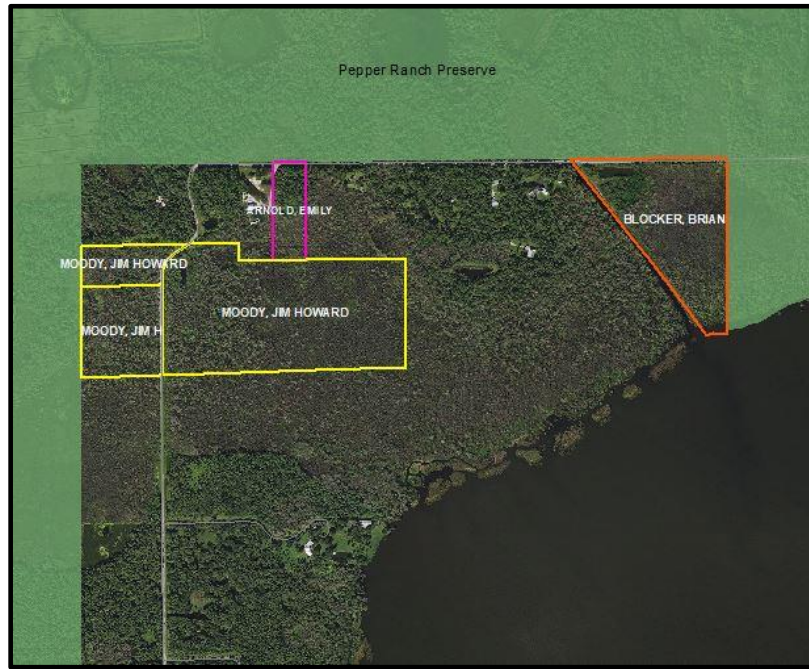


Conservation Collier Initial Criteria Screening Report

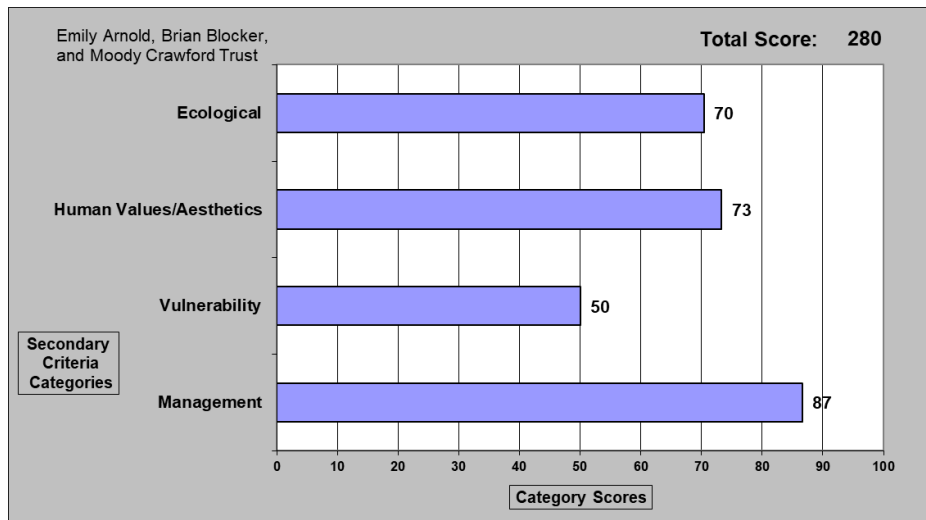


Emily Arnold, Brian Blocker, Moody Crawford Trust
5 parcels
89.29 acres total

Folio Number(s):

Emily Arnold (00053808000) 5 acres
 Brian Blocker (00053815006) 24.5 acres
 Moody Crawford Trust (00053813008, 00053440002, & 00053805003) 59.79 acres

Staff Report Date: October 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 | Emily Arnold Brian Blocker Moody Crawford Trust | Three separate applications |
| Folio Numbers | 5 separate folio numbers | Emily Arnold (00053808000) Brian Blocker (00053815006) Moody Crawford Trust (00053813008, 00053440002, & 00053805003) |
| Target Protection Area | Pepper Ranch Preserve Rural Lands Habitat Stewardship Area | Rural Lands Stewardship Area |
| Size | Emily Arnold (5 acres) Brian Blocker (24.5 acres) Moody Crawford Trust (59.79 acres) | Total from all 3 owners 89.29 acres |
| Section, Township, and Range | Section 34, Township 46, Range 28 | |
| Zoning Category/TDRs | A-MHO-RLSAO -Agricultural-Mobile home overlay and Rural Land Habitat Stewardship Area | |
| FEMA Flood Map Category | Emily Arnold- 50% AE and 50% AH Blocker-70% AE and 30% AH Moody Crawford Trust-90% AE 10% AH | AE=subject to periodic ponding 1-3 ft AH=subject to periodic inundation |
| Existing structures | none | |

Initial Criteria Screening Report

Owner Name(s): Emily Arnold, Brian Blocker, Moody Crawford Trust

Date: October 2021

| | | |
|--|---|-----------------------------|
| <p>Adjoining properties and their Uses</p> | <p>Emily Arnold- N-Pepper Ranch Preserve and Trafford Oaks Road S-Moody Crawford Trust Parcels undeveloped E-undeveloped land W- single family home</p> <p>Blocker- N & E Pepper Ranch Preserve S- Lake Trafford W-Canal & Single Family Home</p> <p>Murphy Crawford Trust- N- 2- Single Family homes, Emily Arnold Parcel, another undeveloped parcel W- Pepper Ranch Preserve S- Undeveloped property</p> | |
| <p>Development Plans Submitted</p> | <p>None currently</p> | |
| <p>Known Property Irregularities</p> | <p>Small man-made lakes on the Moody parcel near Trafford Oaks Road and in the NW corner of the Blocker Parcel.</p> | |
| <p>Other County Dept Interest</p> | <p>Departments notified</p> | <p>No interest received</p> |

Figure 1: Location Overview

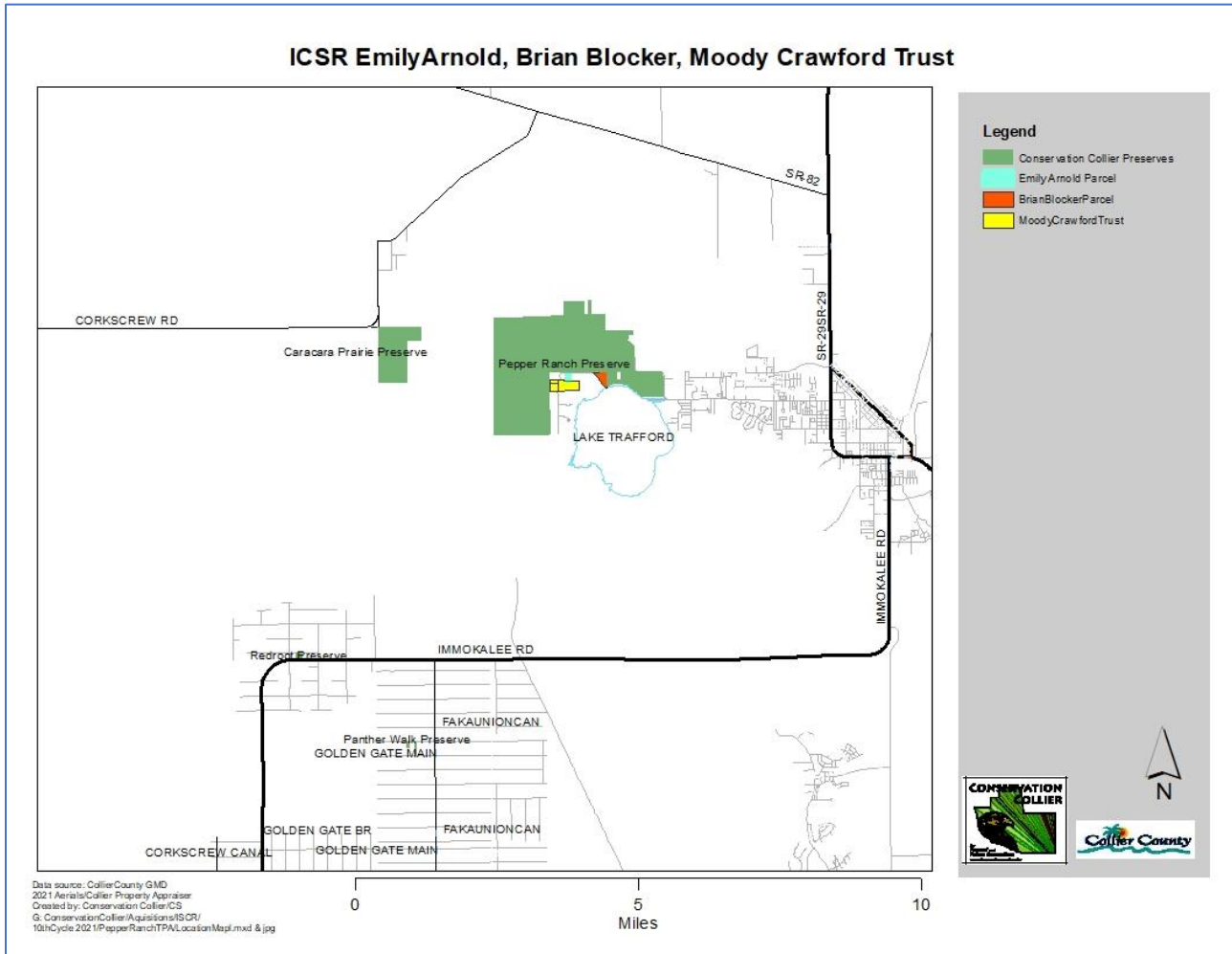


Figure 2: Location Overview Aerial with Surrounding Conservation Areas

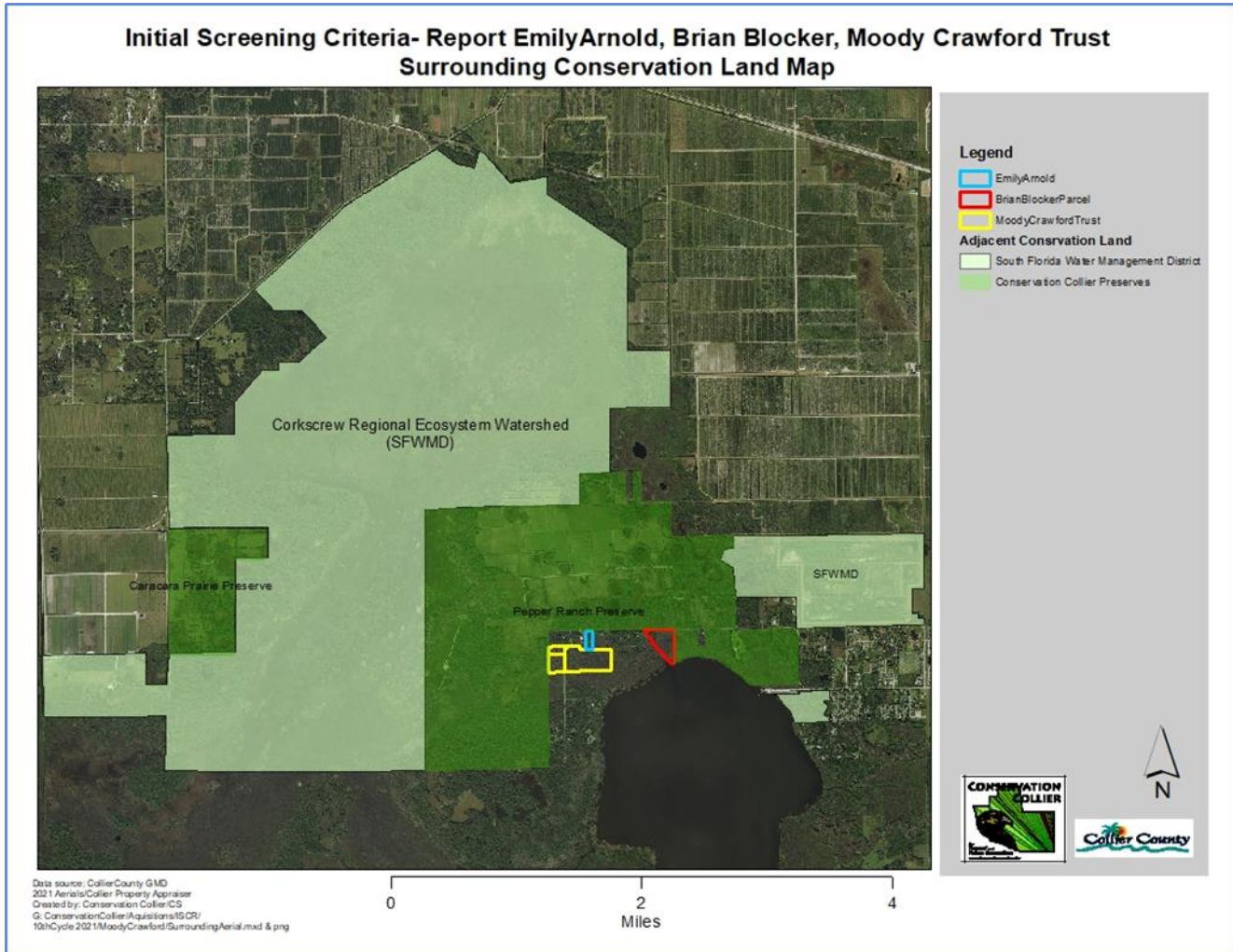
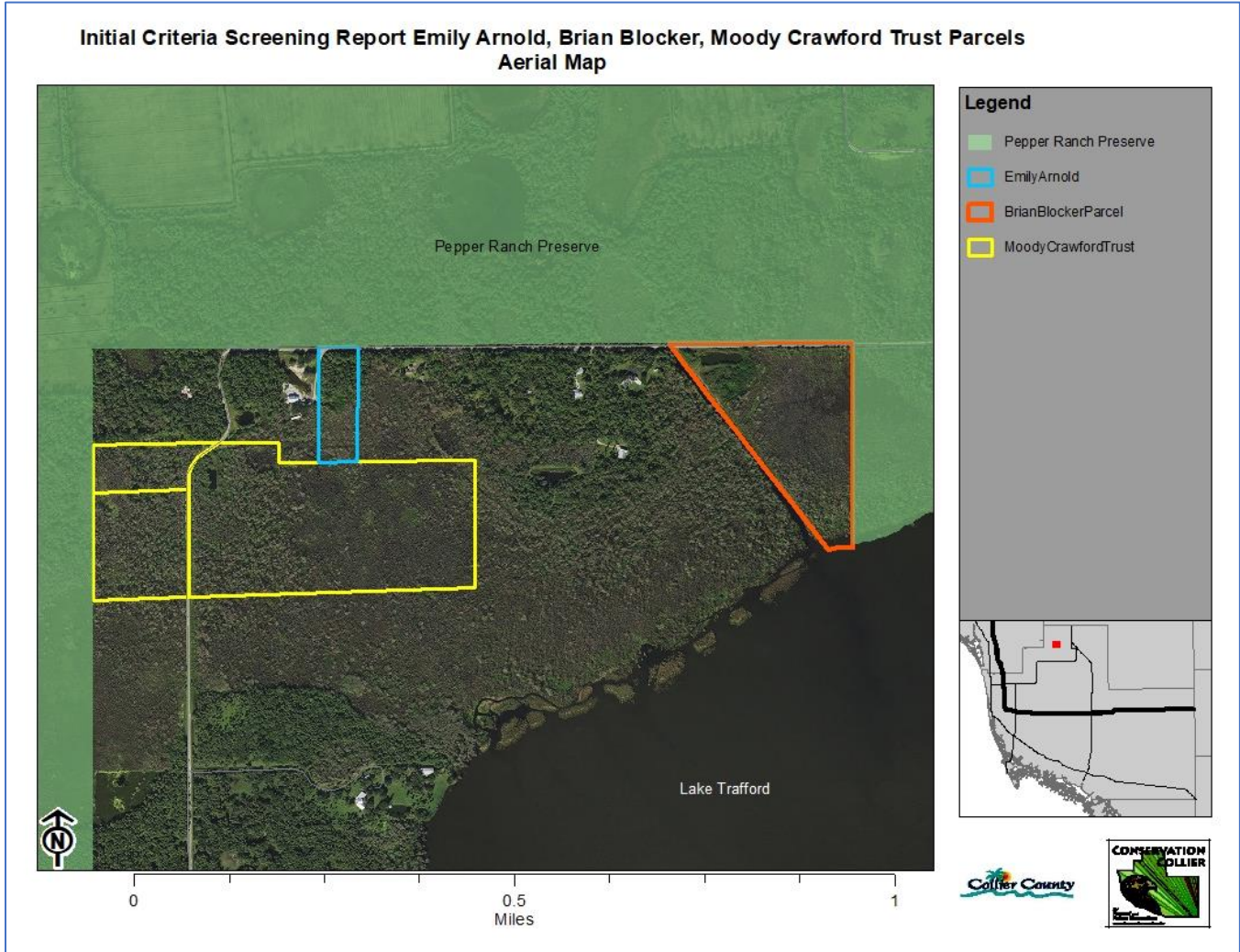


