I-75/ALLIGATOR ALLEY PUD COLLIER COUNTY ENVIRONMENTAL DATA REPORT

March 2018

Prepared For:

Watermark Residential

901 Wabash Avenue, Suite 300 Terre Haute, Indiana 47807 (317) 454-0829

Prepared By:

Passarella & Associates, Inc.

13620 Metropolis Avenue, Suite 200 Fort Myers, Florida 33912 (239) 274-0067

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INTRODUCTION

The following Environmental Data (ED) Report is provided in support of the Planned Unit Development (PUD) amendment for the I-75/Alligator Alley PUD (Project). The ED was prepared in accordance with the Collier County ED submittal requirements outlined in Chapter 3.08.00 of the Collier County Land Development Code (LDC). A PUD (Ordinance 07-26) was previously approved for the Project on February 13, 2007. This PUD amendment includes the addition of a residential component to the PUD and an increase in the native vegetation preservation area.

The 40.79± acre Project site is located in Section 34, Township 49 South, Range 26 East, Collier County (Exhibit 1). More specifically, the property is located southeast of the interchange of Interstate 75 (I-75) and County Road (CR) 951. The Project is bordered to the north by I-75, by CR 951 to the east, Davis Boulevard to the south, and the East Gateway PUD to the west (Exhibit 2).

The Project includes a modification to an existing PUD known as the I-75/Alligator Alley PUD (Ordinance No. 07-26). Existing commercial development on-site includes a motel and fast food restaurants along the Davis Boulevard frontage road. The remainder of the Project consists of a combination of access roads, fill pads, disturbed areas, ditches, and forested and herbaceous upland and wetland areas.

South Florida Water Management District (SFWMD) Permit Modification No. 11-00556-S and U.S. Army Corps of Engineers (COE) Permit No. SAJ-1988-1061 were issued for the Project on January 13, 2009 and February 19, 2009, respectively. The majority of the wetland impacts authorized by these permits were completed and compensatory mitigation was provided through the purchase of 13.45 wetland credits from Big Cypress Mitigation Bank; however, the permits expired before the completion of authorized activities. The applicant will seek re-authorization of the SFWMD and COE permits to complete the previously permitted wetland impacts.

The following ED includes details regarding the author of this report, vegetation descriptions for the various habitats on-site, results of the listed species survey conducted by Passarella & Associates, Inc. (PAI) in March 2018, and an overview of the minimum native vegetation preservation requirement.

ENVIRONMENTAL DATA AUTHOR

This ED report was prepared by Bethany Brosious. She satisfies the environmental credential and experience requirements for preparing the ED, per Section 3.08.00 of the Collier County LDC.

Ms. Brosious is an Ecologist with PAI with eleven years of consulting experience in the environmental industry. She holds a Bachelor of Science degree in Animal Sciences from the University of Florida and a Master of Science degree in Environmental Sciences from Florida Gulf Coast University.

VEGETATION DESCRIPTIONS

The existing land uses include a combination of roadways, commercial parcels, disturbed land, and forested uplands and wetlands with varying degrees of exotic infestation. The vegetation associations for the property were mapped using November 2016 rectified color aerials (Scale: 1" = 250') and groundtruthing was conducted in January 2018. The mapping was classified based on the nomenclature of the Florida Land Use, Cover and Forms Classification System (FLUCFCS) Levels III and IV (Florida Department of Transportation 1999). Level IV FLUCFCS was utilized to denote disturbance and "E" codes were used to identify levels of exotic species invasion (e.g., melaleuca (*Melaleuca quinquenervia*), earleaf acacia (*Acacia auriculiformis*), and Brazilian pepper (*Schinus terebinthifolius*)). AutoCAD Map 3D 2017 software was used to determine the acreage of each mapped polygon, produce summaries, and generate the final FLUCFCS map (Exhibit 3).

A total of nine vegetative associations and land uses (i.e., FLUCFCS codes) were identified on the property. The dominant habitat type on the property is Disturbed Land, (FLUCFCS Code 740) accounting for 43.5 percent of the property (17.74± acres). Exotic vegetation documented on-site includes but is not limited to torpedograss (*Panicum repens*), Brazilian pepper, melaleuca, cogongrass (*Imperata cylindrica*), and earleaf acacia. The degree of exotic infestation ranges from 25 to 100 percent cover.

The Project site contains 12.72± acres of SFWMD and COE jurisdictional wetlands and 0.21± acre of SFMWD other surface water (OSW) and COE "Waters of the United States" (Waters) (Exhibit 3). The jurisdictional wetlands identified by FLUCFCS codes include 1.08± acres of Pine, Hydric, Disturbed (25-49% Exotics) (FLUCFCS Code 6259 E2) and 11.64± acres of Wet Prairies, Disturbed (25-49% Exotics) (FLUCFCS Code 6439 E2). The on-site wetlands contain exotic vegetation including torpedograss, Brazilian pepper, earleaf acacia, and melaleuca. The OSW and Waters are comprised of 0.21± acre of Ditch (FLUCFCS Code 514).

A description for each FLUCFCS classification is outlined below.

