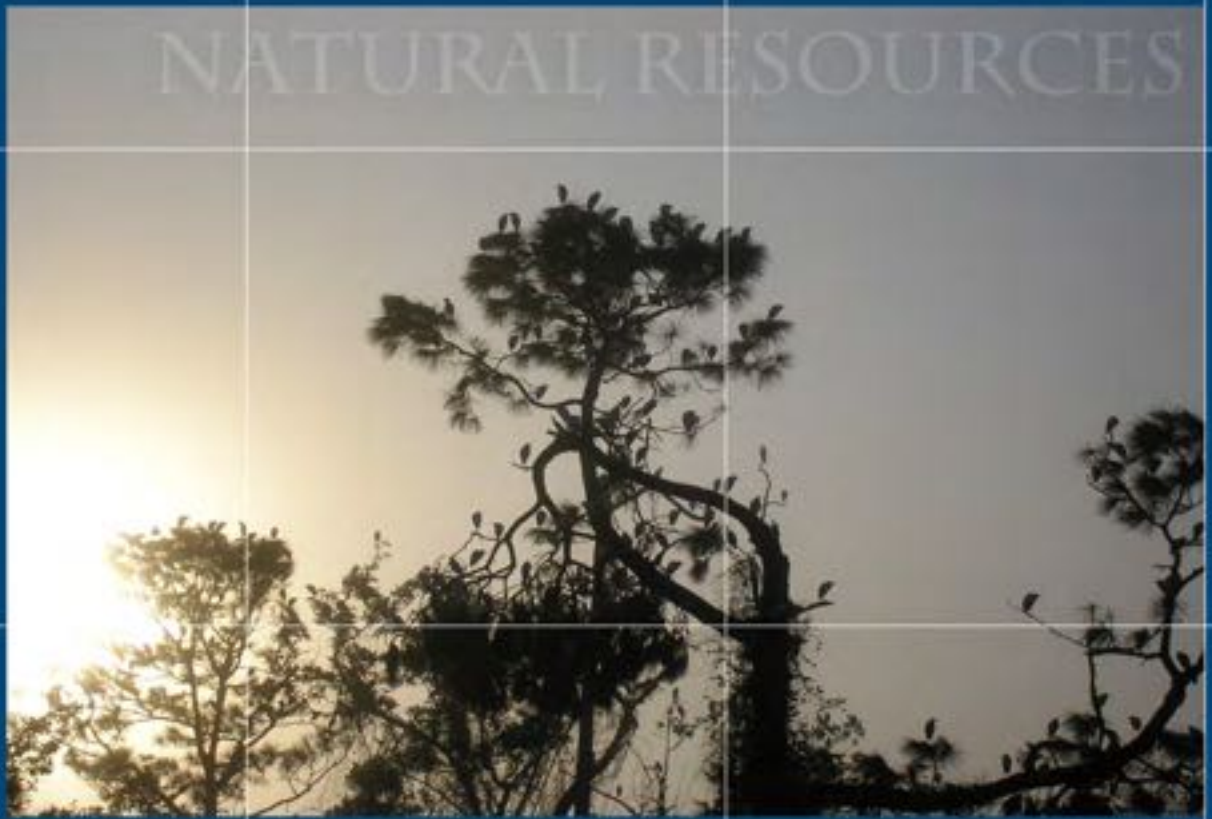


Annual Habitat Monitoring Report 2022



VICTORIA PARK

Gopher Tortoise/Florida Scrub Jay Preserve

SJRWMD Permit No. 4-I27-0369C-ERP
Miller Legg Project 09-00268

Prepared for:
Victoria Park Community Council

*"Improving
Communities ...*

*... Creating
Environments"*

**Victoria Park Gopher Tortoise/Florida Scrub Jay Preserve
Annual Habitat Monitoring Report 2022**

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Victoria Park Gopher Tortoise/Florida Scrub Jay Preserve

Annual Habitat Monitoring Report 2022

I. INTRODUCTION

Victoria Park is a 1,859-acre multi-use Development of Regional Impact (DRI #698-06) located in southern Volusia County, Florida. Victoria Park includes residential communities, a golf course, commercial tracts, and numerous preservation areas, including a ±151-acre preserve that is being managed and monitored primarily for the Florida scrub jay (*Aphelocoma coerulescens coerulescens*) and gopher tortoise (*Gopherus polyphemus*). The preserve is located in the northeast quadrant of the project and is comprised of ±111 acres of uplands and ±40 acres of wetlands. The Florida scrub jay and the gopher tortoise are both classified as “Threatened” by the Florida Fish and Wildlife Conservation Commission (FWC). This classification provides protection to this species and to various habitats in which resident scrub jays and gopher tortoises have been identified. This monitoring report is to document the status of the habitat and maintenance activities within the Victoria Park Gopher Tortoise/Florida Scrub Jay Preserve.

II. PROJECT LOCATION

The Victoria Park project is adjacent to County Road 4101 (Martin Luther King, Jr. Beltway), Orange Camp Road, Taylor Road, State Road 472, Blue Lake Road and Interstate 4 within Sections 22-27, 34, 35, and 36; Township 17 South and Range 30 East, near Deland in Volusia County, Florida. The project site is divided into four quadrants (NE, NW, SE, and SW). The Scrub Jay/Gopher Tortoise Preserve is found within the Northeast section (Exhibit 1).

III. LICENSE/PERMIT INFORMATION

- A. The St. Johns River Water Management District (SJRWMD) Permit No. 4-127-0369C-ERP was issued to St. Joe Residential Acquisitions, Inc. on October 12, 1999, and regulates the property in perpetuity. This permit authorizes the Site Mitigation and Management Plan (SMMP) to provide for sufficient preservation of jay and tortoise habitat types to minimize development impacts to the environmental features of the site. This approach required the creation of an active and ongoing mitigation and management plan.
- B. The FWC issued a Gopher Tortoise Take Permit, number VOL-20, to St. Joe/Arvida Co., LP on January 10, 2000. This permit was transferred to OK Victoria Park LLLC on March 31, 2015. The permittee is required to manage and maintain the protected 110.7 acres for gopher tortoises in accordance with the habitat management plan (SMMP). OK Victoria Park LLLC is authorized to move tortoises within the property boundaries to minimize taking

- C. The U.S. Fish and Wildlife Service (USFWS) Biological Opinion Dated January 19, 2000, authorizes the incidental take of Florida scrub jays and Eastern indigo snakes during the construction phase of the residential development. This also requires designation of a scrub conservation area, containing scrub habitat that will be restored and managed, long term, to provide scrub habitat for Florida scrub-jay territories. The Biological Opinion also specifies an annual monitoring program should take place on the management area to assess the success of the proposed habitat restoration and management techniques.
- D. DEPARTMENT OF THE ARMY PERMIT No: 199707347(IP-SS), Permittee: ST. Joe Residential Acquisitions, Inc. /Arvida Corporation and regulates the property in perpetuity via the SMMP. This permit also required the following Reasonable and Prudent Measures to minimize the impacts of incidental take are agreed to by the permittee for Florida scrub jays. Designation of a scrub conservation area, containing scrub habitat that will be restored and managed, long term, to provide habitat for Florida scrub-jay territories. Stipulates an annual monitoring program should take place on the management area to assess the success of the proposed habitat restoration and management techniques. Recommends the onsite conservation area should be placed in a conservation easement and the integrity of the preserve habitat protected.