Figure 3: Location Close-up Aerial



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, two appraisals are required.

Table 2: Assessed Value*

| Property owner | Folio | Acreage | Assessed Value |
|----------------------|-------------|--------------|-----------------|
| Emily Arnold | 00053808000 | 5 | \$9,175 |
| Brian Blocker | 00053815006 | 24.5 | \$22,050 |
| Moody Crawford Trust | 00053813008 | 5.46 | \$12,173 |
| Moody Crawford Trust | 00053440002 | 42.9 | \$13,153 |
| Moody Crawford Trust | 00053805003 | 11.43 | \$3,522 |
| Total | 5 | 89.29 | \$60,073 |

* Property Appraiser’s Website

The Assessed Value is based off the current use of the property.

Estimated Market Value: **

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

| Property | Acreage | Estimated Value |
|------------------|--------------|------------------|
| Emily Arnold | 5 | \$39,000 |
| Brian Blocker | 24.5 | \$191,000 |
| Jim Howard Moody | 5.46 | \$42,600 |
| Jim Howard Moody | 42.9 | \$334,600 |
| Jim Howard Moody | 11.43 | \$89,200 |
| Total | 89.29 | \$696,400 |

Vacant land acreage in this market area is \$7,000 to \$8,000 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. This parcel is zoned Agricultural with a mobile home overlay. It is within an established growth management overlay known as the Rural Lands Stewardship Area. The properties are not within an established Stewardship area.

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 September 22, 2021.

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 | 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. | Other native habitats | Yes |

approximately 7 types of native vegetation communities mapped

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) (1994/1995) and field verification of same.

FLUCCS

The electronic database identified:

- 1180-Residential-low density
- 4110-Pine Flatwoods
- 5200-Lakes
- 6172-Mixed Shrub wetland
- 6210-Cypress
- 6410-Freshwater Marsh
- 6440- Emergent Aquatic Vegetation

The following native plant communities were observed:

- 420-Mesic Hammock
- 5200-Lakes
- 6172-Mixed Shrub wetland
- 6410-Freshwater Marsh
- 6440- Emergent Aquatic Vegetation
- 6151-Red Maple swamp
- 6152-Pop ash swamp

Characterization of Plant Communities Present

| FLUCCS | Ground cover | Midstory | Canopy |
|-----------------------------------|--|---|---|
| 420- Mesic Hammock | swamp fern Virginia creeper smilax bidens alba | myrsine hog Plum wild Coffee beauty berry swamp bay | slash Pine cabbage palm laurel oak ficus aurea |
| 6172 Mixed shrub wetland | ferns | wax myrtle | willow |
| 6410 freshwater marsh | duck potato, pickerelweed climbing aster sedges | | pond apple |
| 6440- Emergent Aquatic Vegetation | none | cattails, willow | none |
| 5200-Lakes | Submergent vegetation | none | none |
| 6152-Pop ash swamp | duck potato, pickerelweed water hemlock swamp fern alligator flag | sawgrass sax myrtle | pop ash |
| 6151-Red Maple Swamp | swamp lily duckpotato, pickerelweed water hemlock swamp fern alligator flag | wax myrtle sawgrass | red maple |

Statement for Satisfaction of Criteria

These data indicate that native plant communities do exist on the parcels. At least seven (7) distinct types of vegetation communities were observed, along with many transitional areas containing a mix of vegetation types. Some plant communities were viewed from a distance due to deep water levels, such as the mixed shrub wetlands with a willow canopy.

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) **YES**

Statement for Satisfaction of Criteria

These parcels are adjacent to the 2,512 acre Pepper Ranch Preserve which provides multiple opportunities for passive public recreation. These parcels would increase the size of the Preserve if acquired. All five parcels can be accessed via Trafford Oaks Road, a private paved road. This road has a security gate that would limit public access but would allow access to the properties for management.

The Emily Arnold parcel can only be accessed from Trafford Oaks Road. There is an agricultural fence along the north side of Trafford Oaks road along the southern boundary of Pepper Ranch Preserve which is necessary to keep cattle in.

The Blocker parcel can be directly accessed through the Pepper Ranch Preserve west of the main campground. There are no trails in this area due to an active bald eagle's nest, however limited public access during non-nesting season would be permissible. This property can also be accessed directly from Lake Trafford.

The Moody Crawford trust parcels can also be accessed directly from the Pepper Ranch Preserve along the southeastern boundary. Trafford Oaks Road runs through the center of the 3 parcels

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) **YES**

General Hydrologic Characteristics

General characteristics are taken from aerial maps and from onsite observations. A site visit conducted on September 22, 2021 confirmed the presence of high-quality wetlands on all 5 properties. Wetland dependent plant and animal species were observed, and the water levels were significant for this time of the year.

Table 3: Wetland Dependent Plant Species Observed

| Common Name | Scientific Name | Wetland Status |
|------------------------------|---|----------------|
| strangler fig | <i>Ficus aurea</i> | FAC |
| musky mint | <i>Hyptis alata</i> | FAC |
| wax myrtle | <i>Myrica cerifera</i> | FAC |
| wild coffee | <i>Psychotria nervosa</i> | FAC |
| cabbage palm | <i>Sabal palmetto</i> | FAC |
| myrsine | <i>Myrsine guianensis</i> | FAC |
| red maple | <i>Acer rubrum</i> | FACW |
| blue maidencane | <i>Amphicarpum muhlenbergianum</i> | FACW |
| bushy blue stem | <i>Andropogon glomeratus</i> | FACW |
| swamp fern | <i>Blechnum serrulatum</i> | FACW |
| toothpetal false rein orchid | <i>Habenaria floribunda</i> | FACW |
| laurel oak | <i>Quercus Laurifolia</i> | FACW |
| white top sedge | <i>Rhynchospora colorata</i> | FACW |
| leather fern | <i>Acrostichum spp.</i> | OBL |
| pond apple | <i>Annona glabra</i> | OBL |
| water hemlock | <i>Cicuta maculata</i> | OBL |
| sawgrass | <i>Cladium jamaicense</i> | OBL |
| swamp lily | <i>Crinum americanum</i> | OBL |
| Jointed spikerush | <i>Eleocharis interstincta</i> | OBL |
| pop ash | <i>Fraxinus caroliniana</i> | OBL |
| dahoon holly | <i>Ilex cassine</i> | OBL |
| Royal fern | <i>Osmunda regalis var. spectabilis</i> | OBL |
| swamp bay | <i>Persea palustris</i> | OBL |
| smart weed | <i>Polygonum sp.</i> | OBL |
| pickerelweed | <i>Pontederia cordata</i> | OBL |
| duck potato | <i>Sagittaria latifolia</i> | OBL |
| willow | <i>Salix spp.</i> | OBL |
| alligator flag | <i>Thalia spp.</i> | OBL |
| cattails | <i>Typha spp.</i> | OBL |

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

Initial Criteria Screening Report

Owner Name(s): Emily Arnold, Brian Blocker, Moody Crawford Trust

Date: October 2021

Table 4: Wetland Dependent Wildlife Species Observed

| Common Name | Scientific Name | State Status | Federal Status |
|----------------------|---------------------------------|--------------|----------------|
| crayfish | <i>Procambarus alleni</i> | NL | NL |
| eastern mosquitofish | <i>gambusia</i> | NL | NL |
| Florida gar | <i>Lepisosteus platyrhincus</i> | NL | NL |

NL=not listed

Other Hydrologic Indicators Observed

During the September 2021 site visit, water levels ranged between 2-5 feet on the Blocker, Moody Crawford Trust and the southern portion of the Emily Arnold parcels. All parcels had elevated lichen lines and multiple species of aquatic plants and fauna.

Soils

Soils data is based on the Soil Survey of Collier County Area, Florida (USDA/NRCS, 1990). Soil numbers correspond to those mapped in the survey.

| Soil Type | Typical Vegetation |
|--|---|
| 6 Riviera, Limestone Substratum – Copleand FS Slough | cypress, red maple, ferns and other wetland plants |
| 22 Chobee, winder and Gator Soils, Depressional | Pickerelweed, maidencane, rushes, alligator flag, sawgrass, Florida willow and occasional cypress |
| 37 Tusawilla FS – Upland | oaks, cabbage palm, red maple, red bay, slash pine, wax myrtle, and native grasses |
| 43 Winder, Riviera, Limestone Substratum and Chobee FS, Depressional (lakefront) | sawgrass, maidencane, pickerelweed, alligator flag, willow and other wetland plants |
| 20- Ft. Drum and Malabar, High, Fine Sands | red maple, willow and other wetland plants |

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.

Lower Tamiami recharge Capacity: The Emily Arnold and Blocker parcels are mapped at “7 to < 14” annually. The western 2/3 of the Moody Trust parcels are mapped at “0 to < 7” annually and the eastern 1/3 are mapped at “7 to < 14” annually.

Surficial Aquifer Recharge Capacity: All properties were mapped at a moderate recharge capacity of 43 to 56” annually.

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

| Characteristic | Value | Comment |
|-------------------------------------|--|--|
| Lower Tamiami Recharge Capacity | “0 to < 7” & “7 to < 14” | Low & low to moderate |
| Surficial Aquifer Recharge Capacity | 43 to < 56” | moderate |
| Wellfield Protection Zone | n/a | n/a |
| FEMA Flood Zone | Emily Arnold- 50% AE and 50% AH Blocker-70% AE and 30% AH Moody Crawford Trust-90% AE 10% AH | AE=subject to periodic ponding 1-3 ft AH=subject to periodic inundation |

Statement for Satisfaction of Criteria

Acquisition of these properties would offer increased opportunities for protection of water resource values, including recharge of the surficial aquifer and protection of wetland dependent species habitat. The aerial map and land cover layer indicates that 90 percent of these properties contain wetlands. They would provide habitat for wetland dependent species most of the year. A primary benefit to preserving the offered lands in an undeveloped state would be additional protection of the Corkscrew swamp and marsh complex, and wetlands associated with Lake Trafford. The Corkscrew swamp and marsh complex provide recharge for the Lower Tamiami aquifer, a source of drinking water for many County and private wells east of County Road 951. Acquisition of these parcels would add to the protection of the quality of this water source by increasing the buffering of the Corkscrew slough from development and non-point source pollution. The properties provide natural flood protection.

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) **YES**

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 the Atlas of Florida Plants websites at <https://florida.plantatlas.usf.edu/> or at <https://www.fws.gov/angered/>. 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 |
|--------------------------|----------------------------------|------------------------|-----------------------|
| Leather fern | Acrostichum spp. | Threatened | n/a |
| Cardinal airplant | Tillandsia fasciculata | Endangered | n/a |
| Giant airplant | Tillandsia utriculata | Endangered | n/a |
| Northern needleleaf | Tillandsia balbisiana | Threatened | n/a |
| Florida butterfly orchid | Encyclia tampensis | Commercially exploited | n/a |
| Royal fern | Osmunda regalis var. spectabilis | Commercially exploited | n/a |

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/angered/>. 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 | Conservation Status |
|-------------------------------------|-----------------|---------------------|
| None observed on date of site visit | | |

Table 8: Potential Listed Wildlife Species

| Common Name | Scientific Name | Conservation Status |
|----------------------------|---------------------------------------|---------------------|
| American alligator | <i>Alligator mississippiensis</i> | FT (S/A) |
| Audubon's crested caracara | <i>Haematopus palliatus</i> | FT |
| Florida Panther | <i>Puma concolor coryi</i> | FE |
| Little blue heron | <i>Egretta caerulea</i> | ST |
| Roseate spoonbill | <i>Platalea ajaja</i> | ST |
| Tricolored heron | <i>Egretta tricolor</i> | ST |
| Everglade snail kite | <i>Rostrhamus sociabilis plumbeus</i> | FE |
| Wood stork | <i>Mycteria americana</i> | FT |

FE= Federally-designated endangered FT(S/A) = Federally-designated Threatened species (due to similarity of appearance), FT=Federally-designated Threatened, ST = State-designated Threatened

Table 9: Non-Listed Wildlife Species Observed

| Common Name | Scientific Name |
|------------------------------|---------------------------------|
| American redstart | <i>Setophaga ruticilla</i> |
| Barred Owl | <i>Strix varia</i> |
| Black-bellied whistling duck | <i>Dendrocygna autumnalis</i> |
| Green heron | <i>Butorides virescens</i> |
| Red-shouldered hawk | <i>Buteo lineatus</i> |
| Carolina wren | <i>Thryothorus ludovicianus</i> |
| Blue-gray gnatcatcher | <i>Poliophtila caerulea</i> |
| Crayfish | <i>Procambarus alleni</i> |
| Eastern mosquitofish | <i>Gambusia spp.</i> |
| Florida gar | <i>Lepisosteus platyrhincus</i> |

Bird Rookery

No Bird Rookeries were directly observed.

