

Conservation Collier Initial Criteria Screening Report Brewer Parcels



Owner Name: Richard D. Brewer

Size: 14.78 acres

Folio Number: 00209681000; 38601280000; 38601320106; 38601360001 Staff

Report Date: November 2, 2022 - updated December 19, 2022

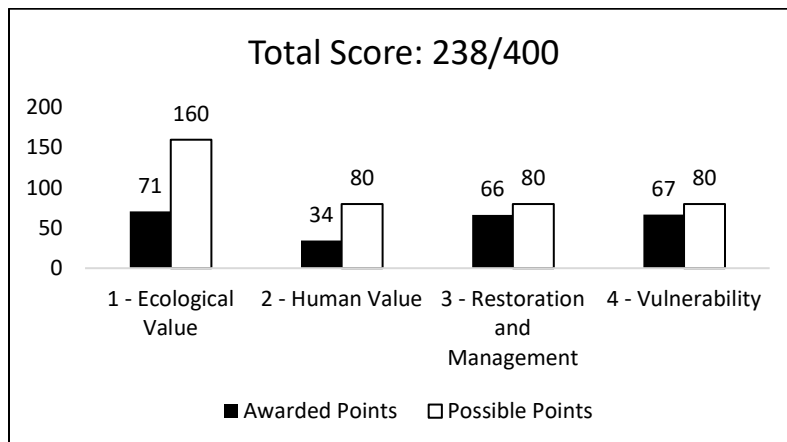


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1. Introduction

The Conservation Collier Program (Program) is an environmentally sensitive land acquisition and management program approved by the Collier County Board of County Commissioners (Board) in 2002 and by Collier County Voters in 2002 and 2006. The Program was active in acquisition between 2003 and 2011, under the terms of the referendum. Between 2011 and 2016, the Program was in management mode. In 2017, the Collier County Board reauthorized Conservation Collier to seek additional lands (2/14/17, Agenda Item 11B). On November 3, 2020, the Collier County electors approved the Conservation Collier Re-establishment referendum with a 76.5% majority.

This Initial Criteria Screening Report (ICSR) has been prepared for the Conservation Collier Program in its 11th acquisition cycle (Quarter B) to meet requirements specified in the Conservation Collier Implementation Ordinance, 2002-63, as amended, and for purposes of the Conservation Collier Program. The sole purpose of this report is to provide objective data to demonstrate how properties meet the criteria defined by the ordinance.

The following sections characterize the property location and assessed value, elaborate on the initial and secondary screening criteria scoring, and describe potential funding sources, appropriate use, site improvements, and estimated management costs.

2. Summary of Property

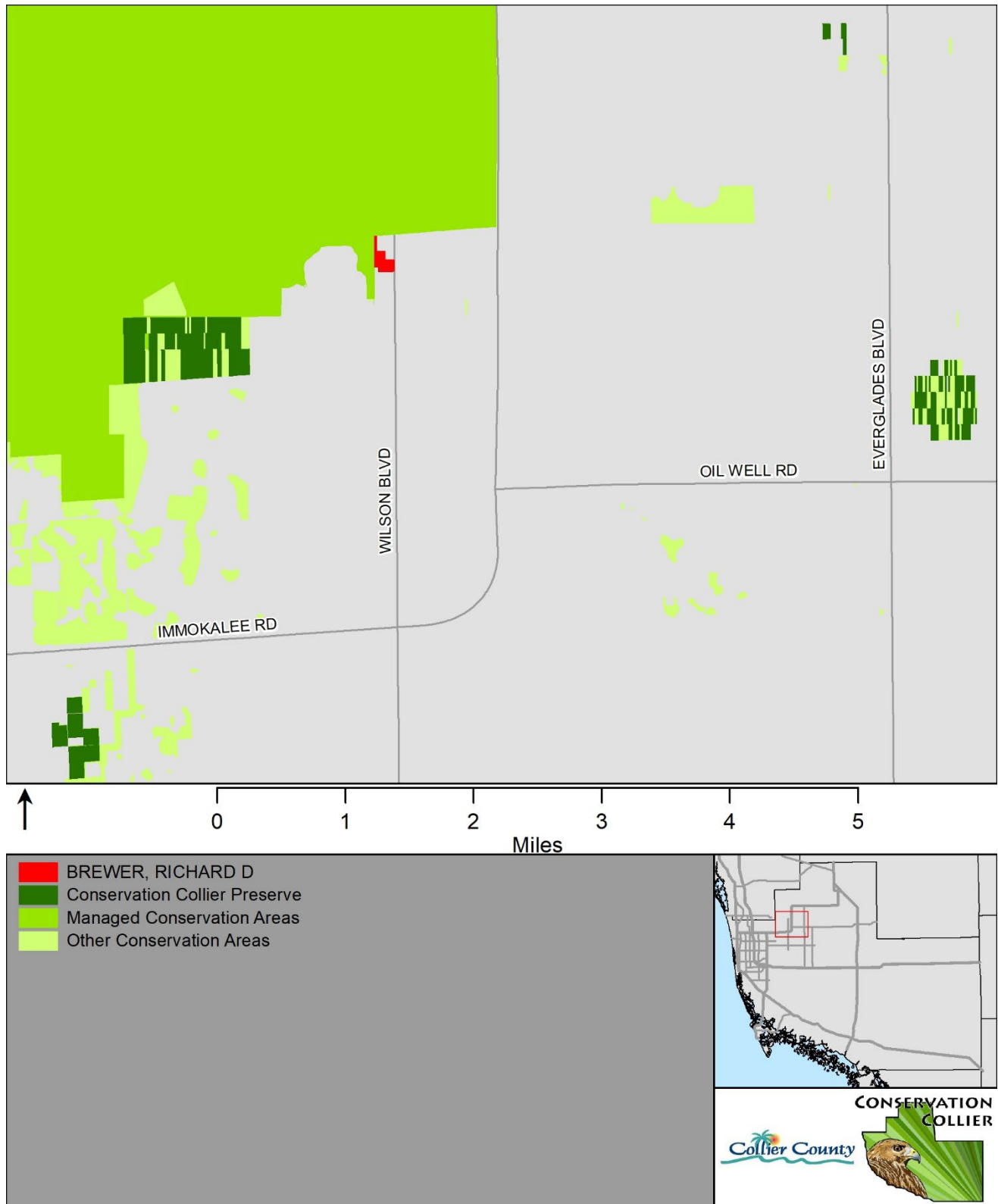


Figure 1 - Parcels Location Overview

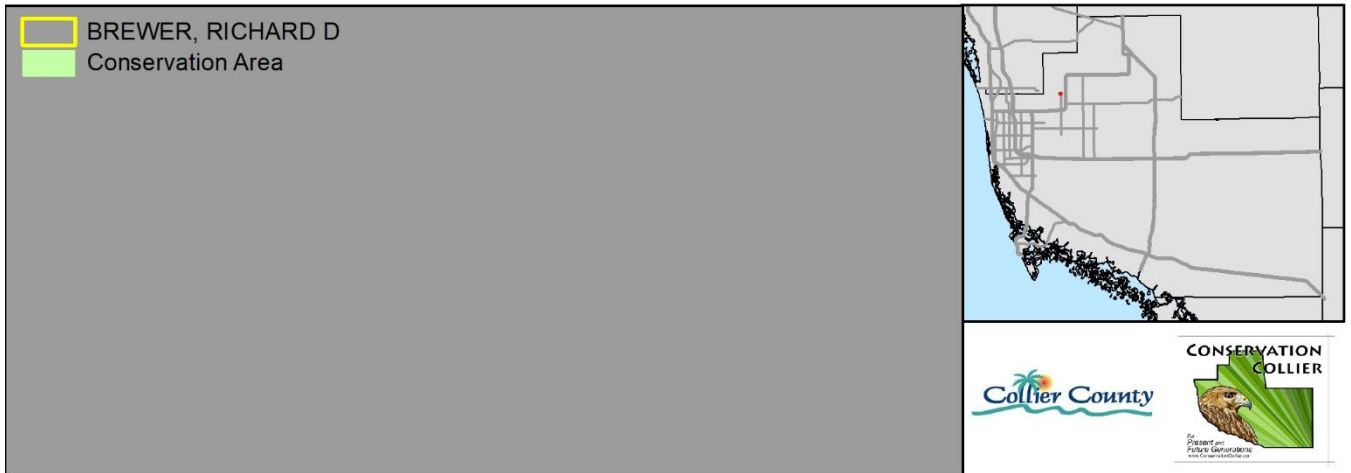


Figure 2 - Parcels Close-up

2.1 Summary of Property Information

Table 1 – Summary of Property Information

Characteristic	Value	Comments
Name	Brewer	Richard Brewer
Folio Number	38601320106, 38601360001, 38601280000, 00209681000	
Target Protection Area (Ord. 2002-63, Section 10.3)	NGGE	
Size	14.78 acres	
Section, Township, and Range	S10, T 48, R27	Section 10, Township 48, Range 27
Zoning Category/TDRs/Overlays	E and A	10.69 acres east of Corkscrew Canal are zoned Estates (1 unit / 2.25 ac.); 4.09 acres west of Corkscrew Canal zoned Agricultural (1 unit / 5 ac.)
FEMA Flood Map Category	AH	AH - Area close to water hazard that has a one percent chance of experiencing shallow flooding between one and three feet each year.
Existing structures	SFWMD gate on north side of northeast parcels	SFWMD easement exists along west side of eastern parcels for access to Corkscrew Canal. Gate blocks vehicular access to easement
Adjoining properties and their Uses	Conservation, roadway, single family	SFWMD CREW Lands to the west; roadway and single-family residence to the north; roadway and undeveloped land to the east; single-family residence to the south
Development Plans Submitted	None	
Known Property Irregularities	SFWMD easement and LCEC easement	SFWMD easement along east Corkscrew Canal Bank; LCEC easement and lines on north border adjacent to 47 th Ave.
Other County Dept Interest	None known	

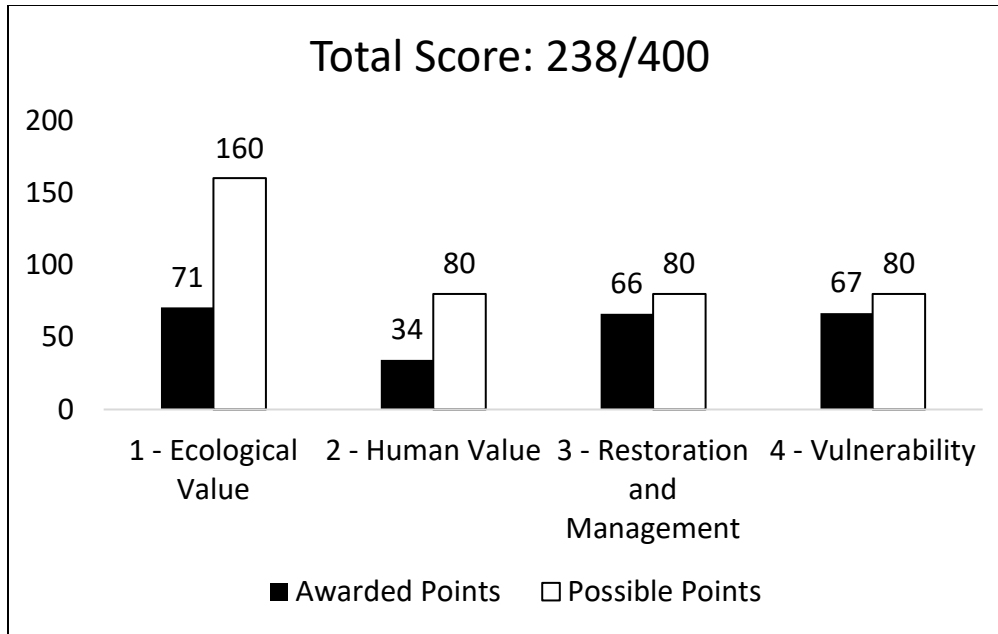


Figure 3 - Secondary Criteria Score

Table 2 - Secondary Criteria Score Summary

Criteria	Awarded Weighted Points	Possible Weighted Points	Awarded/Possible Points
1 - Ecological Value	71	160	44%
1.1 - Vegetative Communities	16	53	30%
1.2 - Wildlife Communities	27	27	100%
1.3 - Water Resources	11	27	40%
1.4 - Ecosystem Connectivity	17	53	33%
2 - Human Values	34	80	43%
2.1 - Recreation	11	34	33%
2.2 - Accessibility	17	34	50%
2.3 - Aesthetics/Cultural Enhancement	6	11	50%
3 - Restoration and Management	66	80	83%
3.1 - Vegetation Management	43	55	79%
3.2 - Remediation and Site Security	23	23	100%
3.3 - Assistance	0	2	0%
4 - Vulnerability	67	80	83%
4.1 - Zoning and Land Use	56	58	96%
4.2 - Development Plans	11	22	50%
Total	238	400	59%

