, 321E1, 321E12, 321E3, and 321E4). In general, as the density of exotics increases the density and diversity of native plants in the canopy, midstory, and ground cover strata decreases. Habitats containing more than 75 percent cover by exotics contain only scattered native plant species.

Table 1. Acreage Summary by FLUCCS Code

FLUCCS CODE	DESCRIPTION	ACREAGE
321	Palmetto Prairies	3.53
321E1	Palmetto Prairies Invaded by Exotics (10 – 25%)	2.98
321E2	Palmetto Prairies Invaded by Exotics (26 – 50%)	2.37
321E3	Palmetto Prairies Invaded by Exotics (51 – 75%)	9.51
321E4	Palmetto Prairies Invaded by Exotics (76 – 90%)	6.67
411	Pine Flatwoods	57.89
411E	Pine Flatwoods Invaded by Exotics (5 – 9%)	8.79
411E1	Pine Flatwoods Invaded by Exotics (10 – 25%)	2.63
411E3	Pine Flatwoods Invaded by Exotics (51 – 75%)	1.31
421	Xeric Oak	3.07
428	Cabbage Palm	0.13
428E2	Cabbage Palm Invaded by Exotics (26 – 50%)	0.80
428HE2*	Hydric Cabbage Palm Invaded by Exotics (26 – 50%)	1.07
450	Mixed Exotic Upland Forest	9.44
510**	Streams and Waterways	0.15
512***	Ditch	0.33
612*	Mangrove Swamps	6.38
612E3*	Mangrove Swamps Invaded by Exotics (51 – 75%)	0.14
619*	Exotic Wetland Hardwoods	2.43
625E*	Hydric Pine Flatwoods Invaded by Exotics (5 – 9%)	0.37
625E3*	Hydric Pine Flatwoods Invaded by Exotics (51 – 75%)	1.69
631*	Wetland Shrub	1.03
631E2*	Wetland Shrub Invaded by Exotics (26 – 50%)	0.35
740	Disturbed Land	1.75
740H*	Hydric Disturbed Land	0.22

0 200 400

SCALE FEET

SECTION: 29
TOWNSHIP: 40 S
RANGE: 21 E

FLUCCS	Description	Acreage
321	Palmetto Prairies	3.53 ac.
321E1	Palmetto Prairies Invaded by Exotics (10-25%)	2.98 ac.
321E2	Palmetto Prairies Invaded by Exotics (26-50%)	2.37 ac.
321E3	Palmetto Prairies Invaded by Exotics (51-75%)	9.51 ac.
321E4	Palmetto Prairies Invaded by Exotics (76-90%)	6.67 ac.
411	Pine Flatwoods	57.89 ac.
411E	Pine Flatwoods Invaded by Exotics (5-9%)	8.79 ac.
411E1	Pine Flatwoods Invaded by Exotics (10-25%)	2.63 ac.
411E3	Pine Flatwoods Invaded by Exotics (51-75%)	1.31 ac.
421	Xeric Oak	3.07 ac.
428	Cabbage Palm	0.13 ac.
428E2	Cabbage Palm Invaded by Exotics (26-50%)	0.80 ac.
428HE2	Hydric Cabbage Palm Invaded by Exotics (26-50%)	1.07 ac.
450	Mixed Exotic Upland Forest	9.44 ac.
510	Streams and Waterways	0.15 ac.
512	Ditch	0.33 ac.
612	Mangrove Swamps	6.38 ac.
612E3	Mangrove Swamps Invaded by Exotics (51-75%)	0.14 ac.
619	Exotic Wetland Hardwoods	2.43 ac.
625E	Hydric Pine Flatwoods Invaded by Exotics (5-9%)	0.37 ac.
625E3	Hydric Pine Flatwoods Invaded by Exotics (51-75%)	1.69 ac.
631	Wetland Shrub	1.03 ac.
631E2	Wetland Shrub Invaded by Exotics (26-50%)	0.35 ac.
740	Disturbed Land	1.75 ac.
740H	Hydric Disturbed Land	0.22 ac.
743	Spoil Areas	1.37 ac.
814	Roads and Highways	2.18 ac.
		128.58 ac.