Commercial and Services (FLUCFCS Code 140)

This land use is located on the southern portion of the Project site and consists of existing commercial development and impervious surfaces.

Pine Flatwood, Disturbed (25-49% Exotics) (FLUCFCS Code 4119 E2)

This upland habitat is found in the northern portion of the Project site. The canopy contains slash pine (*Pinus elliottii*) and earleaf acacia. The sub-canopy consists of earleaf acacia, slash pine, cabbage palm (*Sabal palmetto*), and scattered wax myrtle (*Morella cerifera*) and Brazilian pepper. The ground cover is dominated by saw palmetto (*Serenoa repens*) with gulfdune paspalum (*Paspalum monostachyum*), spermacoce (*Spermacoce verticillata*), greenbier (*Smilax* sp.), and muscadine grape (*Vitis rotundifolia*).

Brazilian Pepper (FLUCFCS Code 422)

This upland habitat is located in the southeastern portion of the Project site. The canopy and sub-canopy strata are dominated by Brazilian pepper with scattered cabbage palm in the sub-canopy. The ground cover is generally open with scattered spermacoce.

Ditch (FLUCFCS Code 514)

Ditches are located in the central and eastern portions of the Project site and are bordered by exotics such as Brazilian pepper and melaleuca. The ground cover is open.

Pine, Hydric, Disturbed (25-49% Exotics) (FLUCFCS Code 6259 E2)

This wetland habitat is located in the eastern portion of the project. The canopy is mostly open with scattered slash pine, melaleuca, and earleaf acacia around the edges of the habitat. The subcanopy consists of scattered slash pine, cabbage palm, earleaf acacia, and melaleuca. The ground cover is dominated by torpedograss with sand cordgrass, pineland heliotrope, Asiatic pennywort, water pennywort (*Hydrocotyle umbellata*), wiregrass (*Aristida stricta*), rosy camphorweed (*Pluchea baccharis*), and climbing hempvine (*Mikania scandens*).

Wet Prairies, Disturbed (25-49% Exotics) (FLUCFCS Code 6439E2)

This wetland habitat is located on the northern portion of the Project site. The canopy is open, and the sub-canopy is mostly open with widely scattered melaleuca, a mix of dead and live bald cypress (*Taxodium distichum*), and slash pine plantings. The ground cover includes a mix of scattered rush fuirena (*Fuirena scirpoidea*), torpedograss, sawgrass (*Cladium jamaicense*), Asiatic pennywort (*Centella asiatica*), sand cordgrass (*Spartina bakeri*) and pineland heliotrope (*Heliotropium polyphyllum*)

Disturbed Land (FLUCFCS Code 740)

This habitat consists of previously cleared and filled land. The canopy is open and the sub-canopy consists of widely scattered slash pine, earleaf acacia, and lead tree (*Leucaena leucocephala*). The ground cover includes smutgrass (*Sporobolus indicus*), bahiagrass (*Paspalum notatum*) torpedograss, cogongrass, finger grass (*Eustachys* sp.), Florida tickseed (*Coreopsis floridana*), common ragweed (*Ambrosia artemisiifolia*), and spermacoce.

Berm (FLUCFCS Code 747)

This upland land use is located around the northern and central portions of the Project site. The canopy contains slash pine, earleaf acacia, and live oak (*Quercus virginiana*). The sub-canopy is comprised of earleaf acacia, melaleuca, slash pine, live oak, cabbage palm and Brazilian pepper. The ground cover includes saw palmetto, live oak, earleaf acacia, spermacoce and muscadine grape.

Roadway (FLUCFCS Code 814)

This land use consists of internal on-site roadways.

LISTED SPECIES SURVEY

A listed plant and wildlife species survey was conducted by PAI on March 1, 2018. During the survey, no listed species were documented utilizing the Project. The survey methodology and results are provided as Exhibit 4.

NATIVE VEGETATION PRESERVATION

Per previously issued PUD Ordinance 07-26, the Project site was historically cleared. Prior to clearing, it is anticipated that the entire site consisted of native vegetation. However, the Project contains 3.17± acres of on-site right of way and access and utility easements which were not classified as native vegetation for the current zoning amendment application. After the right of way and easement acreage was deducted from the Project acreage, the remaining 37.62± acres were classified as native vegetation (Exhibit 5).

Section 3.05.07B1 of the Collier County LDC requires the retention and preservation of 25 percent of the on-site native vegetation for a residential/mixed use development in the non-coastal high hazard area which equates to a $9.41\pm$ acre preserve requirement (i.e., $37.62\pm$ acres of native vegetation x 25 percent = $9.41\pm$ acres of required native vegetation preserve) (Exhibit 5). Table 1 provides a summary of the native vegetation communities on-site and the native vegetation preservation calculation.

