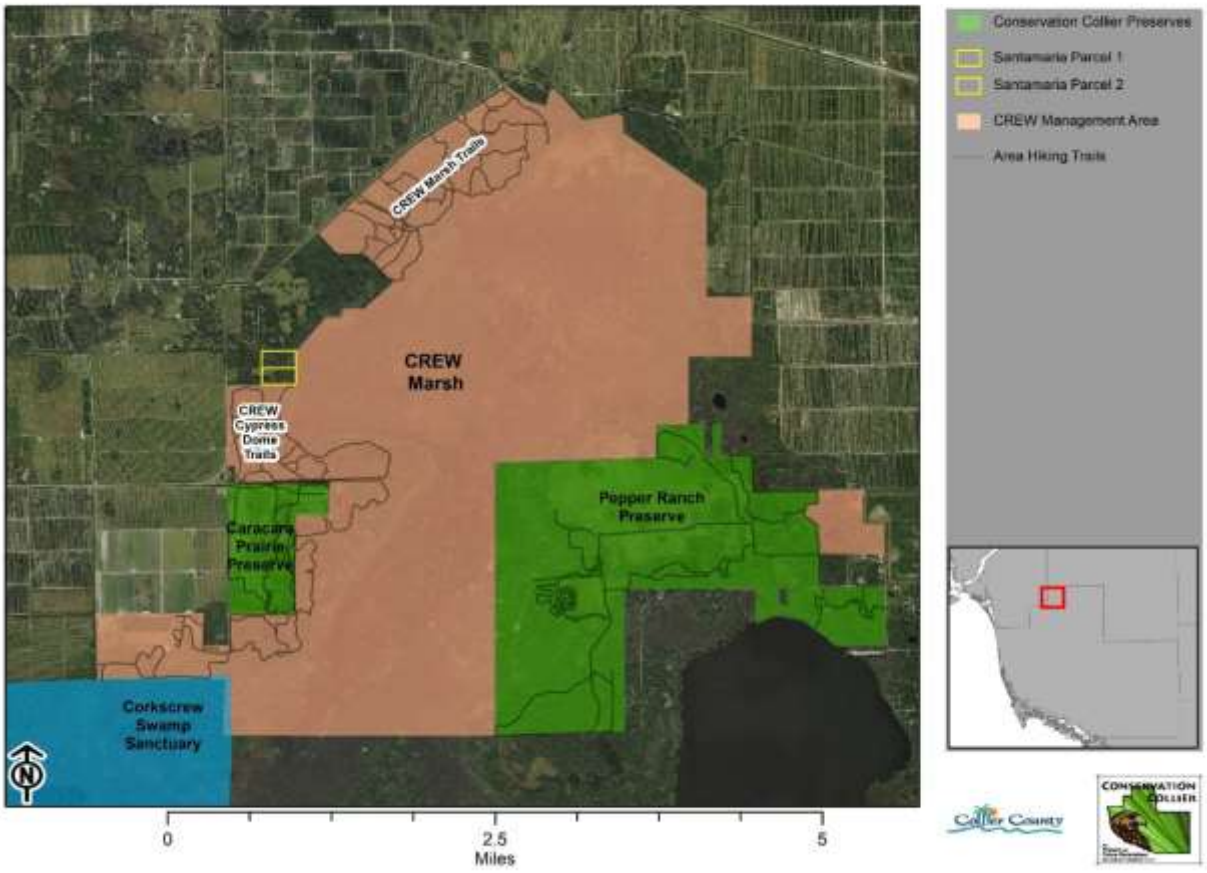
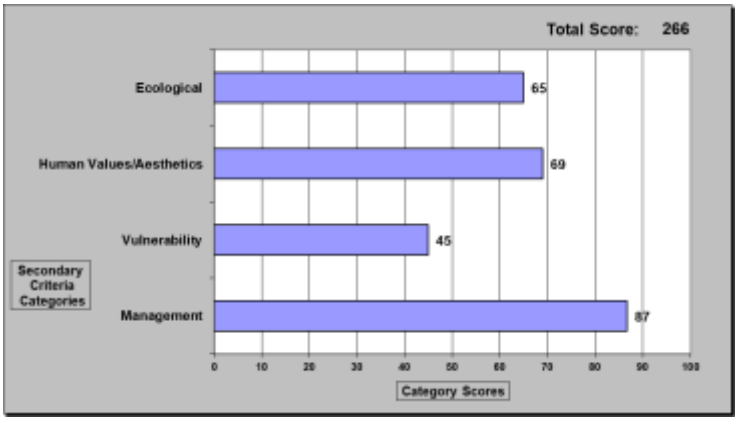
Conservation Collier
Initial Criteria Screening Report

Conservation Collier Santamaria Properties Location Map



Owner Name(s): Santamaria et al.
Folio Number(s): 00052040005 = 20 acres
and 00052120006 = 40 acres, only 20 acres offered conditional upon lot split
Staff Report Date: October 5, 2021



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I. 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 10th acquisition cycle 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.

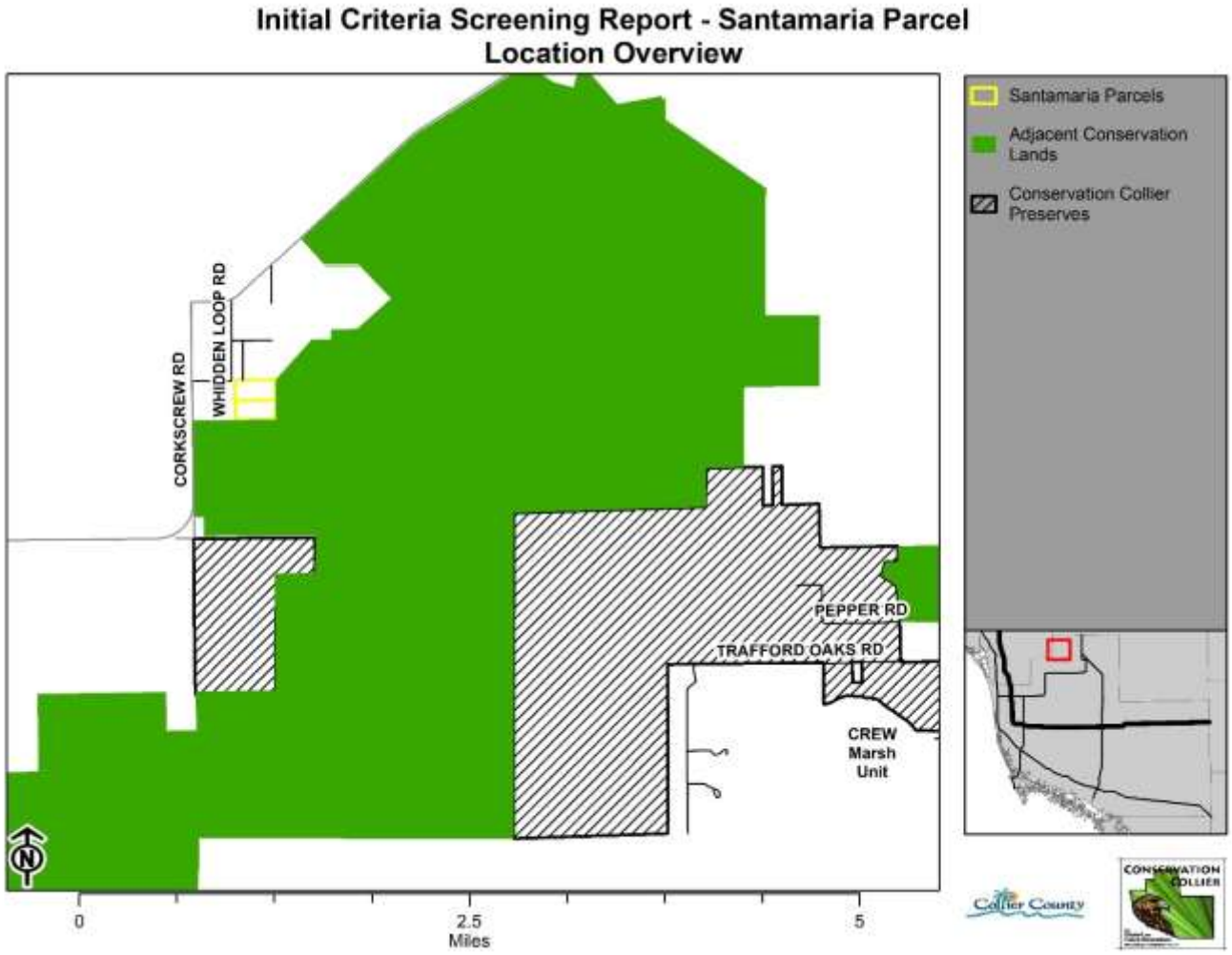
II. Summary of Property Information

Table 1: Summary of Property Information

Characteristic	Value	Comments
Name	Santamaria, et al	Local owners
Folio Numbers	00052040005, 00052120006	00052120006 is a 40 acre parcel, owners are offering the back 20 acres only as a homesite sits on the front 20 acres
Target Protection Area	Area 11- Caracara Prairie Preserve	N/A
Size	40.0 acres	00052040005 = 20 acre, 00052120006 = 20 acre contingent on lot split
Section, Township, and Range	S19, T46S, R28E	N/A
Zoning Category/TDRs	A-MHO	Agriculture with a Mobile Home Overlay – allows for no greater than one unit per 5 acres. Future Land Use- Conservation Designation. This property is not within the RFMU or RLSA, therefore it does not quality for development rights to be severed.
FEMA Flood Map Category	AH	Areas subject to inundation by 1% annual chance shallow flooding

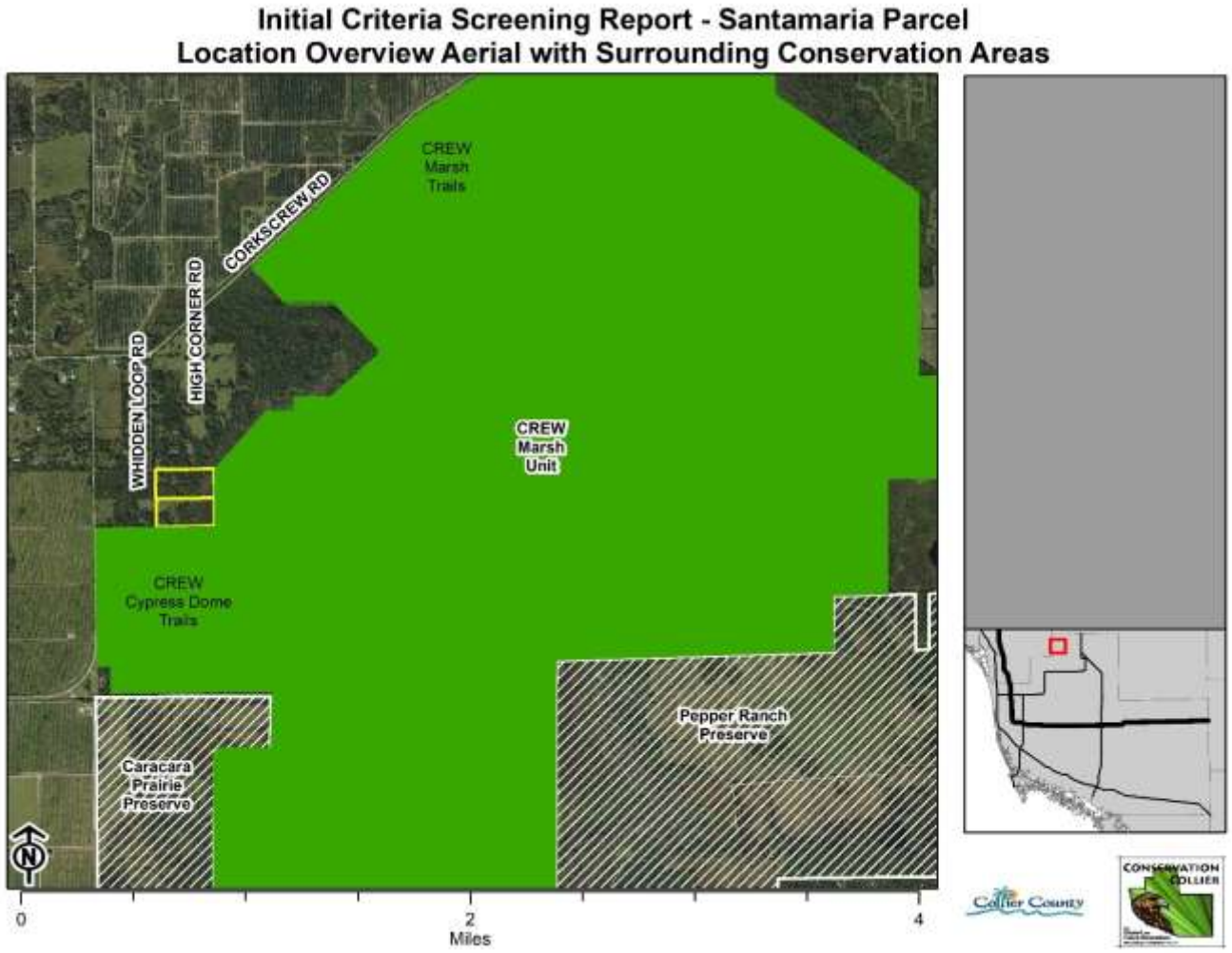
		(usually areas of ponding) where average depths are between one and three feet
Existing structures	None	Unforested areas of this property are currently being used for pasture. A house, pole barn, and cattle chutes exist on the front 20 acres of the property not being offered at this time by the owners. Power lines present along western boundary of acquisition parcels to service the house.
Adjoining properties and their Uses	State owned conservation lands and residential	Parcels directly adjacent to CREW Cypress Dome Trails. Viewable from CREW Yellow trail. Parcels adjacent to low density residential plots with mixed use and forested area.
Development Plans Submitted	None	No permits or petitions exist in the county computer system
Known Property Irregularities	Cattle lease, fencing and landscape features	Owner currently grazes a small number of cattle to maintain pastures. Some ditches and culverts exist on site to alter hydrology and water levels in the pastures. Barbed wire fencing surrounds property boundary and bisects two parcels. Fencing minimal and in good condition.
Other County Dept Interest	None known	N/A

Figure 1: Location Overview



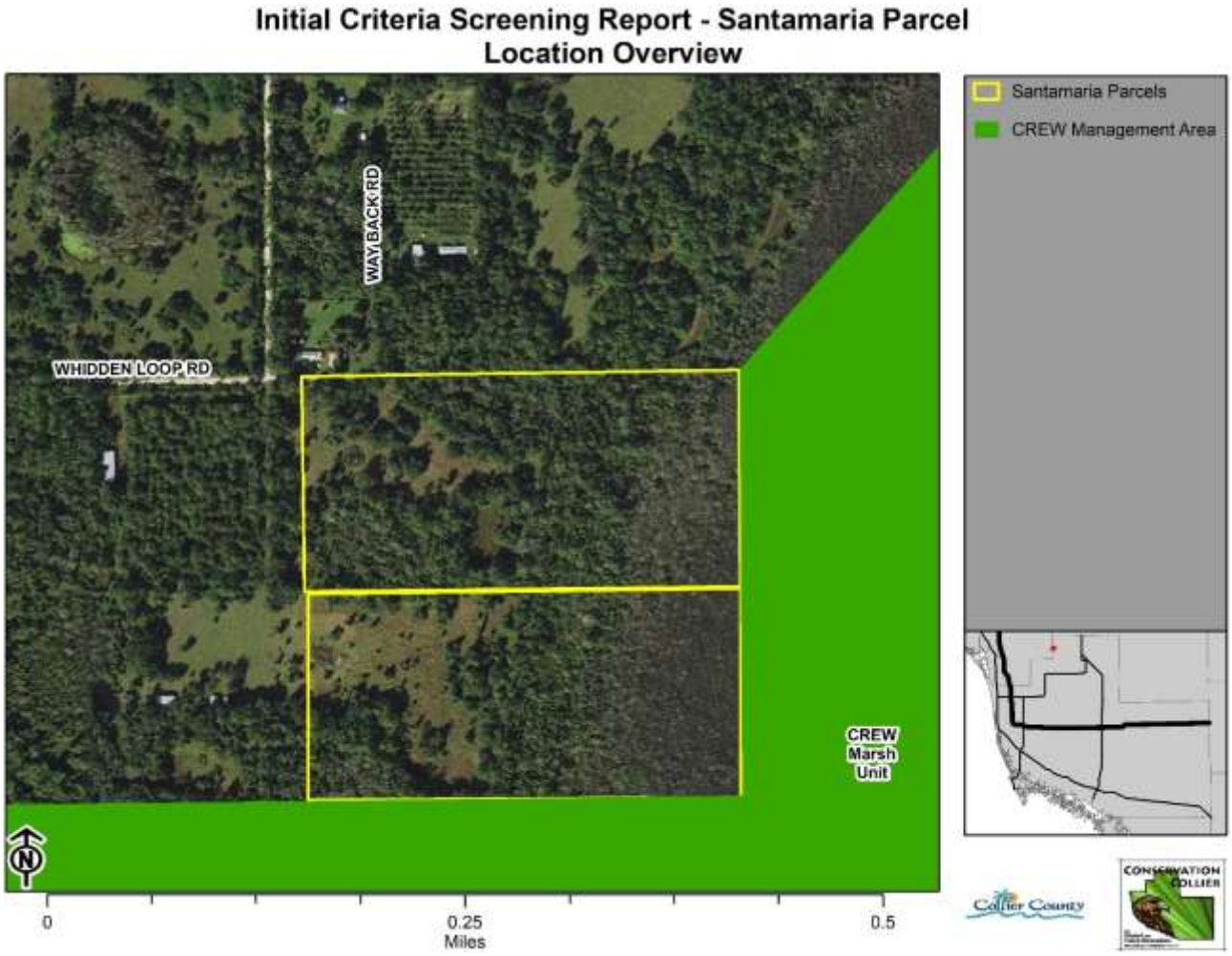
Santamaria et al. parcels are located in Northern Collier County along Corkscrew Road.

Figure 2: Location Overview Aerial with Surrounding Conservation Areas



The two parcels in this application are adjacent to the Corkscrew Regional Ecosystem Watershed (CREW) Marsh Unit which is managed by the South Florida Water Management District and incorporated within the Florida Fish and Wildlife Conservation Commission CREW Wildlife Environmental Area (WEA) CREW Marsh Unit. The application parcels are ¾ mile north of the existing Conservation Collier Program Caracara Prairie Preserve.

Figure 3: Location Close-up Aerial



Summary of Assessed Value and Property Costs Estimates

The interest being appraised is fee simple " as is " for the purchase of the site(s). A value of the parcel was estimated using only one of the three traditional approaches to value, the sales comparison approach. Each 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 relied upon information solely provided by program staff. The valuation conclusions are limited only by the reported assumptions and conditions that no other known or unknown adverse conditions exist. Pursuant to the Conservation Collier Purchase Policy one appraisal will be required.

*Table 2: Estimated Assessed Value**

Property owner	Folio	Acreage	Assessed Value
Santamaria et al.	00052040005	20	$115,375
Santamaria et al	00052120006	20	$115,375
Total		**40**	**$230,750**

* Property Appraiser's Website

Estimated Assessed Value: *$230,750

The assessed value of the vacant 20-acre parcel of $115,375 was used and multiplied by two. The larger 40-acre parcel which the owner is looking to sell the back half 20 acres has a 500 square foot structure on the front. The Assessed Value is based off the current use of the property.