Notes:
1. *Property boundary provided by RWA Engineering.*
2. *Mapping based on photointerpretation of 2017 aerial photography and ground truthing in May 2019.*
3. *Delineation of jurisdictional wetlands is preliminary and subject to field review/approval by applicable regulatory agencies.*

FOR CONCEPTUAL PLANNING PURPOSES ONLY

May 24, 2019 11:52:09 a.m.
Drawing: RWA7PLAN.DWG

Figure 2. Vegetation Map

Myakka Park

DEXBENDER ENVIRONMENTAL CONSULTING
FORT MYERS 239-334-3680

Table 1. Acreage Summary by FLUCCS Code (continued)

FLUCCS CODE	DESCRIPTION	ACREAGE
743	Spoil Areas	1.37
814	Roads and Highways	2.18
	Upland Subtotal	**114.42**
	Wetland Subtotal	**13.68**
	Surface Waters Subtotal	**0.33**
	Other Surface Waters Subtotal	**0.15**
	Total	**128.58**

* Potential jurisdictional wetland

** Potential jurisdictional other surface waters

*** Potential jurisdictional surface waters

FLUCCS Code 321, Palmetto Prairies

The palmetto prairies contain very widely scattered slash pine (*Pinus elliottii*) in the canopy and varying densities of shrubby vegetation such as stagger bush (*Lyonia fruticosa*), tarflower (*Befaria racemosa*), and wax myrtle (*Myrica cerifera*). Ground cover is typically dominated by saw palmetto (*Serenoa repens*) with species such as running oak (*Quercus pumila*), wiregrass (*Aristida* sp.), broomsedge (*Andropogon* sp.), bracken fern (*Pteridium aquilinum*), bogbutton (*Lachnocaulon* sp.), and blackroot (*Pterocaulon pycnostachyum*) occurring in more open areas. Within portions of this habitat type that contain more than 50± percent cover by exotics (primarily melaleuca (*Melaleuca quinquenervia*) and cogongrass (*Imperata cylindrica*)), there are areas that contain significant densities of swamp fern (*Blechnum serrulatum*) and the overall coverage by saw palmetto is decreased.

FLUCCS Code 411, Pine Flatwoods

Upland pine flatwoods are the dominant vegetative community on the property and were likely more extensive prior to the wildfire(s) referenced above. The density of the pine canopy, which contains both slash pine and longleaf pine (*Pinus palustris*), varies significantly based on the fire's intensity. Several areas contain substantial numbers of pine snags in advanced stages of decay. There areas typically have moderate levels of pine recruitment. The shrub and ground cover strata are similar to that of the palmetto prairies described above. Widely scattered Florida coontie (*Zamia pumila*) were also observed. Scrubby oaks, such as myrtle oak (*Quercus myrtifolia*), are also present in scattered areas. Within portions of this habitat type that contain more than 50± percent cover by exotics, the density of pines is reduced, the overall coverage by saw palmetto is less, and patches of swamp fern are common.

FLUCCS Code 421, Xeric Oak

A small area of xeric scrub is present on the property adjacent to a small remnant creek. The area is characterized by greater than 50± percent coverage by myrtle oak, Chapman's oak (*Quercus chapmanii*), scrub oak (*Quercus inopina*), and running oak. Saw palmetto and wire grass are also common.

FLUCCS Code 428, Cabbage Palm

These mesic uplands are dominated by cabbage palm (*Sabal palmetto*) with scattered sea-grape (*Coccoloba uvifera*), saw palmetto, and swamp fern. Brazilian pepper (*Schinus terebinthifolius*) is also common.

FLUCCS Code 428H, Hydric Cabbage Palm

Several of the areas vegetated by cabbage palm are transitional wetlands. In these areas saw palmetto is largely absent and wetland species such as swamp fern, leather fern (*Acrostichum* sp.), myrsine (*Rapanea punctata*), and black needlerush (*Juncus roemerianus*) are present.

FLUCCS Code 450, Mixed Exotic Upland Forest

Uplands dominated by exotics are present in the general configuration of the areas that were previously disturbed by dredge material disposal activities. These areas contain spoil that has become overgrown by Brazilian pepper, lead tree (*Leucaena leucocephala*), cogongrass, and air potato (*Dioscorea bulbifera*).