IV. HABITAT MONITORING

The Scrub Jay/Gopher Tortoise Preserve is comprised of a pine/palmetto flatwoods, sandhill community, and oak shrub and brush habitat (Exhibit 2). The objective of the habitat management plan is to improve and maintain the habitat in the preserve for the Florida scrub jay and gopher tortoise. The habitat is monitored annually to assess the habitat quality and the success of the management activities.

Methods

A total of 16 habitat monitoring transects, 100 feet long and 15 feet wide, were randomly selected in the preserve (Exhibit 3). The approximate location of these transects are illustrated on the Habitat Monitoring Map. Qualitative data collected includes:

- 1) Dominant groundcover plant species,
- 2) Relative amount of bare ground,
- 3) Relative amount of leaf litter,
- 4) Approximate scrub oak coverage (under 13ft),
- 5) Average scrub oak height (under 13ft),
- 6) Approximate scrub oak coverage (over 13ft),
- 7) Approximate total canopy coverage, and
- 8) Dominant canopy species.

Results

Miller Legg biologists conducted this habitat monitoring survey in July 2022 within the Florida Scrub Jay/ Gopher Tortoise Preserve concurrent with the completion of the 2022 habitat maintenance. This monitoring is scheduled to illustrate the scope and effectiveness of the maintenance activities. Florida Sandhill crane monitoring is also conducted within the preserve and adjacent wetland habitats and includes an annual aerial review that was conducted on May 23rd, 2022, to locate sandhill crane nests. As a result, review of the previous preserve maintenance was also completed during the aerial review and several photos taken are included in Exhibit 6. A final follow up visit was conducted in early June by Alan Alshouse of Alshouse & Associates to document cogon grass treatment. Cogon grass areas were treated and documented. Cogon grass coverage throughout the preserve is minimal and areas treated will be monitored and retreated as necessary. No other nuisance/exotic species were observed with any significant coverage during the monitoring.

The results of the habitat monitoring event are provided in the Observations Table (Exhibit 5). Photographs of each transect are included in Exhibit 6 which is a compilation of photographs from previous monitoring events displayed in chronological order. In addition, supplemental photographs of 2022 maintenance activities from ground level and aerial view points, Florida native fauna, and flora observed are contained within Exhibit 6.

The overall results of the 2022 monitoring event continue a positive trend. Transect data and direct observation shows predicted response from the previous maintenance activities with vigorous growth of the scrub oak and saw palmetto within and adjacent to the transects throughout the preserve. The composition of transects 3 and 6 have improved considerably after this year's maintenance activities as illustrated in the transect data and photographs. Saw palmetto (*Serenoa repens*) and young scrub oaks (*Quercus* spp.) remain the dominant species within the monitoring transects. As documented in prior reports, only three transects (No. 9, 10, and 12) do not contain saw palmetto or a combination of saw palmetto and fetterbush as the dominant species within the transect. Species typically considered scrub oaks were commonly observed within nine transects (Transects 1 and 6, and 9-16).

The sand live oak (*Quercus geminata*) and longleaf pine (*Pinus palustris*) trees are the most frequently observed canopy species along the monitoring transects. Leaf litter remained heavy only in Transect 13 during this monitoring period. Minimal to moderate leaf litter was observed in the remaining transects. Areas with dense canopy coverage, equal to or greater than approximately 50%, were observed along Transects 10-12 and 15. The number of transects with approximately 50% or greater coverage of scrub oaks below 13 feet remained constant.

A diverse group of beneficial native plant species were observed during this monitoring event and were not listed in the Observations Table due to their low overall coverage within the individual transects. These significant species include turkey oak (*Quercus laevis*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), gopher apple (*Licania michauxii*), goldenrod (*Solidago*

spp.), Florida rosemary (*Ceratiola ericoides*), winged sumac (*Rhus copallinum*), lopsided indiagrass (*Sorghastrum secundum*), broomsedge bluestem (*Andropogon virginicus*), gallberry (*Ilex glabra*), shiny blueberry (*Vaccinium myrsinites*), tarflower (*Bejaria racemosa*), dahoon holly (*Ilex cassine*), prickly pear (*Opuntia humifusa*), blackroot (*Pterocaulon pycnostachyum*), greenbrier (*Smilax* spp.) and reindeer lichens (*Cladonia* sp.).

Maintenance for 2022 occurred in North Preserve Management Unit 2 and 3 and South Preserve Management Unit 1 and consisted of mechanically mowing to enhance the habitat and lessening the wildlife risk by reducing the height and density of flammable shrubs adjacent to homes abutting the preserve. These areas correspond to observations of occupied gopher tortoise burrows and were managed in a manner that benefits the tortoise and scrub-specialized plants and other native fauna. This generally follows habitat management guidelines intended to mimic some of the effects of fire. These management treatments were applied in ways that minimize soil disturbance and reduced the possibility of introducing or expanding coverage of invasive or exotic species. The maintenance contractor visited the site and treated several small areas of cogon grass prior to the mowing activities. As illustrated in the supplemental photographs the maintenance/habitat management efforts clearly meet this intent and are setting the stage for potential prescribed fire treatment in the future. As previously reported, continued thinning activities along with resumption of normal hydroperiod after the prolonged drought continues to reduce the number of pine seedlings of various species from encroaching in the wetlands. This has been documented in the Victoria Park Florida Sandhill Crane 2022 Annual Monitoring Report as well.

The Council is committed to continued monitoring efforts to confirm these treatments are having the desired effect and adjust if necessary. Areas are being evaluated and identified in portions of North Preserve Management Unit 2, 3 and 4 and in portions of South Preserve Management Unit 3 and 4 for maintenance in 2023. Continued coordination with the regulatory agencies for approval of the maintenance plan is expected in October/November of 2022. The overall goal is to mechanically reduce the vegetation to heights that could safely lead to potentially utilizing a prescribed burn in the future. A meeting was conducted with FWC land management specialists in April of 2022 to show the successful efforts of the Council and residents as well as brainstorm for land management ideas. Our intent is to conduct maintenance activities in the Florida scrub jay habitat prior to nesting season if possible and to minimize all disturbance to the protected species during the nesting seasons as weather permits.