2.2 Summary of Assessed Value and Property Cost Estimates

The interest being appraised is fee simple “as is” for the purchase of the site. A value of the parcels was estimated using only one of the three traditional approaches to value, the sales comparison approach. It is based on the principal of substitution that an informed purchaser would pay no more for the rights in acquiring a particular real property than the cost of acquiring, without undue delay, an equally desirable one. Three properties were selected for comparison, each with similar site characteristics, utility availability, zoning classification and road access. No inspection was made of the property or comparables used in this report and the Real Estate Services Department staff relies upon information solely provided by program staff. The valuation conclusion is limited only by the reported assumptions and conditions that no other known or unknown adverse conditions exist.

If the Board of County Commissioners choose to acquire this property, an appraisal by an independent Real Estate Appraiser will be obtained at that time. Pursuant to the Conservation Collier Purchase Policy, one appraisal is required for the Brewer parcels, which has an initial valuation less than \$500,000; 1 independent Real Estate Appraiser will value the subject property and that appraisal report will determine the actual value of the subject property.

Table 3. Assessed & Estimated Value

Property owner	Address	Acreage	Assessed Value*	Estimated Value**
Richard Brewer	No address	14.78	\$269,838	\$457,000

* Assessed Value is obtained from the Property Appraiser’s Website. The Assessed Value is based off the current use of the property.

**The Estimated Market Value for the Brewer parcels was obtained from the Collier County Real Estate Services Department in November 2022 prior to CCLAAC ranking.

2.2.1 Zoning, Growth Management and Conservation Overlays

Zoning, growth management and conservation overlays will affect the value of a parcel. The three parcels east of the Corkscrew Canal are zoned Estates, which allows for 1 unit per 2.25 acres. The one 4.09-acre parcel west of the Corkscrew Canal is zoned Agricultural, which allows for 1 unit per 5 acres.

2.3 Initial Screening Criteria Satisfaction (Ord. 2002-63, Sec. 10)

Criteria 1: Native Habitats

Are any of the following unique and endangered plant communities found on the property?
Order of preference as follows:

i.	Hardwood hammocks	No
ii.	Xeric oak scrub	No
iii.	Coastal strand	No
iv.	Native beach	No
v.	Xeric pine	No
vi.	Riverine Oak	No
vii.	High marsh (saline)	No
viii.	Tidal freshwater marsh	No
ix.	<u>Other native habitats</u>	YES

Statement for Satisfaction of Criteria 1: Parcels contain Cypress, Mixed Hardwood Coniferous Swamp (Red Maple), and freshwater marsh.

Criteria 2: Human Social Values

Does land offer significant human social values, such as equitable geographic distribution, appropriate access for nature-based recreation, and enhancement of the aesthetic setting of Collier County? **YES**

Statement for Satisfaction of Criteria 2: These parcels can be viewed from a public road and roosting swallow-tailed kites are visible from the road even though a condition of sale for the property is that there be no public access on property to protect roosting swallow-tailed kites.

Criteria 3: Water Resources

Does the property offer opportunities for protection of water resource values, including aquifer recharge, water quality enhancement, protection of wetland dependent species habitat, and flood control? **YES**

Statement for Satisfaction of Criteria 3: These parcels contain hydric soils and wetland vegetation communities. Although the hydrology of the parcels has been affected by their proximity to the Corkscrew Canal, they do hold some water in portions during the wet season. The parcels also buffer the Corkscrew canal within their boundaries.

Criteria 4: Biological and Ecological Value

Does the property offer significant biological values, including biodiversity, listed species habitat, connectivity, restoration potential and ecological quality? **YES**

Statement for Satisfaction of Criteria 4: The parcels are adjacent to SFWMD Bird Rookery Swamp and are most likely utilized by the Florida panther. The parcels are an annual swallow-tailed kite pre-migration roost site.

Criteria 5: Enhancement of Current Conservation Lands

Does the property enhance and/or protect the environmental value of current conservation lands through function as a buffer, ecological link or habitat corridor? **Yes**

Is this property within the boundary of another agency's acquisition project? **Yes**

Statement for Satisfaction of Criteria 5: The parcels enhance the environmental value of current conservation lands by providing a buffer and ecological link to the adjacent CREW conservation lands managed by the South Florida Water Management District. The western-most parcel (00209681000) is within the Corkscrew Regional Ecosystem Watershed Florida Forever Project Area; however, Conservation Collier funds will not significantly increase the rank or funding priority of the parcel for Florida Forever, and the small size of the parcel makes it undesirable for the state to pursue it for acquisition.

3. Initial Screening Criteria

3.1 Ecological Values

3.1.1 Vegetative Communities

The property is primarily Mixed Hardwood Coniferous Swamp and Cypress. The dominant canopy trees are red maple (*Acer rubrum*) and cypress (*Taxodium distichum*). The midstory is comprised of cabbage palm (*Sabal palmetto*), groundsel tree (*Baccharis halimifolia*), myrsine (*Myrsine cubana*), and wild coffee (*Psychotria nervosa*). The understory is dominated by swamp fen (*Telmatoblechnum serrulatum*). Other species observed include: pickerelweed (*Pontederia cordata*), alligator flag (*Thalia geniculata*), strangler fig (*Ficus aurea*), and red bay (*Persea borbonia*).

The overall condition of the plant communities within the property is good with an estimated exotic plant coverage of 25%. Exotic plants were treated in place within the 5-acre parcel east of the canal. The dominant exotics noted were Brazilian pepper (*Schinus terebinthifolia*) and old-world climbing fern (*Lygodium microphyllum*); however, scattered Caesarweed (*Urena lobata*) and creeping signalgrass (*Urochloa humidicola*) were also present

Table 4. Listed Plant Species

Common Name	Scientific Name	State Status	Federal Status
Northern needleleaf	<i>Tillandsia balbisiana</i>	State Threatened	n/a
Cardinal airplant	<i>Tillandsia fasciculata</i>	State Endangered	n/a