Table 1. Native and Non-Native Habitat Types and Acreages

FLUCFCS Code	Description	Native Vegetation Acreage	Non-Native Vegetation Acreage
140	Commercial and Services	4.20*	-
4119 E2	Pine Flatwood, Disturbed (25-49% Exotics)	0.49	-
422	Brazilian Pepper	0.12*	-
514	Ditch	0.20*	-
6259 E2	Pine, Hydric, Disturbed, (25-49% Exotics)	1.04	-
6439 E2	Wet Prairies, Disturbed (25-49% Exotics)	11.43	-
740	Disturbed Land	16.86*	-
747	Berm	2.23*	-
814	Roadway	1.05*	-
-	Existing Easements	-	3.17
	Total	37.62	3.17
	num Retained Native Vegetation Requirement e Vegetation Acreage, 37.62± Acres x 25 Percent)	9.	41

^{*}Includes area previously classified as native vegetation under PUD Ordinance 07-26

The applicant proposes to preserve and enhance 9.41± acres of native vegetation along the north and east sides of the Project. Please see the Master Concept Plan for the location of the on-site preserve areas. The preserve also connects off-site to the East Gateway PUD conservation areas located to the west of the Project. Enhancement activities within the on-site preserve area will include the removal of exotic vegetation and planting of native vegetation.

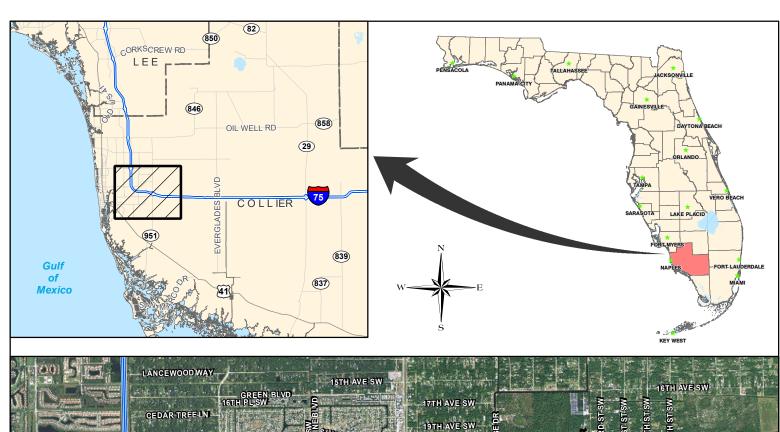
No listed species were documented within the Project limits. The Project contained no xeric scrub, dune, strand, hardwood hammocks, or wetlands with a Wetland Rapid Assessment Procedure (WRAP) score of at least 0.65, or upland habitat that serves as a buffer to high quality wetlands. As a result, the location of the native vegetation preserves was selected to provide connectivity to the off-site conservation/preserve lands to the west, per Section 3.05.07.A.5 of the Collier County LDC, and to encompass the majority of the remaining on-site wetland areas.

As previously noted, these areas will also be enhanced through exotic vegetation removal and the planting of native vegetation This activity will improve the quality of habitat on-site and off-site through the elimination of exotic and nuisance species seed sources.

REFERENCES

Florida Department of Transportation. 1999. Florida Land Use, Cover and Forms Classification System. Procedure No. 550-010-001-a. Second Edition.

EXHIBIT 1 PROJECT LOCATION MAP



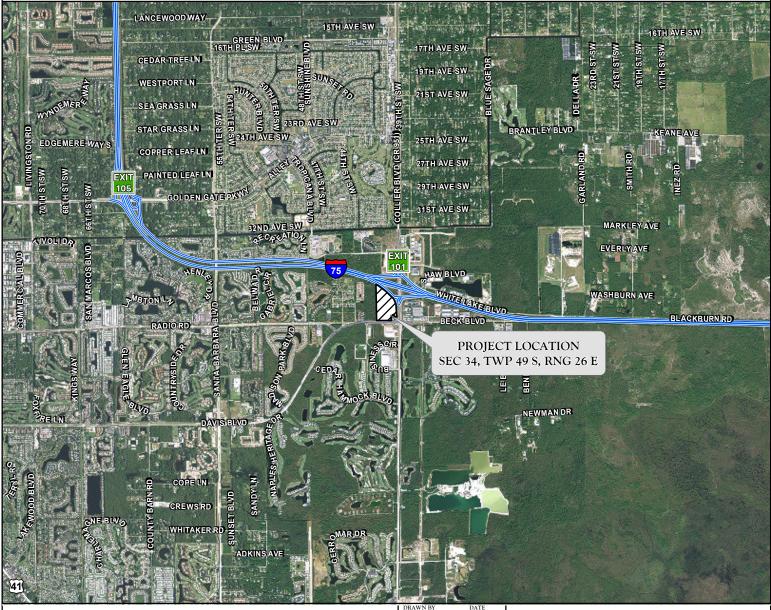


EXHIBIT 1. PROJECT LOCATION MAP L-75 / ALLIGATOR ALLEY PUD

T.S.	3/12/18
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REVISED	DATE



EXHIBIT 2 AERIAL WITH BOUNDARY



EXHIBIT 3 AERIAL WITH FLUCFCS AND WETLANDS MAP



LEGEND:



SFWMD AND COE WETLANDS (12.72 Ac.±)



SFWMD "OTHER SURFACE WATERS" AND COE "WATERS OF THE U.S." (0.21 Ac.±)