FWC-derived Species Richness Score

This area has scores ranging from 6 to 10, indicating moderate to high potential for species richness. The entire ranch area is located within Priority 1 Panther Habitat as determined by both state and federal conservation agencies. They are also located within the Bonneted Bat, Everglade kite and Audubon's Crested Caracara consultation Areas.

Statement for Satisfaction of Criteria

These parcels would provide significant biological values, listed species habitat, restoration potential and moderate to high ecological quality. We can assume that the same important wildlife species documented on the adjacent Pepper Ranch also utilize these properties including the endangered Florida Panther, Everglade snail kite, wood stork, black bear and multiple bird species. This location is within Priority One Panther Habitat by the Federal and state conservation agencies, sightings, telemetry points, and presence of prey species indicate that

this area is heavily used by panthers. There is restoration potential for forested areas impacted by invasive exotic plants. These parcels are adjacent to significant County, State, and private conservation lands.

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) **YES**

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 are adjacent to and would contribute to an important wildlife corridor through the adjacent Pepper Ranch Preserve and other state-owned conservation land. Preservation and restoration of these parcels would add to the conservation land buffer protecting the Corkscrew Regional Ecosystem Watershed (CREW). This consists of over 60,000 acres of South Florida Water Management District lands. The CREW Marsh wetlands are also an ecological link and corridor into the Camp Keais Strand and other conservation lands to the south.

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 | x | |
| Photography | x | |
| Birdwatching | x | |
| Kayaking/Canoeing | | Not advisable due to a large alligator population |
| Swimming | | Not advisable due to a large alligator population |
| Hunting | | Hunting is allowed on the adjacent Pepper Ranch Preserve however, these particular parcels are too close to houses on Trafford Oaks Road |
| Fishing | x | |

Recommended Site Improvements

No site improvements are recommended. The properties are in good condition and will only need exotic plant removal and treatment.

Access

The properties can be directly accessed for management from Trafford Oaks Road. The Blocker parcel can be directly accessed through the Pepper Ranch Preserve west of the main campground. There are no trails in this area due to an active bald eagle’s nest, however limited public access during non-nesting season would be permissible. This property can also be accessed directly from Lake Trafford.

The Moody Crawford trust parcels can also be accessed directly from the Pepper Ranch Preserve along the southeastern boundary.

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 |
|--------------------------|--------------------------------|---------------|
| Air potato | <i>Dioscorea bulbifera</i> | I |
| Brazilian pepper | <i>Schinus terebinthifolia</i> | I |
| Caesar's weed | <i>Urena lobata</i> | I |
| Climbing cassia | <i>Senna pendula</i> | I |
| Lead tree | <i>Leucaena leucoccephala</i> | I |
| Old world climbing fern | <i>Lygodium microphyllum</i> | I |
| Para grass | <i>Urochloa mutica</i> | I |
| Water hyacinth | <i>Eichhornia crassipes</i> | I |
| Peruvian primrose-willow | <i>Ludwigia peruviana</i> | I |
| Water lettuce | <i>Pistia stratiotes</i> | I |
| Sword fern | <i>Nephrolepis spp.</i> | I |
| Lantana | <i>Lantana camara</i> | I |
| Cogongrass | <i>Imperata cylindrica</i> | I |
| Creeping oxeye | <i>Sphagneticola trilobata</i> | II |
| Guineagrass | <i>Urochloa maxima</i> | II |

Category 1=I Category 2=II

Invasive Vegetation Removal and Control

A cost estimate for initial invasive exotic plant treatment and follow-up maintenance was determined based on actual costs for similar work at the Pepper Ranch Preserve. The upland acreage on the properties are the most impacted, the wetland areas have a very low amount of infestation on the majority of the properties. The Blocker property has the highest level of infestation. There is a hedge of Brazilian Pepper along the road frontage of each property that would be mowed in place or cut and removed. The remainder of the exotics would be killed in place. Based on the actual cost for initial exotic removal on similar projects, costs for the initial removal over the 89 acres is estimated to be **\$44,500**. This is a high estimate.

Estimated costs for follow-up maintenance, done anywhere from quarterly to annually are based on actual costs for follow-up exotic maintenance at the Pepper Ranch Preserve and are estimated at a total of **\$17,800** annually. These costs would decrease over time as the soil seed bank is depleted. Additionally, areas would be maintained on a rotating basis, reducing actual annual maintenance outlays, but reducing treatment for each section from annually to bi-annually. Prices would be reduced as well due to economy of scale by including them in the annual Pepper Ranch Preserve phased treatment areas.

Staff will seek grant funding from the Florida Invasive Plant Management Section of the Florida Wildlife Conservation Commission to assist with invasive exotic plant treatment costs.

Public Parking

We will not need create public parking on these parcels. There is a visitor center with public parking on the Pepper Ranch Preserve and several public parking areas throughout the preserve. The public will not be accessing these properties via Trafford Oaks Road.

Public Access Trails

Trails will not be created on these properties. The adjacent Pepper Ranch Preserve has over 10 miles of trails nearby that are representative of the same types of habitat.

Security and General Maintenance

There is a private gate at the end of Trafford Oaks Road this will assist greatly in reducing the potential of dumping and illegal trespassing on the properties. Signs will be posted to indicate that is preserve land.

We will work with the Collier County Sherriff’s office and FWC Law Enforcement to address issues of concern along Trafford Oaks Road and along the Lake Trafford shoreline.

Table 12: Summary of Estimated Needs and Costs

| Management Element | Initial Cost | Annual Recurring Cost | Comments |
|---------------------------|---------------------|------------------------------|--|
| Invasive Vegetation | \$44,500 | \$17,800 | Estimated cost, initial treatment will be the most expensive, follow-up maintenance on an annual or bi-annual basis. |
| Parking Facility | n/a | n/a | Not needed |
| Trails | n/a | n/a | Not needed |
| Fencing | n/a | n/a | Not needed |
| Debris Removal | minimal | minimal | Minimal amounts found |
| Signs | \$500 | t.b.d. | Conservation Collier Preserve Signs |
| Other | t.b.d | t.b.d | |
| Total | \$45,000 | \$17,800 | |

t.b.d. To be determined; cost estimates have not been finalized.

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

Ecological

70/100

These properties scored high in this category for several reasons. They has a wide variety of native plant communities, even though none are the preferred habitats described in the ordinance. There are outstanding areas of mature pop ash and red maple swamp wetlands on more than one parcel. The Arnold parcel contains a Mesic Hammock which is an FNAI listed plant community. Acquisition of these parcels would protect water resources by buffering the Corkscrew marsh area and Lake Trafford. Moderate aquifer recharge is mapped for the Lower Tamiami aquifer, supplying drinking water for many private and municipal wells east of CR 951. Many listed and non-listed species of wildlife have been documented on the parcels. High quality wetlands exist on site. Ecological quality is high, with a manageable exotic plant presence. Connectivity exists with other conservation lands.

Human Values/Aesthetics

73/100

A high score was achieved in this category because the properties are accessible from a paved public road for management. They will add to multiple opportunities for natural-resource based recreation if they become part of the Pepper Ranch Preserve.

Vulnerability

50/100

These parcels received a medium score in this category due the Emily Arnold Parcel containing uplands that could potentially be developed. The FLUCCS category for the northern portion of this parcel is Residential-low density.

Initial Criteria Screening Report

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Management

87/100

A high score was given for no hydrologic changes required combined with a high score for exotic plant management needs with up to a 25% exotic plant infestation.

| Property Name: Emily Arnold, Brian Blocker, and Moody Crawford Trust | | | |
|---|------------------------|----------------------|----------------------------------|
| Target Protection Area: Pepper Ranch Preserve | | | |
| Secondary Screening Criteria | Possible Points | Scored Points | Percent of Possible Score |
| Ecological | 100 | 70 | 70% |
| Human Values/Aesthetics | 100 | 73 | 73% |
| Vulnerability | 100 | 50 | 50% |
| Management | 100 | 87 | 87% |
| Total Score: | 400 | 280 | 70% |

Parcel Size

While parcel size was not scored, the ordinance advises that based on comparative size, the larger of similar parcels is preferred. These parcels combined are comparable to the size of the Conservation Collier Nancy Payton Preserve. If acquired, these parcels would increase the acreage of the Pepper Ranch Preserve from the current 2,512 acres to 2,601 acres.

VIII. Figures, Tables, and Photos

Scoring

Table 14: Secondary Scoring Criteria Form

| | | | |
|--|------------------------|-----------------------|--|
| Property Name: | | Folio Numbers: | |
| Emily Arnold, Brian Blocker, and Moody Crawford Trust | | 53808000 | |
| | | 53815006 | |
| Geographical Distribution (Target Protection Area): | | 53813008 | |
| Pepper Ranch Preserve | | 53440002 | |
| | | 53805003 | |
| 1. Confirmation of Initial Screening Criteria (Ecological) | | | |
| 1.A Unique and Endangered Plant Communities | Possible points | Scored points | Comments |
| <i>Select the highest Score:</i> | | | |
| 1. Tropical Hardwood Hammock | 90 | | |
| 2. Xeric Oak Scrub | 80 | | |
| 3. Coastal Strand | 70 | | |
| 4. Native Beach | 60 | | |
| 5. Xeric Pine | 50 | | |
| 6. Riverine Oak | 40 | | |
| 7. High Marsh (Saline) | 30 | | |
| 8. Tidal Freshwater Marsh | 20 | | |
| 9. Other Native Habitats | 10 | 10 | |
| 10. Add additional 5 points for each additional Florida Natural Areas Inventory (FNAI) listed plant community found on the parcel | 5 each | 5 | FNAI Mesic Hammock- G3-S3 |
| 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 | Outstanding areas of Pop Ash and Red Maple Swamp wetlands on 3 parcels |
| 1.A. Total | 100 | 20 | |
| 1.B Significance for Water Resources | Possible points | Scored points | Comments |
| 1. Aquifer Recharge (<i>Select the Highest Score</i>) | | | |
| 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 | Recharge capacity of 43-56" annually for surficial; and "0 to < 7" and "7 to < 14" for Lower Tamiami |
| 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 (<i>Select the Highest Score</i>) | | | |
| a. Parcel is contiguous with and provides buffering for an Outstanding Florida Waterbody | 100 | | |
| b. Parcel is contiguous with and provides buffering for a creek, river, lake or other surface water body | 75 | 75 | The Brian Blocker parcels is contiguous with Lake Trafford |
| c. Parcel is contiguous with and provides buffering for an identified flowway | 50 | | |
| d. Wetlands exist on site | 25 | 25 | |
| e. Acquisition of parcel will not provide opportunities for surface water quality enhancement | 0 | | |
| 3. Strategic to Floodplain Management (<i>Calculate for a and b; score c if applicable</i>) | | | |
| a. Depressional soils | 80 | 75 | 90% percent wetland |
| b. Slough Soils | 40 | | |
| c. Parcel has known history of flooding and is likely to provide onsite water attenuation | 20 | 20 | Properties are flooded during wet seson |
| Subtotal | 300 | 245 | |
| 1.B Total | 100 | 82 | <i>Obtained by dividing the subtotal by 3.</i> |

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| 1.C Resource Ecological/Biological Value | Possible points | Scored points | Comments |
|--|-----------------|---------------|---|
| 1. Biodiversity <i>(Select the Highest Score for a, b and c)</i> | | | |
| a. The parcel has 5 or more FLUCCS native plant communities | 100 | 100 | 7 FLUCCS communities identified |
| b. The parcel has 3 or 4 FLUCCS native plant communities | 75 | | |
| 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 wild | 70 | 70 | |
| c. Habitat Richness score 5 categories | 70 | | |
| d. Rookery found on the parcel | 10 | | |
| e. Listed plant species observed on parcel - add additional 20 points | 20 | 20 | |
| 3. Restoration Potential | | | |
| a. Parcel can be restored to high ecological function with minimal alteration | 100 | | |
| 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 | 50 | exotic plant treatment needed |
| 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 | | |
| Subtotal | 300 | 240 | |
| 1.C Total | 100 | 80 | <i>Divide the subtotal by 3</i> |
| 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 | Adjacent to the Pepper Ranch Preserve |
| 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 | 100 | |
| 1. Ecological Total Score | 100 | 70 | <i>Sum of 1A, 1B, 1C, 1D then divided by 4</i> |
| 2. Human Values/Aesthetics | | | |
| 2.A Human Social Values/Aesthetics | Possible points | Scored points | Comments |
| 1. Access <i>(Select the Highest Score)</i> | | | |
| a. Parcel has access from a paved road | 100 | 100 | |
| b. Parcel has access from an unpaved road | 75 | | |
| c. Parcel has seasonal access only or unimproved access easement | 50 | | |
| d. Parcel does not have physical or known legal access | 0 | | |
| 2. Recreational Potential <i>(Select the Highest Score)</i> | | | |
| 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. | 100 | 100 | These parcels if acquired would become a part of the Pepper Ranch Preserve which offers multiple opportunities for natural resource recreation. |
| 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. | 75 | | |
| c. Parcel offers limited opportunities for natural-resource based recreation beyond simply accessing and walking on it | 50 | | |
| d. Parcel does not offer opportunities for natural-resource based recreation | 0 | | |
| 3. Enhancement of Aesthetic Setting | | | |
| a. Percent of perimeter that can be seen by public. Score based on percentage of frontage of parcel on public thoroughfare | 80 | | |
| 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 | 20 | 20 | |
| Subtotal | 300 | 220 | |
| 2. Human Social Values/Aesthetics Total Score | 100 | 73 | <i>Obtained by dividing the subtotal by 3.</i> |