V. WILDLIFE OBSERVATIONS

The Victoria Park Gopher Tortoise/Florida Scrub Jay Preserve provides habitat for several state and/or federally listed wildlife species. Multiple observations of Florida black bears (*Ursus americanus floridanus*) and bobcats (*Lynx rufus*) in the north preserve were reported by Victoria Park residents to Miller Legg biologists with photographs. An ongoing review of the preserve for Florida

scrub jays was conducted in conjunction with the Florida sandhill crane monitoring from January 2022 through June 2022 when weather conditions were more conducive per Florida scrub jay survey protocols. The main purpose of the review was to establish whether areas of the preserve are continuously occupied by scrub jays. Emphasis was given to areas where Florida scrub jays were previously observed in low-growing oak scrub when walking the transects and trails. A tape recording of Florida scrub jay typical territorial scolding as well as the female "hiccup" call was used in an attempt to attract the jays. The Florida scrub jays were not observed during the 2022 season by Miller Legg biologists or the residents during their overall bird surveys. No specific reason could be determined as to why the jays were not present in previous locations, but after several years of a resumption in normal hydroperiods in the wetlands may be a contributing factor in the movement of the jay families. Scrub jays were last observed in the North Preserve upland areas between Transects 2 and 6. A family comprised of several individuals (five) were observed on one occasion in and around Wetland 6 that year. In addition, multiple jays were observed along the entrance road separating the north and south portions of the preserve that year. Miller Legg will continue the efforts to determine if jays are utilizing the Preserve in future monitoring visits. Maintenance in the north preserve (Unit 1) will focus on improving the existing scrub habitat to make it more appealing to Florida scrub jays to attract the family back within the preserve. Many occupied gopher tortoise burrows were observed throughout the upland areas of the preserve. Multiple gopher tortoises were observed throughout preserve. Photographs of wildlife observed are included within Exhibit 5.

The following list of faunal species have been observed, or evidence there-of, within or near the Gopher Tortoise/ Florida Scrub Jay Preserve. This list is cumulative and therefore includes observations from previous monitoring events.

AMPHIBIANS AND REPTILES

SPECIES	COMMON NAME
<i>Anolis sagrei</i>	Brown anole
<i>Alligator mississippiensis</i>	American alligator
<i>Bufo quercicus</i>	Oak toad
<i>Cnemidophorus sexlineatus</i>	Six-lined racerunner
<i>Coluber constrictor</i>	Black racer
<i>Crotalus adamanteus</i>	Eastern diamondback rattlesnake
<i>Drymarchon corais couperi</i>	Eastern indigo snake
<i>Gopherus polyphemus</i>	Gopher tortoise
<i>Nerodia fasciata</i>	Southern water snake
<i>Pantherophis guttatus</i>	Red rat snake
<i>Rana capito</i>	Gopher frog

BIRDS

<i>Aphelocoma coerulescens</i>	Florida scrub jay
<i>Ardea herodias</i>	Great blue heron

<i>Cardinalis</i>	Northern cardinal
<i>Colinus virginianus</i>	Bobwhite quail
<i>Corvus brachyrhynchos</i>	American crow
<i>Dumetella carolinensis</i>	Gray catbird
<i>Gallinula chloropus</i>	Common moorhen
<i>Grus canadensis pratensis</i>	Florida sandhill crane
<i>Meleagris gallopavo</i>	Osceola turkey
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Picoides pubescens</i>	Downy woodpecker
<i>Pipilo erythrophthalmus</i>	Eastern towhee
<i>Toxostoma rufum</i>	Brown thrasher
<i>Thryothorus ludovicianus</i>	Carolina wren
<i>Zenaida macroura</i>	Mourning dove

MAMMALS

<i>Canis latrans</i>	Coyote
<i>Dasypus novemcinctus</i>	Nine-banded armadillo
<i>Odocoileus virginianus</i>	White-tailed deer
<i>Procyon lotor</i>	Raccoon
<i>Lynx rufus floridanus</i>	Bobcat
<i>Sciurus carolinensis</i>	Grey squirrel
<i>Sylvilagus palustris</i>	Marsh rabbit
<i>Ursus americanus floridanus</i>	Florida black bear

* **Bold** indicates observed in the past year for this monitoring event

VI. MAINTENANCE

The upland habitats in the Scrub Jay/Gopher Tortoise Preserve Area are maintained using the following techniques: mechanical chopping, timbering, and mowing. Controlled burns, were originally planned to be used but has been utilized minimally because the proper conditions to allow a burn at this location rarely occur long enough to allow a complete burn. Mechanical clearing has been the primary tool utilized for habitat management. Following agency recommendations prescribed fire has been reevaluated and the prescribed fire assessment provided in the 2016 assessment is being followed and utilized to maintain the pre-existing trail network to be used as fire breaks. The ongoing maintenance efforts and plan will consider preparation of fire breaks and reduction of fuel load for the potential and possibility of prescribed burns when it can be feasibly implemented. We are working to maintain the height of flammable shrubs at or below three feet to reduce the risk of wildfire in the conservation easement conveyed to the St. Johns River Water Management District for mitigation as described in the document Ecosystem Management Prescriptions Recommended for Conservation Easements Conveyed to the District Solely for Mitigation.

As permitted, the preserve is divided into four management units per preserve (north and south); thereby, allowing the differences in vegetative density and age to be considered when determining type and intensity of management. Unit management was intended to allow as much of the preserve as possible to be maintained in optimal condition. The management units are treated individually with the areas of active management being rotated to minimize short-term impacts to wildlife species and to create mosaics in stand age, vegetative diversity, and vegetative density within the area.

Mowing has been utilized to keep saw palmetto and vegetation overall at lower heights, to increase native herbaceous species, and to discourage woody saplings from eliminating the understory. Mowing will assist in maintaining optimal habitat for gopher tortoises, but will also provide significant management value for jays. In previous years scrub jays were observed utilizing areas mowed within two years. These methods will also be used to decrease the density of scrubby species in the understory to maintain the necessary ratio of scrub oaks to open space for optimal scrub jay nesting habitat. Bush hogging and chopping will also aid in keeping the trees from closing in the canopy.