Estimated Market Value: **$440,000

ESTIMATED MARKET VALUE" IS SOLELY AN ESTIMATE OF VALUE AND SHOULD NOT BE RELIED UPON BY ANY ENTITY.

The Estimated Market Value was based on the land being valued as vacant land at $11,000 per acre.

* Property Appraiser's Website

*** Collier County Real Estate Services Department*

Zoning, Growth Management and Conservation Overlays

Zoning, growth management and conservation overlays will affect the value of a parcel. The parcels are zoned Agricultural with a Mobil Home Overlay. Both parcels are also within an established growth management overlay of ***Conservation Designation***.

The Conservation Designation on the future land use map is defined as follows in accordance with Land Development Code section 2.03.09.B:

> The purpose and intent of the conservation district "CON" is to conserve, protect and maintain vital natural resource lands within unincorporated Collier County that are owned primarily by the public. All native habitats possess ecological and physical characteristics that justify attempts to maintain these important natural resources. Barrier islands, coastal bays, **wetlands**, and habitat for listed species deserve particular attention because of their ecological value and their sensitivity to perturbation. All proposals for **development** in the **CON district** must be subject to rigorous review to ensure that the impacts of the **development** do not destroy or unacceptably degrade the inherent functional values. The CON District includes such public lands as Everglades National Park, Big Cypress National Preserve, Florida Panther National Wildlife Refuge, portions of the Big Cypress Area of Critical State Concern, Fakahatchee Strand State Preserve, Collier-Seminole State Park, Rookery Bay National Estuarine Sanctuary Research Reserve, Delnor-Wiggins State Park, and the National Audubon's Corkscrew Swamp Sanctuary (privately owned), and C.R.E.W. It is the intent of the CON District to require review of all **development** proposed within the CON District to ensure that the inherent value of the County's natural resources is not destroyed or unacceptably **altered**. The CON District corresponds to and implements the conservation land use designation on the future land use map of the Collier County GMP.

Therefore, acquisition of this property is supported by the Collier County Growth Management Plan as acquisition by Conservation Collier would keep the land in conservation.

III. Statements for Satisfying Initial Screening Criteria

The purpose of this section is to provide a closer look at how the property meets initial criteria. Conservation Collier Program staff conducted a site visit on [date]

Criteria 1: Native Habitats

Are any of the following unique and endangered plant communities found on the property? Order of preference as follows: Ord. 2002-63, Sec. 10 (1)(a)

i.	Hardwood hammocks	Yes
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.	Other native habitats: freshwater marsh, mixed shrub, hydric pine flatwood	Yes

Vegetative Communities

Staff used two methods to determine native plant communities present: review of South Florida Water Management District (SFWMD) electronic databases for Department of Transportation's Florida Land Use, Cover and Forms (FLUCCS) (1999) and field verification of same.

FLUCCS

The electronic database identified:

212 Unimproved Pasture
617 Mixed Wetland Hardwoods
641 Freshwater Marsh
631 Wetland Forest Mixed (scrub)

The following native plant communities were observed:

All native plant communities identified in the FLUCCS database were observed during the site visit. Conservation Collier staff also noted observations of:

625 Hydric Pine Flatwoods

Characterization of Plant Communities Present

212 Unimproved pastures:
This community is found centrally to both parcels in areas where canopy and midstory were removed historically and dominant grasses maintained through cattle grazing. Most of the unimproved pasture community was inundated with 4”-8” of standing water during the wet season site visit. Seasonal wetland wildflowers such as swamp sunflower (helianthus angustifolius) and saltmarsh mallow (*Kosteletzkya virginica*) were observed growing in the inundated pastures. While non-native grasses were present, density of invasive, exotic woody species was low.

Ground Cover: consists of primarily Bahia grass, native forbs and species like broomsedge, smutgrass, caesarweed, tall elephantsfoot, grapevine, frostweed, Spanish needles.
Midstory: Scattered cabbage palm, dogfennel, myrsine, hogplum, saltbush

Canopy: scattered live oak, laurel oak, Florida slash pine

617 Mixed Wetland Hardwoods:

This community is found along the pasture edges of both parcels and is the more dominant community present. Density of invasive, exotic woody species was low, and this plant community appeared well maintained and managed. Sprawling old growth oaks dominated the canopy. Low-lying areas retained significant surface water that supported wetland dependent species in the wet season.

Ground Cover: Southern shield fern, Spanish needles, grapevine, dollarweed, pickerelweed
Midstory: Wild coffee was abundant, both shiny and smooth leafed varieties, American beautyberry, myrsine, smilax spp., cabbage palm, shoestring fern, resurrection fern, dogfennel
Canopy: live oak, Laurel oak, popash, strangler fig

641 Freshwater Marsh:

The eastern side of both application parcels contain portions of the large, contiguous CREW Marsh which is a 5,000 acre freshwater sawgrass marsh system that provides rain-driven water flow through conservation lands such as CREW Marsh, Pepper Ranch Preserve, Corkscrew Swamp Sanctuary, Bird Rookery Swamp and more.

Ground Cover: sawgrass, arrowhead, pickerelweed, grass maidencane, cattail, gulf coast spikerush, sand cordgrass, water lily
Midstory: Carolina willow, buttonbush, saltbush, peruvian primrose willow, cabbage palm, American elderberry
Canopy: Red maple, cabbage palm, bald cypress, pond apple

631 Wetland Forest Mixed (Scrub)

This native plant community was observed in the interface between the wetland hardwood habitat and freshwater marsh. Fire suppression over the years has played a role in this community having an abundance of woody growth, vines, and dense midstory fuels while the understory has maintained a diversity of native grasses and sedges with knee deep to waist deep surface water in the wet season.

Ground Cover: sawgrass, sand cordgrass, submerged aquatic vegetation
Midstory: doddervine, saltbush, smilax, hog plum, wax myrtle, cabbage palm, myrsine, wild coffee, Carolina willow
Canopy: Cabbage palm, slash pine, red maple

625 Hydric Pine Flatwoods

This native plant community was observed in patchy areas along the interface of improved pasture and wetland hardwood hammock. Mature pines comprised the canopy with low levels of exotic vegetation present.

Ground Cover: flat top goldenrod, Spanish needles, grapevine
Midstory: myrsine, cabbage palm, wild coffee, hogplum
Canopy: Florida slash pine, cabbage palm

Statement for Satisfaction of Criteria

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? Ord. 2002-63, Sec. 10 (1)(b)

This property is adjacent to state-protected lands of the CREW Management Area CREW Marsh Unit. These parcels are visible from the CREW Cypress Dome Yellow Public hiking, biking and equestrian trail.

Statement for Satisfaction of Criteria

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? Ord. 2002-63, Sec. 10 (1)(c)

The parcel has a mapped surficial recharge capacity of 56 to 67” annually, considered to be high recharge. The parcel has a mapped Lower Tamiami recharge capacity of 0” to 7” considered to be low. A portion of both parcels incorporates a portion of the 5,000 acre CREW marsh, an ecologically important freshwater marsh at the

headwaters of the regional watershed which supplies freshwater flow to the Corkscrew Marsh and surrounding natural lands.

General Hydrologic Characteristics

This site was visited during a period of high water. Approximately two thirds of the site was inundated with shallow water, getting deeper toward the eastern boundaries. The terrain gently slopes west to east and transitions from unimproved pasture to wetland hardwood, forested wetland (scrub), to freshwater marsh. A number of culverts were observed on the property which were likely put in place to reduce water levels in the unimproved pasture area for grazing.

Table 3: Wetland Dependent Plant Species Observed

Common Name	Scientific Name	Wetland Status
Saw grass	Cladium jamaicense	OBL
lance-leaf arrowhead	*Sagittaria lancifolia*	OBL
cabbage palm	*Sabal palmetto*	FAC
Dog fennel	Eupatorium capilifolium	FAC
Herb-of-grace	Bacopa monnieri	OBL
Giant leather fern	Acrostichum dannaeifolium	OBL
Gulf coast spikerush	Eleocharis cellulose	OBL
Pop ash	Fraxinus caroliniana	OBL
Wax-myrtle	Myrica cerifera	FAC
Water lily	Nymphaea sp.	OBL
Resurrection fern	Pleopeltis polypodiodes var. michauxiana	FAC
Pickerelweed	Pontederia cordata	OBL
Carolina willow	Salix caroliniana	OBL
Red maple	Acer rubrum	FACW

OBL = Obligate Species, FACW = Facultative Wet Species, FAC = Facultative Species

Table 4: Wetland Dependent Wildlife Species Observed

Common Name	Scientific Name	State Status	Federal Status
Oak toad	Anaxyrus quercicus		

Other Hydrologic Indicators Observed

Submerged aquatic vegetation was present throughout the ground cover in most of the inundated native plant communities. Epiphytic orchids were also observed in the wetland hardwood areas.

Soils

The southeast corner of the site is comprised of a mixture of Winder, Riviera, and Chobee soils with a limestone substratum. These level, poorly drained soils are found in marshes and depressional areas. Under natural conditions these soils are ponded for six or more months of the year. The natural vegetation consists of pickerelweed, maidencane, rushes, fireflag, sawgrass, Florida willow, and a few cypress trees. These soils are moderately suitable for range, unsuitable for cultivated crops, and have severe limitations for development. The

southwest corner of the site is comprised of Malabar fine sand. This nearly level and poorly drained soil is found in sloughs and poorly defined drainageways. During periods of high rainfall this soil is covered by shallow, slowly moving water for up to a week. The natural vegetation consists of scattered areas of Florida slash pine, cypress, cabbage palm, saw palmetto, wax myrtle, pineland threeawn, and chalky bluestem. This soil is unsuitable for cultivated crops, moderately suitable for citrus with a good water control system, well suited for range, and has severe limitations for development. Tuscawilla and Oldsmar fine sand comprise the remainder of the site. These nearly level and poorly drained soils are found in flatwoods and hammocks. Under natural conditions, the seasonal high-water table is between a depth of 6 to 18 inches for 1 to 6 months duringmost years. The natural vegetation consists mostly of South Florida slash pine, oaks, cabbage palm, saw palmetto, wax myrtle, maidencane, chalky bluestem, and pineland threeawn. These soils are poorly suited for cultivated crops, suitable for fruit, citrus, vegetables, and pasture with a good water control system, moderately suitable for range, and has sever limitations for development.

Aquifer Recharge Potential

Aquifer recharge map data was developed by Fairbank, P. and S. Hohner in 1995 and published as Mapping recharge (infiltration and leakage) throughout the South Florida Water Management District, Technical publication 95-20 (DRE # 327), South Florida Water Management District, West Palm Beach, Florida.

Table 5: Aquifer Recharge, Wellfield Protection, and FEMA Flood Zone Characteristics

Characteristic	Value	Comment
Lower Tamiami Recharge Capacity	0” to 7”- LOW	Limited recharging
Surficial Aquifer Recharge Capacity	56” to 67”- HIGH	High Recharging
Wellfield Protection Zone	N/A	N/A
FEMA Flood Zone	AH	Areas subject to inundation by 1% annual chance shallow flooding (usually areas of ponding) where average depths are between one and three feet

Statement for Satisfaction of Criteria

The parcel has a mapped surficial recharge capacity of 56 to 67” annually, considered to be high recharge. The parcel has a mapped Lower Tamiami recharge capacity of 0” to 7” considered to be low. A portion of both parcels incorporates a portion of the 5,000 acre CREW marsh, an ecologically important freshwater marsh at the headwaters of the regional watershed which supplies freshwater flow to the Corkscrew Marsh and surrounding natural lands.

Criteria 4: Biological and Ecological Value

Does the property offer significant biological values, including biodiversity, listed species habitat, connectivity, restoration potential and ecological quality?
Ord. 2002-63, Sec. 10 (1)(d)

Listed Plant Species

The federal authority to protect land-based plant species is administered by the U.S. Fish and Wildlife Service (FWS) and published in 50 Code of Federal Regulations (CFR) 23. Lists of protected plants can be viewed on-line

at https://www.fws.gov/endangered/. The Florida state lists of protected plants are administered and maintained by the Florida Department of Agriculture and Consumer Services (FDACS) via chapter 5B-40, Florida Administrative Code (F.A.C.) and can be found on their website.

Table 6: Observed Listed Plant Species

Common Name	Scientific Name	State Status	Federal Status
Cardinal airplant	*Tillandsia fasciculata*	SE	
Northern needleleaf airplant	*Tillandsia balbisiana*	SE	
Florida butterfly orchid	*Encyclia tampensis*	CE	

Listed Wildlife Species

Federal wildlife species protection is administered by the FWS with specific authority published in 50 CFR 17. Lists of protected wildlife can be viewed on-line at: https://www.fws.gov/endangered/
FWC maintains the Florida state list of protected wildlife in accordance with Rules 68A-27.003, 68A-27.004, and 68A-27.005, respectively, of the Florida Administrative Code (F.A.C.). A list of protected Florida wildlife species can be viewed at: http://myfwc.com/wildlifehabitats/imperiled/profiles/.

Table 7: Observed Listed Wildlife Species

Common Name	Scientific Name	State Status	Federal Status
Little blue heron	*Egretta caerulea*	ST	

Table 8: Potential Listed Wildlife Species

Common Name	Scientific Name	State/Federal Status
Everglades Snail Kite	*Rostrhamus sociabilis plumbeus*	FE
Audubon's Crested Caracara	*Polyborus plancus audubonii*	FT
Florida panther	*Puma concolor coryi*	FE
Florida bonneted bat	*Eumops floridanus*	FE
Big Cypress Fox Squirrel	*Sciurus niger avicennia*	ST
Sherman's short-tailed shrew	*Blarina shermani*	ST
Florida sandhill crane	*Antigone canadensis pratensis*	ST
Roseate spoonbill	*Platalea ajaja*	ST
Tri-colored heron	*Egretta tricolor*	ST
Eastern Indigo Snake	*Drymarchon corais couperi*	FT
American alligator	*Alligator mississippiensis*	FT (S/A)
Wood stork	*Mycteria americana*	FT

Table 9: Non-Listed Wildlife Species Observed

Common Name	Scientific Name
band winged- dragonlet	*Erythrodiplax umbrata*

Southern black racer	*Coluber constrictor priapus*
black vulture	*Coragyps atratus*
blue jay	*Cyanocitta cristata*
blue-grey gnatcatcher	*Polioptila caerulea*
Florida box turtle	*Terrapene carolina*
Eastern grey squirrel	*Sciurus carolinensis*
gulf fritillary	*Agraulis vanillae*
nine-banded armadillo	*Dasypus novemcinctus*
Northern cardinal	*Cardinalis cardinalis*
red-shouldered hawk	*Buteo lineatus*
wild turkey	*Meleagris gallapavo osceola*

Bird Rookery

There is no bird rookery on-site, but portions of the freshwater marsh located on these two parcels provide historic foraging habitat for nearby rookeries for endangered wood stork, threatened heron species and native egrets

Statement for Satisfaction of Criteria

This parcel would enhance protected habitat connectivity between the Caracara Prairie Preserve, CREW Cypress Dome Trails, CREW Marsh, and Pepper Ranch Preserve. The wetland portions including the freshwater marsh and adjacent wetland hardwoods support a significant number of wetland dependent species including imperiled wading birds, reptiles and amphibians, and freshwater snakes. These parcels include historic nesting and foraging habitat for migratory swallow-tailed kites and are utilized by large mammals such as Florida panther, Florida black bear, and bobcat. Other species observed utilizing the application parcels are white-tailed deer, wild turkey, box turtle, and Eastern Diamondback Rattlesnake.

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? Ord. 2002-63, Sec. 10 (1)(e)

Is this property within the boundary of another agency's acquisition project?
No

If yes, will use of Conservation Collier funds leverage a significantly higher rank or funding priority for the parcel?

Statement for Satisfaction of Criteria

These parcels would enhance the environmental value of current conservation lands most notably Caracara Prairie Preserve and CREW Cypress Dome Trails by protecting a regularly utilized ecological corridor for wildlife and contributing to the ongoing restoration efforts to reduce woody overgrowth and nutrient loading within the freshwater marsh system by partners from the SFWMD, FWC, Audubon's Corkscrew Swamp Sanctuary, and Pepper Ranch Preserve. Acquisition and restoration of these parcels would remove the exotic plant seed source

adjacent to existing conservation lands and improve habitat and water quality within this ecologically valuable system

IV. Potential Uses and Recommended Site Improvements

Potential Uses

Potential Uses as Defined in Ordinance No. 2002-67, as amended by Ordinance No. 2007-65, section 5.9:

Table 10: Appropriate Uses

Activity	Appropriate	Comments
Hiking	Yes	There are existing cattle trails on the property that could be expanded, and the parcels are adjacent to the CREW Cypress Dome Yellow Trail
Photography	Yes	
Birdwatching	Yes	The diversity of native plant communities could provide excellent bird watching
Kayaking/Canoeing	No	Open water access not accessible
Swimming	No	Open water access not accessible
Hunting	Yes	This site is adjacent to the CREW WEA, huntable acreage managed by FWC. There is potential the WEA boundary could be expanded to offer regulated hunting opportunities on these parcels consistent with FWC rules
Fishing	No	Open water access not accessible

Recommended Site Improvements

Small piles exist where the landowner has treated exotic Brazilian pepper, it would be recommended to remove these piles to allow for native vegetation regrowth in these areas. Woody overgrowth and fuel loading is present in some of the wetland/marsh interface plant communities. Restoring these areas with prescribed fire would be recommended and could assist the CREW Management Area with their fire restoration goals on adjacent management units.

Assessing the benefits of woody plant overgrowth/ willow-reduction in the marsh portions of the property would have the potential to enhance forage habitat availability for listed wildlife species.

Access

This site can be accessed from Whidden Loop Rd, via an access gate and elevated roadway. The site can also be accessed via the CREW Cypress Dome Yellow Trail via an existing gate in the boundary fence between the properties.

V. Assessment of Management Needs and Costs

Management of this property will address the costs of exotic vegetation removal and control. The following assessment addresses both the initial and recurring costs of management. These are very preliminary estimates; Ordinance No. 2002-67, as amended by Ordinance No. 2007-65, requires a formal land management plan be developed for each property acquired by Conservation Collier.

Non-native Vegetation

Non-native, invasive species noted here are taken from the Florida Exotic Pest Plant Council's (FLEPPC) 2016 List of Invasive Plant Species (Category I and Category II). FLEPPC is an independent incorporated advisory council created to support the management of invasive exotic plants in Florida's natural areas by providing a forum for exchanging scientific, educational, and technical information. Its members come primarily from public educational institutions and governmental agencies. Annual lists of invasive plant species published by this organization are used widely in the state of Florida for regulatory purposes.

The current FLEPPC list (2019) can be viewed on-line at
http://bugwoodcloud.org/CDN/fleppc/plantlists/2019/2019_Plant_List_ABSOLUTE_FINAL.pdf

Category I plants are those which are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused. Category II invasive exotics have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. These species may become Category I if ecological damage is demonstrated.