FLUCCS Code 510, Streams and Waterways

According to the surveyed property boundary, a small area of the Myakka River is present in the southeast corner of the property.

FLUCCS Code 512, Ditch

Several ditches are present on the property. These features are vegetated by species such as swamp fern, willow (*Salix caroliniana*), Brazilian pepper, and melaleuca. At least one of these features may be the remnant of an old creek.

FLUCCS Code 612, Mangrove Swamps

The largest mangrove area is present in the northern portion of the property. It is vegetated by black mangrove (*Avicennia germinans*), red mangrove (*Rhizophora mangle*), white mangrove (*Laguncularia racemosa*), leather fern, and black needle rush. Brazilian pepper is also present. A narrow band of mangroves are also present along a majority of the Myakka River shoreline.

FLUCCS Code 619, Exotic Wetland Hardwoods

These wetland areas are dominated by exotics, primarily Brazilian pepper and melaleuca. Scattered swamp fern, saw palmetto, and cabbage palm are also present.

FLUCCS Code 625, Hydric Pine Flatwoods

Small areas of hydric pine flatwoods are present in the central and southeastern portions of the site. The canopy consists of slash pine and the ground cover is dominated by wetland species such as yellow-eyed grass (*Xyris* sp.), beakrush (*Rhynchospora* sp.), hatpin (*Eriocaulon* sp.), St. John's wort (*Hypericum* sp.), and swamp fern. Scattered melaleuca is also present.

FLUCCS Code 631, Wetland Shrub
Shrub wetlands on the property are dominated by wax myrtle. Scattered cabbage palm, myrsine, and Brazilian pepper are also present. The ground cover consists of swamp fern and Virginia chain fern (*Woodwardia virginica*).

FLUCCS Code 740, Disturbed Land
This FLUCCS Code was used to describe the equipment staging area and at grade dirt road associated with the current spoil material disposal. The area consists of bare ground and various weedy upland species such as beggar tick (*Bidens* sp.), ragweed (*Ambrosia artemisiifolia*), and crow's foot grass (*Dactyloctenium aegyptium*).

FLUCCS Code 740H, Hydric Disturbed Land
Several low areas have been created on the property by previous earthwork activities. These areas are vegetated by species such as stinkweed (*Pluchea* sp.), frog fruit (*Phyla nodiflora*), water-hyssops (*Bacopa* sp.), coyote thistle (*Eryngium* sp.), chocolate weed (*Melochia* sp.), and cogongrass.

FLUCCS Code 743, Spoil Areas
The temporary spoil containment area for the current dredging operation described above is located adjacent to the river and consists of containment cells five feet and greater in height above natural grade.

FLUCCS Code 814, Roads and Highways
According to the surveyed property boundary, a small portion of the roads to the west and south are located on the property. These mowed areas are vegetated by species such as Bahia grass (*Paspalum notatum*), beggar tick, whitehead broom (*Spermacoce verticillata*), and pusley (*Richardia* sp.).

Wetlands

The COE will base their wetland jurisdiction on the presence or absence of three factors: dominance of wetland vegetation, presence of hydric (wetland) soils, and evidence of wetland hydrology. All three criteria must be met for an area to be a wetland. Additionally, in order for a wetland to be within the regulatory jurisdiction of the COE, the wetland must be connected or adjacent to waters of the United States. The June 19, 2006 Supreme Court decision in the Rapanos and Carabell Cases affects the scope of COE wetland jurisdiction under the Clean Water Act. Pursuant to that decision, the COE issued guidance on June 5, 2007 and the U.S. Environmental Protection Agency provided further guidance in April 2011 to clarify the limits of federal wetland jurisdiction. The guidance states that the following waters are protected by the Clean Water Act:

1. Traditional navigable waters,
2. Wetlands adjacent to traditional navigable waters including adjacent wetlands that do not have a continuous surface connection to the traditional navigable waters,
3. Non-navigable tributaries of traditional navigable waters that have relatively permanent continuous flow at least seasonally (i.e. typically three months),

4. Wetlands adjacent non-navigable tributaries of traditional navigable waters that have a continuous surface connection (i.e. not separated by uplands or berms), and
5. Non-navigable, not relatively permanent tributaries and their adjacent wetlands that have a significant nexus (based on hydrologic and biological functions) to traditional navigable waters.