The management plan for the preserve includes the removal of pine trees. Selective thinning of large trees will be evaluated/conducted in the preserve to provide better habitat for the scrub jays and to allow sun to penetrate to the ground layer. Trimming of scrub oaks may occur (as needed) to keep oaks at heights no greater than 13 feet – the optimal height for scrub jay use, except for a few scattered sentinel trees up to 15 feet in height. Sentinel trees may consist of any species and may even be dead.

The 2022 maintenance activities occurred in the North Preserve Units 2 and 3 and the South Preserve Unit 1. A map of the mowed areas can be observed in Exhibit 4. These areas included an underbrush mowing of ground cover vegetation including scrub oaks, saw palmetto, gallberry and other shrubby brush and grass species. This generally follows habitat management guidelines intended to mimic some of the effects of fire. These areas also coincide with observations of gopher tortoise burrows (that were flagged and avoided) and are managed to benefit the life characteristics of the gopher tortoise. These treatments were applied in ways that minimize soil disturbance and reduced the possibility of introducing or expanding coverage of invasive or exotic species. As observed in the supplemental photographs the maintenance/habitat management efforts clearly meet this intent. Mowing or impacts to the wetland habitat was avoided.

Areas are being evaluated and identified in portions of North Preserve Management Unit 2, 3 and 4 and in portions of South Preserve Management Unit 3 and 4 for maintenance in 2023. Continued coordination with the regulatory agencies for approval of the maintenance plan is expected in October/November of 2022. The overall goal is to mechanically reduce the vegetation to heights that can lead to potentially utilizing a prescribed burn in the future. As previously stated the aim is to conduct maintenance in the Florida scrub jay habitat prior to nesting season if possible and with weather permitting. Habitat management of the north preserve will be conducted to minimize

disruption of courtship and reproductive activities of Florida scrub jays if present. This timing will also coincide with the spring growing season, enabling quicker recovery for plant species.

VII. NEXT MONITORING REPORT

The next habitat monitoring report will be prepared for review prior to the end of September 2023.

VIII. SUMMARY

Habitat monitoring in the Victoria Park Gopher Tortoise/Florida Scrub Jay Preserve is conducted to document habitat conditions, determine the success, and need for future management activities. Saw palmetto and young scrub oaks are the dominant species in monitoring transects. Overall, in 2022 the amount of bare ground coverage has increased slightly, the level of leaf litter decreased slightly, and the level of vegetative coverage remained constant overall throughout the upland areas of the preserve. The coverage of scrub oaks with a height of below 13 feet increased during this period. Land management activities in the North and South Preserve included reduction and thinning of multiple areas that improved coverage as illustrated in the supplemental photographs.

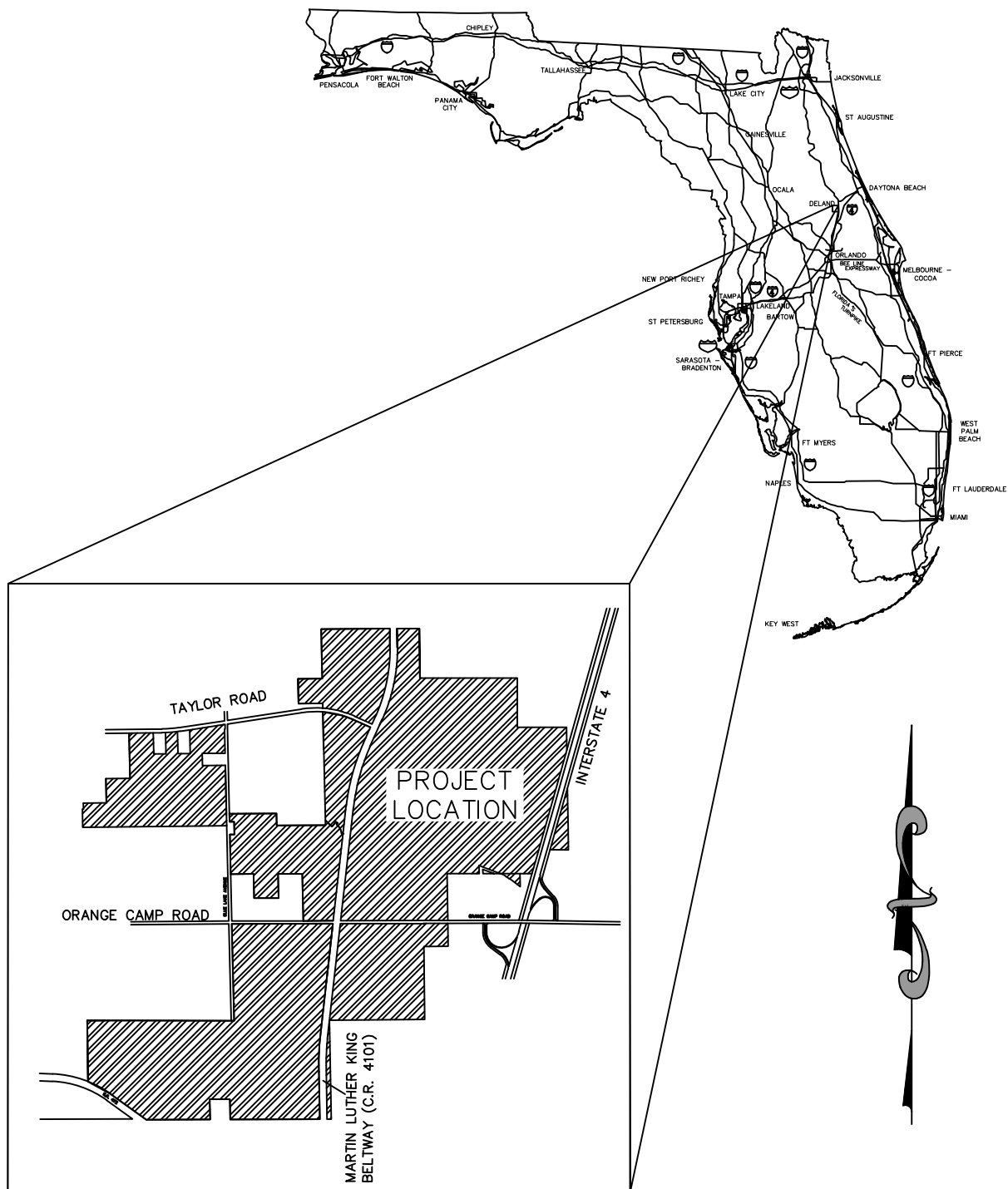
Areas are being evaluated and identified in portions of North Preserve Management Unit 2, 3 and 4 and in portions of South Preserve Management Unit 3 and 4 for maintenance in 2023. Continued coordination with the regulatory agencies for approval of the maintenance plan is expected in October/November of 2022. The goal is to conduct maintenance in the Florida scrub jay habitat prior to nesting season if possible and with weather permitting.