Table 11: Non-native Plant Species Observed

Common Name	Scientific Name	FLEPPC Status
Old world climbing fern	*Lygodium microphyllum*	I
Caesar's weed	*Urena lobata*	I
Brazilian pepper	*Schinus terebinthifolius*	I
Rosary pea	Abrus precatorius	I
Cogongrass	Imperata cylindrica	I
Balsam apple	Momordica charantia	II

Invasive Vegetation Removal and Control

Density of invasive, exotic species was low at this site with the species of greatest coverage being Caesar's weed in the unimproved pastures, low levels of Brazilian pepper, and one observation of Lygodium spp. The exotic species density, size and coverage appeared to be suitable for an initial "treat in place" approach with some mild mechanical work potentially needed to address the small treated Brazilian pepper piles within the pasture of the small section of old growth pepper along the pasture edge of the South parcel depending on public access plans/ preserve aesthetics priorities. Maintenance treatments at regular intervals would be needed to keep the exotic plant species coverage low.

Much of the grass species within the pasture area is non-native and serves to support the cattle grazing on the property, but also provides habitat for species like wild turkey, Florida sandhill crane, and potentially crested caracara. Restoration of the unimproved pastures to native ground cover or canopy replanting is a potential land management activity that could be undertaken.

Reduction of woody overgrowth in the freshwater marsh system through the removal of Carolina willow is another recommended land management activity to improve the habitat and water quality.

Public Parking

A parking lot exists at the trailhead of the CREW Cypress Dome Trails that services the existing public access in the area, including the Caracara Prairie Preserve trails. If public access was expanded into these parcels to provide an off-shoot loop from the existing Cypress dome yellow trail into the Santamaria parcels, it would be feasible to have visitors utilize the existing Cypress Dome parking area that is less than a half mile hike from the property boundary.

Public Access Trails

Site conditions within the Santamaria parcels are suitable for a low-impact seasonally wet hiking trail that could enhance the passive-recreational opportunities available in the area. Sprawling old growth oaks, sweeping pasture views, native wildflowers, and frequent wildlife sightings are factors that would make this a suitable natural area to explore. The CREW side of the Santamaria parcel boundary line and fence is regularly maintained by SFWMD staff which would facilitate a straightforward connection point to the existing trails.

View of the Santamaria parcels from the CREW Cypress Dome Trails

Existing hiking trails in the area in relation to the Santamaria Parcels

Over 50 miles of walking trails exist within this region of the watershed on area conservation lands like Caracara Prairie Preserve, Pepper Ranch Preserve, CREW Cypress Dome Trails and CREW Marsh Trails. The photo above shows the existing trails on the CREW Cypress Dome Trails in relation to the Santamaria parcels.

Security and General Maintenance

Whidden Loop Road is a quiet, residential unpaved access road off of Corkscrew Road in Collier County. The property access off of Whidden Loop Rd is fenced and gated and it is recommended that this entry point would be used only for land management activities and maintenance in order to preserve the quiet, backroad atmosphere of the residential area.

Table 12: Summary of Estimated Needs and Costs

Management Element	Initial Cost	Annual Recurring Cost	Comments
Invasive Vegetation	$8,000	$6,000	Initial treatment cost estimated at $200 per acre based on low densities of exotic vegetation. Maintenance treatments estimated at $150 per acre based on comparative pricing from Caracara Prairie Preserve maintenance treatments
Parking Facility	$0	$0	If the SFWMD and CREW Land and Water Trust are supportive of utilizing their existing parking lot for public access trail visitation of the Santamaria parcels, the cost to install a parking facility would be $0.

Trails	$5000	$250	Initial installation of an access gate and trail cutting. Annual recurring cost represents in-house mowing or minimal repairs
Fencing	$8000	$500	Initial fencing cost represents an estimate to remove the existing fence through the center of the parcels put in place to facilitate cattle grazing. Removing the fence would provide more habitat connectivity and reduce maintenance costs over time. Boundary fencing may need routine maintenance overtime.
Debris Removal	$1000	$0	Initial cost to remove two piles where Brazillian pepper was historically treated and stacked.
Signs	$2500	$100	Preserve entrance sign and educational materials. Maintenance costs to maintain trail marker signs.
Other	$1500		Redesigning/reprinting public access brochures and maps
Total	$26,000	$6850	

VI. 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.

Florida Forever Program

Staff has been advised that the Florida Forever Program has limited funds and is concentrating on parcels already included on its ranked priority list. This parcel is not inside a Florida Forever priority project boundary. Additionally, the Conservation Collier Program has not been successful in partnering with the Florida Forever Program due to conflicting acquisition policies and issues regarding joint title between the programs.

VII. Summary of Secondary Screening Criteria

Table 13: Secondary Criteria Scoring

Category	Subcategory	Scored Points	Possible Points
Ecological	**Total Score (Sum of 1a, 1b, 1c, 1d then divided by 4)**	**65**	**100**
	1a. Unique and Endangered Plant Communities	15	100
	1b. Significance for Water Resources	56	100
	1c. Resource Ecological/Biological Value	88	100
	1d. Protection and Enhancement of Current Conservation Lands	100	100
Human Values/Aesthetics	**Total Score (Obtained by dividing the subtotal by 3)**	**69**	**100**
	2a. Human Social Values/Aesthetics	75	300
Vulnerability to Development/Degradation	**Total Score (Sum of 3a)**	**45**	**100**
	3a. Zoning/Land Use Designation	45	100
Feasibility and Costs of Management	**Total Score (Sum of 4a, 4b, and 4c, then divided by 3)**	**87**	**100**
	4a. Hydrologic Management Needs	100	100
	4b. Exotics Management Needs	80	100
	4c. Land manageability	80	100
Total		**266**	**400**

Ecological

65/100 This site has a diversity of native plant communities with old growth canopy trees and provides habitat for a significant number of wetland and upland vertebrate species.

Human Values/Aesthetics

69/100 This site has potential to accommodate a range of public uses and is adjacent to existing, well maintained public trails which bring in many thousands of visitors each year.

Vulnerability

45/100 This site is zoned for one mobile home per five acres. Land use changes such as row cropping exist on adjacent parcels.

Management

87/100 This site has low infestation levels of exotic, invasive species and would require minimal changes to preserve the ecological value of the site in perpetuity.

Parcel Size

While parcel size was not scored, the ordinance advises that based on comparative size, the larger of similar parcels is preferred. The combined acreage for these parcels is 40 acres.

VIII. Figures, Tables, and Photos

Scoring

Table 14: Secondary Scoring Criteria Form

Property Name: Santamaria et al. **Geograhical Distribution (Target Protection Area): Area 11- Caracara Prairie Preserve**			**Folio Numbers: 2 Folios**
1. Confirmation of Initial Screening Criteria (Ecological)			
1.A Unique and Endangered Plant Communities	**Possible points**	**Scored points**	**Comments**
Select the highest Score: 1. Tropical Hardwood Hammock 2. Xeric Oak Scrub 3. Coastal Strand 4. Native Beach 5. Xeric Pine 6. Riverine Oak 7. High Marsh (Saline) 8. Tidal Freshwater Marsh 9. Other Native Habitats	 90 80 70 60 50 40 30 20 10	 10	212 Unimproved Pasture 617 Mixed Wetland Hardwoods 641 Freshwater Marsh 631 Wetland Forest Mixed (scrub); 625 Hydric Pine Flatwoods
10. Add additional 5 points for each additional FNAI critically imperilled to rare listed plant community found on the parcel	5 each	0	
11. Add 5 additional points if plant community represents a unique feature, such as maturity of vegetation, outstanding example of plant community, etc.	5	5	Old growth live oak dominate the wetland hardwood hammock
1.A. Total	***100***	***15***	
1.B Significance for Water Resources	**Possible points**	**Scored points**	**Comments**
1. Aquifer Recharge *(Select the Highest Score)* a. Parcel is within a wellfield protection zone	 100		

b. Parcel is not in a wellfield protection zone but will contribute to aquifer recharge	50	50	0-7" Lower Tamiami aquifer; 56-67" surfical aquifer
c. Parcel would contribute minimally to aquifer recharge	25		
d. Parcel will not contribute to aquifer recharge, eg., coastal location	0		
2. Surface Water Quality *(Select the Highest Score)*			
a. Parcel is contiguous with and provides buffering for an Outstanding Florida Waterbody	100		Parcels incorporate portions of and provides buffering for the Corkscrew Regional Ecosystem Watershed freshwater marsh
b. Parcel is contiguous with and provides buffering for a creek, river, lake or other surface water body	75	75	
c. Parcel is contiguous with and provides buffering for an identified flowway	50		
d. Wetlands exist on site	25		
e. Acquisition of parcel will not provide opportunities for surface water quality enhancement	0		
3. Strategic to Floodplain Management *(Calculate for a and b; score c if applicable)*			
a. Depressional soils	80	14	17% Depressional soils- Winder, Riviera, and Chobee soils
b. Slough Soils	40	10	25% Slough soils- Malbar fine sand
c. Parcel has known history of flooding and is likely to provide onsite water attenuation	20	20	standing water present more than 6 months out of the year in some portions
Subtotal	300	169	
1.B Total	***100***	**56**	*Obtained by dividing the subtotal by 3.*

1.C Resource Ecological/Biological Value	**Possible points**	**Scored points**	**Comments**
1. Biodiversity *(Select the Highest Score for a, b and c)*			
a. The parcel has 5 or more FLUCCS native plant communities	100		
b. The parcel has 3 or 4 FLUCCS native plant communities	75	75	617 Mixed Wetland Hardwoods 641 Freshwater Marsh 631 Wetland Forest Mixed (scrub); 625 Hydric Pine Flatwoods
c. The parcel has 2 or or less FLUCCS native plant communities	50		
d. The parcel has 1 FLUCCS code native plant communities	25		

2. Listed species a. Listed wildlife species are observed on the parcel	80		
b. Listed wildlife species have been documented on the parcel by wildlife professionals	70	70	*Florida panther, Everglades snail kite*
c. Species Richness score ranging from 10 to 70	70		
d. Rookery found on the parcel	10		
e. Listed plant species observed on parcel - add additional 20 points	20	20	*Tillandsia fasciculata, Tillandsia balbisiana*
3. Restoration Potential a. Parcel can be restored to high ecological function with minimal alteration	100	100	While some exotic, invasive plant species exist on site, the density and coverage is minimal and restoration can be achieved with less than moderate work.
b. Parcel can be restored to high ecological function but will require moderate work, including but not limited to removal of exotics and alterations in topography.	50		
c. Parcel will require major alterations to be restored to high ecological function.	15		
d. Conditions are such that parcel cannot be restored to high ecological function	0		*explain limiting conditions*
Subtotal	300	290	
1.C Total	***100***	**97**	*Divide the subtotal by 3*
1.D Protection and Enhancement of Current Conservation Lands	**Possible points**	**Scored points**	**Comments**
1. Proximity and Connectivity a. Property immediately contiguous with conservation land or conservation easement.	100	100	Directly adjacent to CREW Marsh Management Area
b. Property not immediately contiguous, parcels in between it and the conservation land are undeveloped.	50		
c. Property not immediately contiguous, parcels in-between it and conservation land are developed	0		
d. If not contiguous and developed, add 20 points if an intact ecological link exists between the parcel and nearest conservation land	20		
1.D Total	***100***	150	
1. Ecological Total Score	**100**	**67**	*Sum of 1A, 1B, 1C, 1D then divided by 4*
2. Human Values/Aesthetics			
2.A Human Social Values/Aesthetics	**Possible points**	**Scored points**	**Comments**

1. Access *(Select the Highest Score)* a. Parcel has access from a paved road b. Parcel has access from an unpaved road c. Parcel has seasonal access only or unimproved access easement d. Parcel does not have physical or known legal access	100 75 50 0	75	Whidden Loop Rd
2. Recreational Potential *(Select the Highest Score)* a. Parcel offers multiple opportunities for natural resource-based recreation consistent with the goals of this program, including but not limited to, environmental education, hiking, nature photography, bird watching, kayaking, canoeing, swimming, hunting (based on size?) and fishing. b. Parcel offers only land-based opportunities for natural resource-based recreation consistent with the goals of this program, including but not limited to, environmental education, hiking, and nature photography. c. Parcel offers limited opportunities for natural-resource based recreation beyond simply accessing and walking on it d. Parcel does not offer opportunities for natural-resource based recreation	100 75 50 0	100	Contiguous with CREW Cypress Dome Trails. Opportunities for nature-based recreation, hiking, photography, bird watching, and possibly hunting
3. Enhancement of Aesthetic Setting a. Percent of perimeter that can me seen by public. Score based on percentage of frontage of parcel on public thoroughfare b. Add up to 20 points if the site contains outstanding aesthetic characteristic(s), such as but not limited to water view, mature trees, native flowering plants, or archeological site	80 20	12 20	*15% of the parcel boundary is visible from the publically assessible CREW Cypress Dome Trails* *mature oaks provide aesthetic views along with seasonally blooming wildflowers*
Subtotal	300	69	
2. Human Social Values/Aesthetics Total Score	**100**	**69**	*Obtained by dividing the subtotal by 3.*
3. Vulnerability to Development/Degradation			
3.A Zoning/Land Use Designation	**Possible points**	**Scored points**	**Comments**
1. Zoning allows for Single Family, Multifamily, industrial or commercial 2. Zoning allows for density of no greater than 1 unit per 5 acres 3. Zoning allows for agricultural use /density of no greater than 1 unit per 40 acres 4. Zoning favors stewardship or conservation	50 45 40 0	45	A-MHO
5. If parcel has ST overlay, remove 20 points	-20		

6. Property has been rezoned and/or there is SDP approval	25		
7. SFWMD and/or USACOE permit has been issued	25		
8. A rezone or SDP application has been submitted	15		
9. SFWMD and/or USACOE permit has been applied for	15		
3. Vulnerability Total Score	**100**	**45**	
4. Feasibility and Costs of Management			
4.A Hydrologic Management Needs	**Possible points**	**Scored points**	**Comments**
1. No hydrologic changes are necessary to sustain qualities of site in perpetuity	100	100	No hydrologic changes are needed to sustain existing conditions
2. Minimal hydrologic changes are required to restore function, such a cut in an existing berm	75		
3. Moderate hydrologic changes are required to restore function, such as removal of existing berms or minor re-grading that require use of machinery	50		
4. Significant hydrologic changes are required to restore function, such as re-grading of substantial portions of the site, placement of a berm, removal of a road bed, culvert or the elevation of the water table by installing a physical structure and/or changes unlikley	0		
5.A Total	***100***	***100***	
4.B Exotics Management Needs	**Possible points**	**Scored points**	**Comments**
1. Exotic Plant Coverage			
a. No exotic plants present	100		
b. Exotic plants constitute less than 25% of plant cover	80	80	Coverage of mature exotic species infestation is low
c. Exotic plants constitute between 25% and 50% of plant cover	60		
d. Exotic plants constitute between 50% and 75% of plant cover	40		
e. Exotic plants constitute more than 75% of plant cover	20		
f. Exotic characteristics are such that extensive removal and maintenance effort and management will be needed (e.g., heavy infestation by air potato or downy rosemytle)	-20		
g. Adjacent lands contain substantial seed source and exotic removal is not presently required	-20		
5.B Total	***100***	***80***	
4.C Land Manageability	**Possible**	**Scored points**	**Comments**

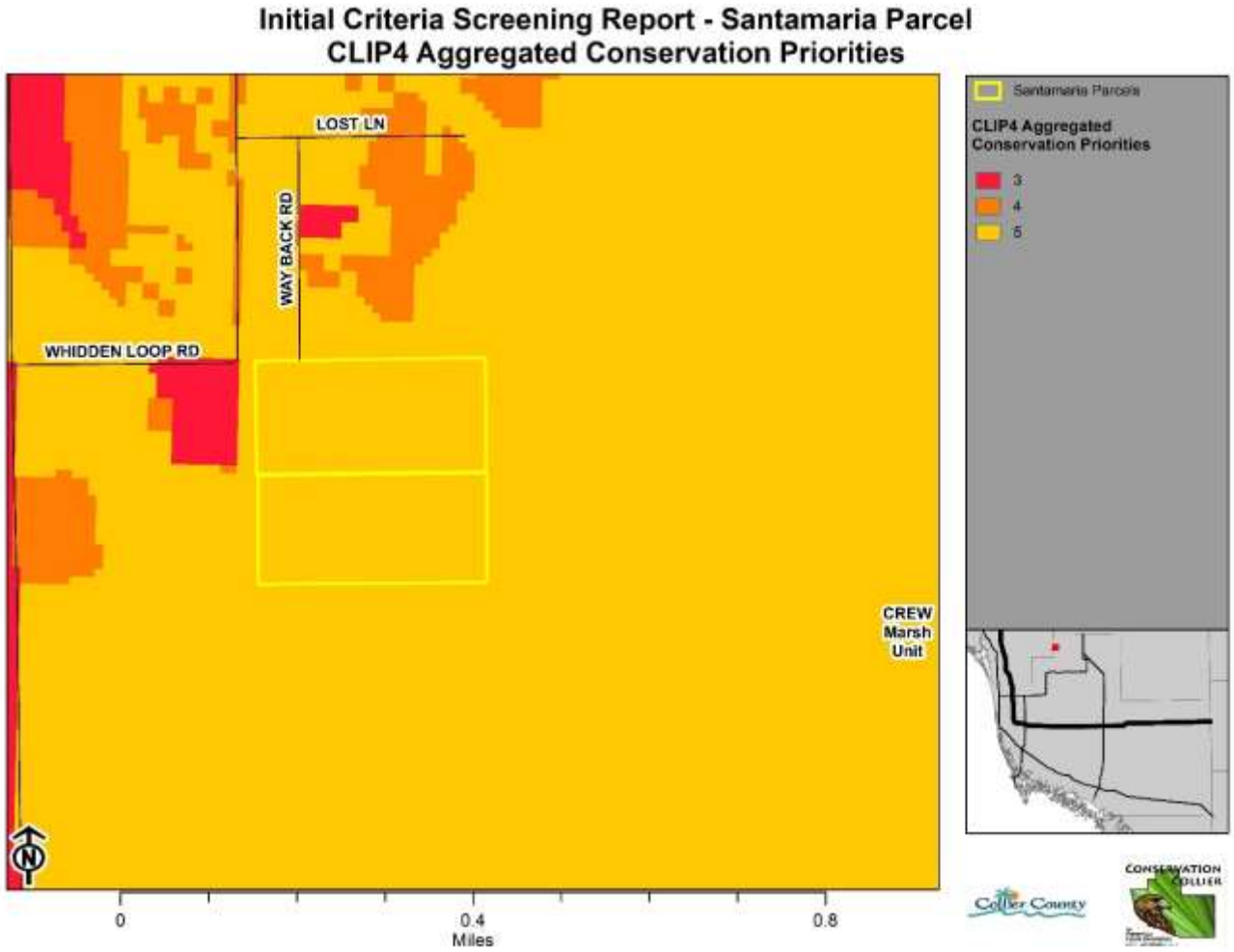
	points		
1. Parcel requires minimal maintenance and management, examples: cypress slough, parcel requiring prescribed fire where fuel loads are low and neighbor conflicts unlikely	80	80	Parcels would benefit from prescribed fire and parcels are adjacent to existing land in burn rotation with regular burning occurring year round with neighbor support
2. Parcel requires moderate maintenance and management, examples: parcel contains trails, parcel requires prescribed fire and circumstances do not favor burning	60		
3. Parcel requires substantial maintenance and management, examples: parcel contains structures that must be maintained, parcel requires management using machinery or chemical means which will be difficult or expensive to accomplish	40		
4. Add 20 points if the mainenance by another entity is likely	20		
5. Subtract 10 points if chronic dumping or trespass issues exist	-10		
5.C Total	***100***	***80***	
4. Feasibility and Management Total Score	**100**	**87**	*Sum of 5A, 5B, 5C, then divided by 3*
Total Score	**400**	**266**	

Critical Lands and Waters Identification Maps (CLIP)

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.