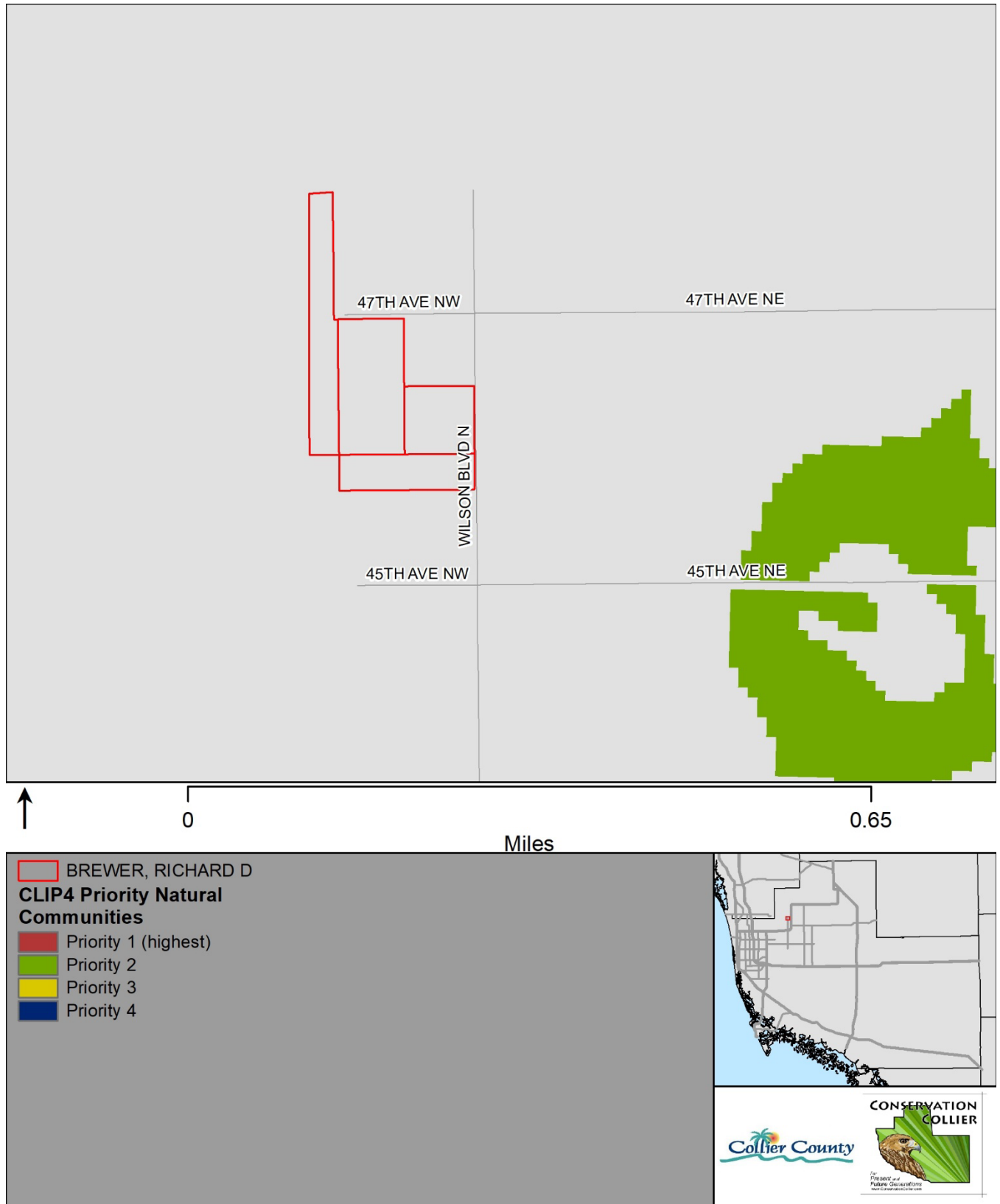


Figure 4 - CLIP4 Priority Natural Communities

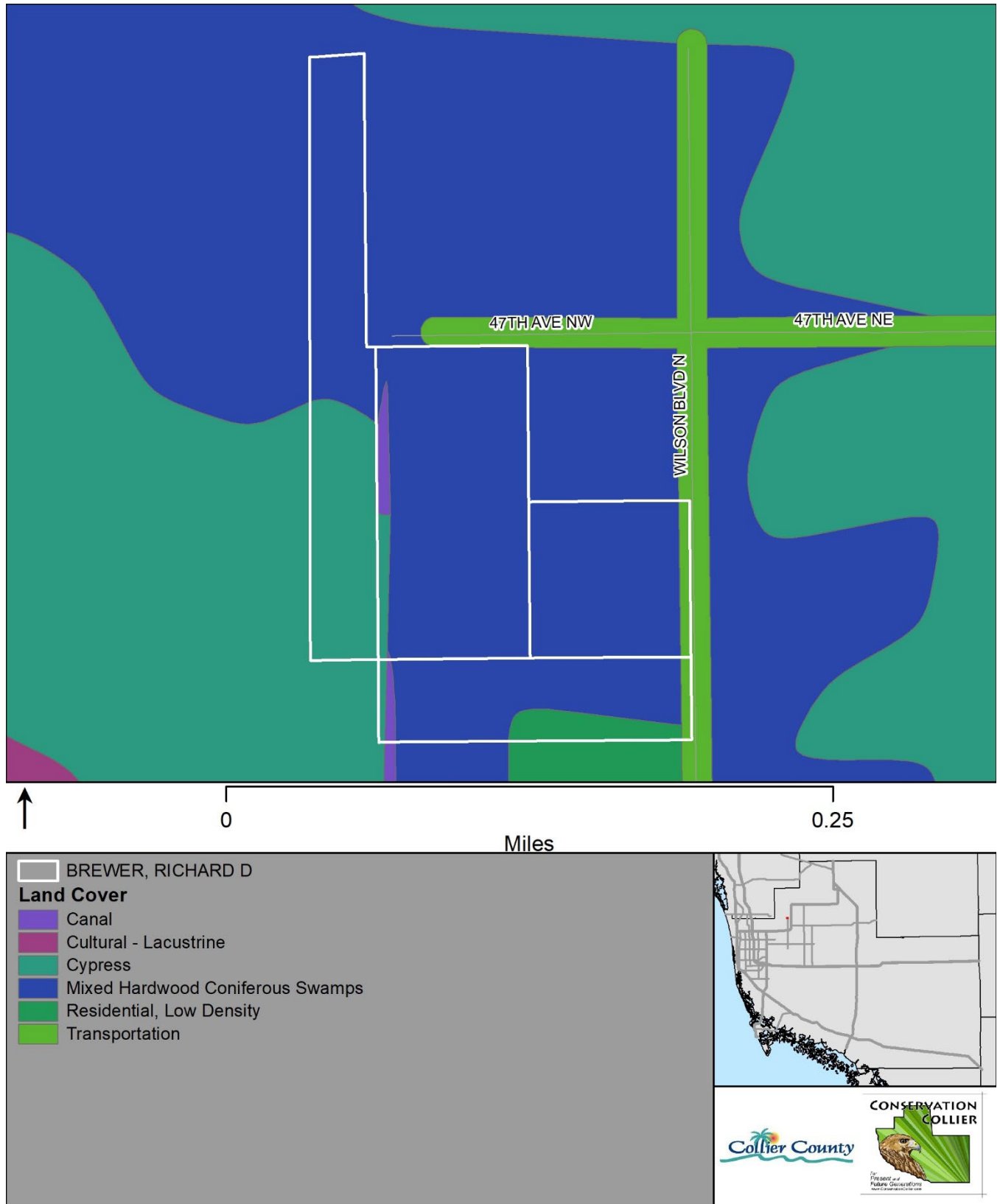


Figure 5 - Florida Cooperative Land Cover Classification System



Figure 6 Mixed Hardwood Coniferous Swamp – Red Maple and Cypress



Figure 7 – Western parcel – Cypress and Mixed Hardwood Coniferous Swamp

3.1.2 Wildlife Communities

The listed wood stork (*Mycteria americana*) and little blue heron (*Egretta caerulea*) as well as other species of wading birds have been observed on the parcels. Florida Panther (*Puma concolor coryi*) Telemetry data provides an historic observation point within 250ft of the property boundary. These parcels also contain habitat for the Florida black bear, American alligator, river otter, , bobcat, white-tailed deer and more.

Table 5 – Listed Wildlife Detected

Common Name	Scientific Name	State Status	Federal Status	Mode of Detection
Wood stork	<i>Mycteria americana</i>	Threatened	Threatened	Observation
Little blue heron	<i>Egretta caerulea</i>	Threatened	n/a	Observation

Swallow-tailed Kite (*Elanoides forficatus*)

The swallow-tailed kite (*Elanoides forficatus*) is an eye-catching raptor with a deeply forked tail that feeds on a variety of prey including insects, frogs, lizards, and hatchling birds. Swallow-tailed kites complete an annual 10,000-mile migration, flying from South America to reach winter nesting sites beginning in early February throughout mostly Florida, as well as limited portions of Louisiana, Mississippi, Alabama, and the Carolinas. Upon arrival to natural areas and nesting habitat within Collier County, swallow tailed kites select a mate, build a nest, lay 1-3 eggs and raise their young through to fledging. Swallow-tailed kites in Collier County primarily select nesting sites comprised of Florida slash pine or bald cypress adjacent to a mosaic of habitat types such as freshwater marshes and prairies that offer ample opportunities to forage and provide food for their young. Anecdotal observations of nest monitoring on Conservation Collier preserves indicates that swallow-tailed kites will select for the same nest tree or a nest tree in close proximity to a previous nesting site year after year. Following nesting and chick rearing, swallow tailed kites and their recently fledged young spend several weeks foraging and building up fat reserves in anticipation of the return migration flight to South America. Kites that are carrying out pre-migration fueling and foraging often travel to pre-migration communal roost sites where they congregate in large numbers and perch and rest throughout the evening before resuming their foraging activities. Once environmental and seasonal cues trigger migration, swallow-tailed kites throughout their range in the Southeastern US will begin the dangerous flight south, stopping at known roost sites along the way before crossing the Gulf of Mexico.

Significance of a Roost Site

The habitat within the Brewer parcels is used as a known pre-migratory roost site by the swallow-tailed kite. Communal roost sites are known locations where a few to a few thousand birds congregate and perch and rest each year prior to migration. Swallow-tailed kites are social in all aspects of their lives, unlike other raptors. Roost sites provide many things: safety in numbers, resting places and places of communication on where to find food the next day. During the pre-migratory prep time, kites use

each other to navigate to ephemeral food sources to bulk up on insects and put on the fat reserves they need to make the migration across the dangerous water crossing ahead. Migration is risky and difficult and having a known location to sleep, and rest is vital for their preparation. The known communally used roosting locations within FL are the network of safe places for kites in their most important time of their lives.

Ongoing Research

The Avian Research and Conservation Institute (ARCI) in Gainesville, FL in a non-profit research-based organization founded in 1997 which focuses on applied ecological studies of rare and imperiled birds in the United States and Latin America. ARCI maintains a swallow-tailed kite sighting database and monitors populations annually at large, pre-migration roosts numbering in the thousands in Florida before the birds fly south to Brazil and Bolivia for the winter. Conservation Collier staff contacted ARCI researchers in September of 2021 for information related to the known swallow-tailed kite roost located within the Brewer application parcels as well as historical data of an additional roost site known as the Corkscrew site that may include numbers from the Brewer roost. The Corkscrew site has been monitored by ARCI as a swallow-tailed kite roost site since 1989, and the Brewer roost specifically has been monitored since 2005. ARCI researchers conduct aerial roost counts each year via a small-fixed wing plane and include the Brewer roost in their annual flight counts. ARCI staff also deploy GPS-equipped satellite transmitters on selected swallow-tailed kites throughout their range in the Southeastern United States. Swallow-tailed kites equipped with GPS transmitters provide researchers with up to eight location points per day and provide a map of utilization of nesting sites, foraging areas, roost sites, and migration tracks between the United States and South America.

Ground counts, aerial monitoring, and gps transmitter observations of kite roost utilization provide researchers with opportunities to understand habitat needs and ranges, critical breeding areas, annual survival, and migration and wintering threats. Many of the kites tracked by ARCI to the Brewer roost are there for one night and the next day they often fly across the Gulf on their way to Mexico – the last resting night before a big, dangerous over water trip that is vital to their well-being before this risky part of their migration. Although it is quite possible that the Brewer roost site is also used by the local nesting kites (especially early in the post breeding/pre-migration time), ARCI GPS tracking data shows that birds throughout Florida and to the farthest stretches of the breeding population in northern South Carolina and even Louisiana have used the Brewer roost site before embarking on their flight to South America. According to Gina Kent (ARCI Senior Conservation Scientist), the Brewer roost site could be considered important on a kite range-wide scale. As the other larger kite roost sites in Florida are at their peak in late July, it is quite possible that there are mostly new, northern kites spending the night in the Brewer roost each night. It is also possible that some local, nearby breeding kites that

have not left yet could be the core of information (the “guides” to the roost location) each night for the “new” kites coming each day.

Table 6 – High Kite Counts Across Collier / Lee roost sites 2005-2022

High counts across all roosts							
Year	Corkscrew	CREW	Shady Hollow/ D.Brewer	N. Marsh	total kite high number	Dates	notes
2005	0	161			161	25-Jul	
2006	128	533			661	7/22-8/7	
2007	199	677			876	7/18-7/28	
2008	149	341			490	7/19-7/31	
2009		0	476	188	664	7/19-7/25	
2010		118	129	184	431	7/19-7/28	
2011		46	221	273	540	7/19-7/28	
2012							not counted
2013							not counted
2014		2	258		260	26-Jul	
2015			216	220	436	24-Jul	
2016			240	143	383	25-Jul	
2017		0	0	229	229	7/18-7/25	
2018		0	184	128	312	7/20-7/30	
2019		0	188		188	7/19-7/30	
2020			137		137	6/13-8/21	D.Brewer from the ground
2021			126		126	6/2-8/11	D.Brewer from the ground
2022			143		143	6/11-8/20	D.Brewer from the ground
Avg	158.66667	312.66667	210.7272727	195	377.3125		
min	128	46	126	128	126		
max	199	677	476	273	664		

Table 6 notes: Some of the “Corkscrew” roost numbers could be from the Brewer roost in 2006-2008. Average readings did NOT include 0 counts. Table contains raw data received via e-mail from Gina Kent, ARCI Senior Conservation Scientist

Table 6 represents counts from both the ground and a fixed wing plane of the number of kites utilizing the Brewer and Corkscrew roost during the pre-migration survey period. In addition to visual counts, ARCI has records of GPS-kite use of known roosts in FL since 2011. Many of the kites they track to the Brewer roost are there for one night and then move south. Thirteen GPS-kites have used the Brewer roost since 2011. Of kites that have used the roost they are from GA (n=1), SC (n=3), FL (n=8), and even LA (n=1). Many kites have spent time (1 to 30 nights) in other known (sometimes multiple) FL roosts before coming to the Brewer roost.

A tagged kite from TM Carlton Reserve (70 miles away) went to the Brewer roost every year for 4 years (from 2017 to 2020), spending 1 to 4 nights.

Table 7 – Use of SWFL Roost Sites by GPS’s Tracked Swallow-tailed Kites

Year	Kite name	State/location	#nights in roost	notes
2011	Clarks Bluff	Georgia	1	Corkscrew
2011	Winya	South Carolina	1	CREW
2012	Brooksville	FL	1	CREW
2012	St Marks	FL, NWR	1	Corkscrew
2012	Day	FL, South Daytona	1	Corkscrew
2015	Palmetto Bluff	South Carolina	1	Corkscrew
2016	Bullfrog	FL, Hillsbourough	1	D.Brewer
2017	Sarasota	FL	4	D.Brewer
2018	Sarasota	FL	1	D.Brewer
2019	Sarasota	FL	3	D.Brewer
2019	Ponchitolawa	Louisiana	1	D.Brewer
2020	Sarasota	FL	2	D.Brewer
2021	Carvers Bay	South Carolina	1	D.Brewer

Table 7 notes: “Corkscrew” is most likely the same as D.Brewer roost. Table contains raw data received via e-mail from Gina Kent, ARCI Senior Conservation Scientist

Table 7 details the swallow-tailed kites that have been named and fitted with a GPS transmitter by ARCI researchers and indicated through GPS data the use of the Brewer site for pre-migration roosting.