Construction activities were observed north of the preserve and along Martin Luther King Beltway. A vegetation buffer between the preserve and ongoing construction was maintained and silt fence was installed around the perimeter of the construction. No impacts to the preserve were observed due to this activity. Roadwork with the widening of Martin Luther King Beltway was observed at the intersection with Orange Camp Rd.

The Victoria Park Gopher Tortoise/Florida Scrub Jay Preserve continues to provide habitat for several state and/or federally listed species and illustrates the continued success of this project. This monitoring report documents the techniques utilized to maintain the high quality of the habitat protected by the Victoria Park Gopher Tortoise/Florida Scrub Jay Preserve. We look forward to reporting on the long-term success of the Preserve in the future.

EXHIBIT 1

LOCATION MAP



Project/File No.:

09-00268

Twp/Rng/Sec:

17/30/22-27,34-36

Date Drawn:

10/13/2015



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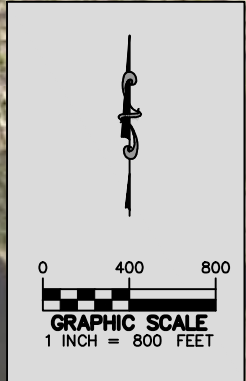
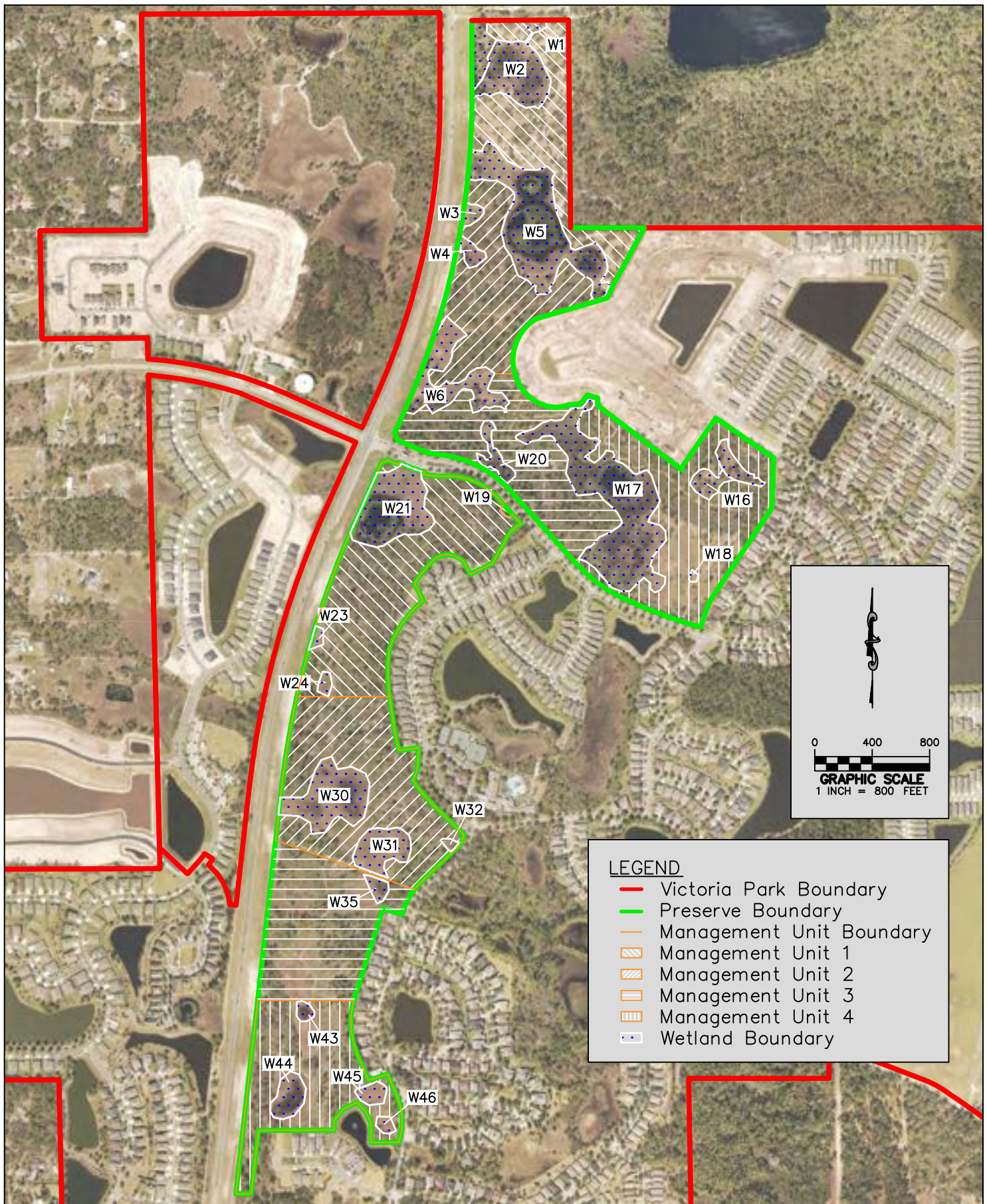
DELAND, FLORIDA

FOR: Victoria Park Community Council

LOCATION
MAP

EXHIBIT 2

PRESERVE MANAGEMENT UNITS MAP



LEGEND

- Victoria Park Boundary
- Preserve Boundary
- Management Unit Boundary
- Management Unit 1
- Management Unit 2
- Management Unit 3
- Management Unit 4
- Wetland Boundary