The South West Florida Water Management District (SWFWMD) uses similar criteria for determining the extent of state wetland jurisdiction. However, SWFWMD regulations require that only two of the three criteria need to be present for an area to be a wetland. The SWFWMD does not require wetlands to be connected or adjacent to waters of the United States in order to exert jurisdiction.

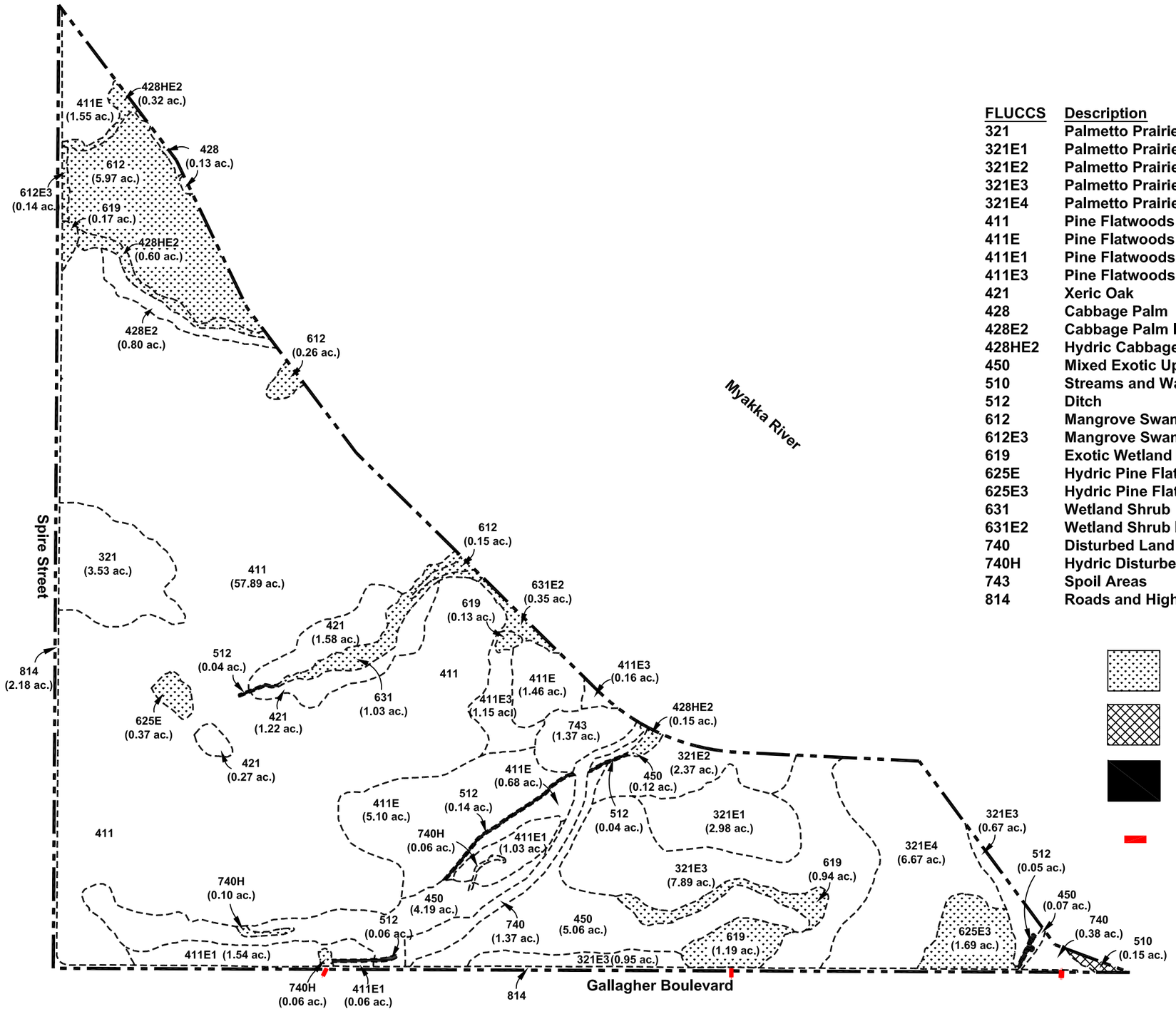
Prior to inspecting the property, the SWFWMD's ePermitting website and DEP's Oculus website were searched for possible permits on the subject property. This search revealed that illegal mangrove trimming and excavation of a small ditch had occurred on the southeastern tip of the County's property. The owner of the property across Gallagher Boulevard was sent several Compliance Assistance letters concerning these issues. It is not known if the situation has been resolved to the satisfaction of the DEP. No additional DEP or SWFWMD permits were found in the databases for the property. In the absence of a SWFWMD/DEP permit it is very unlikely that the COE has issued a permit. However, as discussed above the DEP and COE have issued permits that allow a portion of the site to be used as dredge spoil temporary containment and permanent disposal areas.