Development Implications

In email correspondence with Senior Conservation Scientist with ARCI, Gina Kent, it was noted that, “ARCI supports the purchase of this site for swallow-tailed kite roost protection.” It was further elaborated that if the Brewer site were to be developed, this historic stopover resting location would be gone. If there were nesting kites on the property, there may not be habitat for them to nest in. Also, on the larger, broader scale, for many of the kites from the US population passing through this area, they no longer would have this known refuge to rest before they cross the ocean. They would have to find a new spot, perhaps one that is also unprotected, one prone to disturbance, or even predators like owls.



June 14, 2018



July 19, 2019



August 1, 2020

Figure 8 – Swallow-tailed Kite Pre-migration Roost on Brewer Property 2018 – 2022



July 25, 2021



June 20, 2022

Figure 8 cont'd – Swallow-tailed Kite Pre-migration Roost on Brewer Property 2018 – 2022

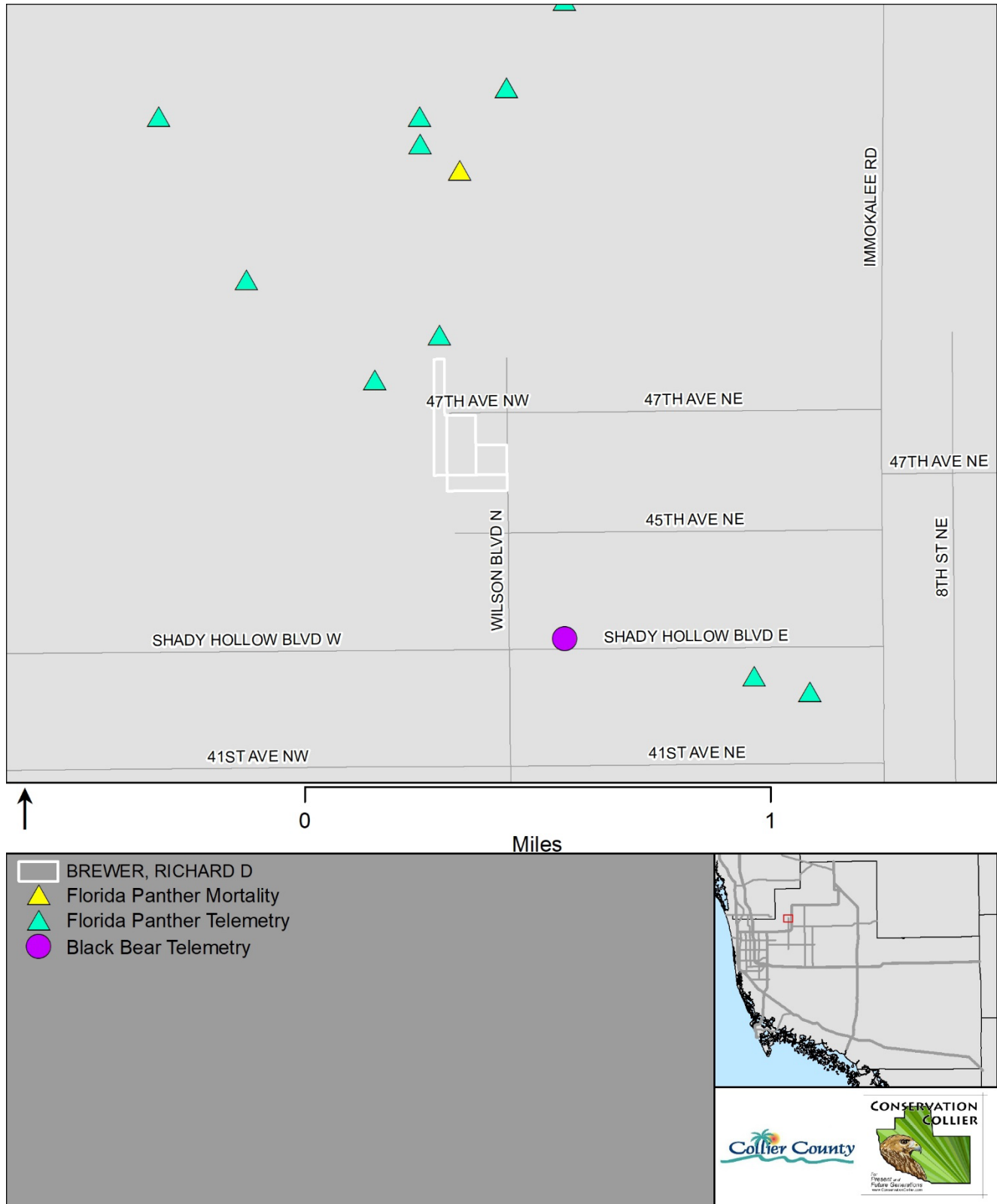


Figure 9 - Wildlife Spatial Data (i.e., telemetry, roosts, etc)

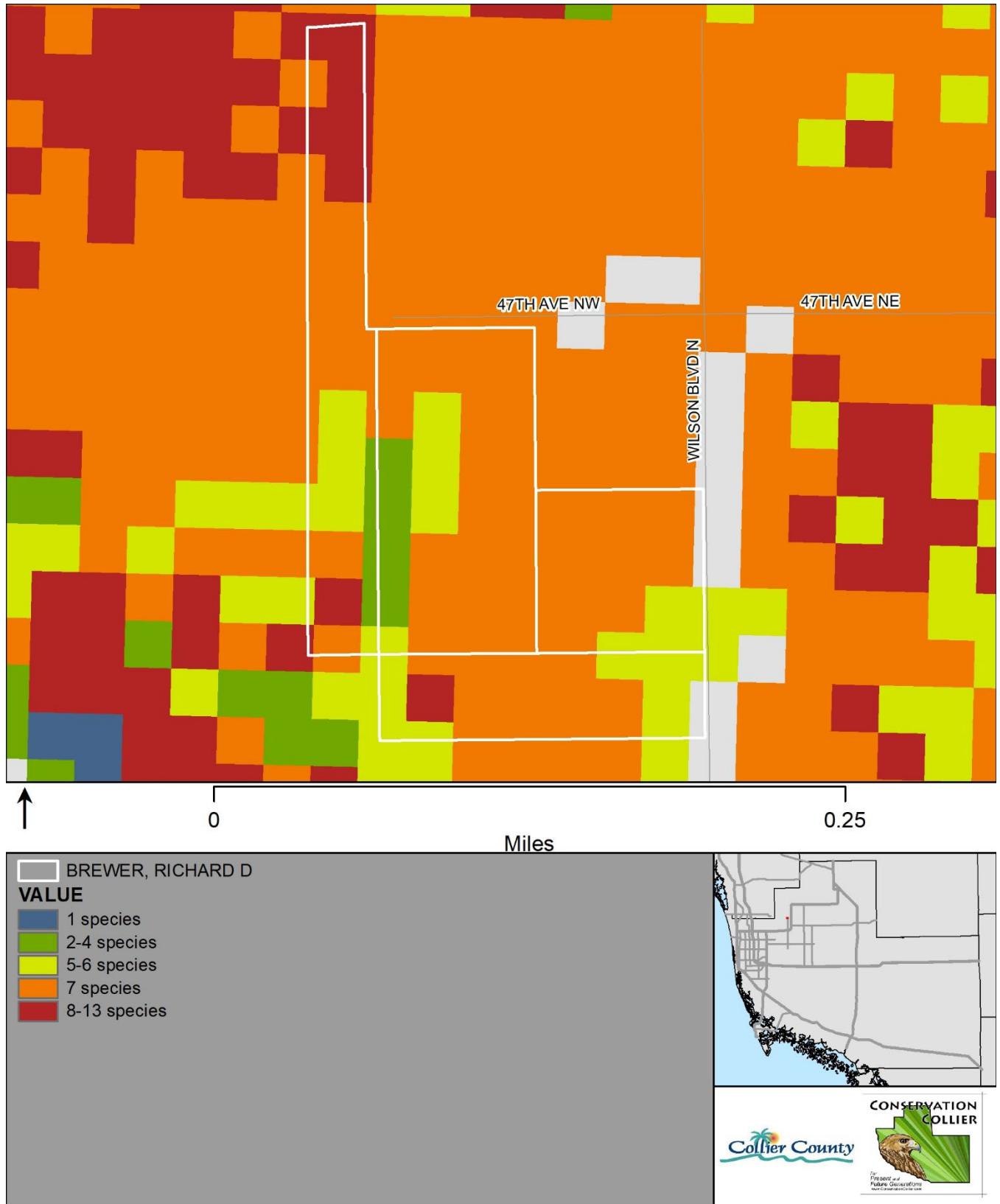


Figure 10 - CLIP4 Potential Habitat Richness

3.1.3 Water Resources

These parcels provide minimal recharge of the surficial aquifer; however, they do buffer the Corkscrew canal, which bisects the parcels north to south. The parcels provide protection of habitat utilized by wetland dependent species such as listed wading birds like the little blue heron and wood stork. Low lying areas within the property hold water during the wet season and after significant rain events. The parcels are not within a wellfield protection zone.

Soils data is based on the Soil Survey of Collier County Area, Florida (USDA/NRCS, 1990). Mapped soils include "Boca, Riviera, Limestone Substratum and Copeland Fine Sand, Depressional" – a hydric, very poorly drained soil that is associated with depressions, cypress swamps, and marshes - and "Holopaw Fine Sand" - a hydric, poorly drained soil that is associated with sloughs and poorly defined drainageways.