Project/File No.:
09-00268
Twp/Rng/Sec:
17/30/22-27,34-36
Date Drawn:
8/27/21

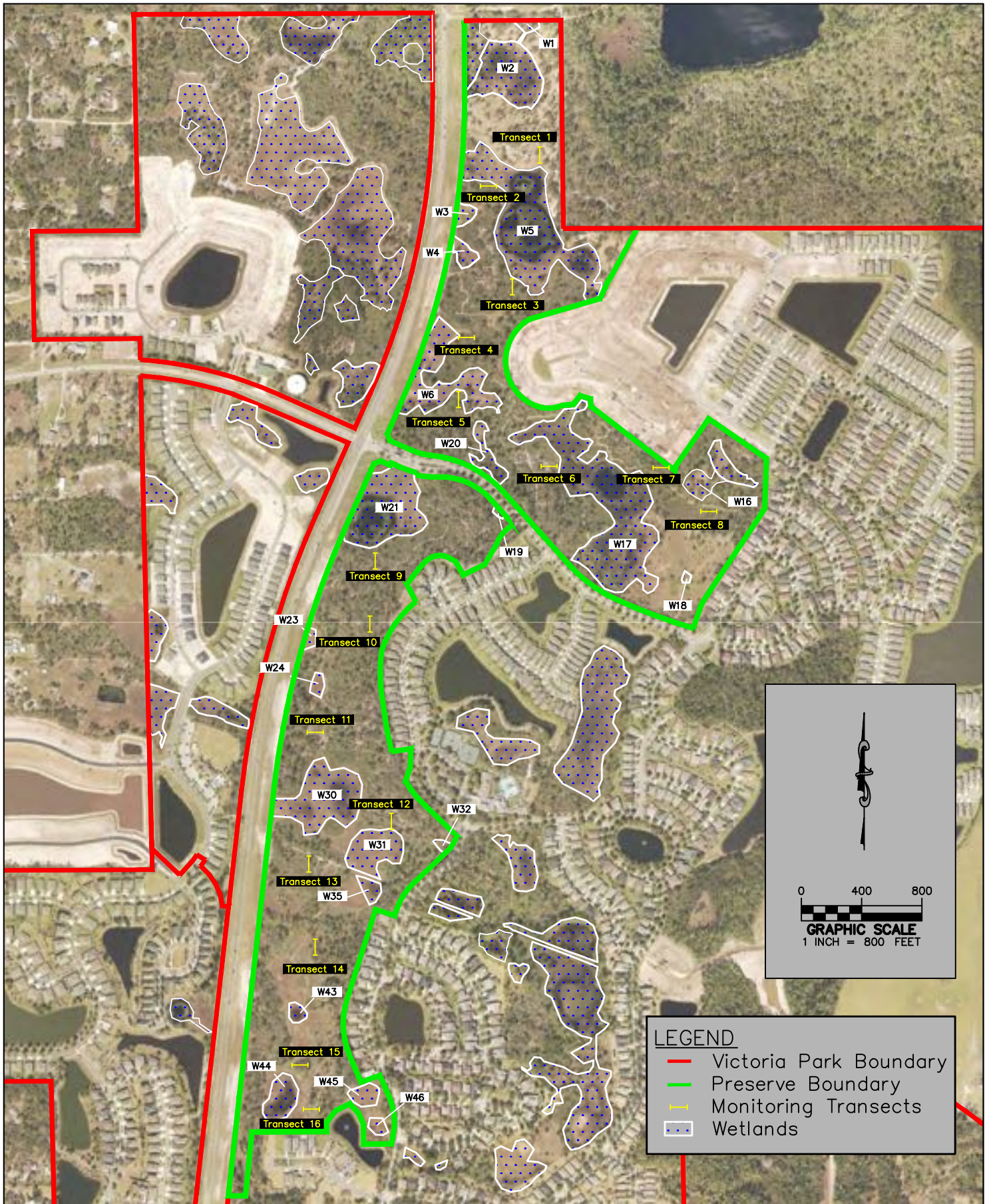
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GT/FSJ PRESERVE
MANAGEMENT
UNITS

EXHIBIT 3

HABITAT MONITORING MAP



Project/File No.:	09-00268
Twp/Rng/Sec:	17/30/22-27,34-36
Date Drawn:	8/27/21

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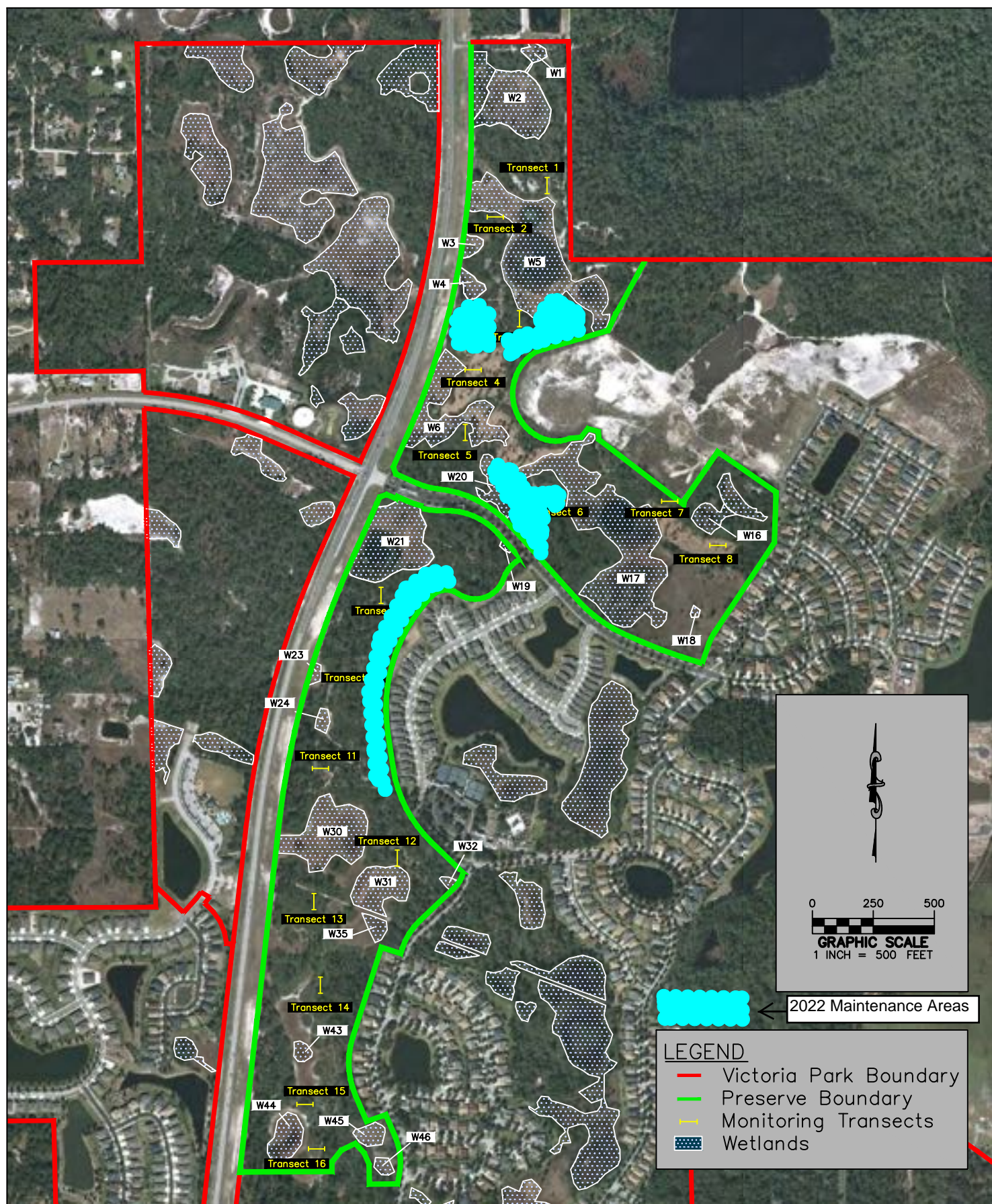
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GT/FSJ PRESERVE
 Habitat Monitoring
 Map