Figure 6. Aggregated Conservation Priorities CLIP4 Map

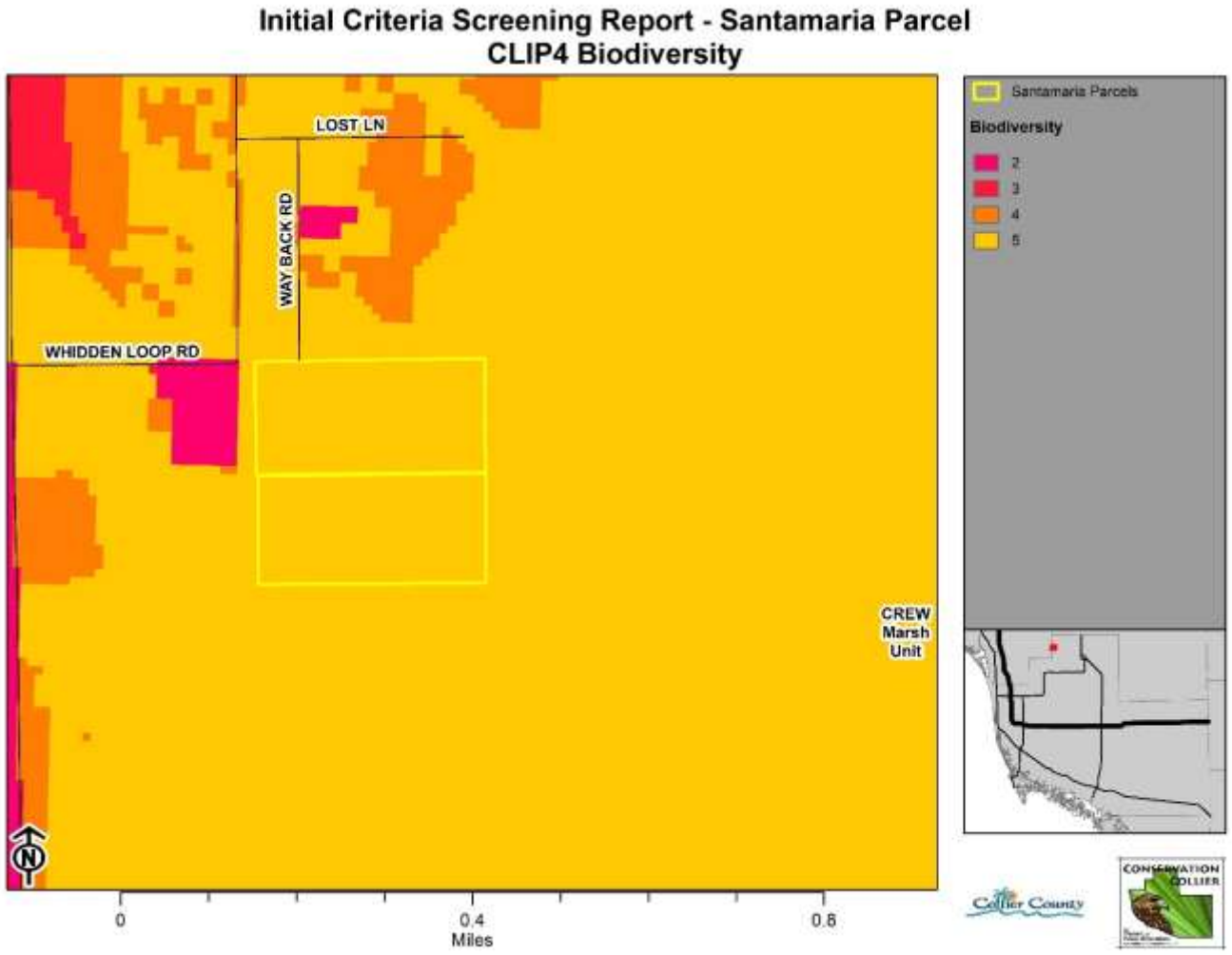
This is the CLIP version 4.0 Aggregated Priorities model, which combines conservation priorities from the Biodiversity, Landscapes, and Surface Waters Resource Priority models, and the underlying CLIP Core Data layers. Grid Value 5 = Priority 1 (highest conservation priority), 4 = Priority 2, 3 = Priority 3, 2 = Priority 4, 1 = Priority 5 (lowest), and 0 = no resource value identified.



Both parcels show a grid value of 5, or the highest conservation priority.

Figure 7. Biodiversity CLIP4 Map

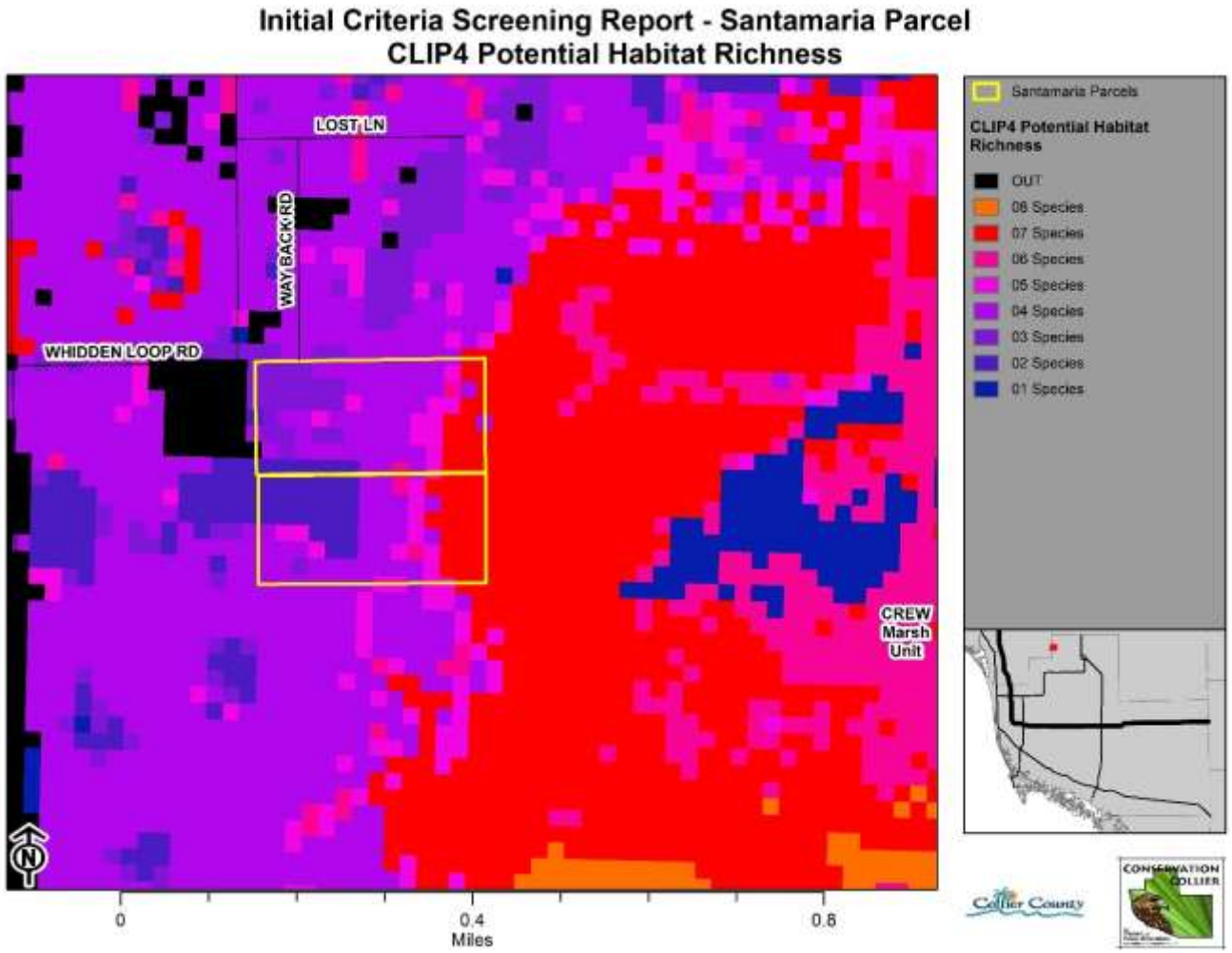
This is the CLIP version 4.0 Biodiversity Resource Priorities model, which combines conservation priorities from the SHCA, Vertebrate Richness, FNAIHAB, and Priority Natural Communities Core Data layers. Grid Value 5 = Priority 1 (highest conservation priority), 4 = Priority 2, 3 = Priority 3, 2 = Priority 4, 1 = Priority 5 (lowest), and 0 = no resource value identified.



Both parcels show a grid value of 5, or the highest conservation priority.

Figure 8. Potential Habitat Richness CLIP4 Map

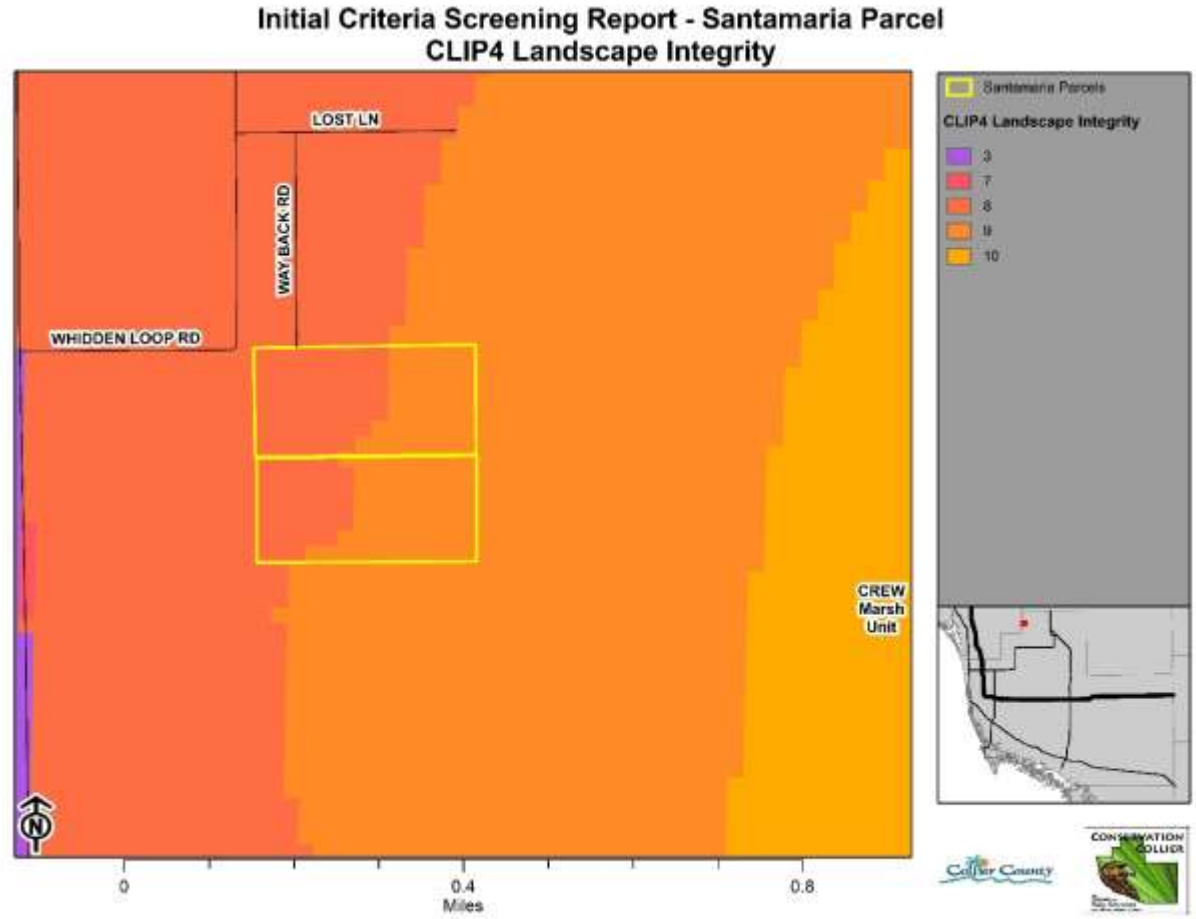
This CLIP version 4.0 data layer is unchanged from CLIP v3.0. FWC Potential Habitat Richness. Because SHCAs do not address species richness, FWC also developed the potential habitat richness layer to identify areas of overlapping vertebrate species habitat. FWC created a statewide potential habitat model 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.



The habitat richness values for these parcels show they support habitat for 1-7 vertebrate species throughout.

Figure 9. Landscape Integrity CLIP4 Map

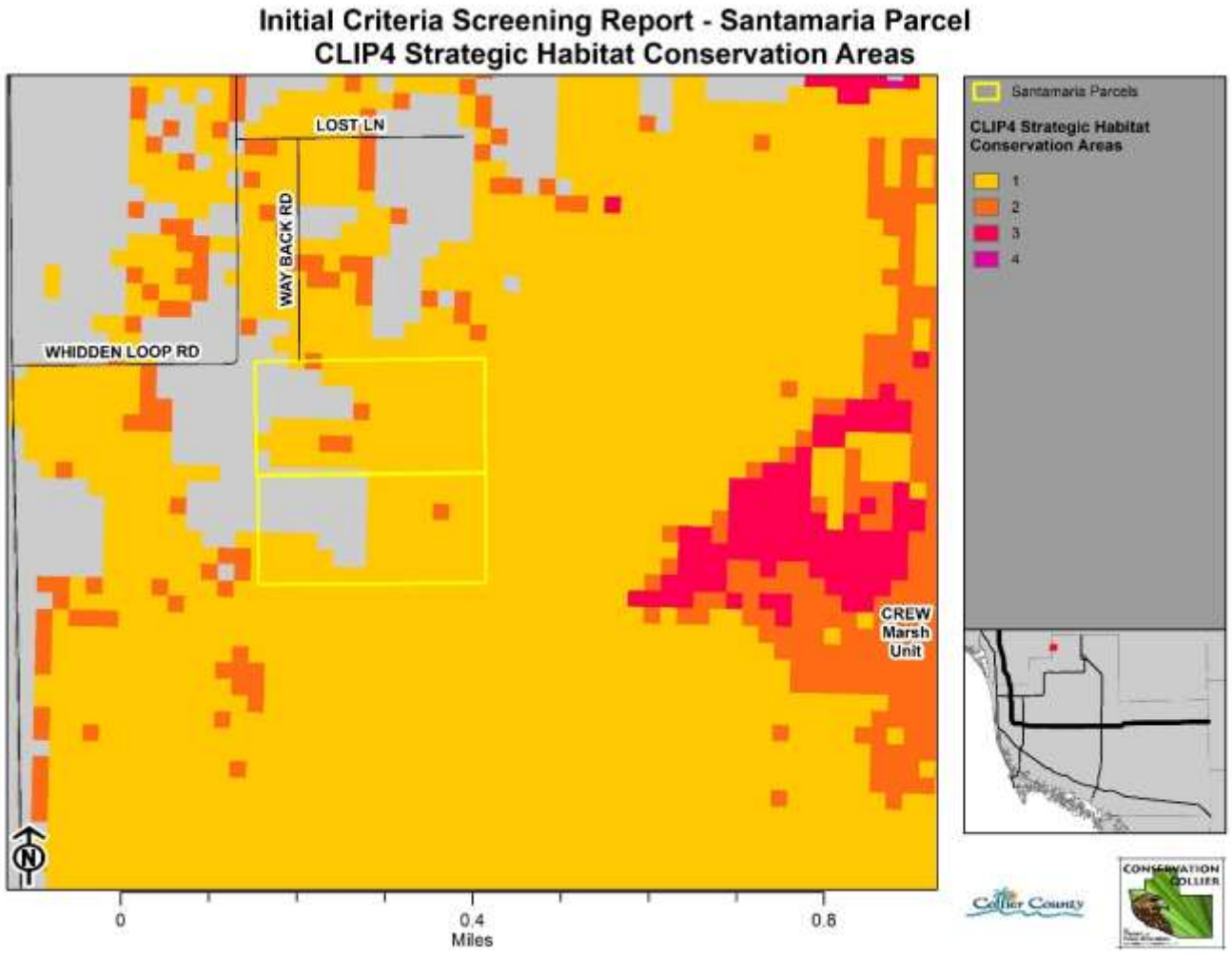
The landscape integrity layer is comprised of two related landscape indices assessing ecological integrity based on land use intensity and patch size of natural communities and semi-natural land uses. The land use intensity index characterizes the intensity of land use across the state based on five general categories of natural, semi-natural (such as rangelands and plantation silviculture), improved pasture, agricultural/low-intensity development, and high intensity development. The patch size index combines the land use data with major roads data (such as 4 land or wider roads and high traffic roads) to identify contiguous patches of natural and semi-natural land cover and ranks them based on area. The combination of the land use intensity and patch size indices was created by adding the two together and dividing by two to create a non-weighted average of the two indices. Values of 10 represent areas with the highest potential ecological integrity based on these landscape indices and 1 represents the lowest ecological integrity. Please note that this index is intended to primarily characterize terrestrial ecosystems and therefore values for large water bodies are not considered significant. CLIP version 4.0 of this data layer is updated based on latest land cover data - the Cooperative Land Cover version 3.1.



The parcels show grid values of 8 and 9 indicating high potential for ecological integrity.