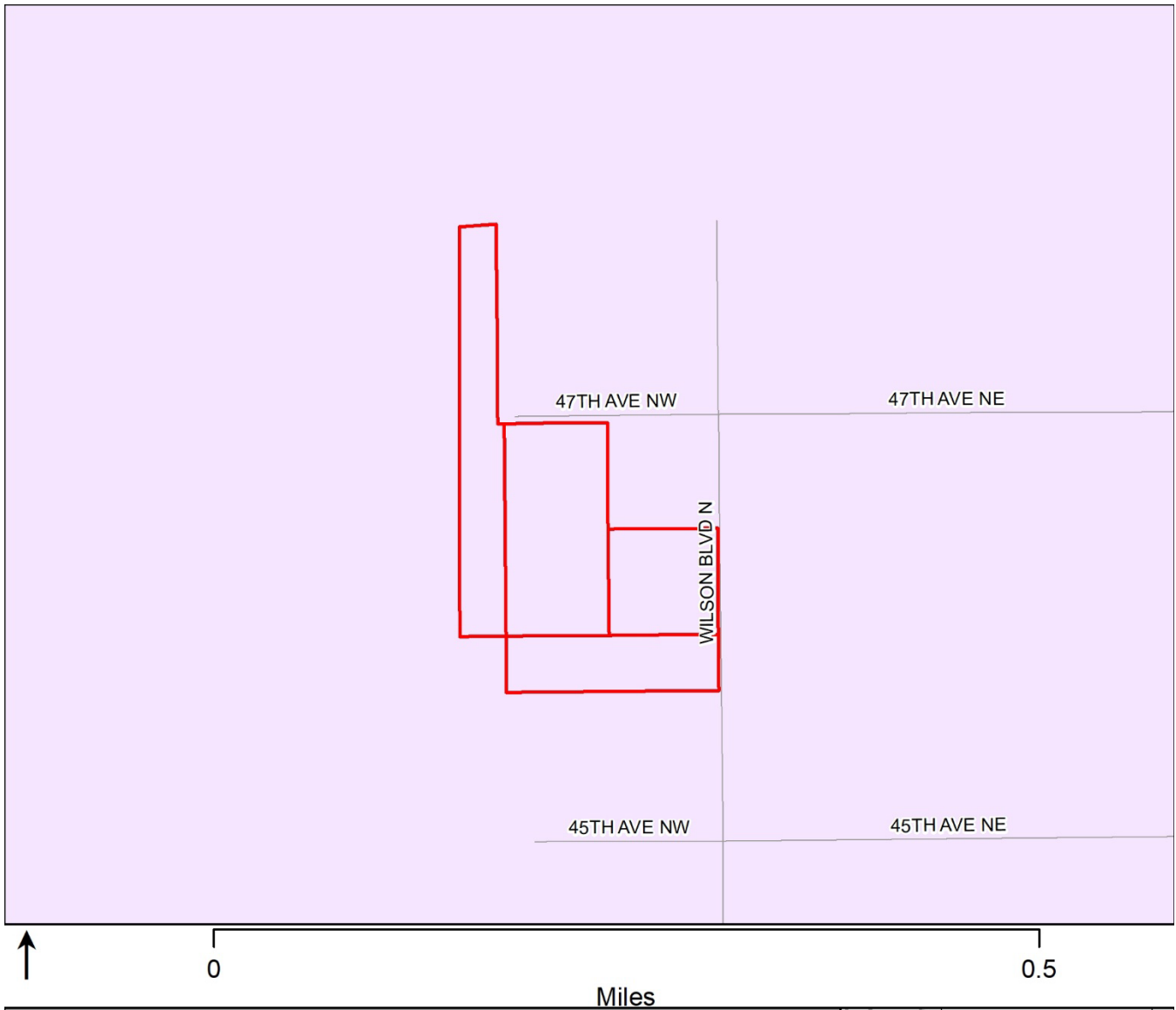


Figure 11 - CLIP Aquifer Recharge Priority and Wellfield Protection Zones

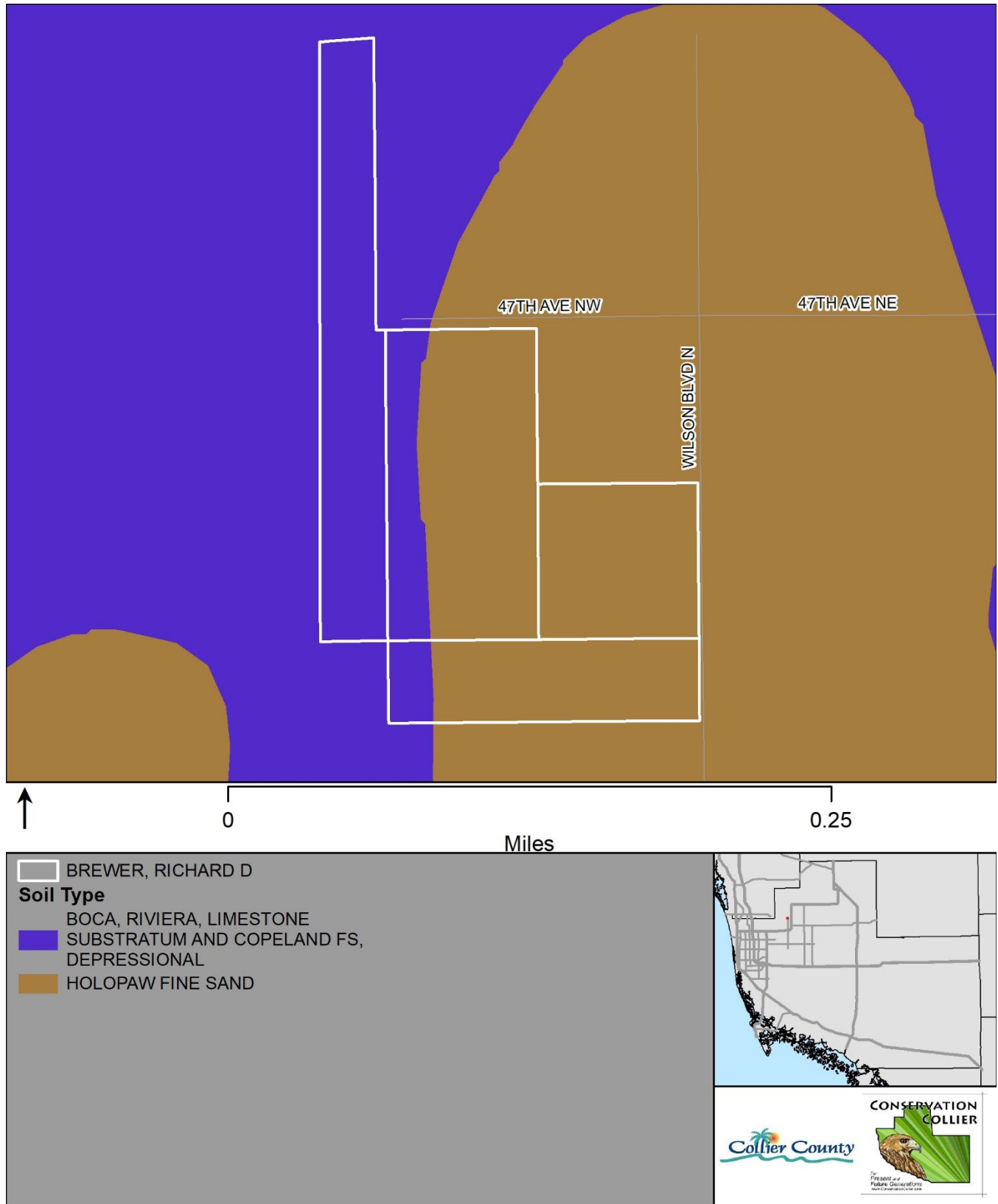


Figure 12 - Collier County Soil Survey

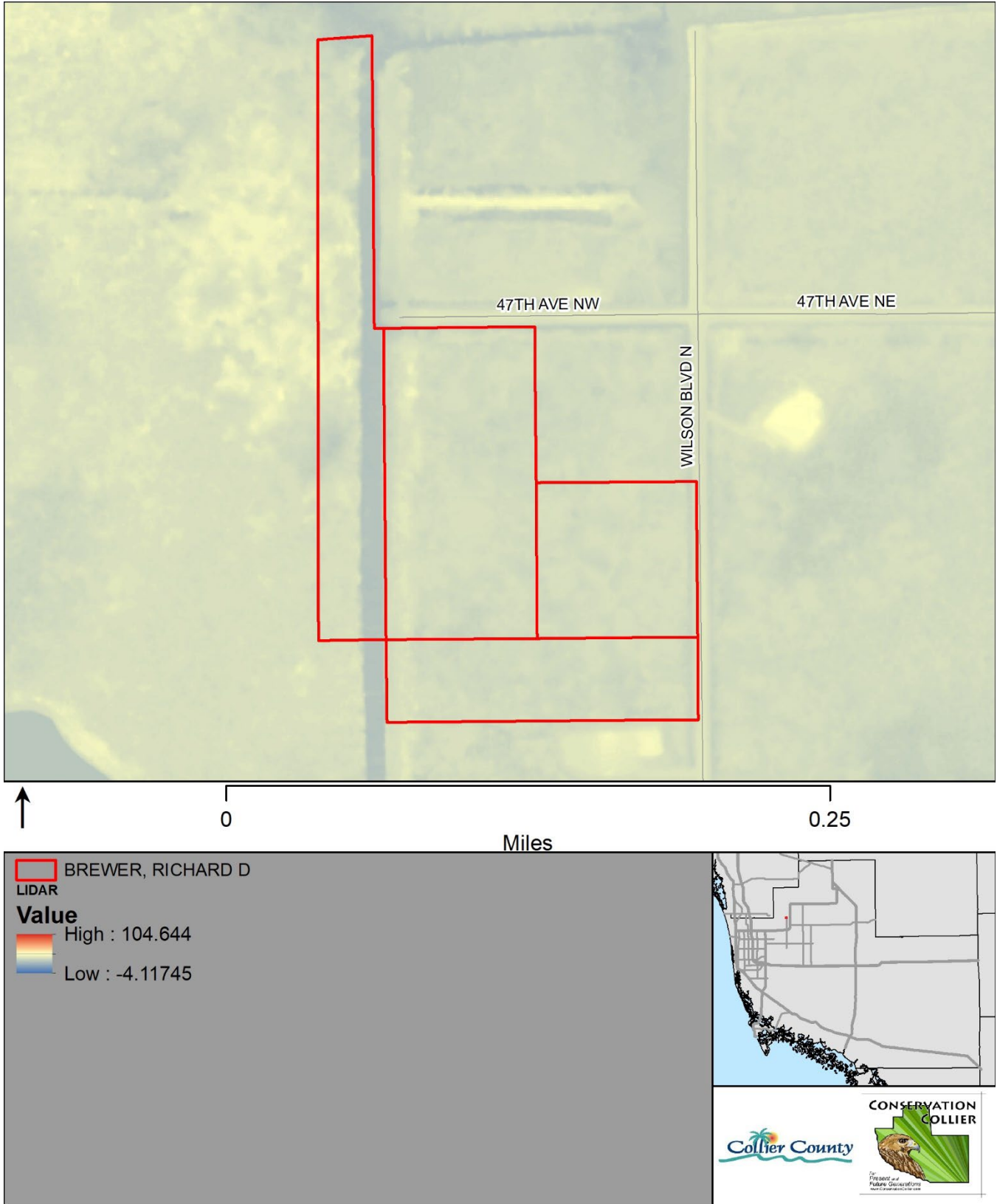


Figure 13 LIDAR Elevation Map

3.1.4 Ecosystem Connectivity

These parcels are directly adjacent to CREW District lands. They enhance the environmental value of current conservation lands by providing a buffer and ecological link to the adjacent lands within the region including: CREW Bird Rookery Swamp, Red Maple Swamp Preserve, CREW Marsh, CREW Cypress Dome Trails, Corkscrew Swamp Sanctuary, Pepper Ranch Preserve, Camp Keais Strand Project Area, Florida Panther National Wildlife Refuge and more.