EXHIBIT 4

PRESERVE 2022 MAINTENANCE MAP



Project/File No.:

09-00268

Twp/Rng/Sec:

17/30/22-27,34-36

Date Drawn:

10/13/15



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FOR: Victoria Park Community Council

GT/FSJ PRESERVE
Habitat Monitoring
Map

EXHIBIT 5

OBSERVATIONS TABLE

Habitat Monitoring Observations at Transects 1-16 in the Florida Scrub Jay/Tortoise Preserve 2022

Transect Number	Dominant Groundcover Species	Bare Ground Coverage	Leaf Litter	Scrub Oak Coverage (below 13ft)	Avg. Scrub Oak Height (below 13ft)	Scrub Oak Coverage (above 13ft)	Total Canopy Coverage	Dominant Canopy Species
1	<i>Serenoa repens</i> (1-2ft), <i>Quercus chapmanii</i> , <i>Lyonia mariana</i>	50%	moderate	10%	4'-5'	5%	5%	<i>Quercus chapmanii</i> , <i>Quercus laevis</i> , <i>Quercus myrtifolia</i>
2	<i>Serenoa repens</i> (4-6ft), <i>Lyonia lucida</i> , <i>Lyonia mariana</i> , <i>Vitis</i> sp.	10%	light	20%	8'	25%	30%	<i>Pinus palustris</i> , <i>Quercus geminata</i> * (widely scattered)
3	<i>Serenoa repens</i> (2-3ft), <i>Lyonia mariana</i> , <i>Vaccinium myrsinites</i>	90%	minimal	0%	0%	0%	0%	<i>Pinus palustris</i>
4	<i>Serenoa repens</i> (2-3ft), <i>Lyonia mariana</i>	10%	minimal	10%	6'-7'	5%	25%	<i>Pinus palustris</i> , <i>Quercus laevis</i> , <i>Quercus myrtifolia</i>
5	<i>Serenoa repens</i> (2-3ft), <i>Lyonia mariana</i> , <i>Vaccinium myrsinites</i>	10%	light	10%	4'-5'	5%	15%	<i>Pinus palustris</i> , <i>Ilex cassine</i>
6	<i>Serenoa repens</i> (1-2ft), <i>Lyonia lucida</i> , <i>Q. chapmanii</i> , <i>Q. myrtifolia</i> , <i>Q. Geminata</i>	70%	minimal	5%	6'	5%	5%	<i>Pinus palustris</i>
7	<i>Serenoa repens</i> (2-3ft), <i>Lyonia lucida</i>	10%	minimal	0%	0	0%	15%	<i>Pinus palustris</i>
8	<i>Serenoa repens</i> (2-3ft), <i>Lyonia lucida</i> , <i>Aristida stricta</i>	5%	light	20%	3'-4'	5%	25%	<i>Pinus palustris</i> , <i>Pinus clausa</i>
9	<i>Quercus minima</i> , <i>Licania michauxii</i>	80%	moderate	10%	6'-8'	25%	15%	<i>Quercus geminata</i> *, <i>Quercus laevis</i> , <i>Quercus myrtifolia</i>
10	<i>Quercus geminata</i> , <i>Q. myrtifolia</i> , <i>Q. chapmanii</i>	minimal	moderate	80%	8-10'	75%	85%	<i>Quercus geminata</i> *, <i>Pinus palustris</i> , <i>Quercus laevis</i>
11	<i>Serenoa repens</i> (4-6ft), <i>Quercus myrtifolia</i> , <i>Q. chapmanii</i> , <i>Lyonia ferruginea</i> , <i>L. fruticosa</i>	25%	moderate	80%	10'-12'	65%	65%	<i>Quercus myrtifolia</i> *, <i>Quercus geminata</i> , <i>Lyonia ferruginea</i> , <i>Pinus clausa</i>
12	<i>Quercus myrtifolia</i> , <i>Q. laurifolia</i> , <i>Q. chapmanii</i> , <i>Aristida stricta</i> , <i>O. laevis</i>	30%	moderate	50%	8-10'	35%	60%	<i>Quercus geminata</i> *, <i>Pinus palustris</i>
13	<i>Serenoa repens</i> (4-6ft), <i>Ilex cassine</i> , <i>Quercus myrtifolia</i> , <i>Q. geminata</i>	minimal	moderate	65%	8'-12'	5%	30%	<i>Pinus palustris</i> , <i>Ilex cassine</i>
14	<i>Serenoa repens</i> , <i>Quercus myrtifolia</i> , <i>Q. geminata</i> , <i>Q. chapmanii</i>	minimal	moderate	5%	8'-10'	0%	45%	<i>Quercus geminata</i> *, <i>Pinus palustris</i>
15	<i>Serenoa repens</i> , <i>Quercus chapmanii</i> , <i>Vaccinium</i> sp., <i>Paspalum notatum</i> , <i>Andropogon</i> spp.	20%	moderate	30%	8'-10'	45%	70%	<i>Quercus geminata</i> *, <i>Q. laevis</i> , <i>Pinus palustris</i>
16	<i>Serenoa repens</i> , <i>Quercus minima</i> , <i>Q. myrtifolia</i> , <i>Andropogon virginicus</i>	10%	moderate	10%	4'-5'	10%	15%	<i>Quercus geminata</i> *, <i>Q. laurifolia</i> , <i>Pinus palustris</i>

* Scrub oak species measuring 13ft and above, providing canopy coverage.

—Indicates a change from the previous monitoring event.