Figure 10: Strategic Habitat Conservation Areas CLIP4 Map

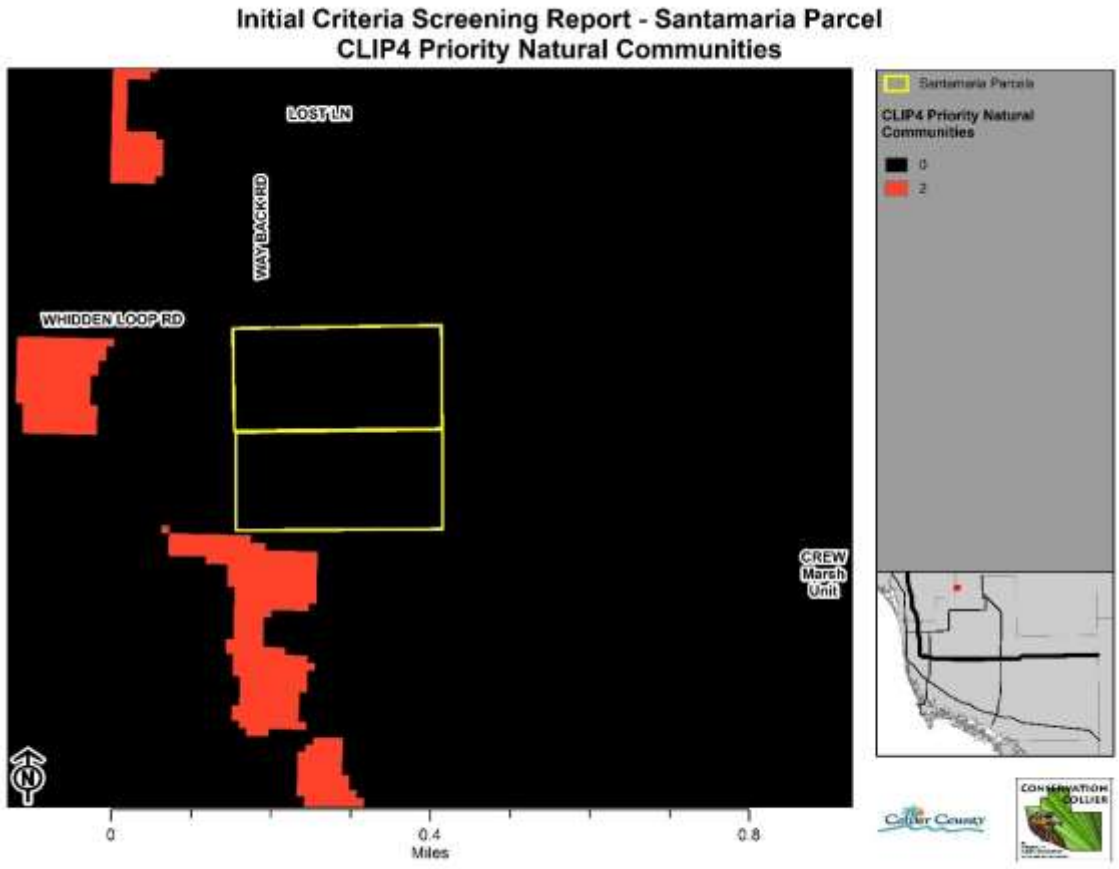
For CLIP 4.0, the species priorities were updated based on current Global and State Ranks. The Florida Fish and Wildlife Conservation Commission originally identified strategic habitat conservation areas (SHCA) in the Commission report, "Closing the Gaps in Florida's Wildlife Habitat Conservation System" (Cox et al. 1994). The goal of the SHCA is to identify the minimum amount of land needed in Florida to ensure long-term survival of key components to Florida's biological diversity. In 2009, the SHCA underwent a significant revision based on a new suite of species, updated datasets, new datasets that did not exist when the original analysis was conducted, and improved analytical techniques including spatially explicit population viability analyses. A population risk assessment was conducted for 62 focal vertebrate species, of which 34 were shown to have additional protection needs in Florida. The SHCA identify important remaining habitat conservation needs on private lands for these 34 terrestrial vertebrates. The SHCA are prioritized based on global and state natural heritage ranks. Value 1 = Priority 1 (Highest): State Rank 1 and Global Rank 1-3 Value 2 = Priority 2: State Rank 1 and Global Rank 4-5 or State Rank 2 and Global Rank 2-3 Value 3 = Priority 3: State Rank 2 and Global Rank 4-5 or State Rank 3 and Global Rank 3 Value 4 = Priority 4: State Rank 3 and Global Rank 4 Value 5 = Priority 5: State Rank 3 and Global Rank 5 or State Rank 4 and Global Rank 4



Grid values of 1 and 2 are found throughout most of the application parcel indicating highest priority for habitat conservation of focal vertebrate species.

Figure 11. Priority Natural Communities CLIP4 Map

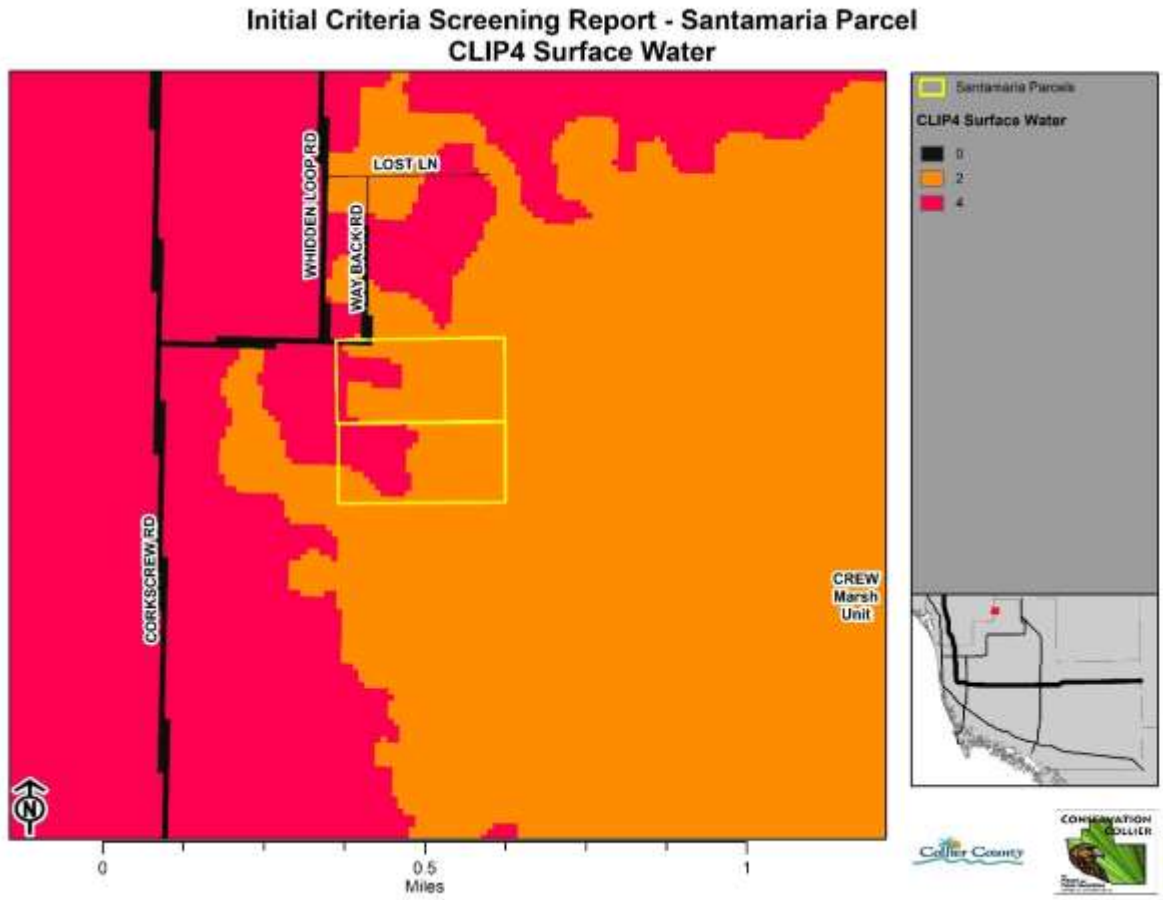
This data layer was created by FNAI specifically for the Florida Forever statewide environmental land acquisition program. It is intended to map natural communities that are under-represented on existing conservation lands. FNAI mapped the statewide range of 13 natural community types: upland glades, pine rocklands, seepage slopes, scrub, sandhill, sandhill upland lake, upland pine, tropical hardwood hammock, upland hardwood forest, pine flatwoods, dry prairie, coastal uplands, and coastal wetlands. The CLIP 4.0 version of this data layer further prioritizes areas within each community type based on land use intensity and FNAI Potential Natural Areas priorities.



These parcels do not contain under-represented natural community types according to the model.

Figure 12. Surface Water Priorities CLIP4 Map

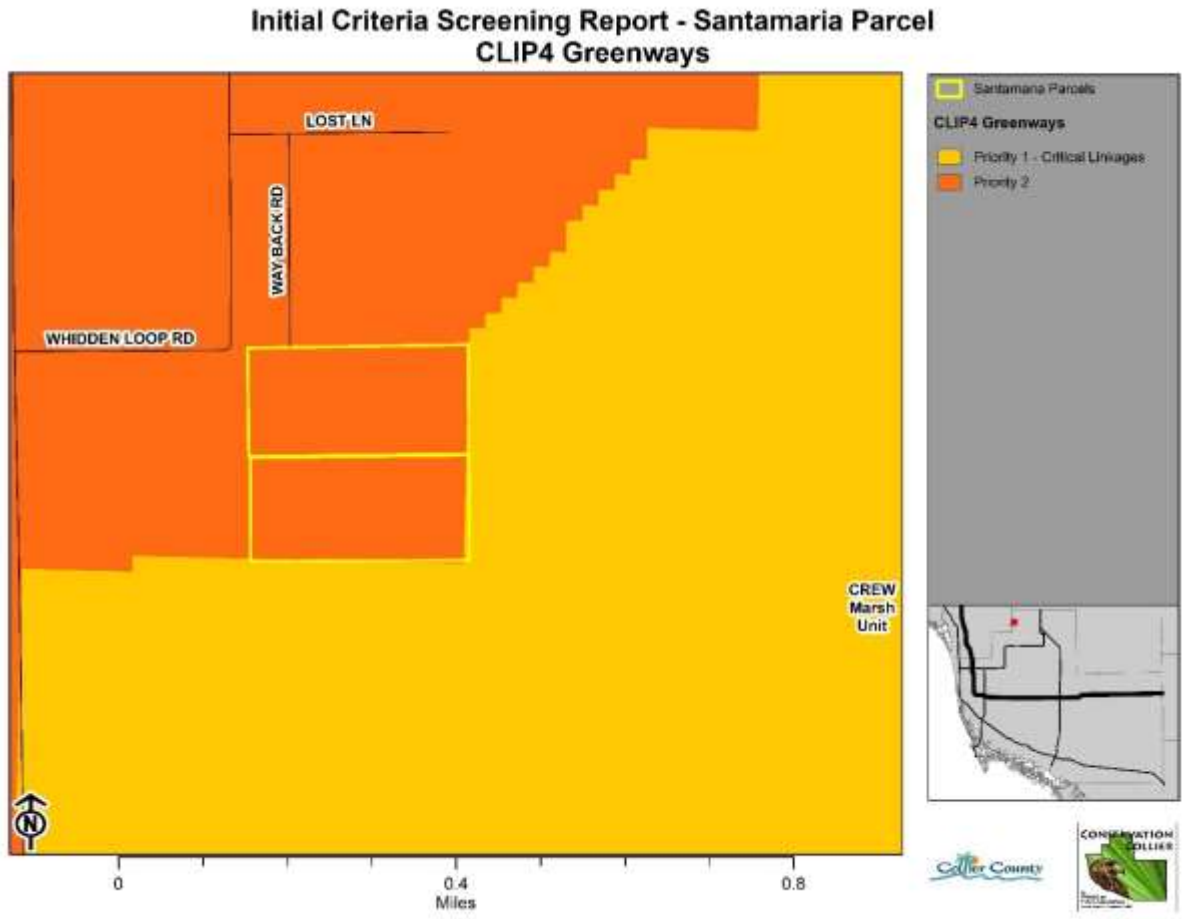
Developed by FNAI in consultation with water resource experts from the water management districts, the Florida Department of Environmental Protection (DEP) Division of Water Resource Management, DEP Office of Coastal and Aquatic Managed Areas (CAMA), and Fish and Wildlife Conservation Commission we determined that this measure concerns the protection of surface waters that currently remain in good condition, as opposed to those in need of restoration. Restoration efforts are covered under other Florida Forever goals and measures. The types of surface water resources that are included as significant surface waters are shellfish harvesting areas, seagrass beds, Outstanding Florida Waters (OFWs), National Wild and Scenic Rivers, springs, estuaries included in the National Estuary Program, and water bodies important for imperiled fish (Hoehn 1998). For a complete description please refer to: Florida Forever Conservation Needs Assessment Technical Report, Version 4.1. Florida Natural Areas Inventory. Tallahassee, Florida (available online at www.fnai.org).



This parcel has grid values of 2 and 4 indicating a significant portion of the parcels include moderate to high priority ratings for surface water protection.

Figure 13: Greenways CLIP4 Map

Prioritization of the new Florida Ecological Greenways Network base boundary is required to refine priority focal areas and facilitate implementation efforts by the Office of Greenways and Trails and partners and related conservation evaluation processes including the Florida Forever Conservation Needs Assessment.



These parcels incorporate Priority 2 Greenway linkages with Priority 1 habitat on the Eastern and Southern boundaries.

Vegetation and Habitat

Figure 14: Department of Environmental Protection and Water Management District Florida Land Use and Cover Classification System (FLUCCS)

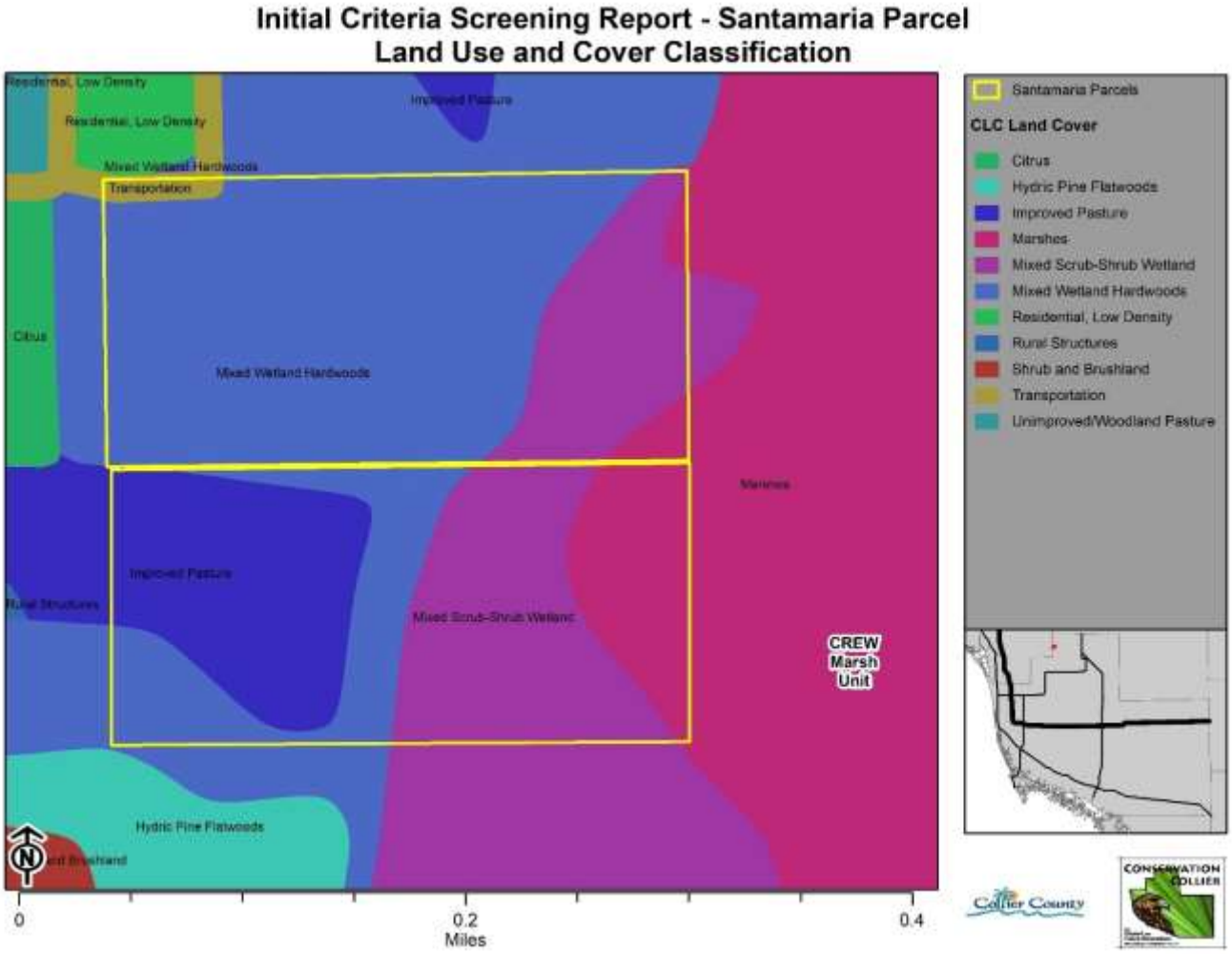
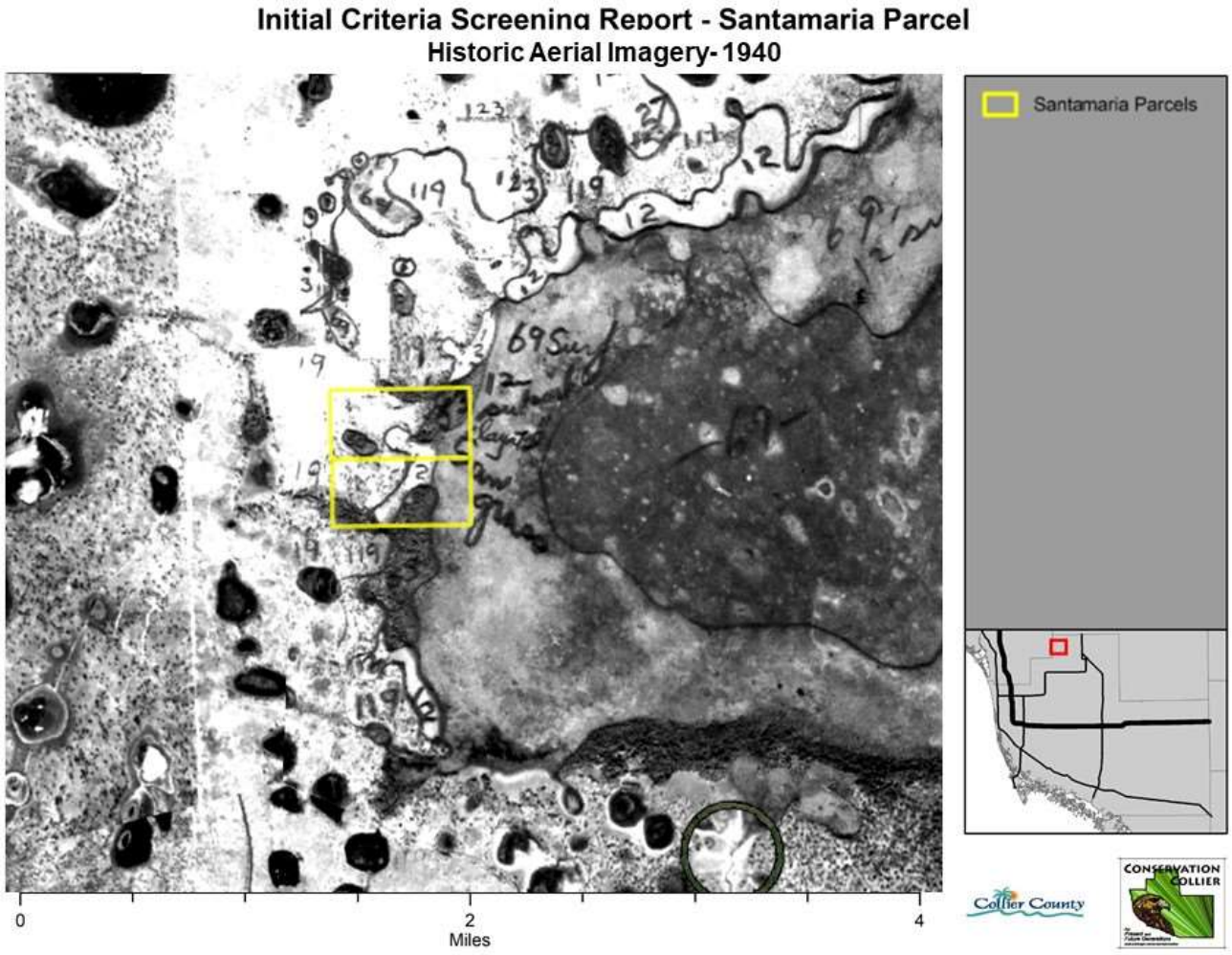