Permits will be required for development activities (mechanical clearing, excavation, or fill) from both the COE and SWFWMD for areas determined to be within their respective wetland jurisdiction. Projects that impact less than 0.5 acres of wetlands and/or avoid all COE jurisdictional wetland impacts will likely require less time to obtain wetland permits than projects with larger and/or COE wetland impacts.

Areas mapped as FLUCCS Codes 428HE2, 612, 612E3, 619, 625E, 625E3, 631, 631E2 and 740H (13.68± acres) are likely to be claimed as jurisdictional wetland by the COE and/or SWFWMD (Figure 3). The area mapped as FLUCCS Code 510 (0.33± acres) is likely to be claimed as jurisdictional surface waters by the COE and/or SFWMD. The area mapped as FLUCCS Code 512 (0.15± acres) is likely to be claimed as jurisdictional other surface waters by the COE and/or SFWMD.

The areas in the southeastern portion of the site mapped as FLUCCS Codes 321E3 and 321E4 consist of intricate mosaics of areas dominated by saw palmetto and areas dominated by swamp fern. Algal matting was observed within many of these areas. Depending on hydrologic conditions at the time of a future agency site inspection, portions of these habitat types may be claimed as jurisdictional wetlands by the SWFWMD and/or COE.

It will be necessary to conduct a wetland delineation (i.e. flagging the limits of the wetlands), reviewed and approved by the agencies, to determine the actual acreage of



FLUCCS	Description	Acreage
321	Palmetto Prairies	3.53 ac.
321E1	Palmetto Prairies Invaded by Exotics (10-25%)	2.98 ac.
321E2	Palmetto Prairies Invaded by Exotics (26-50%)	2.37 ac.
321E3	Palmetto Prairies Invaded by Exotics (51-75%)	9.51 ac.
321E4	Palmetto Prairies Invaded by Exotics (76-90%)	6.67 ac.
411	Pine Flatwoods	57.89 ac.
411E	Pine Flatwoods Invaded by Exotics (5-9%)	8.79 ac.
411E1	Pine Flatwoods Invaded by Exotics (10-25%)	2.63 ac.
411E3	Pine Flatwoods Invaded by Exotics (51-75%)	1.31 ac.
421	Xeric Oak	3.07 ac.
428	Cabbage Palm	0.13 ac.
428E2	Cabbage Palm Invaded by Exotics (26-50%)	0.80 ac.
428HE2	Hydric Cabbage Palm Invaded by Exotics (26-50%)	1.07 ac.
450	Mixed Exotic Upland Forest	9.44 ac.
510	Streams and Waterways	0.15 ac.
512	Ditch	0.33 ac.
612	Mangrove Swamps	6.38 ac.
612E3	Mangrove Swamps Invaded by Exotics (51-75%)	0.14 ac.
619	Exotic Wetland Hardwoods	2.43 ac.
625E	Hydric Pine Flatwoods Invaded by Exotics (5-9%)	0.37 ac.
625E3	Hydric Pine Flatwoods Invaded by Exotics (51-75%)	1.69 ac.
631	Wetland Shrub	1.03 ac.
631E2	Wetland Shrub Invaded by Exotics (26-50%)	0.35 ac.
740	Disturbed Land	1.75 ac.
740H	Hydric Disturbed Land	0.22 ac.
743	Spoil Areas	1.37 ac.
814	Roads and Highways	2.18 ac.
		128.58 ac.