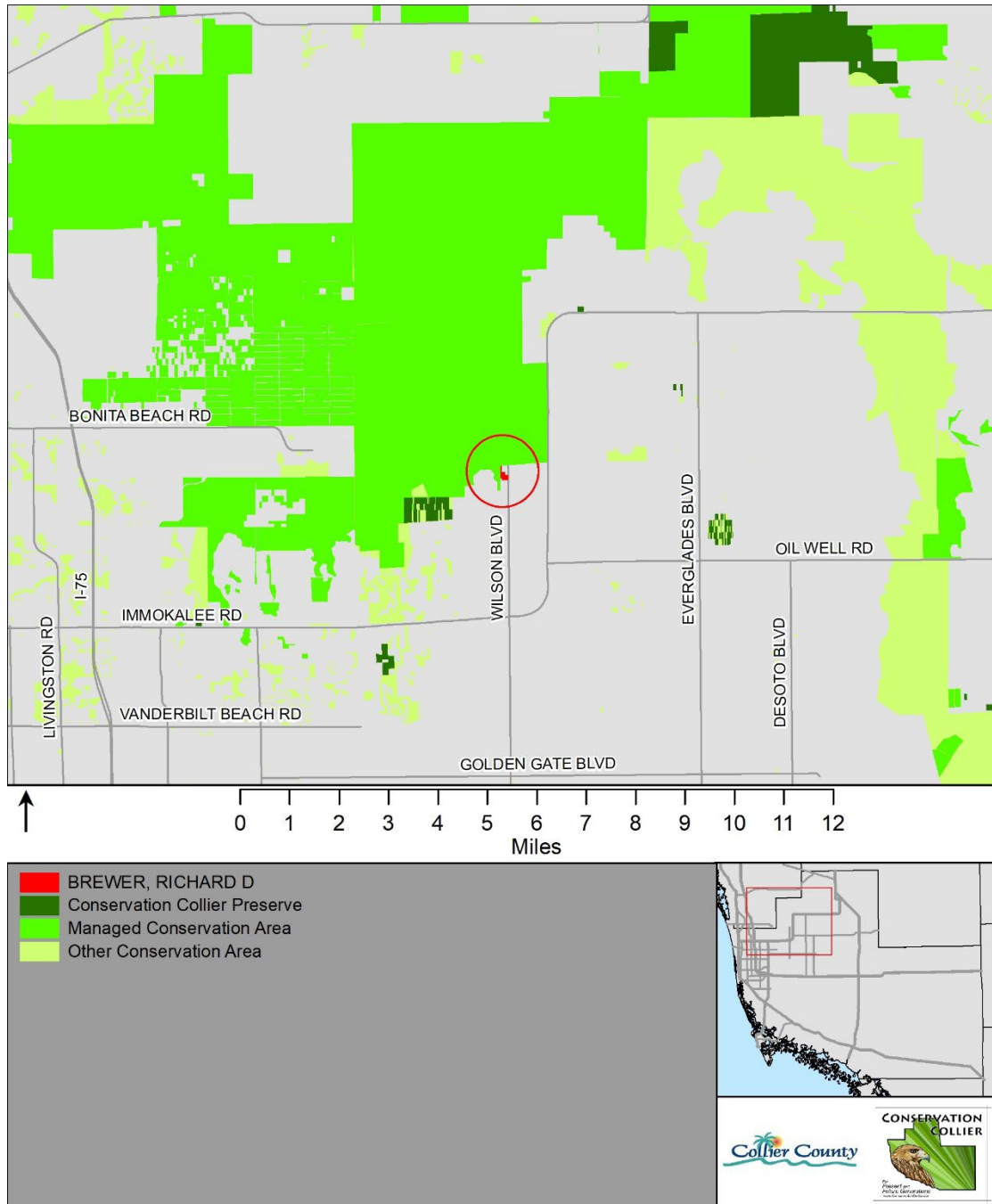


Figure 14 - Conservation Lands

3.2 Human Values

3.2.1 Recreation

These parcels are directly adjacent to the CREW Bird Rookery Lands, which contain a multi-mile trail system that provides access to approximately 25,000 visitors per year and environmental education program participation by over 250 visitors. The parking area and trailhead are about 1.5 miles from the Brewer parcels, and the CREW Bird Rookery trails provide public access to natural communities that are representative of the same communities within the Brewer parcels. Visitors can also view the roosting swallow-tailed kites from Wilson Blvd. North and 47th Ave. NW and fish in the Corkscrew Canal.

3.2.2 Accessibility

The sale of these parcels is contingent upon approval of a restrictive covenant that would prohibit public access to preserve the property as an undisturbed sanctuary for roosting swallow-tailed kites; however, as stated in Section 3.2.1 above, parking and public access trails through representative habitat are available less than 2 miles away.

3.2.3 Aesthetic/Cultural Enhancement

The parcels are visible from Wilson Blvd. North and 47th Ave. NW and would provide protection of the green-space aesthetic views along these roadways. Mature cypress and roosting swallow-tailed kites provide aesthetic/cultural enhancement to Collier County.



Figure 15 – Swallow-tailed kites roosting in mature cypress prior to 2019 migration

3.3 Restoration and Management

3.3.1 Vegetation Management

3.3.1.1 Invasive Vegetation

Approximately 25% of the property is covered with invasive vegetation – primarily Brazilian pepper and old-world climbing fern, with some scattered Caesarweed and creeping signal grass. In an effort to restore the native plant communities on-site for the benefit of local wildlife, the property owner applied for and received a U.S. Fish and Wildlife Partners for Fish and Wildlife grant. The 5-acre parcel east of the canal received an initial and follow-up maintenance treatment for exotics. Vegetative structure and midstory density has been shown to be a component of swallow-tailed kite nesting site selection however limited research has been carried out to understand the site selection preferences for migratory roost sites. A portion of the parcel was targeted for exotics removal in gradual phases in order to monitor for and prevent possible impacts to the annual site selection and preference of roosting swallow-tailed kites and the 5-acre parcel selected for initial treatment testing represents the area with the lowest utilization by roosting kites and the lowest potential disturbance to the site. This parcel will require maintenance treatments, while the remaining parcels will require initial treatment, to be continued in a closely monitored phased approach to ensure no impacts are caused to the existing swallow-tailed kite roost. Few exotic plants appear to be present within the 4.09-acre parcel west of the Corkscrew canal.

3.3.1.2 Prescribed Fire

The parcels do not contain fire dependent communities, therefore prescribed fire would not be recommended.

3.3.2 Remediation and Site Security

No site security issues appear to exist within the parcels beyond consideration for limiting trespass or other disturbance activity during the most sensitive months of the swallow-tailed kite roosting activity

3.3.3 Assistance

Staff does not anticipate management assistance from other agencies but would continue to collaborate with the Avian Research Conservation Institute to collect count data on the regional significance of this roosting site and explore further monitoring opportunities.

3.4 Vulnerability

3.4.1 Zoning and Land Use

The three parcels east of the Corkscrew Canal are zoned Estates, which allows for 1 unit per 2.25 acres. The one 4.09-acre parcel west of the Corkscrew Canal is zoned Agricultural, which allows for 1 unit per 5 acres. The parcels directly north and south of the property as well as several parcels in the surrounding area are developed with single-family residences.

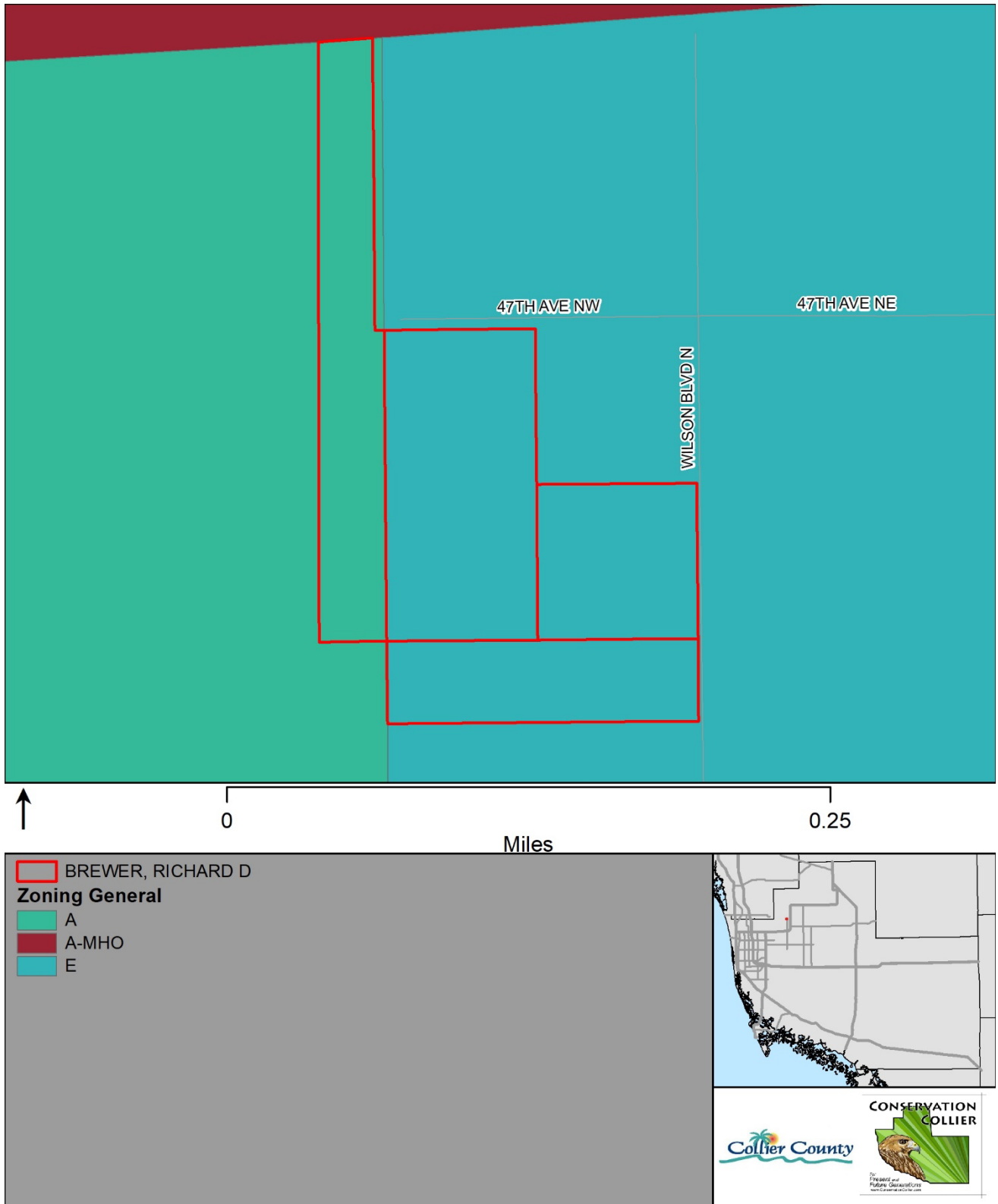


Figure 16 – Zoning

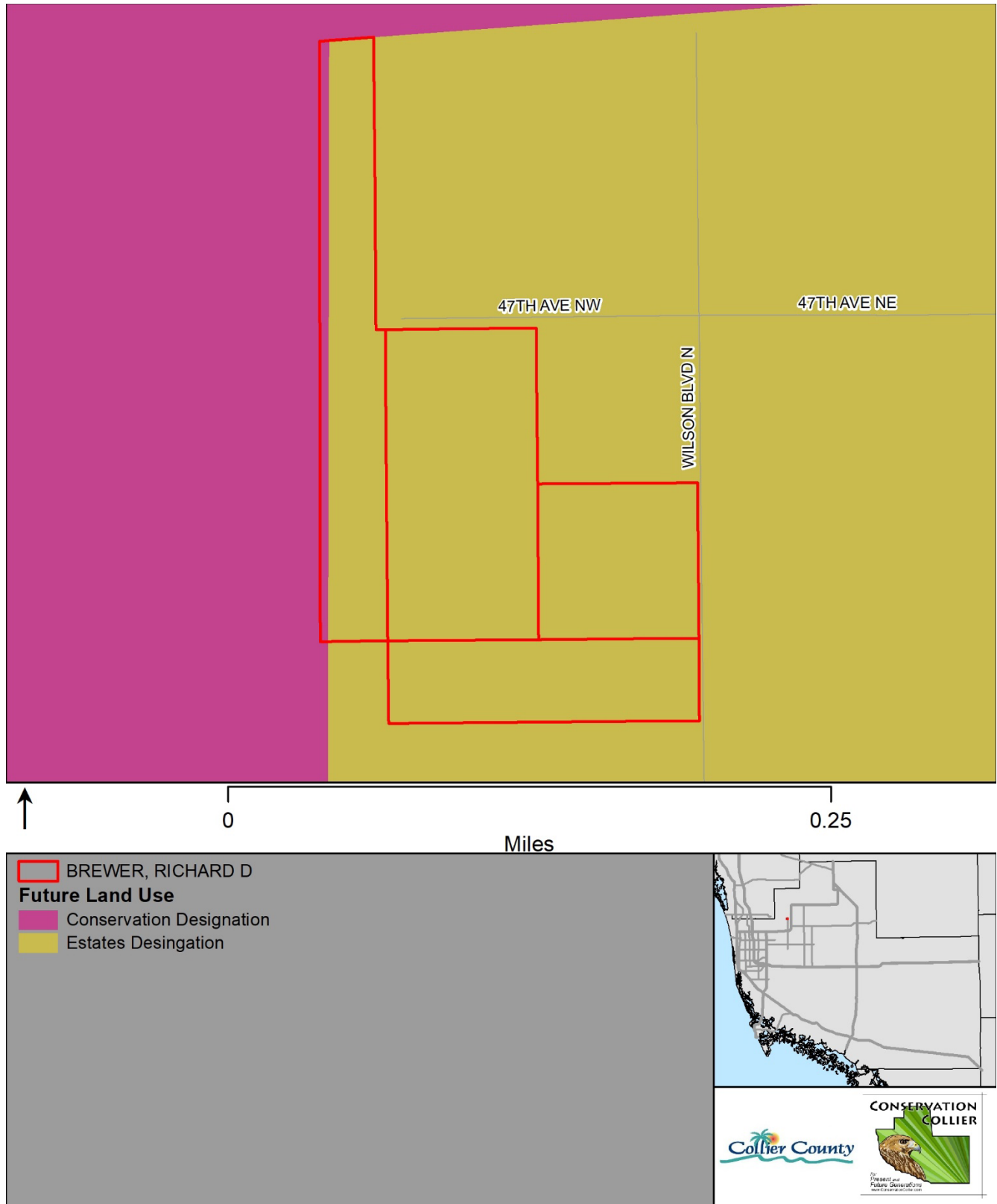


Figure 17 –Future Land Use

3.4.2 Development Plans

The property is not currently planned for development.