Figure 15: Historic Aerial Imagery



Photoset 1: Listed Plant Species

Reflexed wild pine (Tillandsia balbisiana)

Florida butterfly orchid (Encyclia tampensis)

Cardinal airplant (Tillandsia fasciculata)

Photoset 2: Invasive and Non-native Plant Species

Caesar's weed in the pasture at the base of trees

One stand of Brazillian pepper found at the edge of a pasture

One patch of Lygodium spp found at the edge of a pasture

Photoset 3: Representative Habitat

Mixed Wetland Hardwoods

Mixed Wetland Hardwoods

Mixed Wetland Hardwoods

Mixed Wetland Hardwoods

Unimproved Pasture

Unimproved Pasture

Unimproved Pasture

Unimproved Pasture

Pine Flatwood

Pine Flatwood

Mixed Shrub Wetlands

Mixed Shrub Wetlands

Freshwater Marsh- view from CREW Marsh

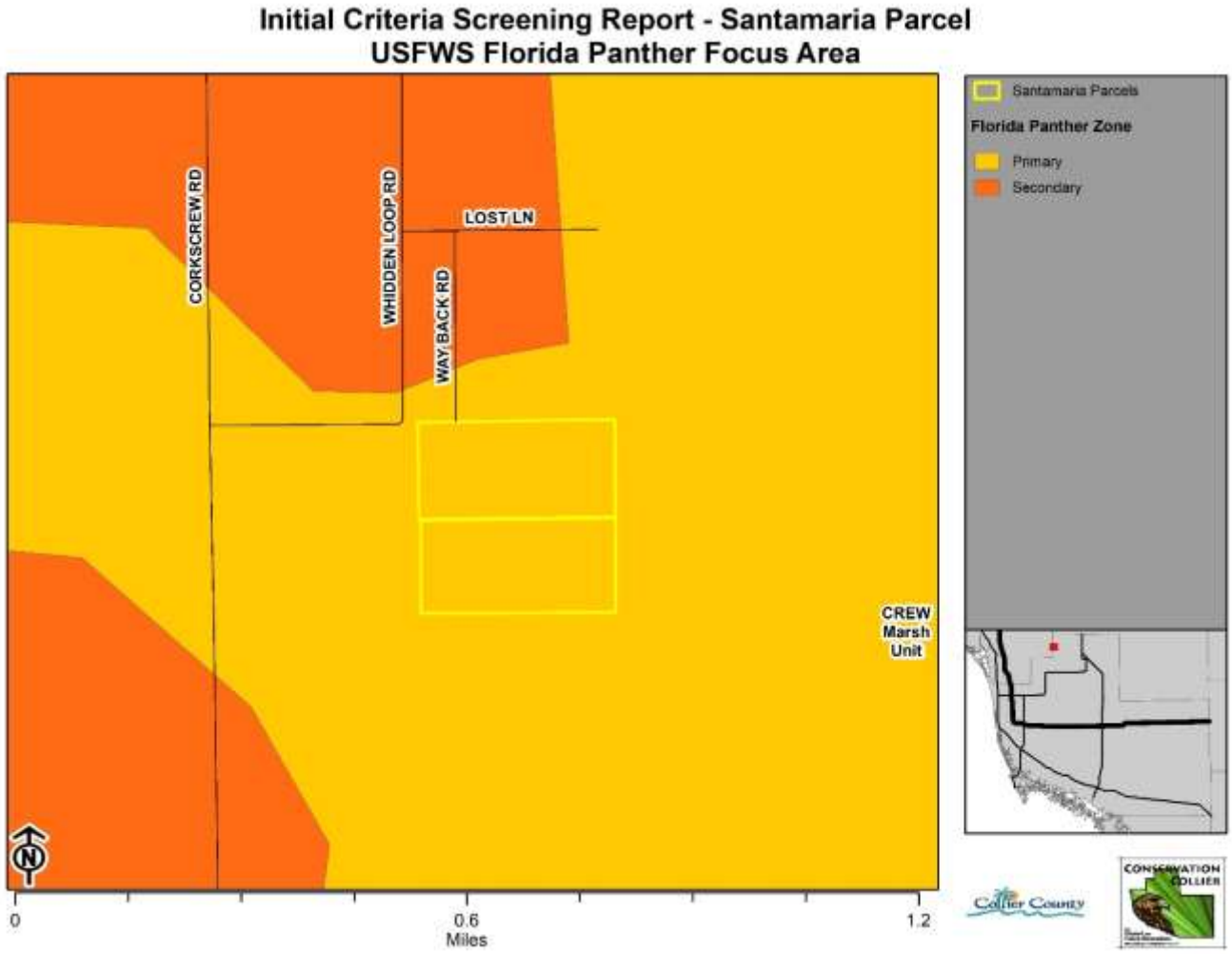
Table 15: Plant Species Observed During Site Visit

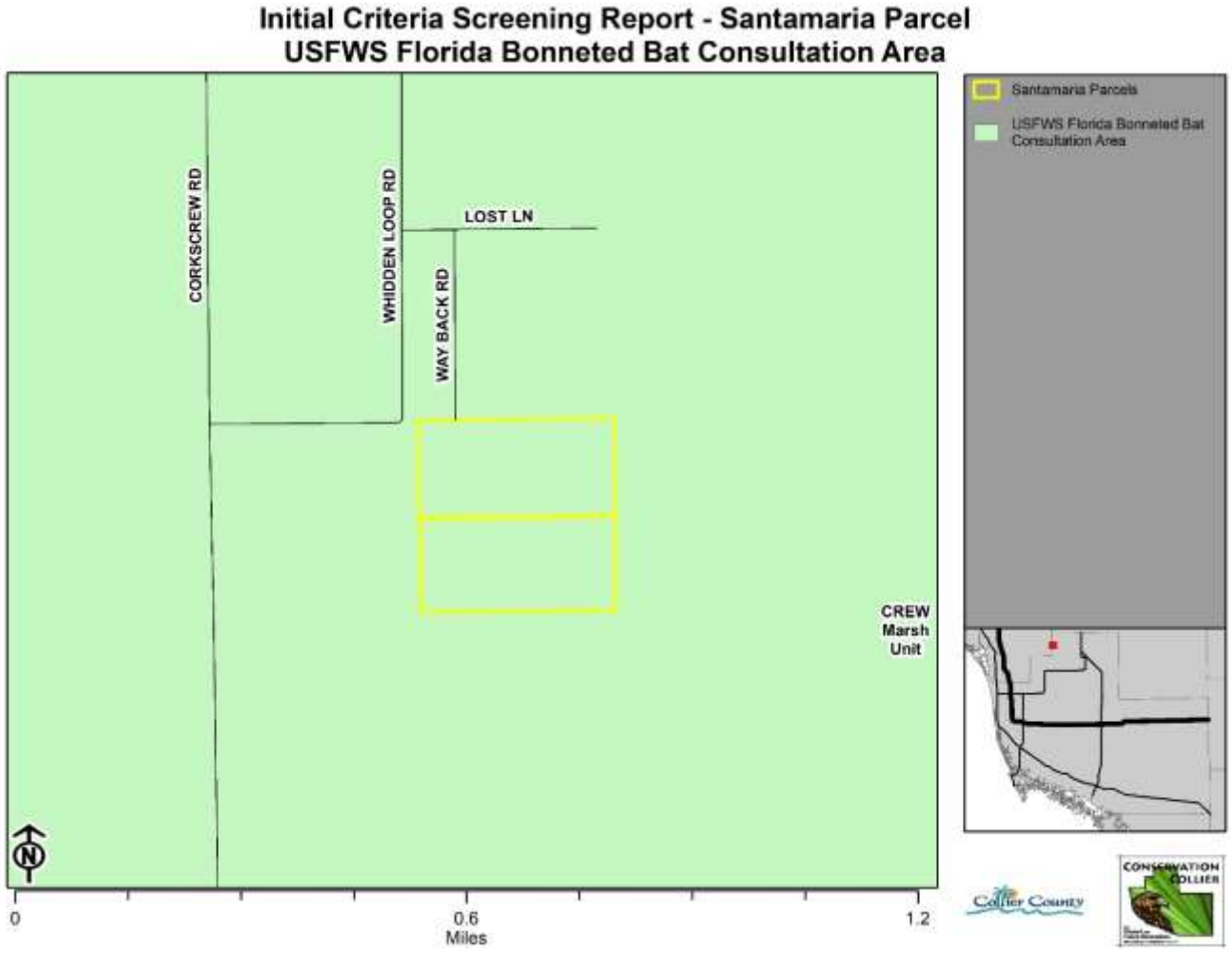
Common Name	Scientific Name	State Status	Federal Status	Wetland Status	FLEPPC Status
alligator flag	*Thalia spp.*			OBL	
beggar's tick	*Bidens alba*				
blue maidencane	*Amphicarpum muhlenbergianum*			FACW	
Brazilian pepper	*Schinus terebinthifolia*				I
bushy blue stem	*Andropogon glomeratus*			FACW	
cabbage palm	*Sabal palmetto*			FAC	
Caesar's weed	*Urena lobata*				I
Cardinal airplant	*Tillandsia fasciculata*	State Endangered	n/a		
cattails	*Typha spp.*			OBL	
climbing hempvine	*Mikania scandens*				
dense gayfeather	liatris spicata			FAC	
dollarweed	Hydrocotyle umbellata			FAC	
duck potato	*Saggitaria latifolia*			OBL	
fewflower milkweed	Asclepias lanceolata			OBL	
Florida butterfly orchid	*Encyclia tampensis*	State Commercially Exploited	n/a		
Florida slash pine	*Pinus elliottii*				
green brier	*Smilax sp.*				
hog plum	*Ximenia americana*				
Jointed spikerush	*Eleocharis interstincta*			OBL	
laurel oak	*Quercus Laurifolia*			FACW	

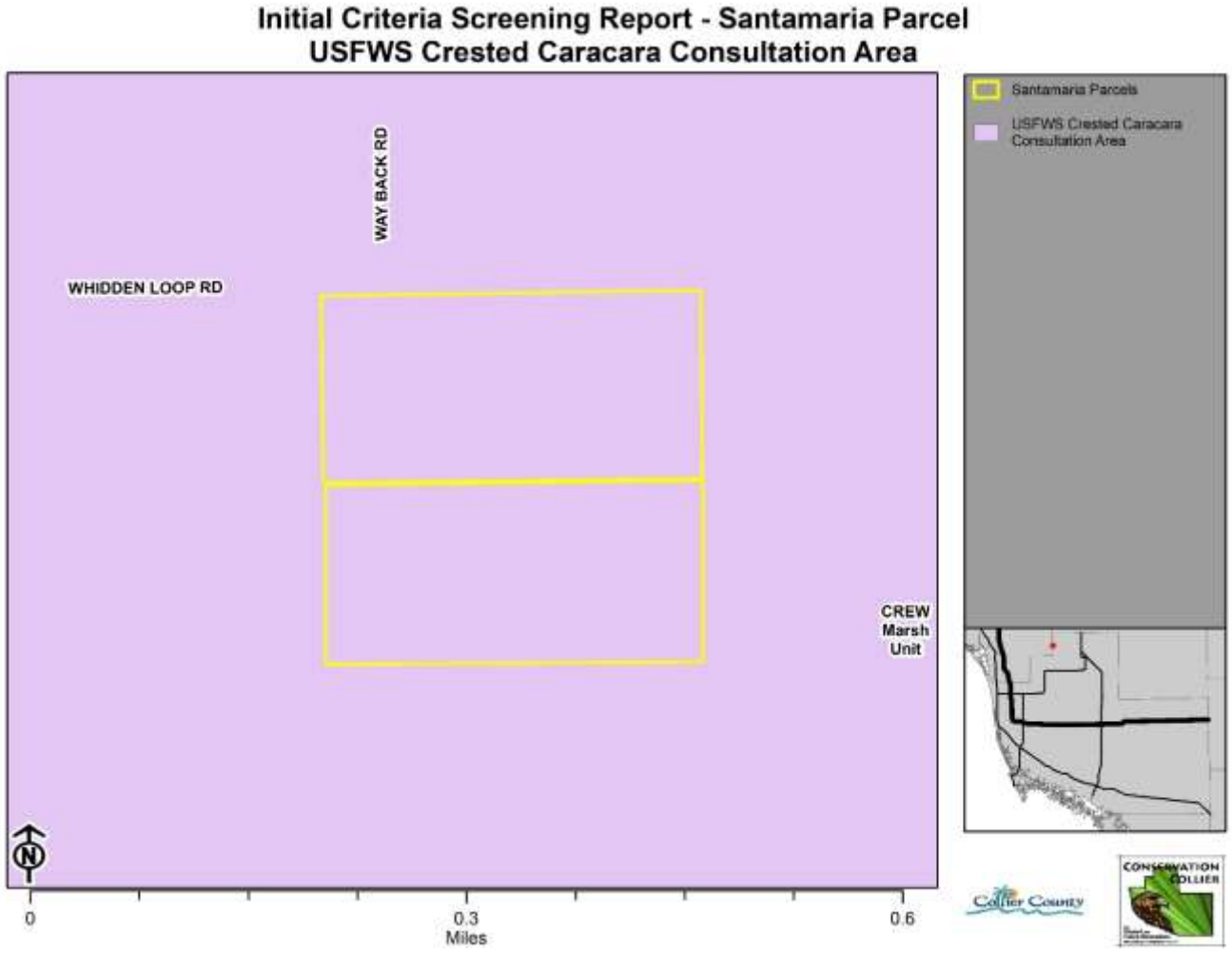
leather fern	*Acrostichum spp.*			OBL	
Leather fern	*Acrostichum spp.*	State Threatened	n/a		
myrsine	*Myrsine guianensis*			FAC	
Northern needleleaf	*Tillandsia balbisiana*	State Threatened	n/a		
Old world climbing fern	*Lygodium microphyllum*				I
pickerelweed	*Pontederia cordata*			OBL	
pond apple	*Annona glabra*			OBL	
pop ash	*Fraxinus carloliniana*			OBL	
red maple	*Acer rubrum*			FACW	
resurrection fern	*Pleopeltis polypodioides*				
salt bush	*Baccharus sp.*				
sawgrass	*Cladium jamaicense*			OBL	
seaside goldenrod	Solidago sempervirens			FACW	
shoestring fern	*Vittaria lineata*				
smart weed	*Polygonum sp.*			OBL	
Southeastern sunflower	*Helianthus agrestis*				
strangler fig	*Ficus aurea*			FAC	
swamp lily	*Crinum americanum*			OBL	
tall elephantsfoot	Elephnatopus elatus Bertol			FACU	
virginia creeper	*Parthenocissus quinquefolia*				
wax myrtle	*Myrica cerifera*			FAC	
wild coffee	*Psychotria nervosa*			FAC	
Carolina willow	*Salix caroliniana*			OBL	

Wildlife

Figure 16: USFWS Consultation Areas




Initial Criteria Screening Report - Santamaria Parcel
USFWS Florida Bonneted Bat Consultation Area
CORKSCREW RD
WHIDDEN LOOP RD
LOST LN
WAY BACK RD
CREW
Marsh
Unit
N
0
0.6
Miles
1.2
Santamaria Parcels
USFWS Florida Bonneted Bat Consultation Area
Collier County
CONSERVATION
COLLIER


Initial Criteria Screening Report - Santamaria Parcel
USFWS Crested Caracara Consultation Area
WAY BACK RD
WHIDDEN LOOP RD
CREW
Marsh
Unit
N
0
0.3
Miles
0.6
Santamaria Parcels
USFWS Crested Caracara
Consultation Area
Collier County
CONSERVATION
COLLIER