FLUCFCS			% OF
CODES	DESCRIPTIONS	ACREAGE	TOTAL
140	COMMERCIAL AND SERVICES	4.29 Ac.±	10.5%
4119 E2	PINE FLATWOOD, DISTURBED (25-49% EXOTICS)	0.73 Ac.±	1.8%
422	BRAZILIAN PEPPER	0.12 Ac.±	0.3%
514	DITCH	0.21 Ac.±	0.5%
6259 E2	PINE, HYDRIC, DISTURBED (25-49% EXOTICS)	1.08 Ac.±	2.6%
6439 E2	WET PRAIRIES, DISTURBED (25-49% EXOTICS)	11.64 Ac.±	28.5%
740	DISTURBED LAND	17.74 Ac.±	43.5%
747	BERM	2.49 Ac.±	6.1%
814	ROADWAY	2.49 Ac.±	6.1%
	TOTAL	40 79 Ac +	100.0%

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE COLLIER COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF NOVEMBER 2016.

PROPERTY BOUNDARY PER AGNOLI BARBER & BRUNDAGE, INC. DRAWING NO. EMAIL_III408_PASSARELLA.DWG DATED NOVEMBER 4, 2008.

FLUCFCS LINES ESTIMATED FROM I"=200' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED.

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

JURISDICTIONAL WETLAND LINES SHOWN PER FDEP PERMIT No. III558019, COE PERMIT No. 88IPP-21061 AND SFWMD PERMIT No. II-00556-S.

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13620 Metropolis Avenue Suite 200 Fort Myers, Florida 33912 Phone (239) 274-0067 Fax (239) 274-0069



I-75 / ALLIGATOR ALLEY PUD
AERIAL WITH FLUCFCS AND WETLANDS MAP

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EXHIBIT 3

EXHIBIT 4 LISTED SPECIES SURVEY

I-75/ALLIGATOR ALLEY PUD LISTED SPECIES SURVEY

March 2018

INTRODUCTION

This report documents the results of the listed species survey conducted by Passarella & Associates, Inc. (PAI) on March 1, 2018 for the I-75/Alligator Alley Planned Unit Development (PUD) (Project). The purpose of the survey was to review the Project area for plant and wildlife species listed by the Florida Fish and Wildlife Conservation Commission (FWCC), the Florida Department of Agriculture and Consumer Services, and the U.S. Fish and Wildlife Service (USFWS) as endangered, threatened, species of special concern, or commercially exploited. The review included a literature search of listed species within the Project's geographical area and an on-site field survey conducted on March 1, 2018. The survey was also conducted to be consistent with Sections 3.04.03 and 3.08.00 of the Collier County Land Development Code (LDC).

The Project site is 40.79± acres and is located in Section 34, Township 49 South, Range 26 East, Collier County (Figure 1). More specifically, the Project site is located at the southwest interchange of Interstate 75 (I-75) and County Road (CR) 951 and is composed of a combination of access roads, developed commercial areas, fill pads, surface water management systems, and a wetland mitigation area on the northern portion of the Project. The Project's surrounding land uses include undeveloped, I-75 interchange to the north, CR 951 to the east, Davis Boulevard to the south, and the East Gateway PUD to the west.

METHODOLOGY AND DISCUSSION

The listed plant and wildlife species survey included a literature review for local, state, and federal listed species documented on the Project site or within the vicinity of the Project and a field survey of the Project site conducted on March 1, 2018.

Literature Review

The literature review involved an examination of available information on listed species in the Project's geographical region. The literature sources reviewed include the FWCC Florida's Endangered and Threatened Species (2017); Florida Atlas of Breeding Sites for Herons and Their Allies (Runde *et al.* 1991); USFWS Habitat Management Guidelines for the Bald Eagle in the Southeast Region (1987); the Florida Panther Habitat Preservation Plan (Logan *et al.* 1993); the Landscape Conservation Strategy Map (Kautz *et al.* 2006); and the USFWS and/or the FWCC databases for telemetry locations of the Florida panther (*Puma concolor cory*i), bald eagle, red-cockaded woodpecker (*Picoides borealis*) (RCW), Florida black bear (*Ursus americanus floridanus*), Florida scrub jay (*Aphelocoma coerulescens*), and wading bird rookeries, such as the wood stork (*Mycteria americana*), in Collier County.

The results of the literature search found no documented occurrences of listed wildlife species on the Project site (Figure 2). However, listed species were documented within the vicinity of the Project.

A RCW location is approximately one-third mile west of the Project site. The USFWS considers suitable habitat for the RCW to include any forested community with pines in the canopy that encompasses more than $10.0\pm$ acres (i.e., includes both on- and off-site). Although the Project area contains a limited number of canopy pine trees, no cavities were noted in pines during the field survey and no sightings were documented in the area. The RCW is a state and federally listed endangered species.

The Project is located within the $30\pm$ kilometer ($18.6\pm$ mile) core foraging area for one documented wood stork rookery, No. 619018 (Figure 3). The wood stork is a state and federally listed threatened species. The wetlands on the Project are disturbed with melaleuca (*Melaleuca quinquenervia*) and offer poor foraging potential for the wood stork.