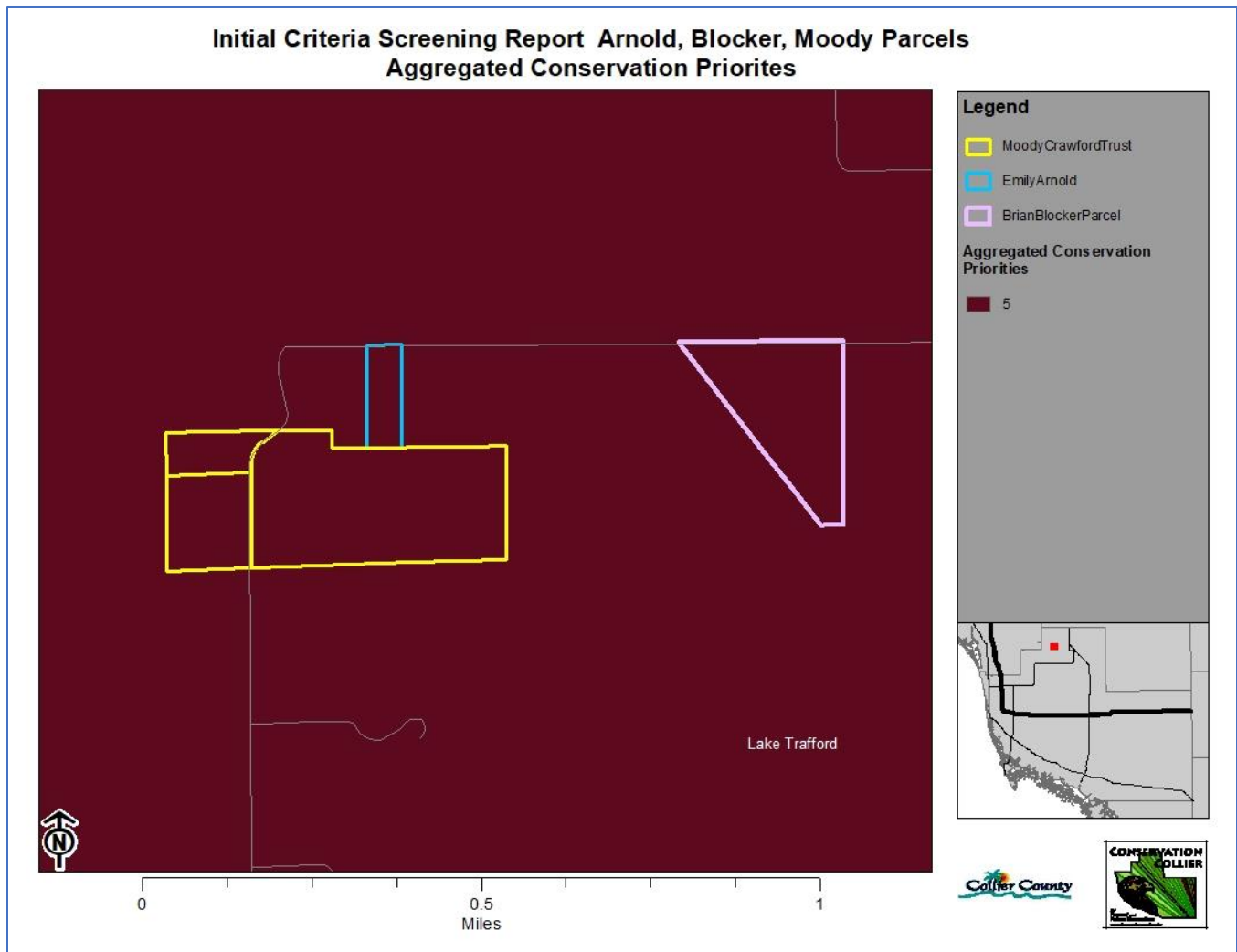
| 3. Vulnerability to Development/Degradation | | | |
|--|------------------------|----------------------|---|
| 3.A Zoning/Land Use Designation | Possible points | Scored points | Comments |
| 1. Zoning allows for Single Family, Multifamily, industrial or commercial | 50 | 50 | Arnold parcel contains uplands that could be developed |
| 2. Zoning allows for density of no greater than 1 unit per 5 acres | 45 | | |
| 3. Zoning allows for agricultural use /density of no greater than 1 unit | 40 | | |
| 4. Zoning favors stewardship or conservation | 0 | | |
| 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 | 50 | |
| 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 | |
| 2. Minimal hydrologic changes are required to restore function, such as 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 unlikely | 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 | |
| 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 rose mottle) | -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 points | Scored points | Comments |
| 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 | Minimal maintenance will be needed besides exotic plant maintenance. Prescribed fire and trails will not be needed on these parcels. Trafford Oaks Road access will assist with management. |
| 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 maintenance 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 | <i>Sum of 5A, 5B, 5C, then divided by 3</i> |
| Total Score | 400 | 280 | |

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



d.

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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.

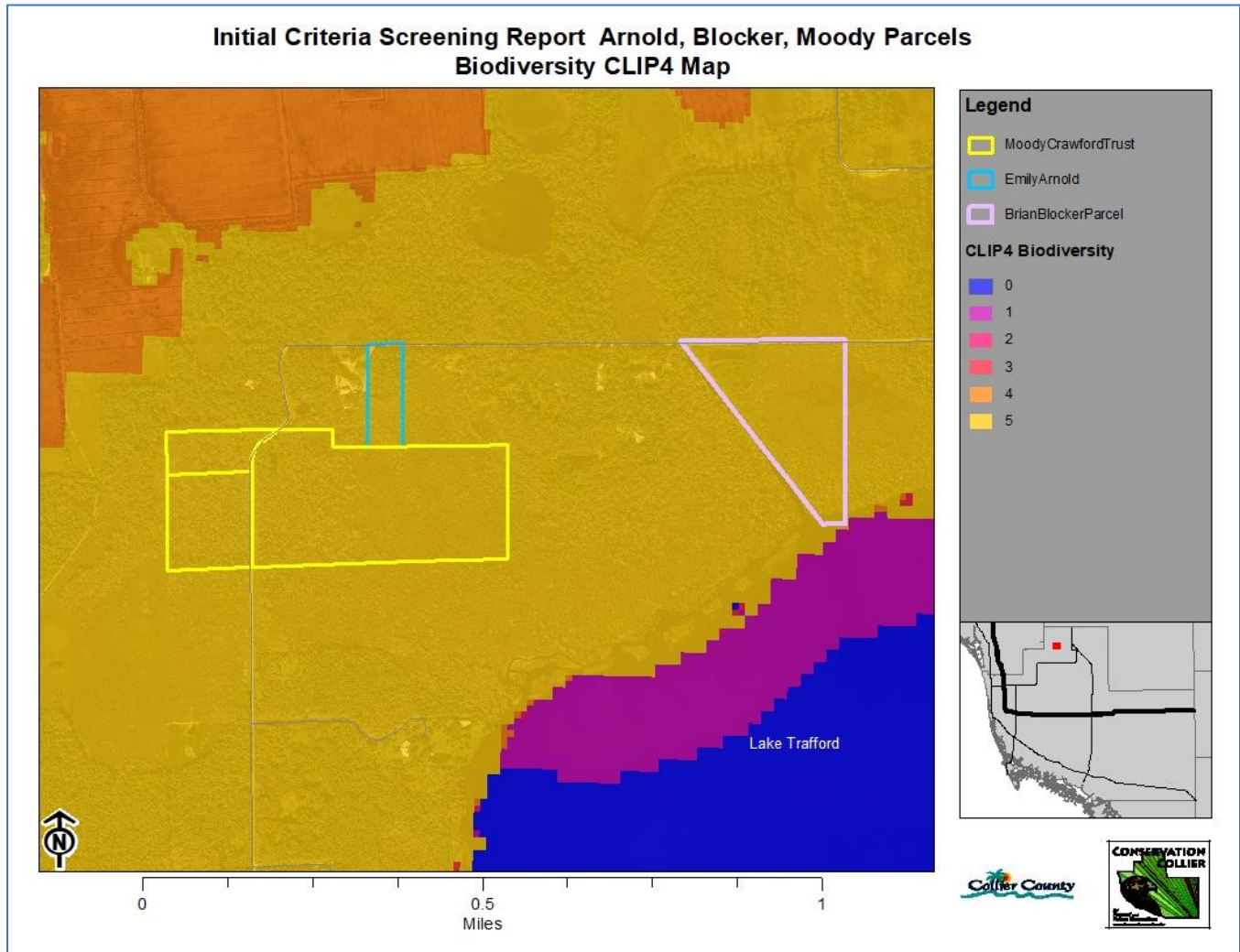


Figure 8. Potential Habitat Richness CLIP4 Map

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.

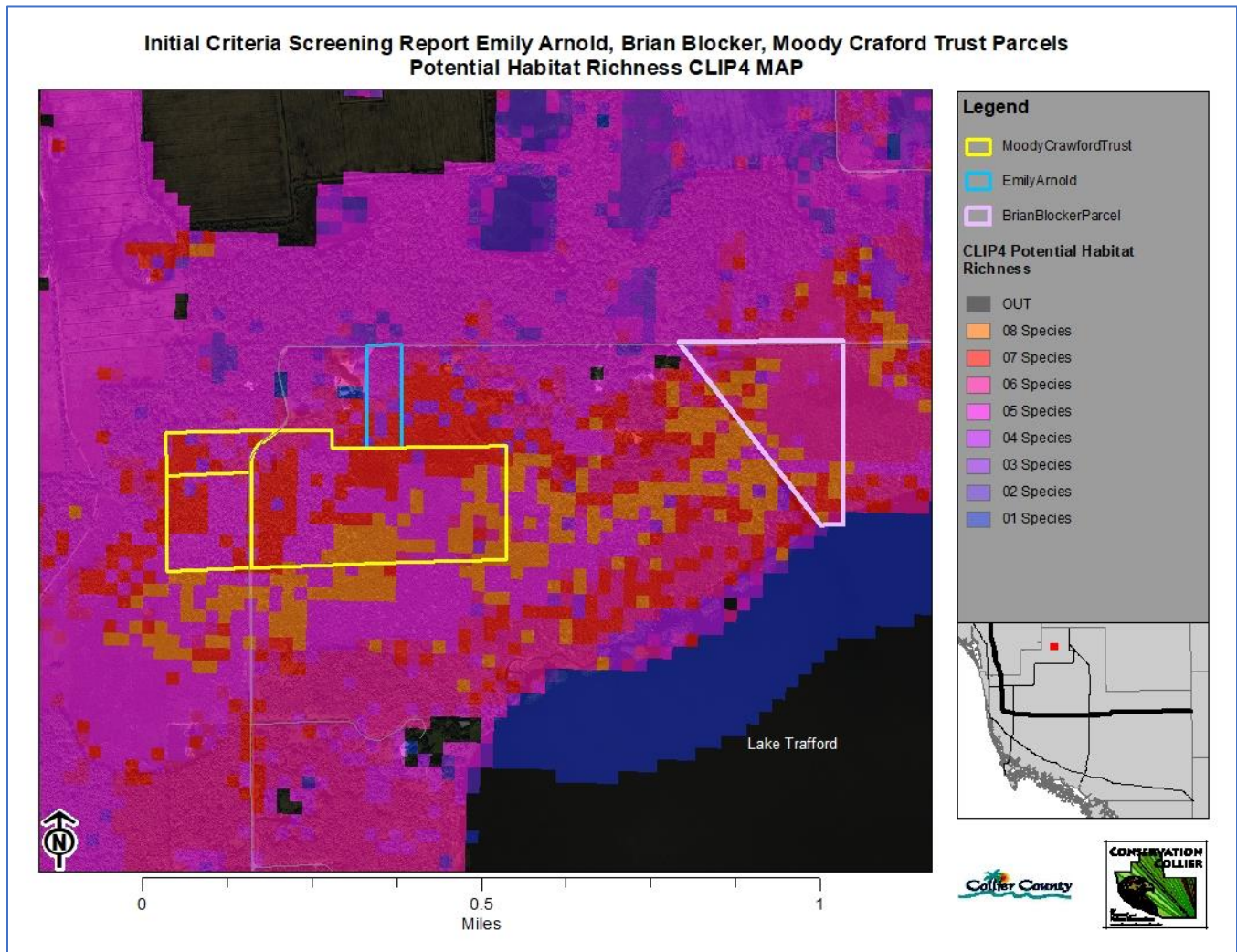
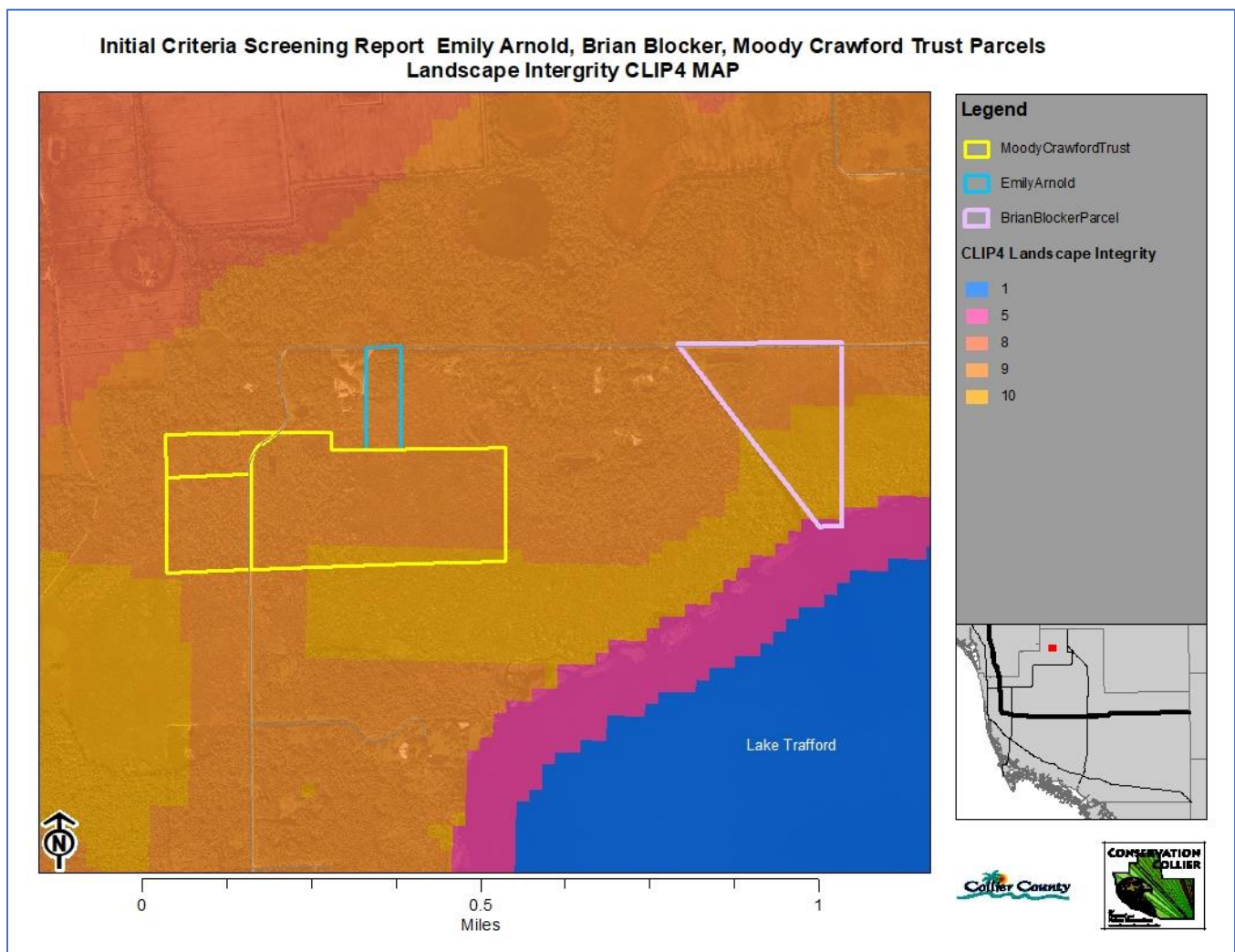


Figure 9. Landscape Integrity CLIP4 Map

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.