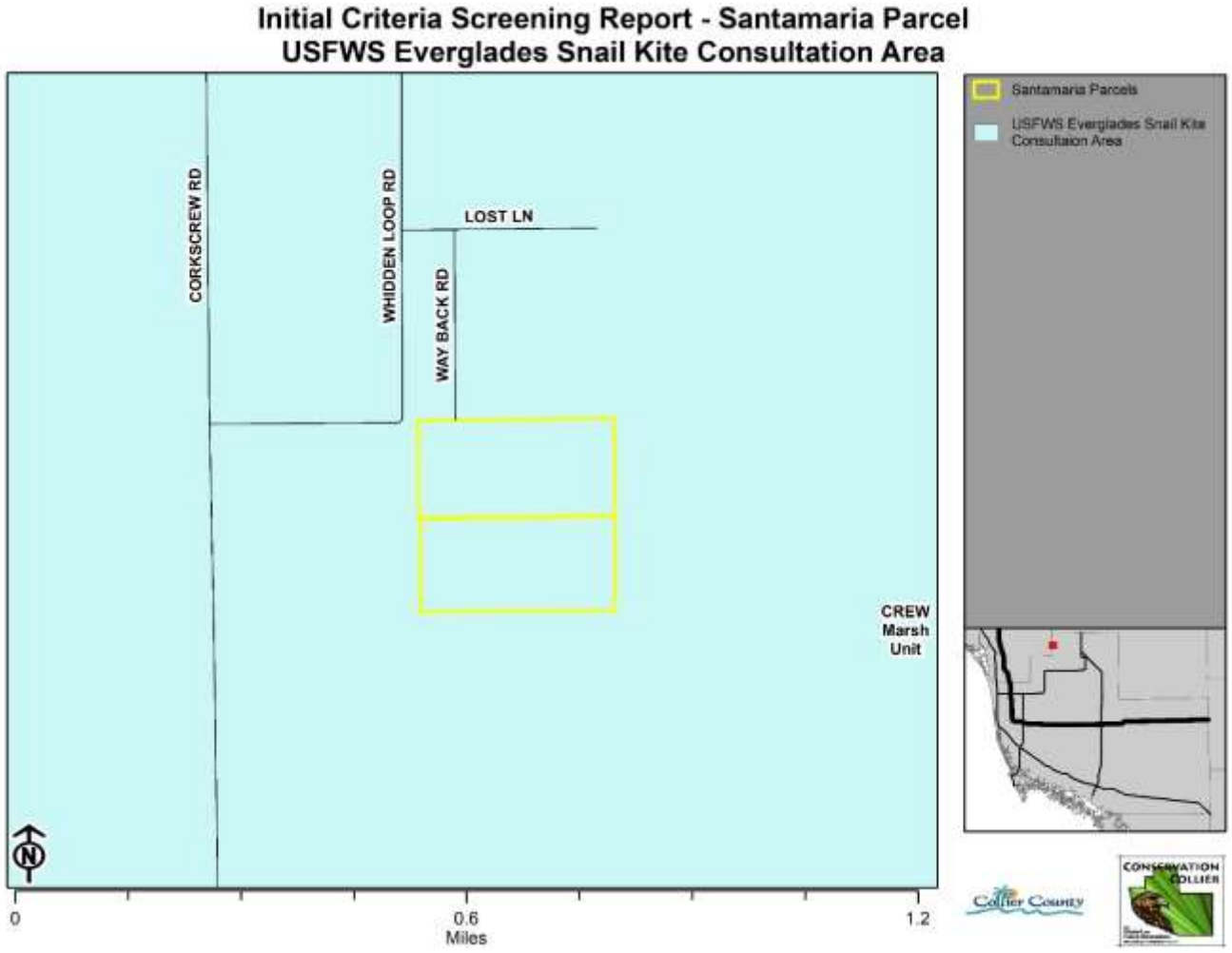
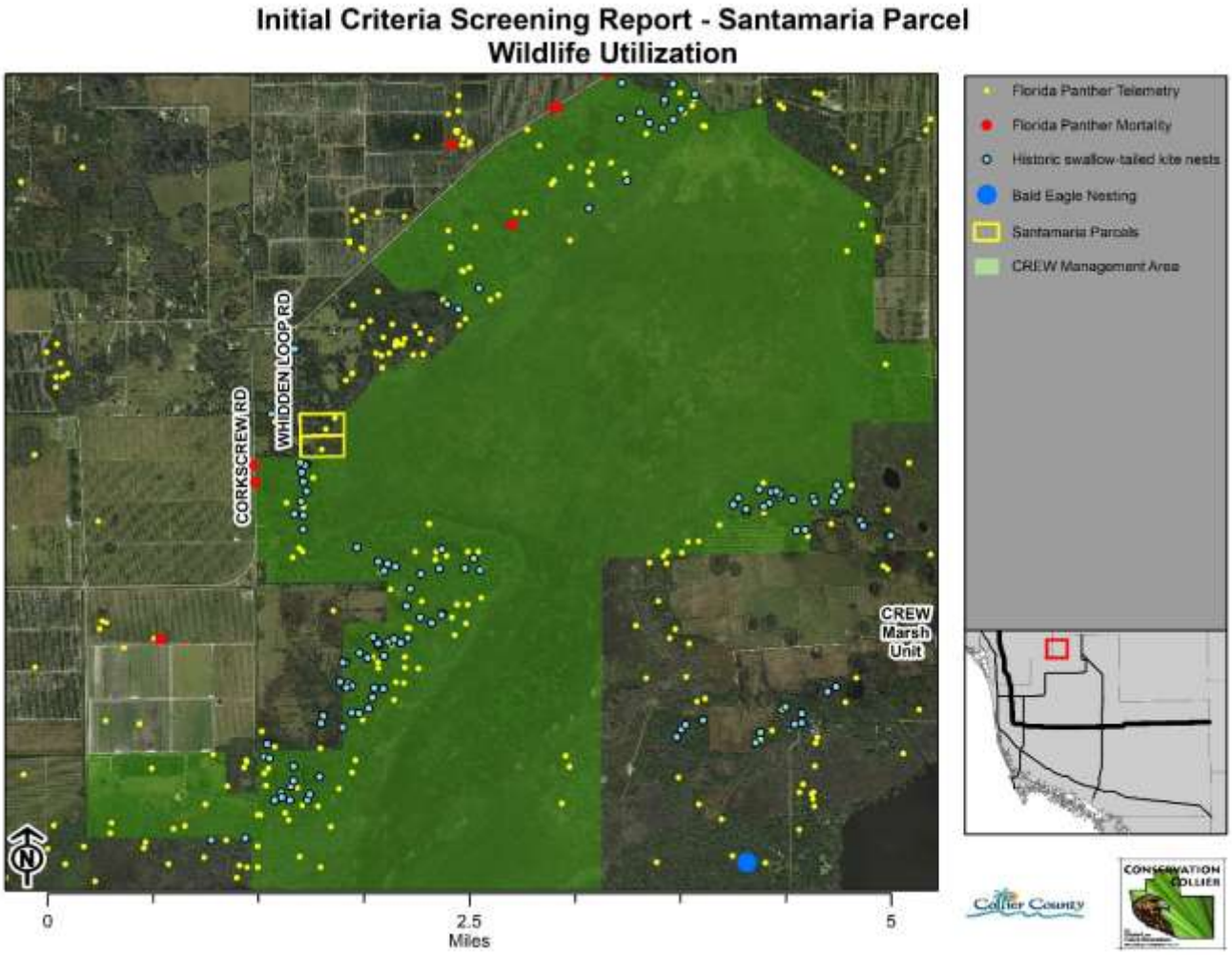
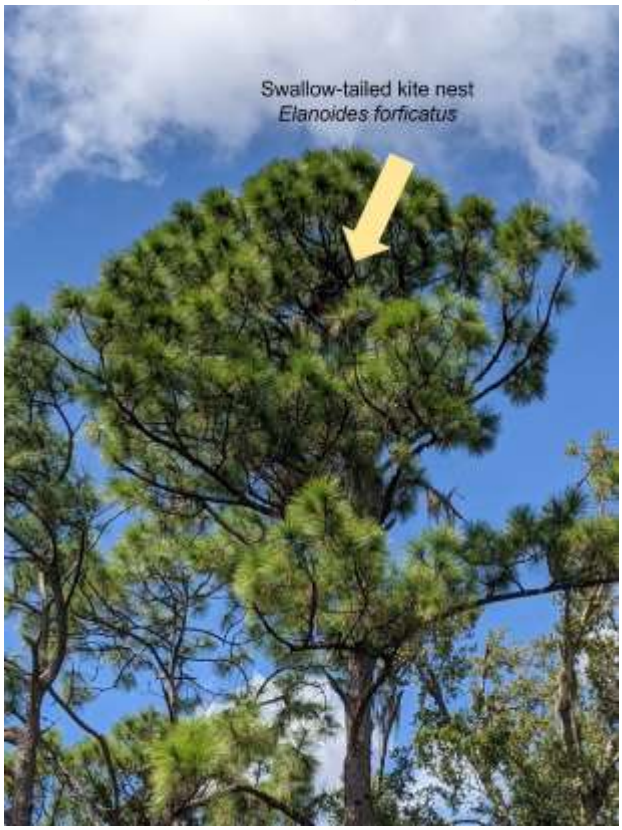

Initial Criteria Screening Report - Santamaria Parcel
USFWS Everglades Snail Kite Consultation Area
CORKSCREW RD
WHIDDEN LOOP RD
LOST LN
WAY BACK RD
CREW
Marsh
Unit
N
0
0.6
Miles
1.2
Santamaria Parcels
USFWS Everglades Snail Kite
Consultation Area
Collier County
CONSERVATION
COLLIER

Figure 17: Wildlife Telemetry



Photoset 4: Wildlife and Wildlife Indicators



Swallow-tailed kite nest in slash pine

Red-bellied woodpecker cavity in snag

Wild turkey at property entrance

Soils, Elevation, and Hydrology

Figure 18: Soil Survey of Collier County

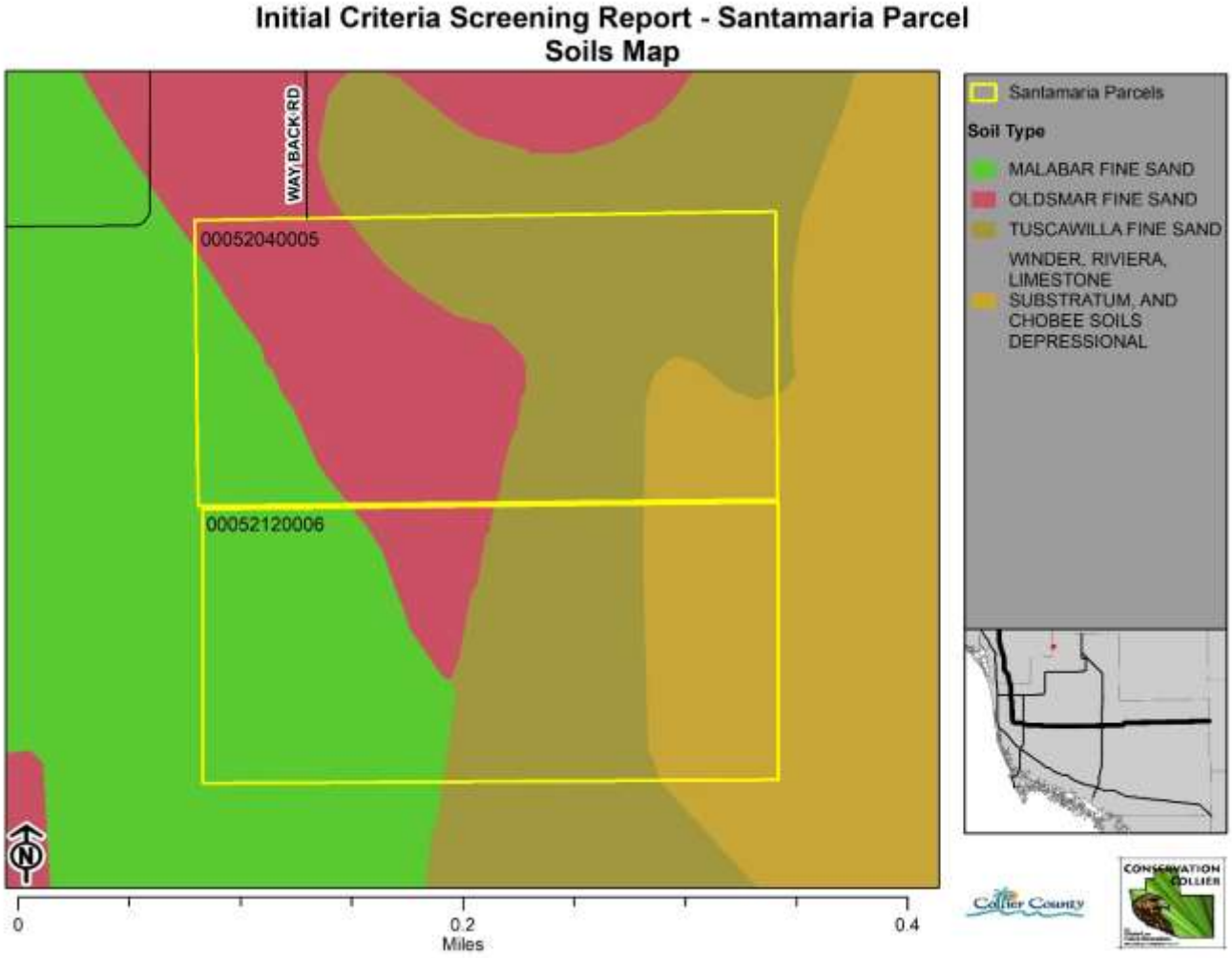


Figure 19: Light Detection and Ranging Surface Elevation Map (LIDAR)

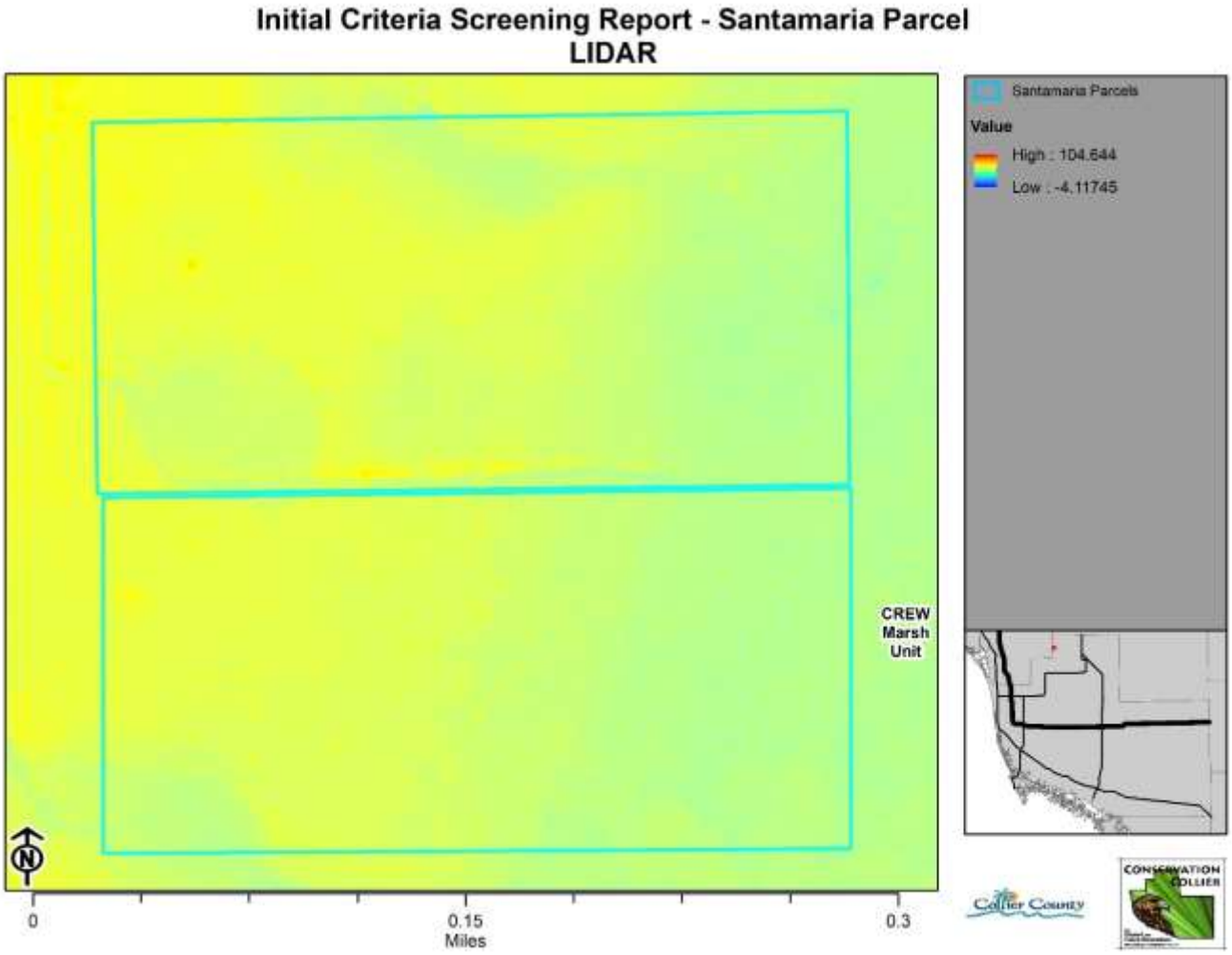


Figure 20: Wellfield Protection Zones

Collier County Wellfield Protection Zones as referenced in the Land Development Code 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.

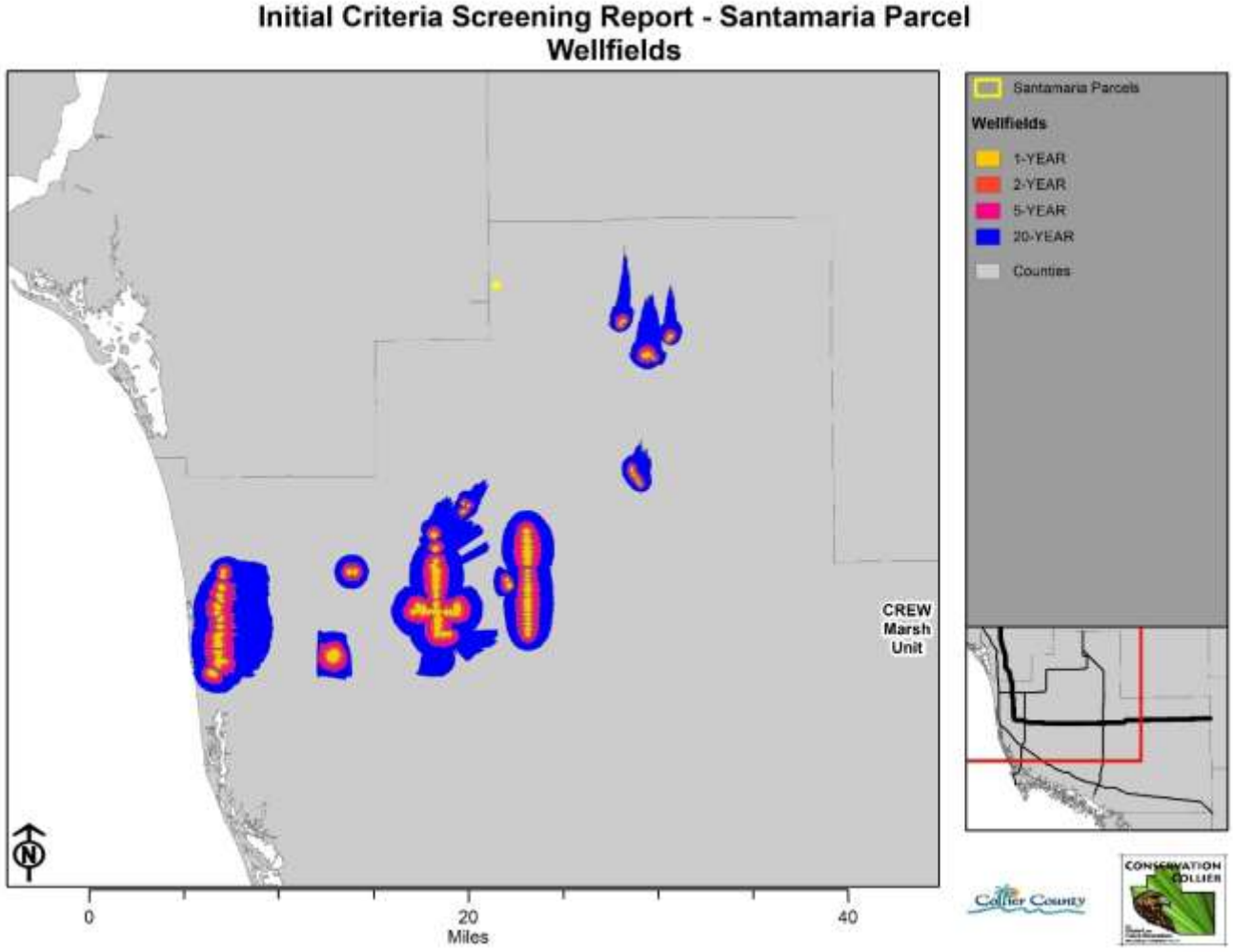


Figure 21: Precipitation Recharge/Discharge Areas - Floridan, Sandstone and Tamiami Aquifers

The maps delineate average yearly rates of precipitation recharge or leakage, depending on the type of aquifer system(s) portrayed, as well as excess precipitation estimates (i.e. rainfall minus actual evapotranspiration losses) for each planning region.