0 200 400
SCALE FEET

SECTION: 29
TOWNSHIP: 40 S
RANGE: 21 E

Potential Jurisdictional Wetlands (13.68 ac.)

Potential Jurisdictional Surface Waters (FLUCCS Code 510 - 0.15 ac.)

Potential Jurisdictional Other Surface Waters (FLUCCS Code 512 - 0.33 ac.)

Existing Culverts

Notes:
1. *Property boundary provided by RWA Engineering.*
2. *Mapping based on photointerpretation of 2017 aerial photography and ground truthing in May 2019.*
3. *Delineation of jurisdictional wetlands is preliminary and subject to field review/approval by applicable regulatory agencies.*

FOR CONCEPTUAL PLANNING PURPOSES ONLY

May 24, 2019 11:52:09 a.m.
Drawing: RWA7PLAN.DWG

Figure 3. Wetland, SW, and OSW Map

Myakka Park

DexBender Environmental Consulting
FORT MYERS 239-334-3680

jurisdictional wetlands on-site. The SWFWMD and the COE typically verifies limits of wetland jurisdiction after a permit application for a development has been received. Alternatively, a formal wetland jurisdictional determination can be obtained from the SWFWMD by filing a Petition for a Formal Determination of the Landward Extent of Wetlands and Other Surface Waters. An informal non-binding wetland jurisdictional determination can also be obtained from the SWFWMD. Both types of jurisdictional determination require paying an application fee. A request for an Approved Jurisdictional Determination can be submitted to the COE prior to submitting a permit application. As with the wetland permitting process, the COE does not have any time clock and therefore their review typically takes months to complete.

The wetland areas on site range from high quality (FLUCCS Codes 612) to very low quality (FLUCCS Codes 619 and 740H). Wetlands mapped as FLUCCS Codes 428HE2, 428HE3, 612E3, 625E, 625E3, 631, and 631E2 will be considered to be moderate quality wetlands. A site development plan that preserves these wetlands and an adjacent 25 feet wide upland buffer would avoid wetland permitting issues. Permits from the COE and SWFWMD to impact portions of the lower quality wetlands should be obtainable. Mitigation such as on-site wetland creation, restoration, or enhancement or off-site mitigation such as the purchase of credits from a mitigation bank will be required to offset unavoidable wetland impacts. The two regulatory agencies have differing policies on the location of compensatory wetland mitigation for unavoidable wetland impacts. The COE has a strong preference for the use of established wetland mitigation banks while the SFWMD prefers on-site applicant sponsored wetland mitigation. No mitigation is typically required for impacts to other surface waters (i.e. FLUCCS Code 512).

The COE and SWFWMD use the Uniform Mitigation Assessment Method (UMAM) to evaluate the quantity of wetland mitigation required to off-set unavoidable wetland impacts. UMAM evaluates several parameters (i.e. vegetation, wildlife utilization, and hydrology) of the wetlands in context with existing adjacent land uses to calculate the functional value of the wetlands. The UMAM score, which ranges from 1.0 for a pristine wetland located within a native setting to a 0.0 for a highly degraded wetland located within a very disturbed setting, is multiplied by the acreage of the wetland to determine the number of functional units the wetland provides. This calculation is done for both the existing condition and the proposed condition once the project has been completed. The difference between the number of existing functional units and the number of functional units occurring post-development is the amount of mitigation required to compensate for the proposed wetland impacts. Based on current conditions the UMAM scores for the wetlands on-site are estimated to range from approximately 0.1 – 0.3 for the hydric disturbed areas and the wetlands dominated by exotics to 0.9 - 1.0 for the mangrove wetlands.

In the event that off-site wetland mitigation is proposed in the form of mitigation bank credits, the number of credits required is based on the functional analysis procedure used by the bank. Given the location of this property and the type of wetlands involved, one of two mitigation banks could potentially be used for this project. Currently, mitigation credits at these banks range from approximately $136,00 to $169,000.