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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

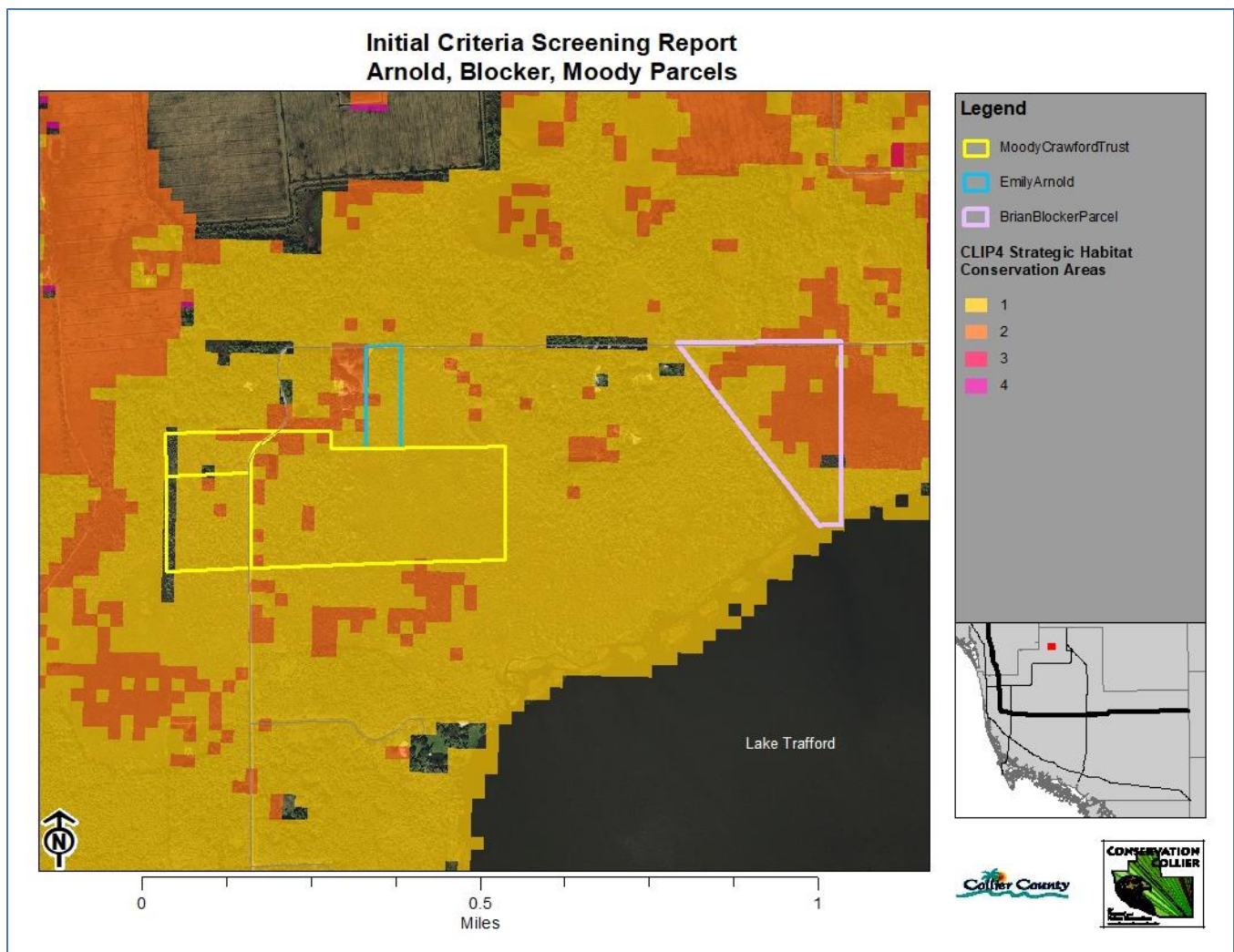


Figure 11. Priority Natural Communities CLIP4 Map

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.

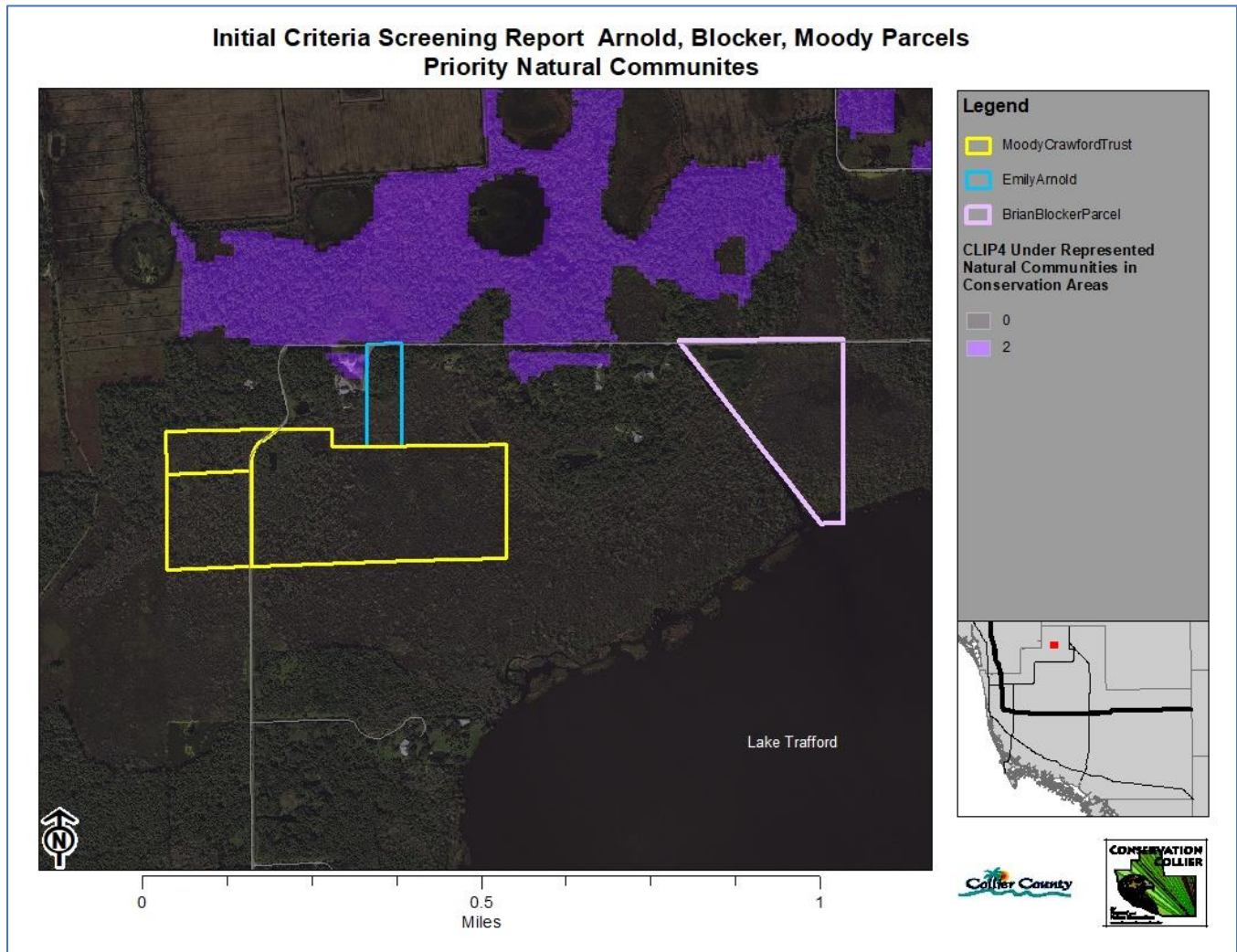


Figure 12. Surface Water Priorities CLIP4 Map

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).

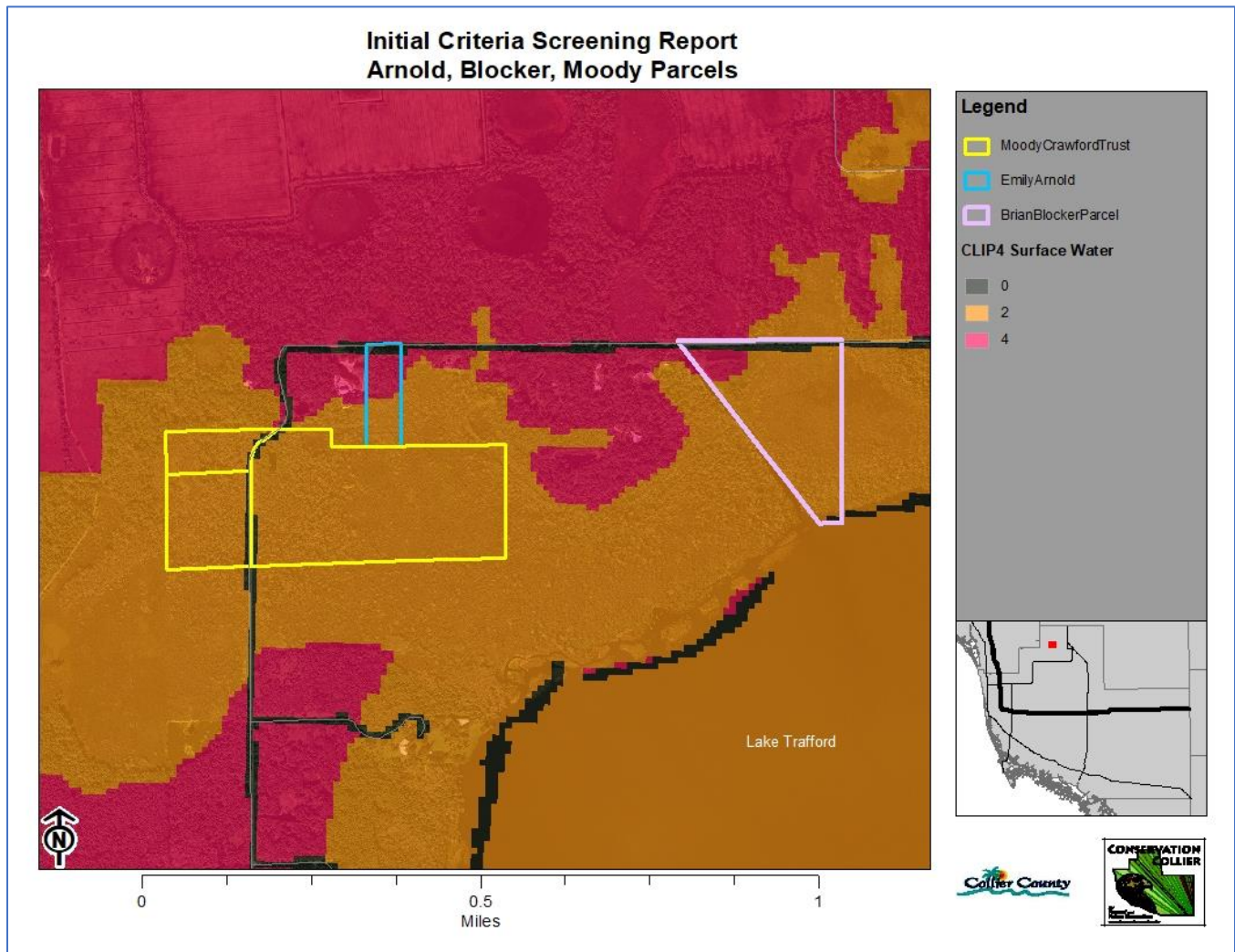
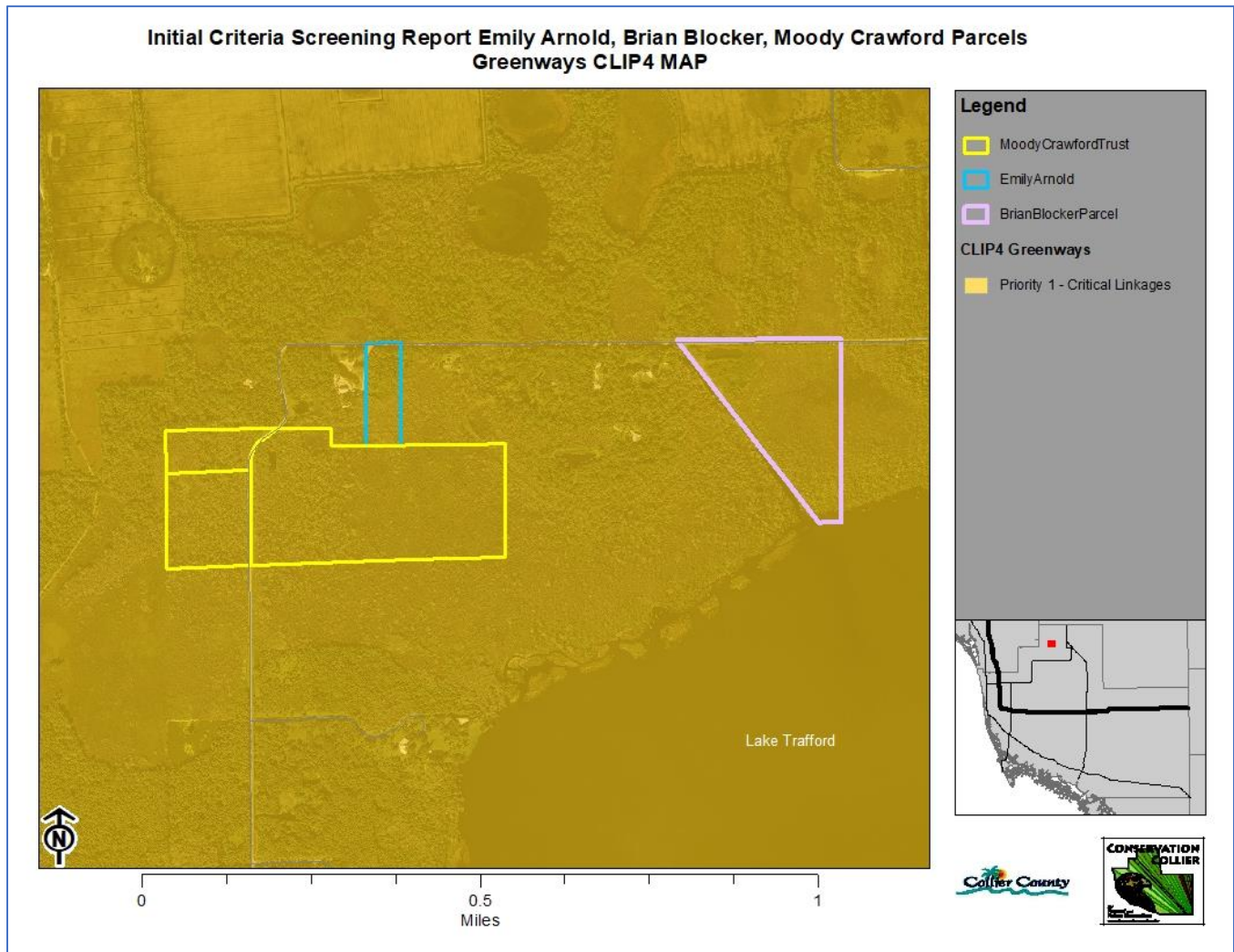