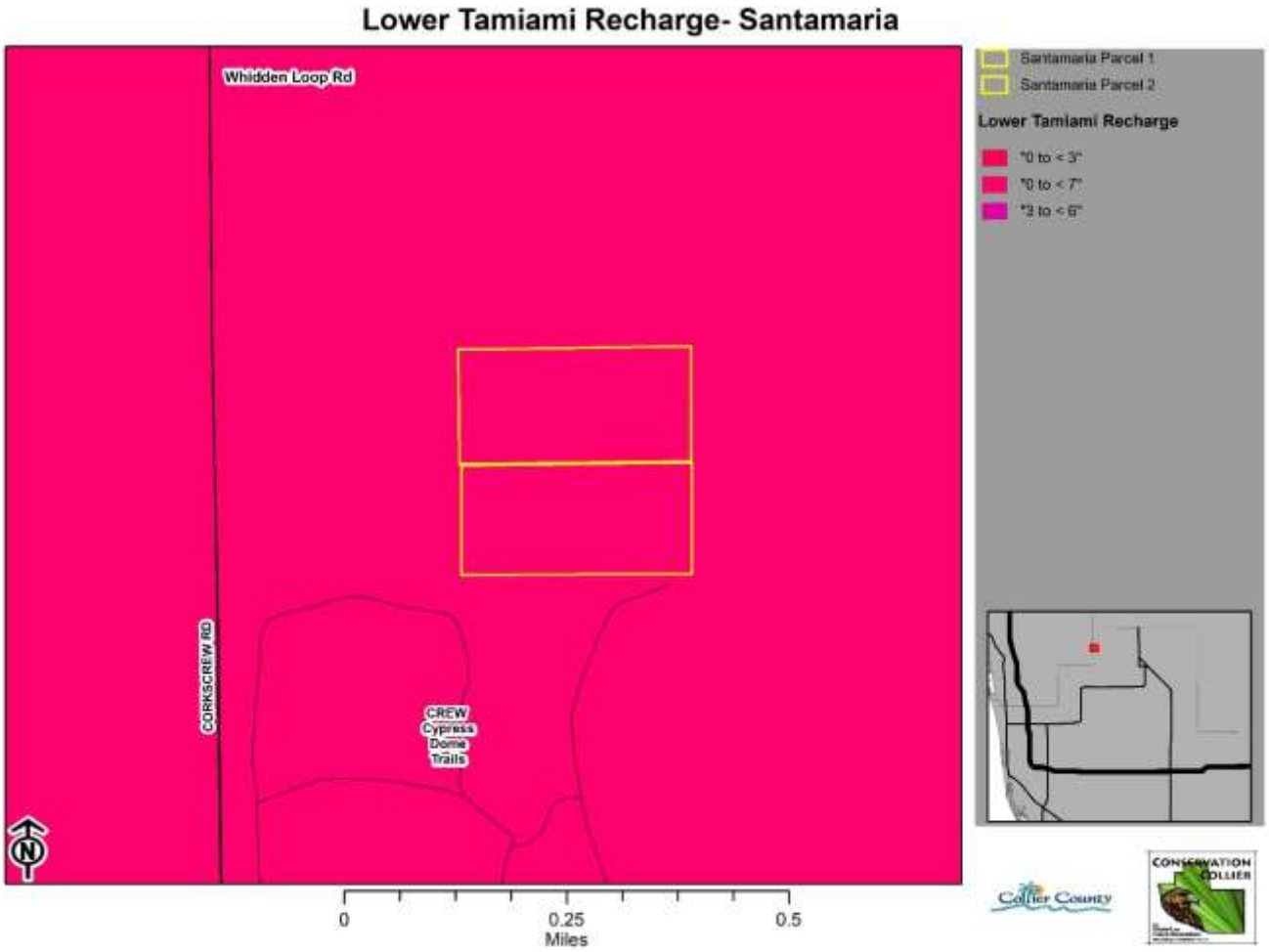


Figure 22: Precipitation Recharge Areas - Surficial and Biscayne Aquifers

The maps delineate average yearly rates of precipitation recharge or leakage, depending on the type of aquifer system(s) portrayed, as well as excess precipitation estimates (i.e. rainfall minus actual evapotranspiration losses) for each planning region.

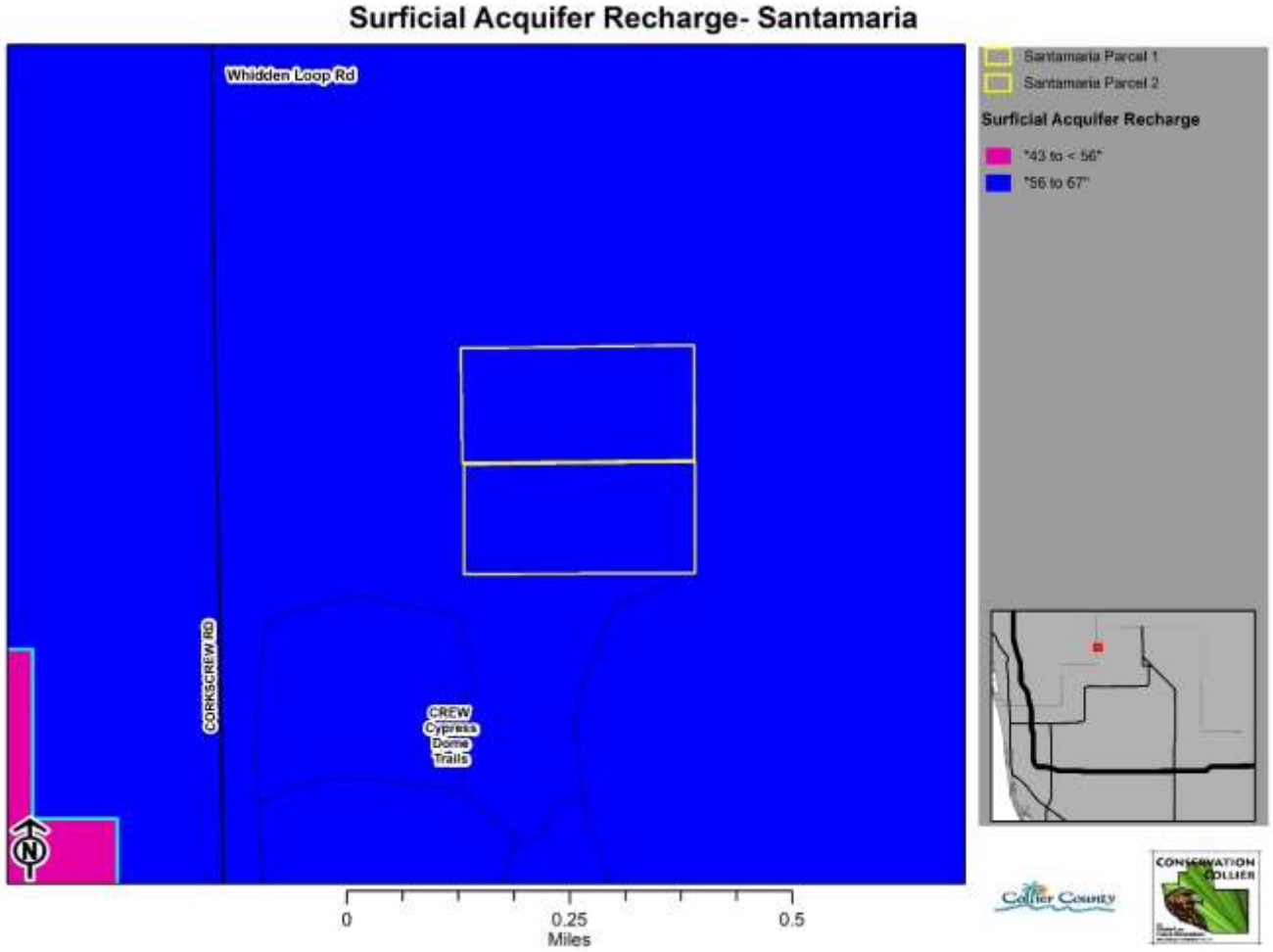
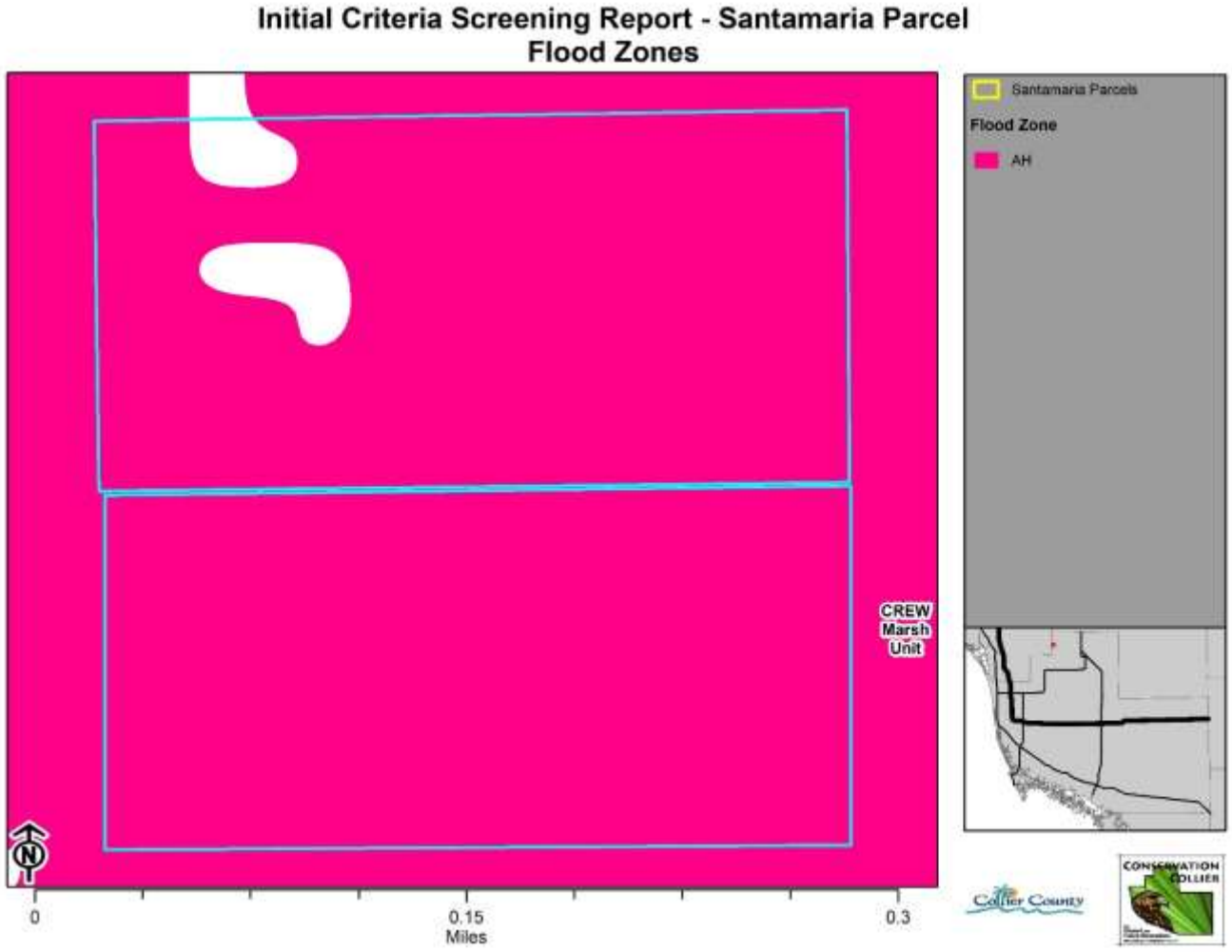


Figure 23: FEMA Flood Zones

Data was extracted from the 2011 FEMA DFIRM to provide only the remaining regulated areas; the adjusted Special Flood Hazard Area. Excluded areas were removed from the original DFIRM map including Federal Lands and FEMA Approved Mass LOMAs, MREMs and PREMs. Incorporated areas, Lake Trafford and coastal waters excluded from the Physical County Boundary were also excluded.



Photoset 5: Hydrologic indicators

Standing water and wetland plant species in wetland hardwood community

Pickerelweed in wetland hardwood community

Submerged aquatic vegetation in forested wetland community

Saltmarsh rosemallow growing in flooded pasture

Southeastern sunflower growing in flooded pasture

Zoning

Figure 24: Collier County Growth Management Department Zoning Overlay

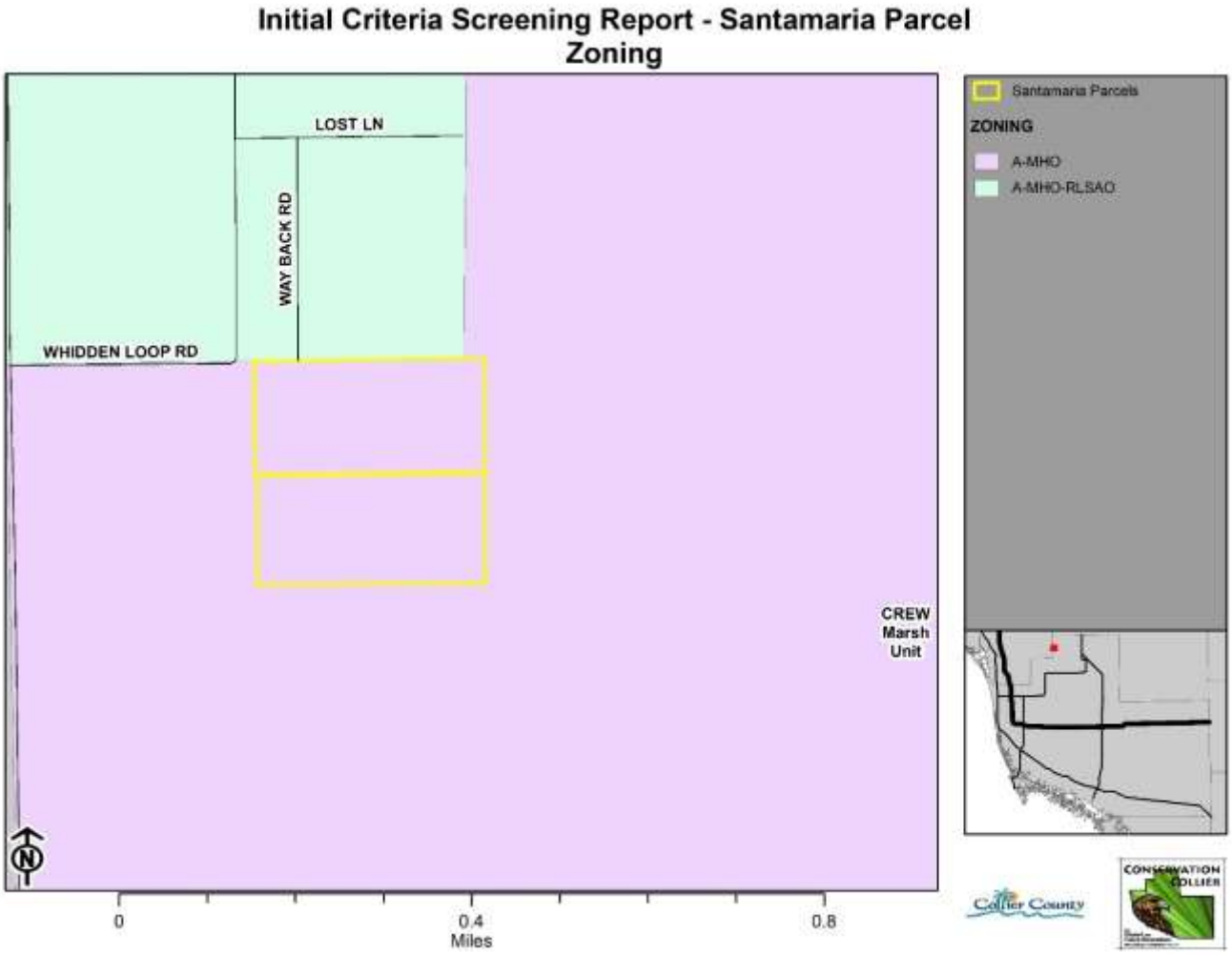
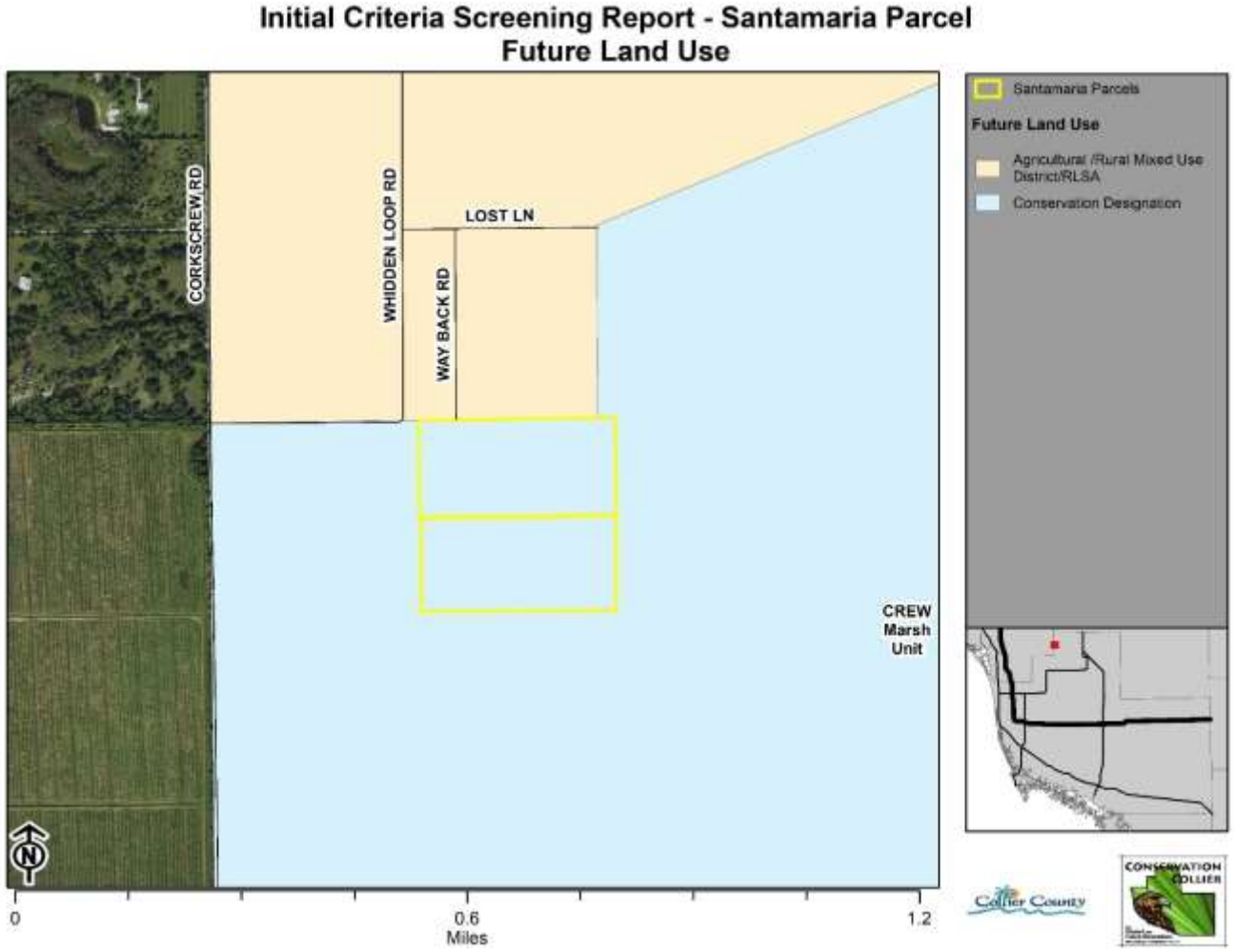


Figure 25: Collier County Growth Management Department Comprehensive Planning Division Future Land Use Overlay



Management

Photoset 6: Management Considerations

Culverts observed within the property

Barbed wire fence through center of both parcels to exclude cattle from the marsh

Two piles observed of previously treated/stacked Brazillian Pepper with some debris

Additional Figures, Tables, and Photos

Photoset 7: Additional Photos

Access gate from Whidden Loop Rd