In addition to the mitigation described above, if the wetlands are in fact determined to be connected or adjacent to waters of the United States, the COE will require that wetland impacts be avoided and minimized to the extent practicable. Wetland impact avoidance is typically addressed via an alternative sites analysis. This analysis discusses why there were no other properties that could have been purchased and developed by the applicant for the intended purpose which would result in less environmental impacts. Wetland impact minimization is addressed by preparing a series of site plans that demonstrate a reduction in the acreage of wetland impacts to the maximum extent practicable and the relocation of unavoidable impacts to the lower quality wetlands. Both of these issues must be addressed to the COE's satisfaction in order to receive the federal wetland dredge and fill permit.

County Regulations

Charlotte County classifies very large pine, oak, and cypress trees as Heritage Trees. The Code of Laws and Ordinances Charlotte County, Florida Chapter 3-2, Article IX, Section 3-2-186 sets forth the procedure (based on a scoring of the tree's circumference, height, and average crown spread) to determine if an individual tree qualifies as a Heritage Tree. An accurate measurement of both tree height and tree canopy diameter is required for the scoring and therefore may be best accomplished by a surveyor. Section 3-2-190 states that damage or removal of a Heritage Tree is not allowed. An exemption from this requirement can be requested from the County if the tree is in an advanced stage of decline or the applicant has demonstrated that every effort to accommodate the Heritage Tree within the design of the project has been made. Based on our preliminary observations, there are several large pines that might qualify as Heritage Trees.

Listed Species

Prior to inspecting the site, the Florida Fish and Wildlife Conservation Commission (FWC) listed species occurrence data base (updated June 2018) was reviewed to determine the known occurrence of species listed by the FWC and/or U.S. Fish and Wildlife Service (FWS) as threatened, endangered, or species of special concern in the project area. According to that data base there are no known listed species sightings on the subject property.

Widely scattered potentially occupied burrows of the gopher tortoise (*Gopherus polyphemus*), which is listed as threatened by the FWC but not listed by the FWS, were observed in the palmetto prairie, pine flatwoods, and xeric oak habitats. A gopher tortoise burrow survey was not included in our review and therefore it is likely that additional gopher tortoise burrows may be present on the property. A permit from the FWC will be required if potentially occupied gopher tortoise burrows are found to be located within or immediately adjacent (25 feet or less) to proposed development areas. The FWC gopher tortoise permitting process is outlined in the January 2017 Gopher Tortoise Permitting Guidelines.

A site development plan that impacts 10 or fewer gopher tortoise burrows qualifies for a 10 or Fewer Burrows Permit. Provided that potential upland gopher tortoise habitat will remain post development, the resident gopher tortoises can be relocated to these on-site areas.

A site development plan that impacts more than 10 gopher tortoise burrows will require a Conservation Permit. Under the Conservation Permit, the gopher tortoises can be moved to either an on-site or off-site recipient site. Recipient sites must contain a minimum of 25 acres of suitable gopher tortoise habitat (based on soil, ground water, and vegetation characteristics). The final density of gopher tortoises at the recipient site (existing gopher tortoise plus the gopher tortoises that are relocated) cannot exceed between two and four gopher tortoises per acre depending on the suitability of the gopher tortoise habitat. The relocation site for a Conservation Permit must be reviewed and approved by the FWC. As a result of the FWC's current permitting process numerous gopher tortoise "banks" have been established by private landowners and approved by the FWC across the state. These recipient sites charge varying fees to accept gopher tortoises. These fees generally range from $1,000 to $1,400 per gopher tortoise depending on the number of gopher tortoises to be relocated.

Given the habitats on-site and the presence of gopher tortoise burrows, the eastern indigo snake (*Drymarchon corais couperi*) may also be present on the property. The eastern indigo snake is listed as threatened by the FWC and FWS. If impacts to federal jurisdictional wetlands are proposed or another federal action is required to construct proposed site development plans (i.e. a federal nexus), the FWS will review potential impacts to this species. Compliance with the FWS's standard protection measures for the eastern indigo snake (educational materials, letting a snake move out of harm's way if seen, etc.) are typically sufficient to address any potential impacts to the eastern indigo snake.