Figure 13: Greenways CLIP4 Map

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.



Vegetation and Habitat

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

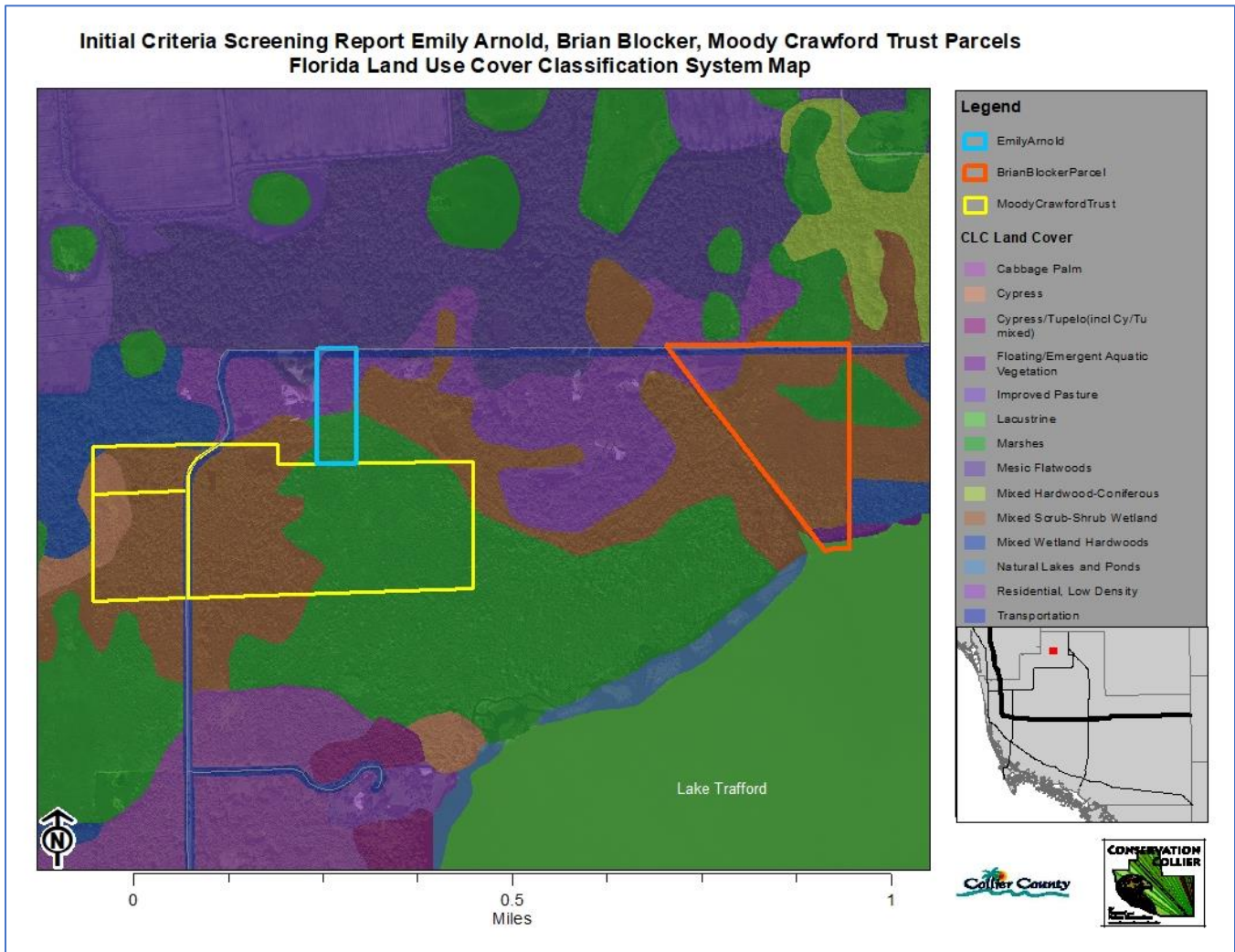
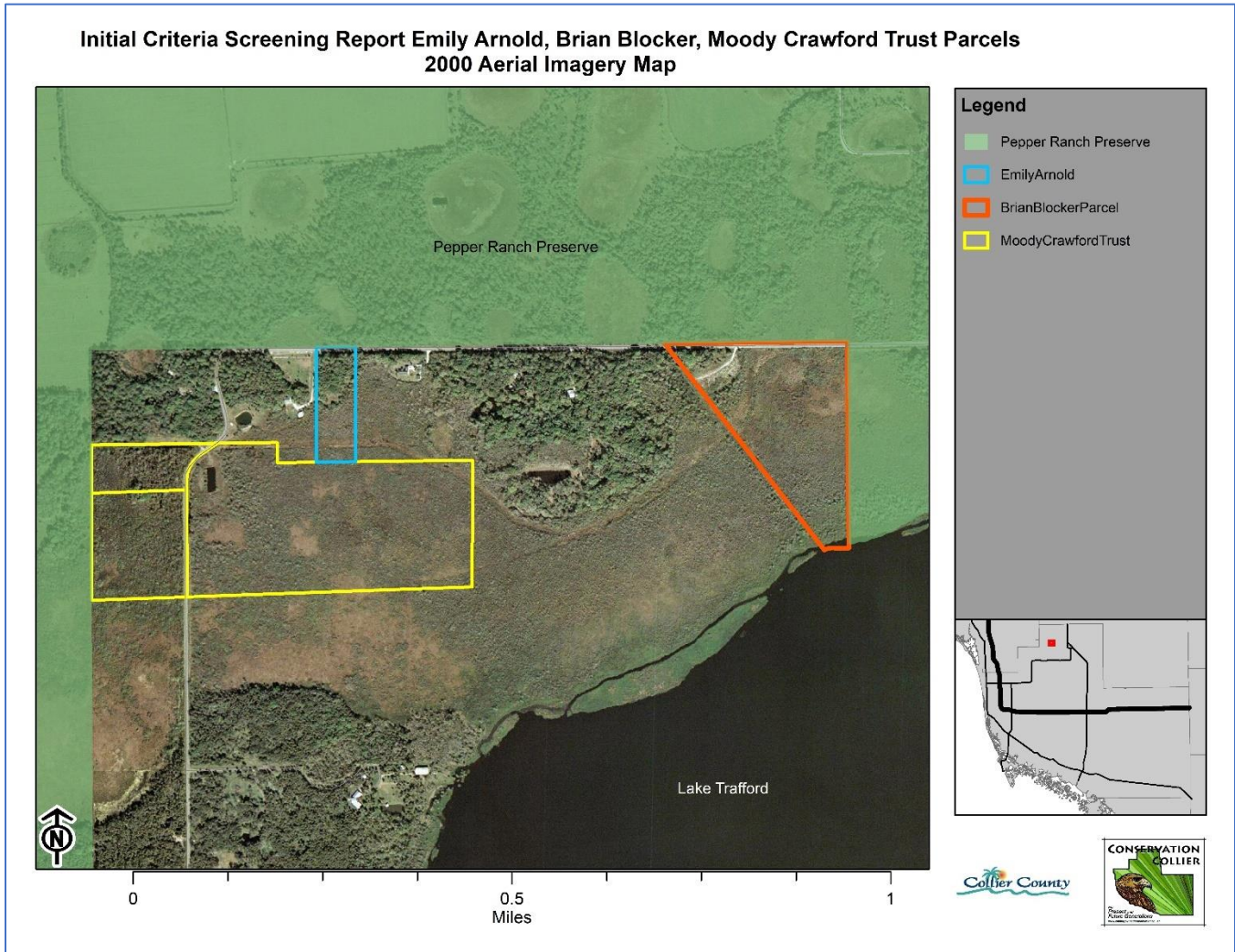


Figure 15: Historic Aerial Imagery



Photoset 1: Listed Plant Species



Left: Cardinal airplant (*Tillandsia fasciculata*) on the Arnold parcel

Right: Royal fern (*Osmundia regalis*) on the Blocker parcel



Northern needleleaf airplant (*Tillandsia balbisiana*) on the Arnold parcel

Giant airplant (*Tillandsia utriculata*) on the Moody Crawford Trust parcel

Photoset 2: Invasive and Non-native Plant Species



Old-world climbing fern (*Lygodium microphyllum*) observed on the Blocker parcel



Guinea grass (*Megathysus maximus*) growing on spoil pile along canal on the Blocker parcel



Brazilian pepper (*Schinus terebinthifolius*) growing in a disturbed area on the Arnold parcel



Air potato (*Dioscorea bulbifera*) and arrowhead vine (*Syngonium podophyllum*) growing just north of the Moody Crawford Trust parcel. This will provide a seed source to address.

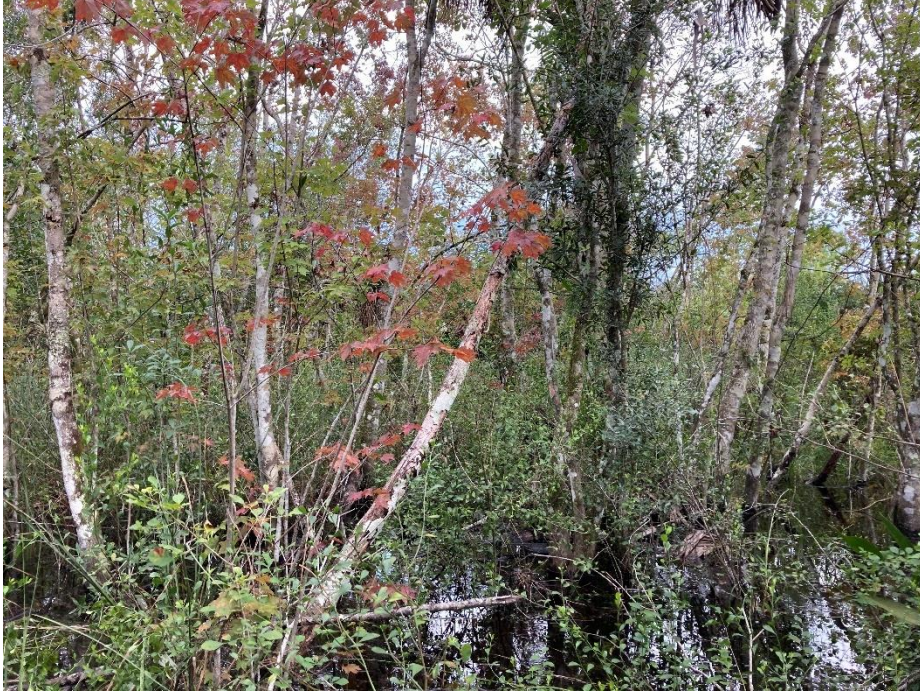
Photoset 3: Representative Habitat



Cabbage palm (*Sabal palmetto*) and live oak (*Quercus virginianus*) hammock on the Arnold parcel



Pop ash (*Fraxinus caroliniana*) slough on the Arnold parcel. Note the numerous cardinal airplants (*Tillandsia fasciculata*).



Red maple (*Acer rubrum*) swamp on Moody Crawford Trust parcel west of Trafford Oaks Road.