EXHIBIT 6

PHOTOGRAPHS

Transect I (Facing South)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect I continued



2018



2019



2020



2021



2022

Transect 2 (Facing West)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 2 continued



2018



2019



2020



2021



2022

Transect 3 (Facing South)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 3 continued



2018



2019



2020



2021



2022

Transect 4 (Facing West)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 4 continued



2018



2019



2020



2021



2022

Transect 5 (Facing North)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 5 continued



2018



2019



2020



2021



2022

Transect 6 (Facing East)



2005



2006



2007



2008



2010



2011



2012



2013



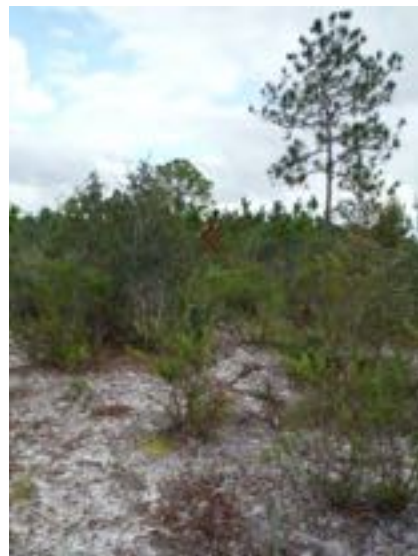
2014



2015



2016



2017

Transect 6 continued



2018



2019



2020



2021



2022

Transect 7 (Facing West)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 7 continued



2018



2019



2020



2021



2022

Transect 8 (Facing South)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 8 continued



2018



2019



2020



2021



2022

Transect 9 (Facing North)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 9 continued



2018



2019



2020



2021



2022

Transect 10 (Facing South)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 10 continued



2018



2019



2020



2021



2022

Transect II (Facing East)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect II continued



2018



2019



2020



2021



2022

Transect 12 (Facing South)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

*Transect 12 could not be located in 2010, therefore a new location was established in the vicinity.

Transect 12 continued



2018



2019



2020



2021



2022

Transect 13 (Facing South)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 13 continued



2018



2019



2020



2021



2022

Transect I4 (Facing South)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 14 continued



2018



2019



2020



2021



2022

Transect 15 (Facing West)



2005



2006



2007



2008



2010



2011



2012



2013



2014



2015



2016



2017

Transect 15 continued



2018



2019



2020

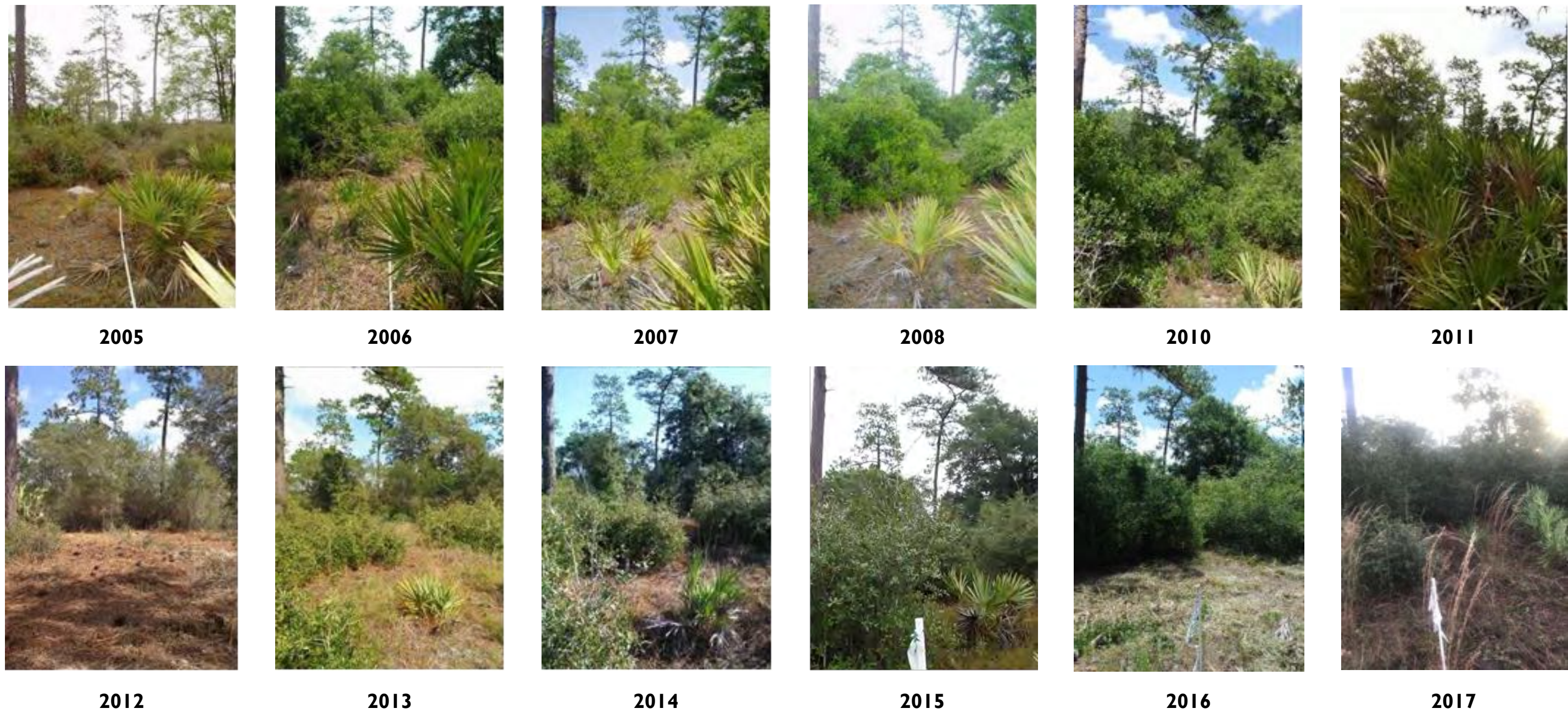


2021



2022

Transect 16 (Facing East)



Transect 16 continued



2018



2019



2020



2021



2022

Supplemental Observations



Aerial view of northern preserve scrub habitat Management Unit I near Transect I



Aerial view of northern preserve scrub and wetlands in Management Unit 2 near Transects 4 and 5

Supplemental Observations



Aerial view of southern preserve scrub and wetlands in Management Unit I near Transects 9 - 11



Aerial view of southern preserve in Management Unit 3 near Transects 13 and 14

Supplemental Observations



Juvenile gopher tortoise observed in the northern preserve.



Gopher tortoise observed in the northern preserve.

Supplemental Observations



Gopher tortoise observed in the southern preserve.



Representative photo of active gopher tortoise burrow observed in northern preserve

Supplemental Observations



Representative photo of active tortoise burrow marked during maintenance in northern preserve



Representative photo of active tortoise burrow marked during maintenance in southern preserve

Supplemental Observations



Maintenance activities in Management Unit I South



Post maintenance view of portion of Management Unit I South.

Supplemental Observations



Maintenance activities in Management Unit 2 North



Post maintenance view of part of Management Unit 2 North showing buffer to homes on right.