A documented bald eagle (*Haliaeetus leucocephalus*) nest is Nest CO-056 located approximately one mile southeast of the Project. The nest distance is beyond the USFWS and the FWCC recommended 660-foot buffer protection zone for active and alternate bald eagle nests. The bald eagle is not a listed species but is protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

The FWCC database contains no documented Florida black bear radio-telemetry locations on-site or within a one-mile radius of the Project area (Figure 2). The Florida black bear was delisted by the FWCC in August 2012.

A panther telemetry point is located approximately 1,000 feet west of the Project site and was recorded in January 2016. The Project is not located within the USFWS Florida Panther Zones (Kautz *et al.* 2006) and/or Focus Area (Figure 4). The Florida panther is a state and federally listed endangered species.

The Project area is located within the USFWS' designated consultation area for the Florida bonneted bat (*Eumops floridanus*) (FBB) (Figure 5). The Project contains a limited number of canopy pine trees; however, no cavities were noted in pines during the field survey. No FBBs or their sign (i.e., guano) were document during the survey. The FBB is a state and federally listed engendered species.

Field Survey

A field survey for listed species was conducted on the Project site on March 1, 2018. Survey methodology consisted of qualified ecologists walking parallel belt transects across the property (Figure 6). The transects were generally walked approximately 75 feet apart, depending on habitat type and visibility. The weather during the March 1, 2018 survey was clear skies with some scattered clouds in the afternoon, and a light wind. The temperatures ranged from the mid 60s to upper 70s. The survey began around 9:00 a.m. and ended at approximately 2:00 p.m. No listed species were documented on the Project site during the survey.

RESULTS

A listed species survey was conducted for the Project site. The survey included a review of available literature regarding documented occurrences of listed species and a field survey of the Project site. The literature review found no documented occurrences for listed species within the Project limits. The field survey was conducted on March 1, 2018 and documented no listed species on the Project site.

REFERENCES

- Florida Fish and Wildlife Conservation Commission. 2017. Florida's Endangered Species, Threatened Species, and Species of Special Concern. Official Lists, Bureau of Non-Game Wildlife, Division of Wildlife. Florida Fish and Wildlife Conservation Commission. Tallahassee, Florida.
- Kautz, R., R. Kawula, T. Hoctor, J. Comiskey, D. Jansen, D. Jennings, J. Kasbohm, F. Mazzotti,
 R. McBride, L. Richardson, K. Root. 2006. How much is enough? Landscape-scale conservation for the Florida panther. Biological Conservation, Volume 130, Issue 1, Pages 118-133
- Logan, Todd, Andrew C. Eller, Jr., Ross Morrell, Donna Ruffner, and Jim Sewell. 1993. Florida Panther Habitat Preservation Plan South Florida Population. U.S. Fish and Wildlife Service; Gainesville, Florida.
- Runde, D.E., J.A. Gore, J.A. Hovis, M.S. Robson, and P.D. Southall. 1991. Florida Atlas of Breeding Sites for Herons and Their Allies, Update 1986-1989. Nongame Wildlife Program Technical Report No. 10. Florida Game and Fresh Water Fish Commission, Tallahassee, Florida.
- U.S. Fish and Wildlife Service. 1987. Habitat Management Guidelines for the Bald Eagle in the Southeast Region.
- U.S. Fish and Wildlife Service. 2002. Draft Standard Local Operating Procedures for Endangered Species Red-Cockaded Woodpecker. South Florida Ecological Services Office.