4. Acquisition Considerations

Staff would like to bring the following items to the attention of the Advisory Committee during the review of this property. The following items may not have significantly affected the scoring but are worth noting.

Audubon Florida and its Corkscrew Swamp Sanctuary support acquisition and prohibition of onsite public access to protect the swallow-tailed kite pre-migration roost site. Additionally, the Avian Research and Conservation Institute supports the purchase of this site for swallow-tailed kite roost protection.

5. Management Needs and Costs

Table 8 - Estimated Costs of Site Remediation, Improvements, and Management

Management Element	Initial Cost	Annual Recurring Cost	Comments
Invasive Vegetation Removal	\$5,800	\$2,200	Initial cost estimated at \$392/acre and recurring cost estimated at \$150/acre. Per acre costs based on similar treatments at Red Maple Swamp and initial treatment considers treatment that has already occurred on a portion of the property.
Signage	\$200	n/a	
TOTAL	\$6000	\$2,200	

6. Potential for Matching Funds

The primary partnering agencies for conservation acquisitions, and those identified in the ordinance are the Florida Communities Trust (FCT) and The Florida Forever Program. The following highlights potential for partnering funds, as communicated by agency staff.

Florida Communities Trust - Parks and Open Space Florida Forever grant program: The FCT Parks and Open Space Florida Forever grant program provides grant funds to local governments and nonprofit organizations to acquire conservation lands, urban open spaces, parks and greenways. Application for this program is typically made for pre-acquired sites up to two years from the time of acquisition. The Parks and Open Space Florida Forever grant program assists the Department of Environmental Protection in helping communities meet the challenges of growth, supporting viable community development and protecting natural resources and open space. The program receives 21 percent Florida Forever appropriation. This property would not be a good candidate for FCT funding.

Florida Forever Program: Although these parcels are within a Florida Forever Program boundary, because of their size, the State will not pursue their acquisition.

Additional Funding Sources: There is potential for partnership with the CREW Land and Water Trust to facilitate acquisition.

7. Secondary Criteria Scoring Form

Property Name: Brewer			
Target Protection Mailing Area: NGGE			
Folio(s): 00209681000; 38601280000; 38601320106; 38601360001			
Secondary Criteria Scoring	Possible Points	Awarded Points	Percentage
1 - Ecological Value	160	71	44
2 - Human Value	80	34	43
3 - Restoration and Management	80	66	83
4 - Vulnerability	80	67	83
TOTAL SCORE	400	238	59

1 - ECOLOGICAL VALUES (40% of total)	Possible Points	Awarded Points	Comments
1.1 VEGETATIVE COMMUNITIES	200	60	
1.1.1 - Priority natural communities (Select highest score)			
a. Parcel contains CLIP4 Priority 1 communities (1130 - Rockland Hammock, 1210 - Scrub, 1213 - Sand Pine Scrub, 1214 - Coastal Scrub, 1312 - Scrubby Flatwoods, 1610 - Beach Dune, 1620 - Coastal Berm, 1630 - Coastal Grasslands, 1640 - Coastal Strand, or 1650 - Maritime Hammock)	100		
b. Parcel contains CLIP4 Priority 2 communities (22211 - Hydric Pine Flatwoods, 2221 - Wet Flatwoods, or 1311 - Mesic Flatwoods)	60		
c. Parcel contains CLIP4 Priority 3 communities (5250 - Mangrove Swamp, or 5240 - Salt Marsh)	50		
d. Parcel contains CLIP4 Priority 4 communities (5250 - Mangrove Swamp)	25	0	Cypress; Mixed Hardwood Coniferous Swamp; and marsh
1.1.2 - Plant community diversity (Select the highest score)			
a. Parcel has ≥ 3 CLC native plant communities (Florida Cooperative Land Cover Classification System native plant communities)	20	20	Cypress; Mixed Hardwood Coniferous Swamp; and marsh
b. Parcel has ≤ 2 CLC native plant communities	10		
c. Parcel has 0 CLC native plant communities	0		

1.1.3 - Listed plant species (excluding commercially exploited species) (Select the highest score)			
a. Parcel has ≥5 CLC listed plant species	30		
b. Parcel has 3-4 CLC listed plant species	20		
c. Parcel has ≤ 2 CLC listed plant species	10	10	Tillandsia balbisia;na; Tillandsia fasciculata
d. Parcel has 0 CLC listed plant species	0		
1.1.4 - Invasive Plant Infestation (Select highest score)			
a. 0 - 10% infestation	50		
b. 10 - 25% infestation	40		
c. 25 - 50% infestation	30	30	Brazilian pepper; lygodium
d. 50 - 75% infestation	20		
e. ≥75% infestation	10		
1.2 - WILDLIFE COMMUNITIES	100	100	
1.2.1 - Listed wildlife species (Select the highest score)			
a. Listed wildlife species documented on the parcel	80	80	Wood stork; little blue heron
b. Listed wildlife species documented on adjacent property	60		
c. CLIP Potential Habitat Richness ≥5 species	40		
d. No listed wildlife documented near parcel	0		
1.2.2 - Significant wildlife habitat (Rookeries, roosts, denning sites, nesting grounds, high population densities, etc) (Select highest score)			
a. Parcel protects significant wildlife habitat (Please describe)	20	20	Swallow- tailed kite pre- migratory roost site
b. Parcel enhances adjacent to significant wildlife habitat (Please describe)	10		
c. Parcel does not enhance significant wildlife habitat	0	0	
1.3 - WATER RESOURCES	100	40	
1.3.1 - Aquifer recharge (Select the highest score)			
a. Parcel is located within a wellfield protection zone or within a CLIP4 Aquifer Recharge Priority 1 area	40		
b. Parcel is located within a CLIP4 Aquifer Recharge Priority 2 or 3 area	30		
c. Parcel is located within a CLIP4 Aquifer Recharge Priority 4 or 5 area	20		
d. Parcel is located within a CLIP4 Aquifer Recharge Priority 6 area	0	0	
1.3.2 - Surface Water Protection (Select the highest score)			

a. Parcel is contiguous with and provides buffering for an Outstanding Florida Waterbody	30		
b. Parcel is contiguous with and provides buffering for a creek, river, lake, canal or other surface water body	20	20	Buffers Corkscrew Canal
c. Parcel is contiguous with and provides buffering for an identified flowway	15		
d. Wetlands exist on site	10		
e. Parcel does not provide opportunities for surface water quality enhancement	0		
1.3.3 - Floodplain Management (Select all that apply)			
a. Parcel has depressional or slough soils	10	10	
b. Parcel has known history of flooding and is likely to provide onsite water attenuation	10	10	
c. Parcel provides storm surge buffering	10		
d. Parcel does not provide floodplain management benefits	0		
1.4 - ECOSYSTEM CONNECTIVITY	200	65	
1.4.1 - Acreage (Select Highest Score)			
a. Parcel is ≥ 300 acres	150		
b. Parcel is ≥ 100 acres	100		
b. Parcel is ≥ 50 acres	75		
c. Parcel is ≥ 25 acres	25		
d. Parcel is ≥ 10 acres	15	15	14.78 acres
e. Parcel is < 10 acres	0		
1.4.2 - Connectivity (Select highest score)			
a. Parcel is immediately contiguous with conservation lands	50	50	CREW to west
b. Parcel is not immediately contiguous, but parcels between it and nearby conservation lands are undeveloped	25		
c. Parcel is isolated from conservation land	0		
ECOLOGICAL VALUES TOTAL POINTS	600	265	
ECOLOGICAL VALUES WEIGHTED SCORE (Awarded Points/Possible Points*160)	160	71	

2 - HUMAN VALUES (20%)	Possible Points	Awarded Points	Comments
2.1 - RECREATION	120	40	
2.1.1 - Compatible recreation activities (Select all that apply)			
a. Hunting	20		
b. Fishing	20	20	Corkscrew Canal
c. Water-based recreation (paddling, swimming, etc)	20		
d. Biking	20		

e. Equestrian	20		
f. Passive natural-resource based recreation (Hiking, photography, wildlife watching, environmental education, etc)	20	20	Birding from road
g. Parcel is incompatible with nature-based recreation	0		
2.2 - ACCESSIBILITY	120	60	
2.2.1 - Seasonality (Select the highest score)			
a. Parcel accessible for land-based recreation year round	20		
b. Parcel accessible for land-based recreation seasonally	10		
c. Parcel is inaccessible for land-based recreation	0	0	condition of sale
2.2.2 - Vehicle access (Select the highest score)			
a. Public access via paved road	50	50	Wilson Blvd N.
b. Public access via unpaved road	30		
c. Public access via private road	20		
d. No public access	0		
2.2.3 - Parking Availability (Select the highest score)			
a. Minor improvements necessary to provide on-site parking	40		
b. Major improvements necessary to provide on-site parking (Requires site development plan)	25		
b. Public parking available nearby or on adjacent preserve	20		
c. Street parking available	10	10	
d. No public parking available	0	0	
2.2.4 - Pedestrian access (Select the highest score)			
a. Parcel is easily accessible to pedestrians (within walking distance of housing development)	10		
b. Parcel is not easily accessible to pedestrians	0	0	0
2.3 - AESTHETICS/CULTURAL ENHANCEMENT	40	20	
2.3.1 - Aesthetic/cultural value (Choose all that apply)			
a. Mature/outstanding native vegetation	5	5	Mature cypress
b. Scenic vistas	5		
c. Frontage enhances aesthetics of public thoroughfare	10	10	
d. Archaeological/historical structures present	15		
e. Other (Please describe)	5	5	Swallow tailed kite roost site
f. None	0	0	
HUMAN VALUES TOTAL SCORE	280	120	
HUMAN VALUES WEIGHTED SCORE (Awarded Points/Possible Points*80)	80	34	