Initial Criteria Screening Report

Owner Name(s): Emily Arnold, Brian Blocker, Moody Crawford Trust

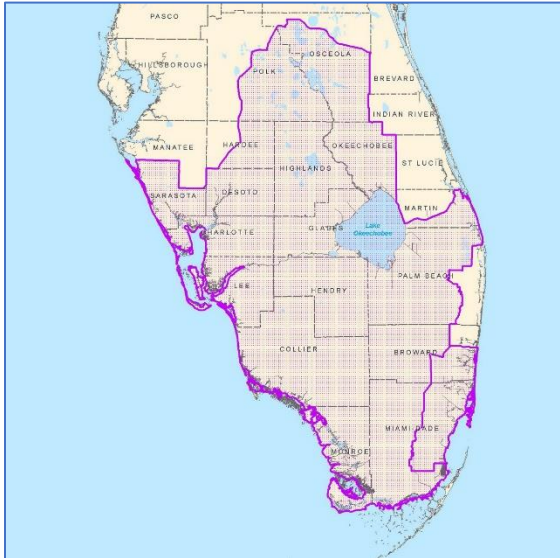
Date: October 2021

Table 15: Plant Species Observed During Site Visit

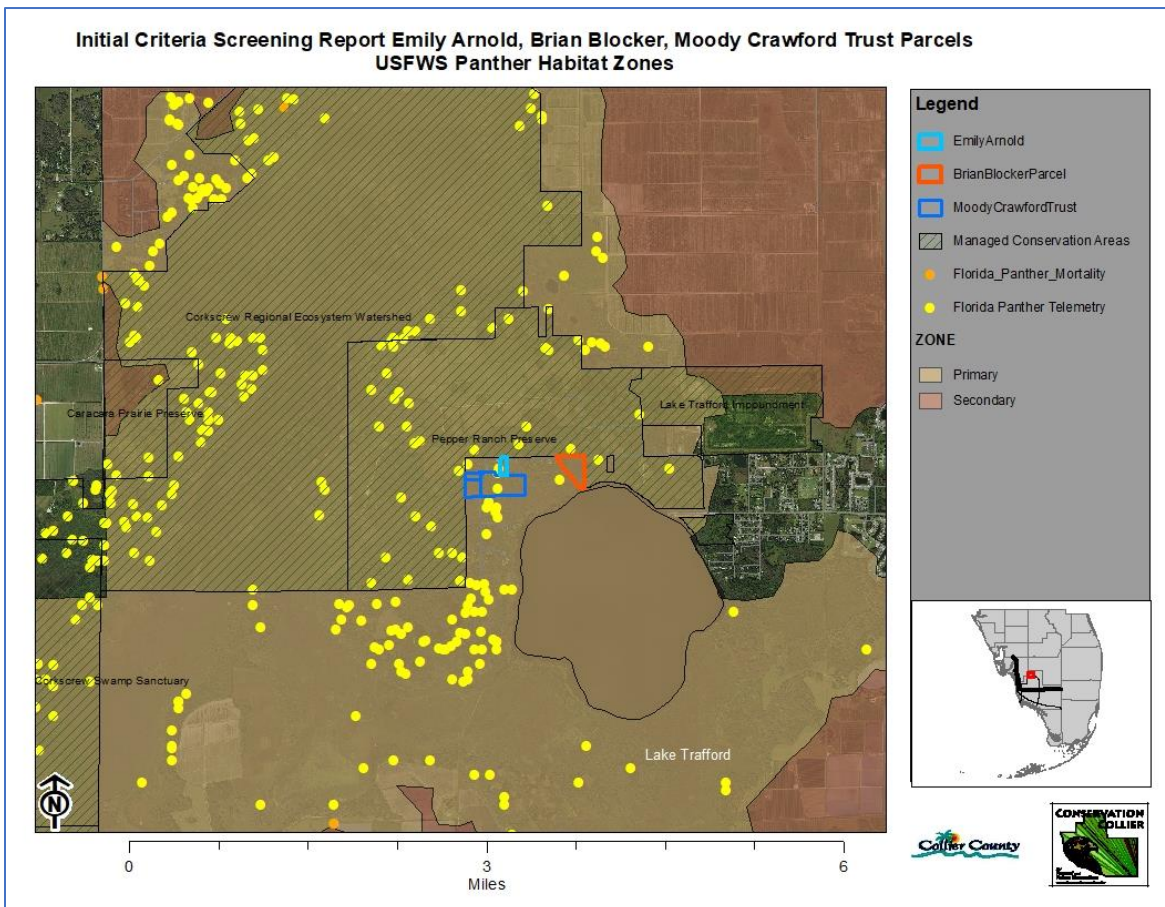
| Common Name | Scientific Name | State Status | Federal Status | Wetland Status | FLEPPC Status |
|------------------------------|---|------------------------------|----------------|----------------|---------------|
| strangler fig | <i>Ficus aurea</i> | | | FAC | |
| musky mint | <i>Hyptis alata</i> | | | FAC | |
| wax myrtle | <i>Myrica cerifera</i> | | | FAC | |
| wild coffee | <i>Psychotria nervosa</i> | | | FAC | |
| cabbage palm | <i>Sabal palmetto</i> | | | FAC | |
| myrsine | <i>Myrsine guianensis</i> | | | FAC | |
| red maple | <i>Acer rubrum</i> | | | FACW | |
| blue maidencane | <i>Amphicarpum muhlenbergianum</i> | | | FACW | |
| bushy blue stem | <i>Andropogon glomeratus</i> | | | FACW | |
| swamp fern | <i>Blechnum serrulatum</i> | | | FACW | |
| toothpetal false rein orchid | <i>Habenaria floribunda</i> | | | FACW | |
| laurel oak | <i>Quercus Laurifolia</i> | | | FACW | |
| white top sedge | <i>Rhynchospora colorata</i> | | | FACW | |
| leather fern | <i>Acrostichum spp.</i> | | | OBL | |
| pond apple | <i>Annona glabra</i> | | | OBL | |
| water hemlock | <i>Cicuta maculata</i> | | | OBL | |
| sawgrass | <i>Cladium jamaicense</i> | | | OBL | |
| swamp lily | <i>Crinum americanum</i> | | | OBL | |
| Jointed spikerush | <i>Eleocharis interstincta</i> | | | OBL | |
| pop ash | <i>Fraxinus caroliniana</i> | | | OBL | |
| dahoon holly | <i>Ilex cassine</i> | | | OBL | |
| Royal fern | <i>Osmunda regalis var. spectabilis</i> | State Commercially exploited | n/a | OBL | |
| swamp bay | <i>Persea palustris</i> | | | OBL | |
| smart weed | <i>Polygonum sp.</i> | | | OBL | |
| pickereelweed | <i>Pontederia cordata</i> | | | OBL | |
| duck potato | <i>Sagittaria latifolia</i> | | | OBL | |
| willow | <i>Salix spp.</i> | | | OBL | |
| alligator flag | <i>Thalia spp.</i> | | | OBL | |
| cattails | <i>Typha spp.</i> | | | OBL | |
| Leather fern | <i>Acrostichum spp.</i> | State Threatened | n/a | | |
| salt bush | <i>Baccharus sp.</i> | | | | |
| beggar's tick | <i>Bidens alba</i> | | | | |
| Florida butterfly orchid | <i>Encyclia tampensis</i> | State Commercially exploited | n/a | | |
| climbing hempvine | <i>Mikania scandens</i> | | | | |
| mulberry | <i>Morus sp.</i> | | | | |
| virginia creeper | <i>Parthenocissus quinquefolia</i> | | | | |
| golden polypody fern | <i>Phlebodium aureum</i> | | | | |
| slash pine | <i>Pinus elliotii</i> | | | | |
| resurrection fern | <i>Pleopeltis polypodioides</i> | | | | |
| green brier | <i>Smilax sp.</i> | | | | |
| Northern needleleaf | <i>Tillandsia balbisiana</i> | State Threatened | n/a | | |
| Cardinal airplant | <i>Tillandsia fasciculata</i> | State Endangered | n/a | | |
| southern needleleaf airplant | <i>Tillandsia setacea</i> | | | | |
| Giant airplant | <i>Tillandsia utriculata</i> | State Endangered | n/a | | |
| shoestring fern | <i>Vittaria lineata</i> | | | | |
| hog plum | <i>Ximenia americana</i> | | | | |
| Climbing cassia | <i>Senna pendula</i> | | | | I |
| woman's tongue | <i>Albizia lebeck</i> | | | | I |
| Air potato | <i>Dioscorea bulbifera</i> | | | | I |
| Water hyacinth | <i>Eichornia crassipes</i> | | | | I |
| Cogongrass | <i>Imperata cylindrica</i> | | | | I |
| Lantana | <i>Lantana camara</i> | | | | I |
| Peruvian primrose-willow | <i>Ludwigia peruviana</i> | | | | I |
| Old world climbing fern | <i>Lygodium microphyllum</i> | | | | I |
| Sword fern | <i>Nephrolepis spp.</i> | | | | I |
| Water lettuce | <i>Pistia stratiotes</i> | | | | I |
| Brazilian pepper | <i>Schinus terebinthifolia</i> | | | | I |
| Caesar's weed | <i>Urena lobata</i> | | | | I |
| Para grass | <i>Urochloa mutica</i> | | | | I |
| Creeping oxeye | <i>Sphagneticola trilobata</i> | | | | II |
| Guineagrass | <i>Urochloa maxima</i> | | | | II |

Wildlife

Figure 16: USFWS Consultation Areas
2019 Florida bonneted bat consultation area



USFWS Panther Habitat Zones



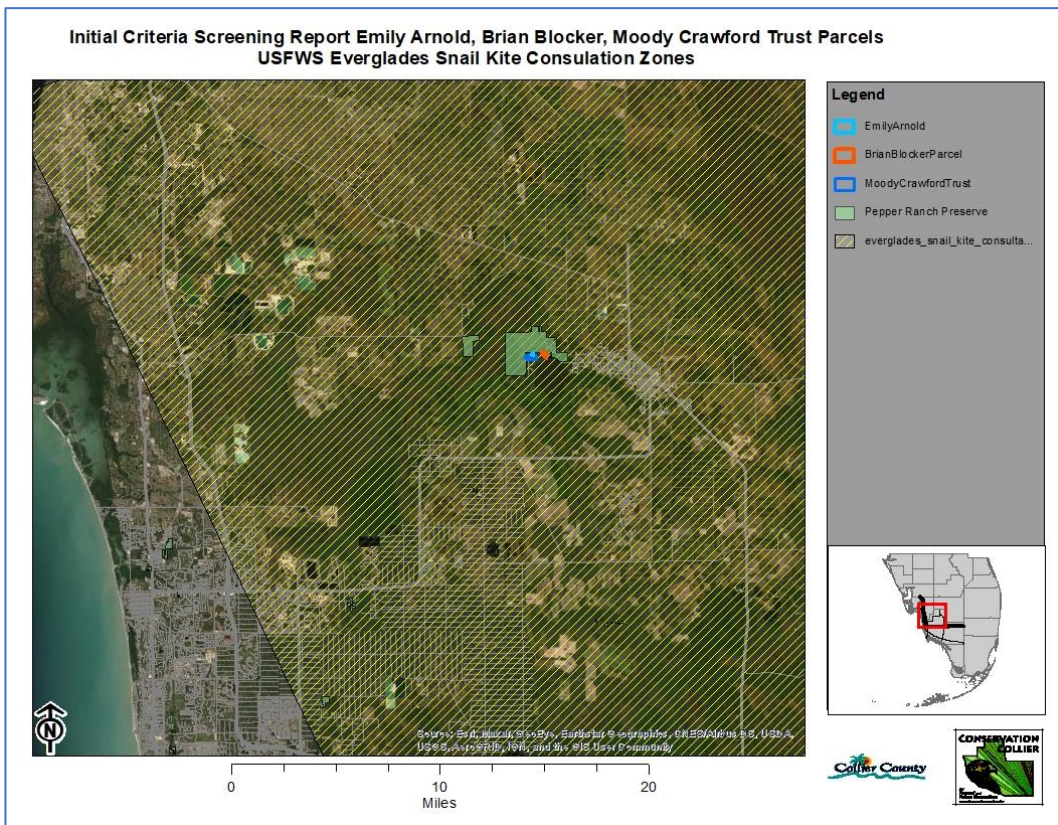
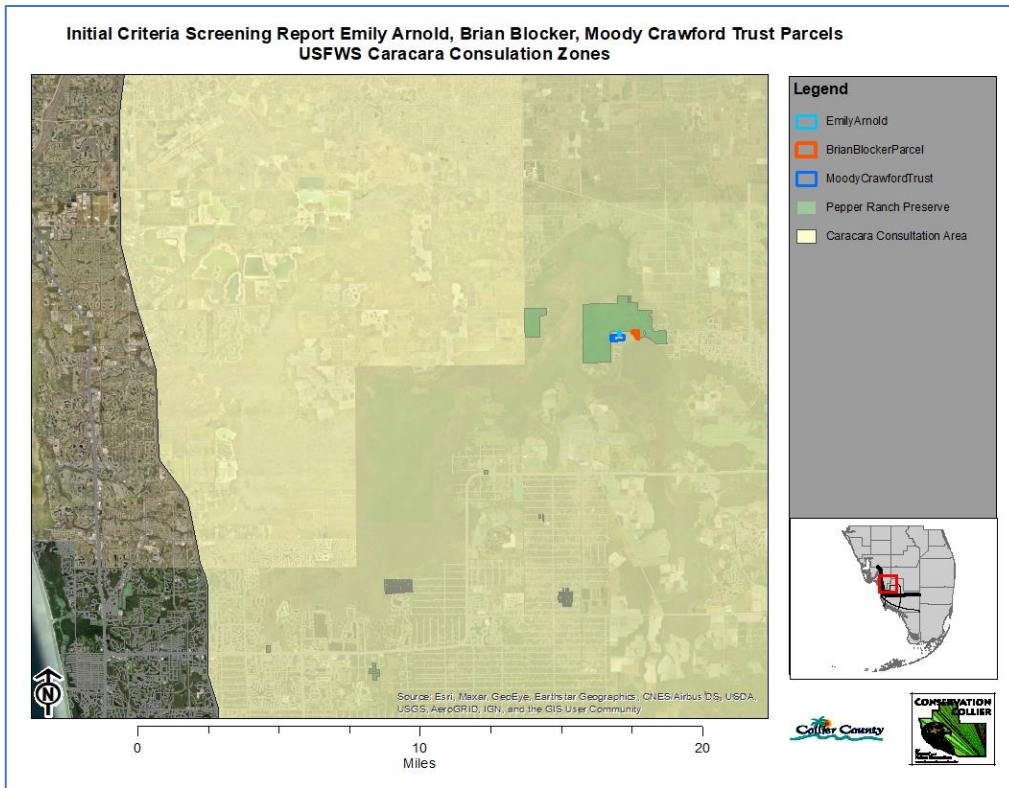
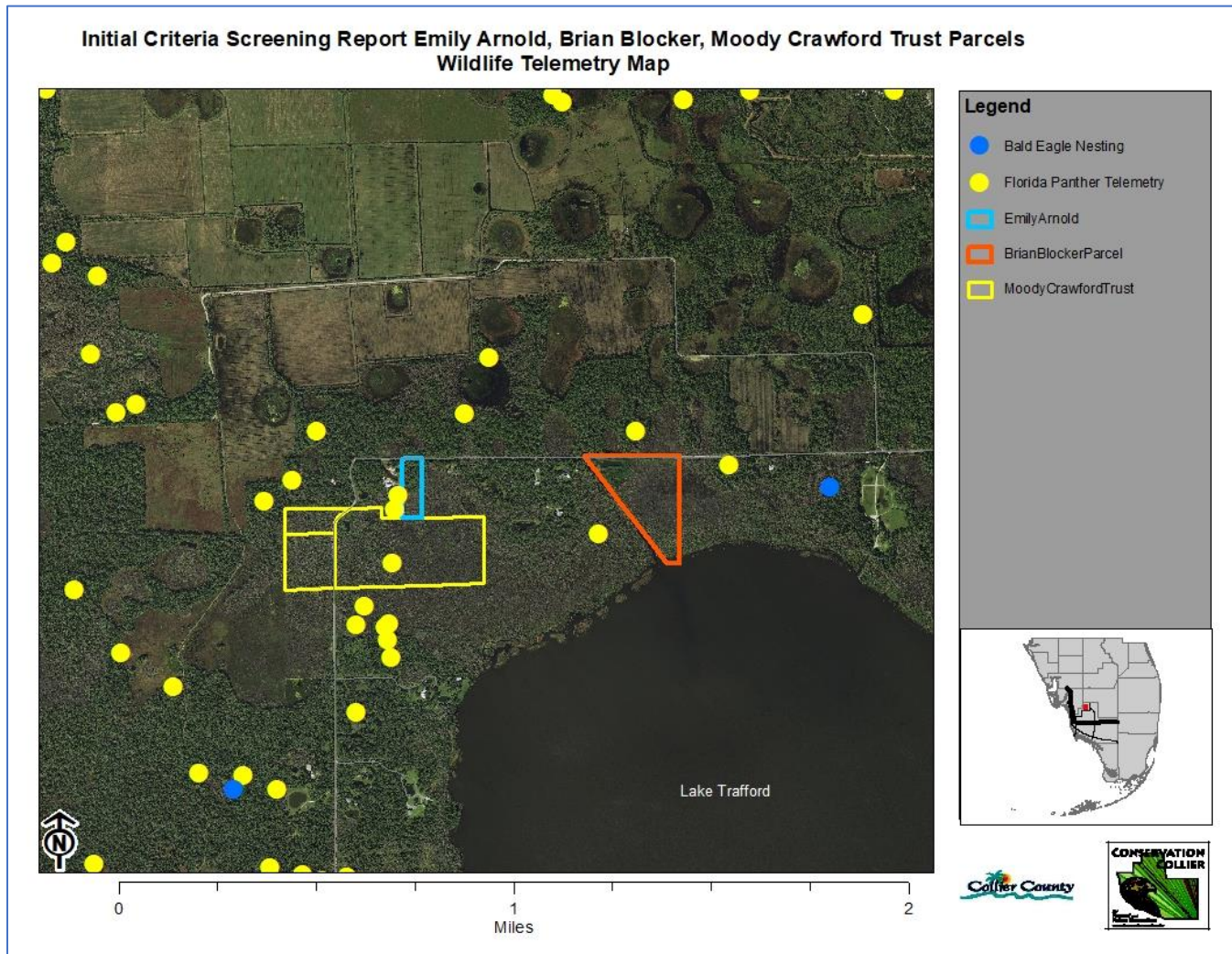