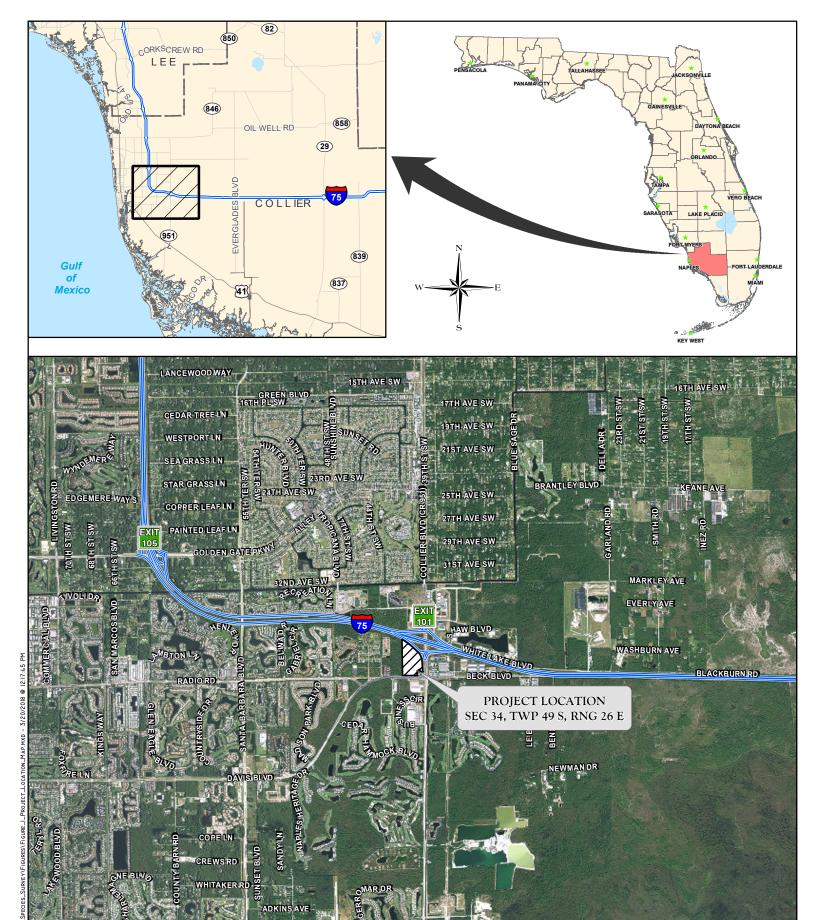
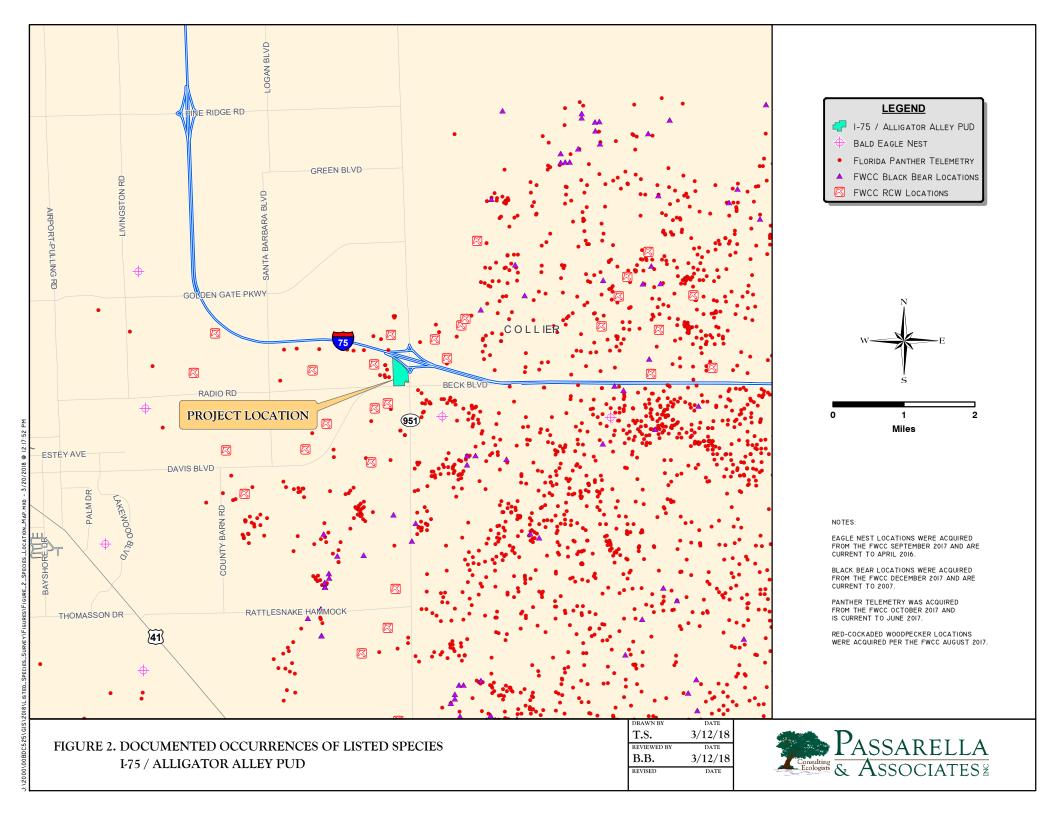
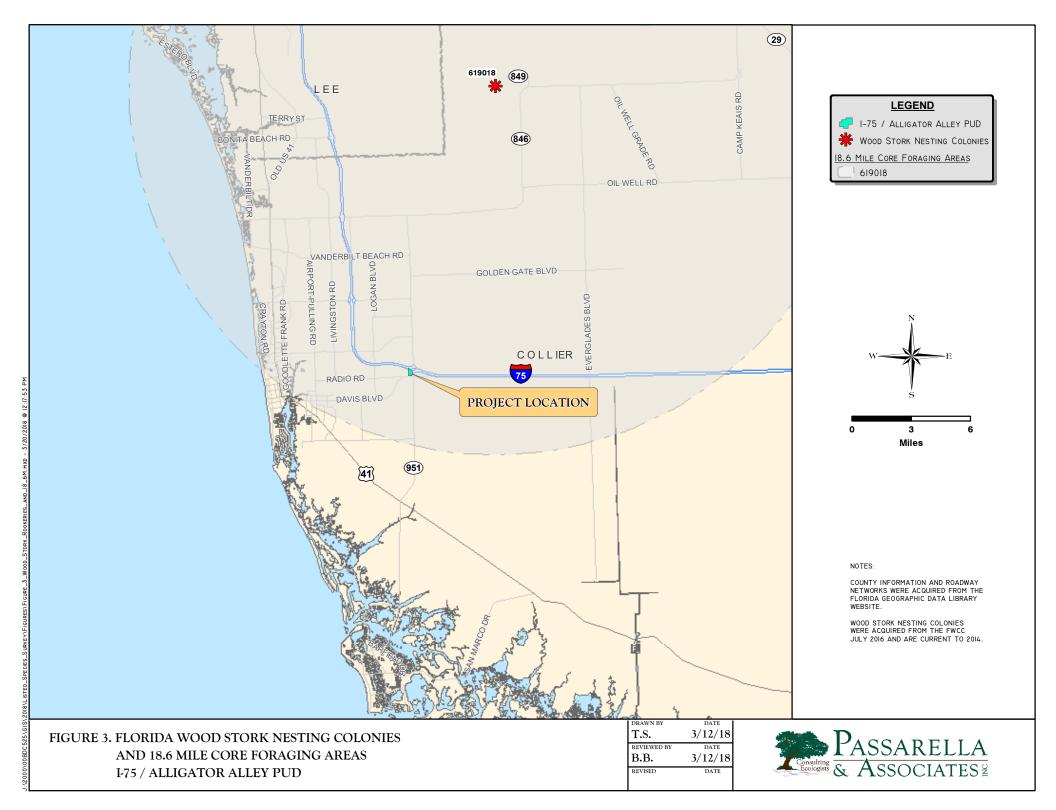