3 - RESTORATION AND MANAGEMENT (20%)	Possible Points	Awarded Points	Comments
3.1 - VEGETATION MANAGEMENT	120	95	
3.1.1 - Invasive plant management needs (Select the highest score)			
a. Minimal invasive/nuisance plant management necessary to restore and maintain native plant communities (<30%)	100		
b. Moderate invasive/nuisance plant management necessary to restore and maintain native plant communities (30-65%)	75	75	Primarily Brazilian pepper and lygodium
c. Major invasive/nuisance plant management necessary to restore and maintain native plant communities (>65%)	50		
d. Major invasive/nuisance plant management and replanting necessary to restore and maintain native plant communities (>65%)	25		
e. Restoration of native plant community not feasible	0		
3.1.2 - Prescribed fire necessity and compatibility (Select the highest score)			
a. Parcel contains fire dependent plant communities and is compatible with prescribed fire or parcel does not contain fire dependent plant communities	20	20	Fire not likely to carry in these parcels
b. Parcel contains fire dependent plant communities and is incompatible with prescribed fire	0		
3.2 - REMEDIATION AND SITE SECURITY	50	50	
3.2.1 - Site remediation and human conflict potential (Dumping, contamination, trespassing, vandalism, other) (Select the highest score)			
a. Minimal site remediation or human conflict issues predicted	50	50	
b. Moderate site remediation or human conflict issues predicted (Please describe)	20		
c. Major site remediation or human conflict issues predicted (Please describe)	5		
d. Resolving site remediation or human conflict issues not feasible	0		
3.3 - ASSISTANCE	5	0	
3.4.1 - Management assistance by other entity			
a. Management assistance by other entity likely	5		
b. Management assistance by other entity unlikely	0	0	
RESTORATION AND MANAGEMENT TOTAL SCORE	175	145	
RESTORATION AND MANAGEMENT WEIGHTED SCORE (Awarded Points/Possible Points*80)	80	66	

4 - VULNERABILITY (20%)	Possible Points	Awarded Points	Comments
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4.1 - ZONING AND LAND USE	130	125	
4.1.1 - Zoning and land use designation (Select the highest score)			
a. Zoning allows for Single Family, Multifamily, industrial or commercial	100	100	1 unit per 2.25 on 3 of 4 parcels
b. Zoning allows for density of no greater than 1 unit per 5 acres	75		
c. Zoning allows for agricultural use /density of no greater than 1 unit per 40 acres	50		
d. Zoning favors stewardship or conservation	0		
4.1.2 - Future Land Use Type (Select the highest score)			
a. Parcel designated Urban	30		
b. Parcel designated Estates, Rural Fringe Receiving and Neutral, Agriculture	25	25	E and A
c. Parcel designated Rural Fringe Sending, Rural Lands Stewardship Area	5		
d. Parcel is designated Conservation	0		
4.2 - DEVELOPMENT PLANS	50	25	
4.2.1 - Development plans (Select the highest score)			
a. Parcel has been approved for development	20		
b. SFWMD and/or USACOE permit has been applied for or SDP application has been submitted	15		
c. Parcel has no current development plans	0	0	
4.2.2 - Site characteristics amenable to development (Select all that apply)			
a. Parcel is primarily upland	10	10	
b. Parcel is along a major roadway	10	10	
c. Parcel is >10 acres	5	5	
d. Parcel is within 1 mile of a current or planned commercial or multi-unit residential development	5		
VULNERABILITY TOTAL SCORE	180	150	
VULNERABILITY WEIGHTED SCORE (Awarded Points/Possible Points*80)	80	67	

8. Additional Site Photos



View looking SE off 47th Ave. NW



View looking E from canal easement



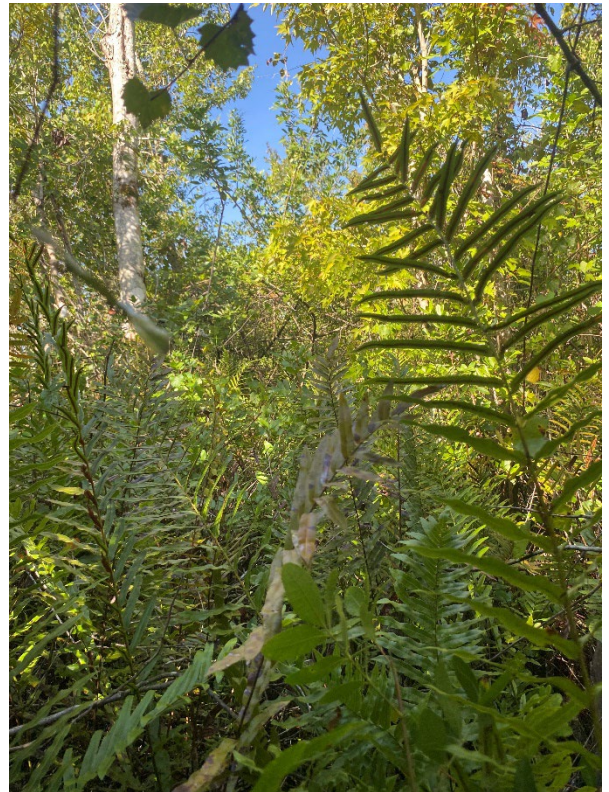
View looking NW off Wilson Blvd. N



Small area of freshwater marsh



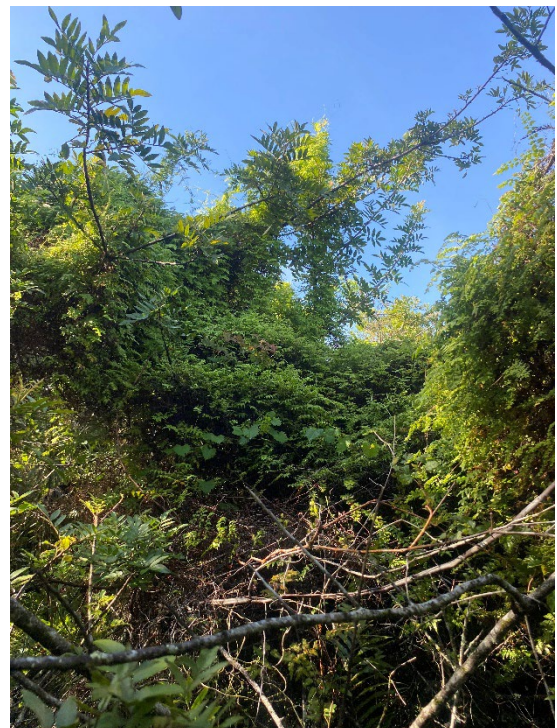
View looking N from S boundary



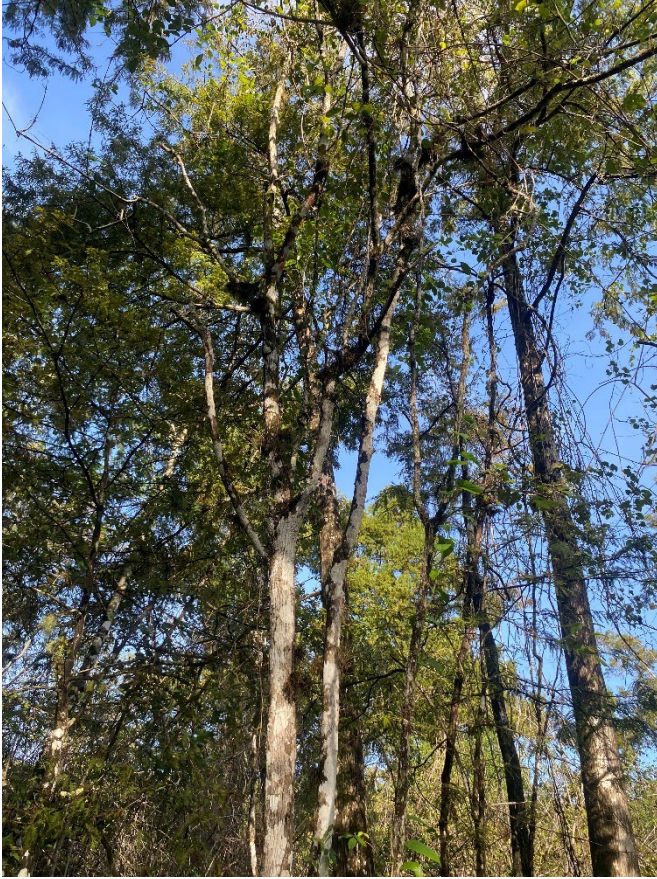
Interior view off Wilson Blvd N.



Corkscrew canal and SFWMD easement gate



Climbing fern and Brazilian pepper



Cypress and red maple in interior of parcel



Cypress, red maple, swamp fern in interior of parcel



Tillandsia fasciculata



Tillandsia balbisiana growing on dead Brazilian pepper

APPENDIX 1 – Critical Lands and Water Identification Maps (CLIP) Definitions

This report makes use of data layers from the Florida Natural Areas Inventory and University of Florida Critical Lands and Waters Identification Project (CLIP4). CLIP4 is a collection of spatial data that identify statewide priorities for a broad range of natural resources in Florida. It was developed through a collaborative effort between the Florida Areas Natural Inventory (FNAI), the University of Florida GeoPlan Center and Center for Landscape Conservation Planning, and the Florida Fish and Wildlife Conservation Commission (FWC). It is used in the Florida Forever Program to evaluate properties for acquisition. CLIP4 is organized into a set of core natural resource data layers which are representative of 5 resource categories: biodiversity, landscapes, surface water, groundwater and marine. The first 3 categories have also been combined into the Aggregated layer, which identifies 5 priority levels for natural resource conservation.

Below is a description of each of the three CLIP4 data layers used in this report.

Figure 4 - CLIP4 Priority Natural Communities

Consists of 12 priority natural community types: upland glades, pine rocklands, seepage slopes, scrub, sandhill, sandhill upland lakes, rockland hammock, coastal uplands, imperiled coastal lakes, dry prairie, upland pine, pine flatwoods, upland hardwood forest, or coastal wetlands. These natural communities are prioritized by a combination of their heritage global status rank (G-rank) and landscape context, based on the Land Use Intensity Index (subset of CLIP Landscape Integrity Index) and FNAI Potential Natural Areas. Priority 1 includes G1-G3 communities with Very High or High landscape context. Priority 2 includes G1-G3 Medium and G4 Very High/High. Priority 3 includes G4 Medium and G5 Very High/High. Priority 5 is G5 Medium.

This data layer was created by FNAI originally to inform the Florida Forever environmental land acquisition program. The natural communities were mapped primarily based on the FNAI/FWC Cooperative Land Cover (CLC) data layer, which is a compilation of best-available land cover data for the entire state. The CLC is based on both remote-sensed (from aerial photography, primarily from water management district FLUCCS data) and ground-truthed (from field surveys on many conservation lands) data.

Figure 10. Potential Habitat Richness CLIP4 Map

This CLIP version 4.0 data layer is unchanged from CLIP v3.0. FWC Potential Habitat Richness. Because SHCAs do not address species richness, FWC also developed the potential habitat richness layer to identify areas of overlapping vertebrate species habitat. FWC created a statewide potential habitat model for each species included in their analysis. In some cases, only a portion of the potential habitat was ultimately designated as SHCA for each species. The Potential Habitat Richness layer includes the entire potential habitat model for each species and provides a count of the number of species habitat models occurring at each location. The highest number of focal species co-occurring at any location in the model is 13.

Figure 11: CLIP4 Aquifer Recharge Priority and Wellfield Protection Zones

High priorities indicate high potential for recharge to an underlying aquifer system (typically the Floridan aquifer but could be intermediate or surficial aquifers in some portions of the state). The highest priorities indicate high potential for recharge to springs or public water supplies. This figure also includes Wellfield Protection Zones. Collier County Wellfield Protection Zones are referenced in the Land Development Code and updated in 2010 by Pollution Control and Prevention Department Staff. The public water supply wellfields, identified in section 3.06.06 and permitted by the SFWMD for potable water to withdraw a minimum of 100,000 average gallons per day (GPD), are identified as protected wellfields, around which specific land use and activity (regulated development) shall be regulated under this section.