Potential habitat for the Florida scrub jay (*Aphelocoma coerulescens*), listed as threatened by the FWC and FWS, was observed during our site inspections. This consists of the area mapped as FLUCCS Code 421 and portions of the surrounding pine flatwoods that also contain scrubby oaks. Charlotte County was issued an Incidental Take Permit and the associated Habitat Conservation Plan (HCP) by the FWS in 2014 to address impacts to the state and federally listed Florida scrub-jay within the County. The HCP was developed by the County as an effort to streamline the regulatory process and to provide regulatory certainty to landowners in Charlotte County. According to the Charlotte County's on-line Interactive Scrub Jay Permit Boundary Map, the County property is 530± east of the closest area that would require an HCP Development Fee. No scrub jays or their nest were observed on-site.

According to the FWC listed species occurrence data base the property is located within the FWS designated Core Foraging Area of a wood stork colony. The wood stork (*Myrcteria americana*) is listed as threatened by both the FWC and the FWS. In the event that a COE permit is required for the development of this project, the FWS will require that the quality of wood stork foraging habitat to be impacted is evaluated using their

evaluation matrix and that suitable in kind compensation is provided. In the vast majority of cases the wood stork compensation can be provided by the wetland mitigation plan approved by the COE.

Widely scattered Florida coontie were observed within the palmetto prairie, upland pine flatwoods, and xeric scrub habitats on-site. The Florida coontie is listed as commercially exploited by the Florida Department of Agriculture and Consumer Services. A landowner is allowed by state law to destroy commercially exploited plants that occur on his/her property. A permit from the Florida Department of Agriculture and Consumer Services is required for the harvest and sale of these plants.

The wetlands may provide opportunistic foraging habitat for a variety of listed and non-listed wading birds. Periodic foraging by these species on-site is not likely to be a significant issue in the future potential development of the property.

A detailed survey for listed species should be conducted to verify the presence or absence of such species on-site. If additional listed species are determined in the future to occur on-site, then appropriate permits will be required by the agencies.

Phase One Environmental Audit

A Phase One Environmental Audit is a review of a subject property for the presence of potentially hazardous materials based on current and historic land use practices. Conducting a Phase One Environmental Audit is beyond our scope of services.

Summary

The property was predominately upland pine flatwoods prior to 1975. Between 1998 and 2004 the forested cover in the majority of the southern portion of the site was substantially reduced by apparent wildfire(s). Dredge spoil temporary containment and permanent disposal areas have been present on the property since circa 2004 and the property is currently being used for spoil containment. These disturbances have allowed exotic species to become established in the southern and eastern portions of the site.

Approximately 13.68± acres of SWFWMD and/or COE jurisdictional wetlands have been identified. Additional acreage in the southeastern portion of the site mapped as FLUCCFS Codes 321E3 and 321E4 may be claimed as jurisdictional wetlands by the SWFWMD and/or COE depending on site conditions at the time of a future agency site inspection. Permits will be required for development activities (mechanical clearing, excavation, or fill) from both the COE and SWFWMD for areas determined to be within their respective wetland jurisdiction. Compensatory wetland mitigation will likely be required for wetland impacts.

Widely scattered potentially occupied gopher tortoise burrows were observed in the palmetto prairie, pine flatwoods, and xeric oak habitats. It is likely that additional gopher tortoise burrows may be present on the property. A permit from the FWC will be required

if potentially occupied gopher tortoise burrows are found to be located within or immediately adjacent (25 feet or less) to proposed development areas.

The information provided herein is based on a preliminary investigation of the site. We recommend that the wetlands be flagged and field located prior to designing a site development plan for the property. Depending on agency workloads, the SWFWMD and the COE typically verifies limits of wetland jurisdiction only after a permit application has been received. Based on this current policy, it is recommended that site plans be developed with the knowledge that the extent of jurisdictional wetlands on-site may change subsequent to permit application submittal. A detailed survey for listed species, particularly gopher tortoise burrows, should also be conducted to verify the presence and density of such species on-site. Given the mobility of gopher tortoises, it is recommended that the suitable habitat (i.e. palmetto prairie, pine flatwoods, and xeric oak habitats) be surveyed for gopher tortoise burrows 60± days prior to development.