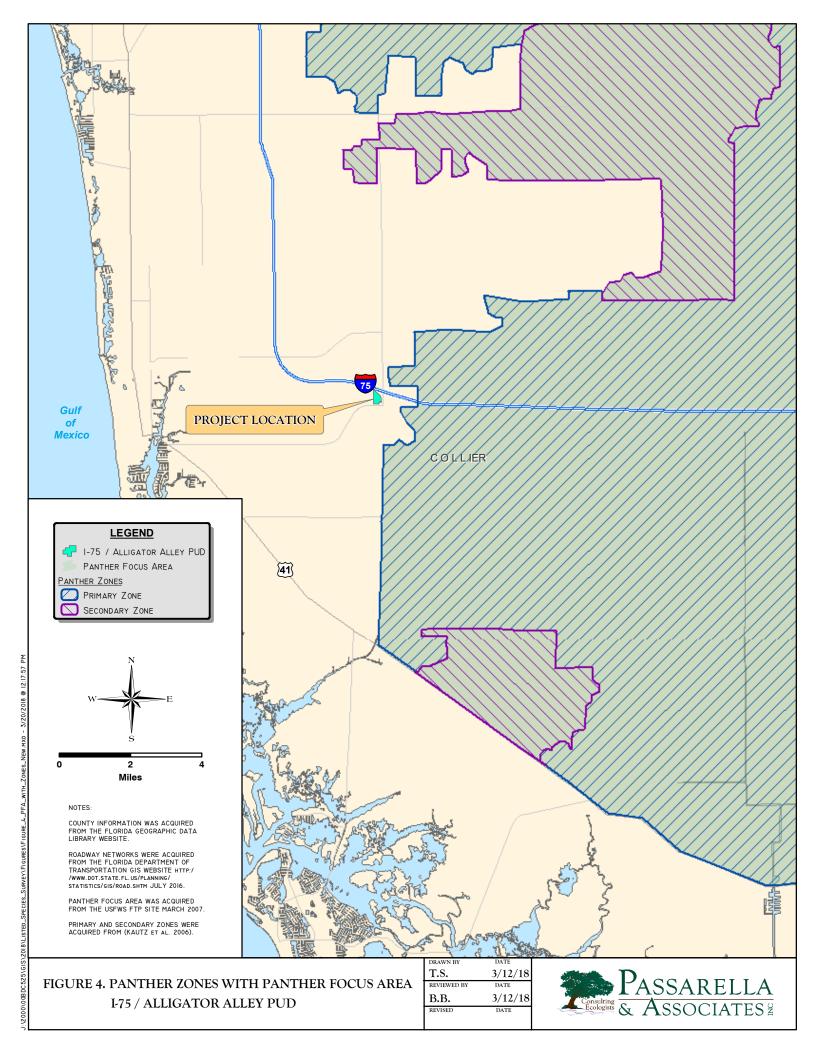
FIGURE 1. PROJECT LOCATION MAP L-75 / ALLIGATOR ALLEY PUD

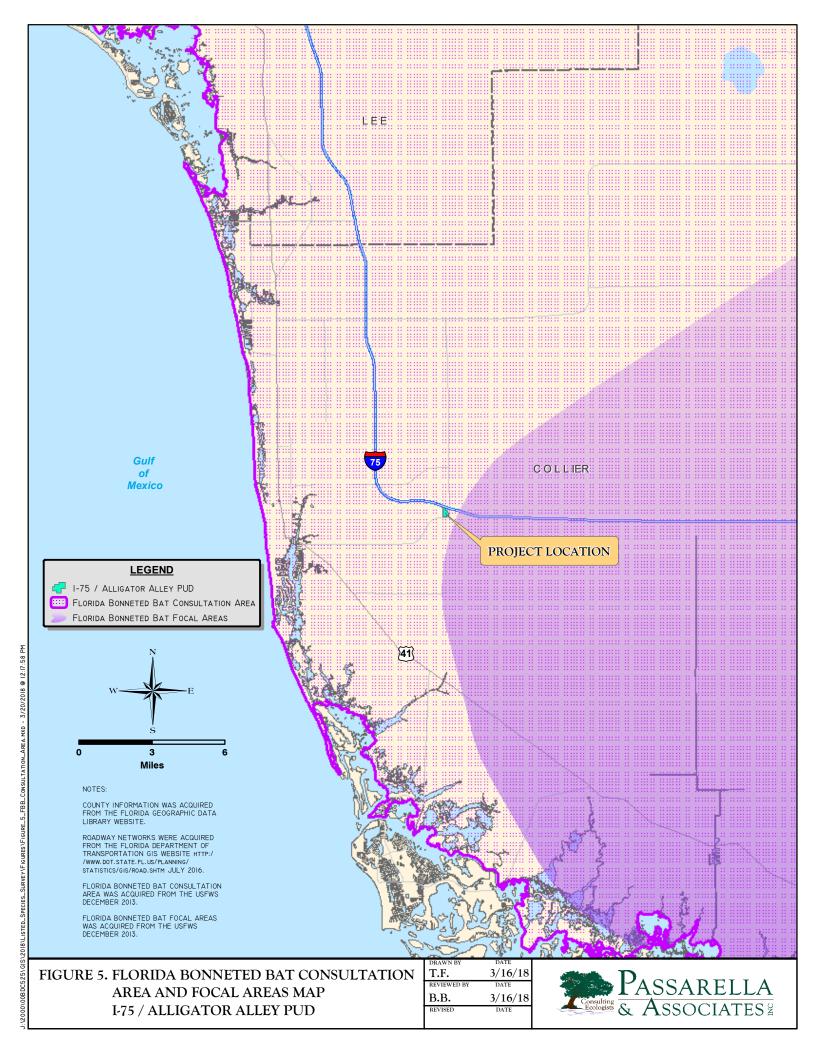
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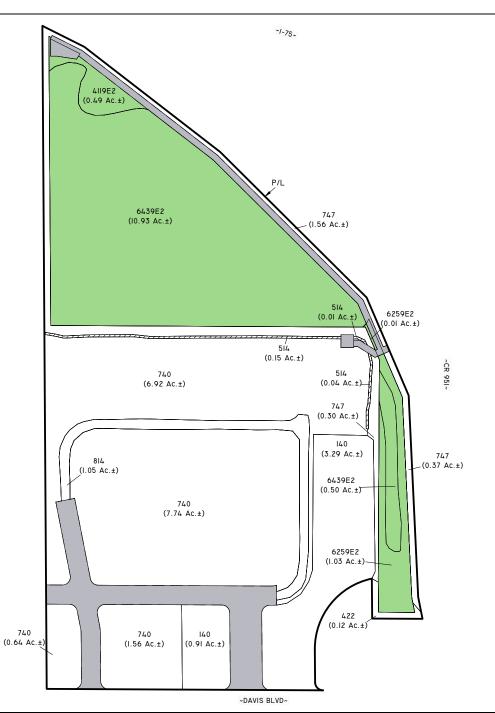


TRANSECT LOCATIONS 1-75 / ALLIGATOR ALLEY PUD B.B. 3/12/18



EXHIBIT 5 NATIVE VEGETATION MAP







EXISTING NATIVE VEGETATION (12.96 Ac.±)



UTILITY EASEMENTS (3.17 Ac.±)

FLUCFCS			% OF
CODES	DESCRIPTIONS	ACREAGE	TOTAL
140	COMMERCIAL AND SERVICES	4.20 Ac.±	11.2%
4119 E2	PINE FLATWOOD, DISTURBED (25-49% EXOTICS)	0.49 Ac.±	1.3%
422	BRAZILIAN PEPPER	0.12 Ac.±	0.3%
514	DITCH	0.20 Ac.±	0.5%
6259 E2	PINE, HYDRIC, DISTURBED (25-49% EXOTICS)	1.04 Ac.±	2.8%
6439 E2	WET PRAIRIES, DISTURBED (25-49% EXOTICS)	11.43 Ac.±	30.4%
740	DISTURBED LAND	16.86 Ac.±	44.8%
747	BERM	2.23 Ac.±	5.9%
814	ROADWAY	1.05 Ac.±	2.8%
	TOTAL	37.62 Ac.+	100.0%

NOTES:

PROPERTY BOUNDARY PER AGNOLI BARBER & BRUNDAGE, INC. DRAWING NO. EMAIL_III408_PASSARELLA.DWG DATED NOVEMBER 4, 2008.

FLUCFCS LINES ESTIMATED FROM I"=200' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED.

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

JURISDICTIONAL WETLAND LINES SHOWN PER FDEP PERMIT NO. III558019, COE PERMIT NO. 88IPP-21061 AND SFWMD PERMIT NO. II-00556-S.

EXHIBIT 5. NATIVE VEGETATION MAP L-75 / ALLIGATOR ALLEY PUD

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T.F.	3/14/18
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