Figure 17: Wildlife Telemetry



Photoset 4: Wildlife and Wildlife Indicators



Red-shouldered hawk (*Buteo lineatus*) on the Moody Crawford Trust parcel

Soils, Elevation, and Hydrology

Figure 18: Soil Survey of Collier County

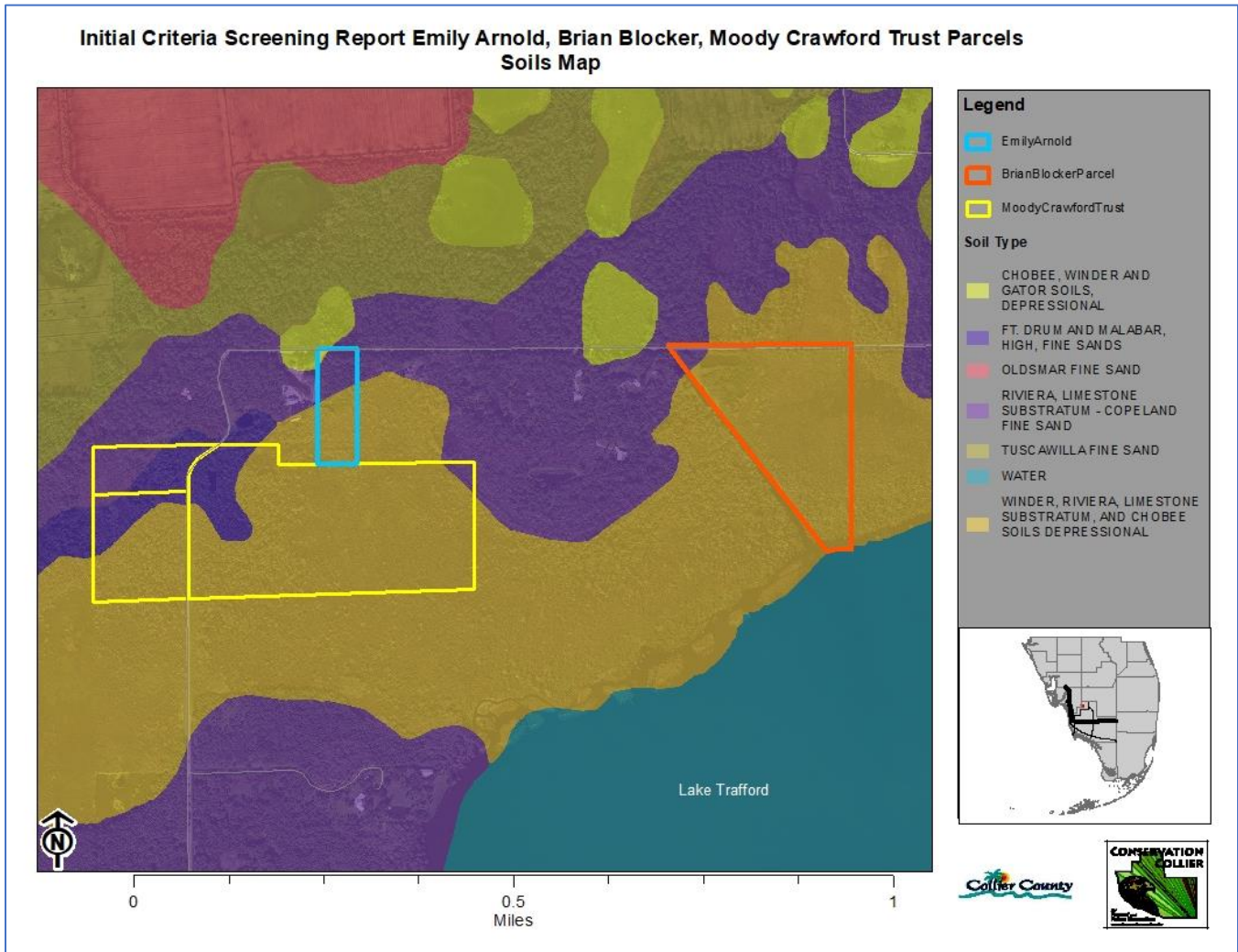


Figure 19: Light Detection and Ranging Surface Elevation Map (LIDAR)

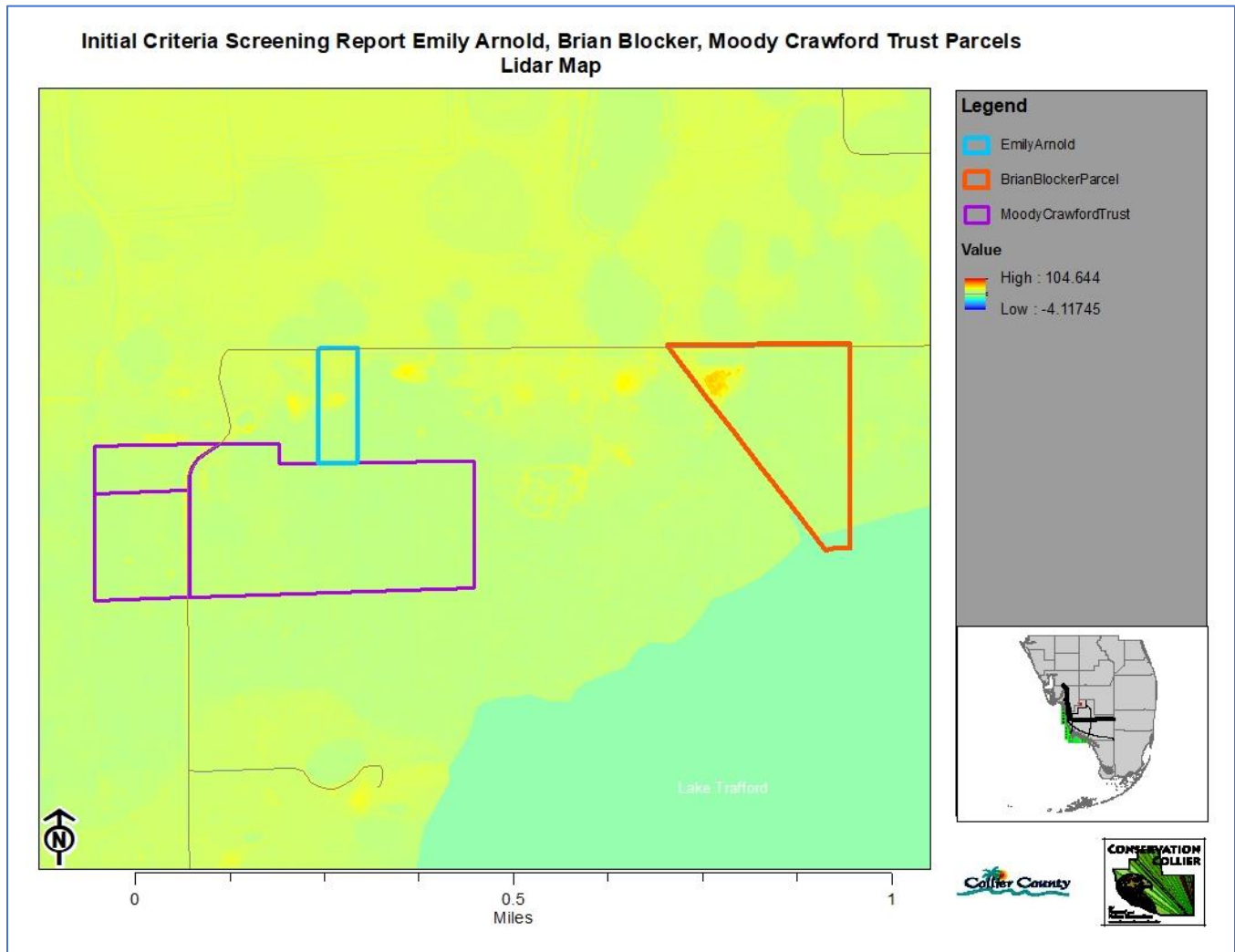


Figure 20: Wellfield Protection Zones

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.

These parcels do not fall within a wellfield protection zone.

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.

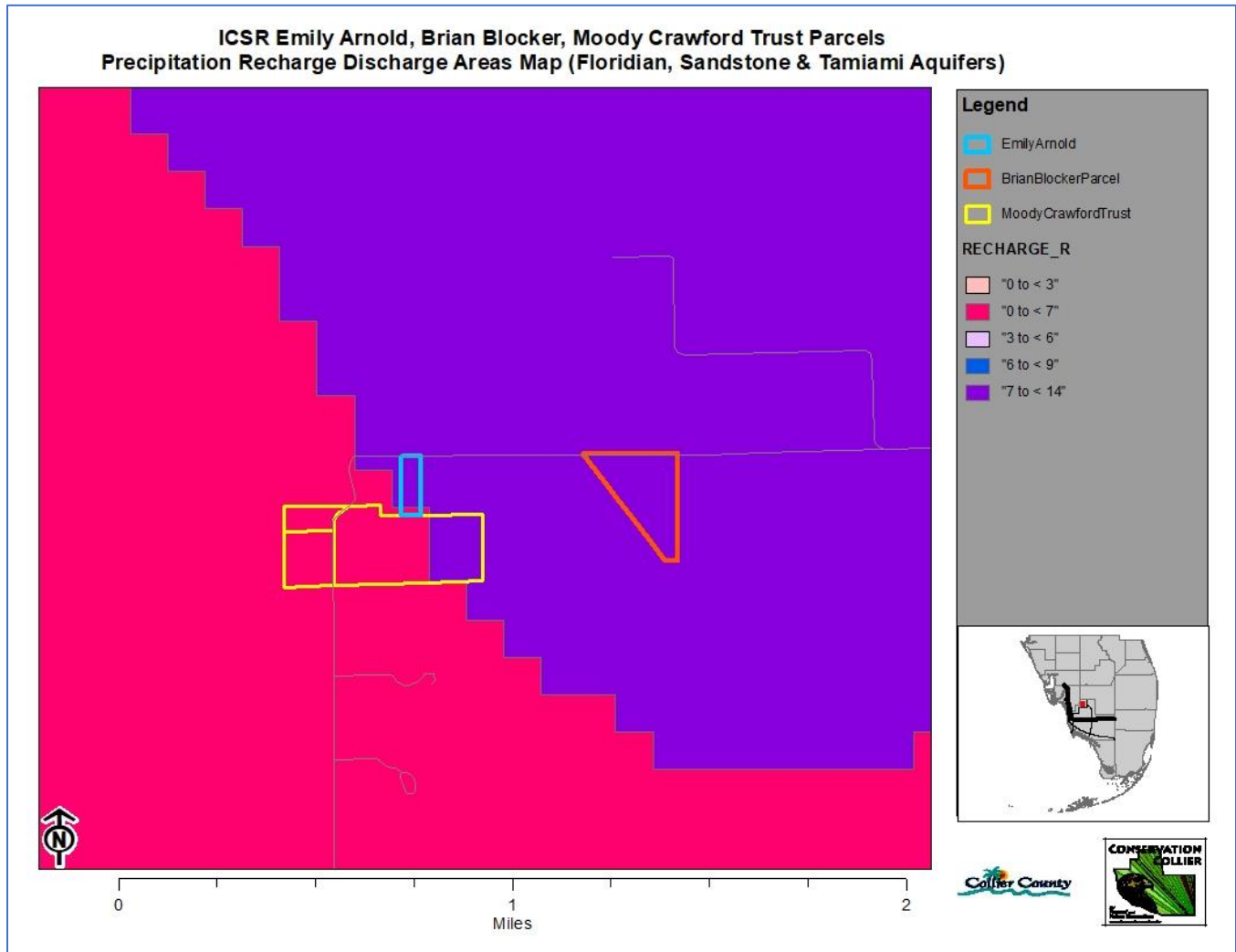


Figure 22: Precipitation Recharge Areas - Surficial and Biscayne Aquifers

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.

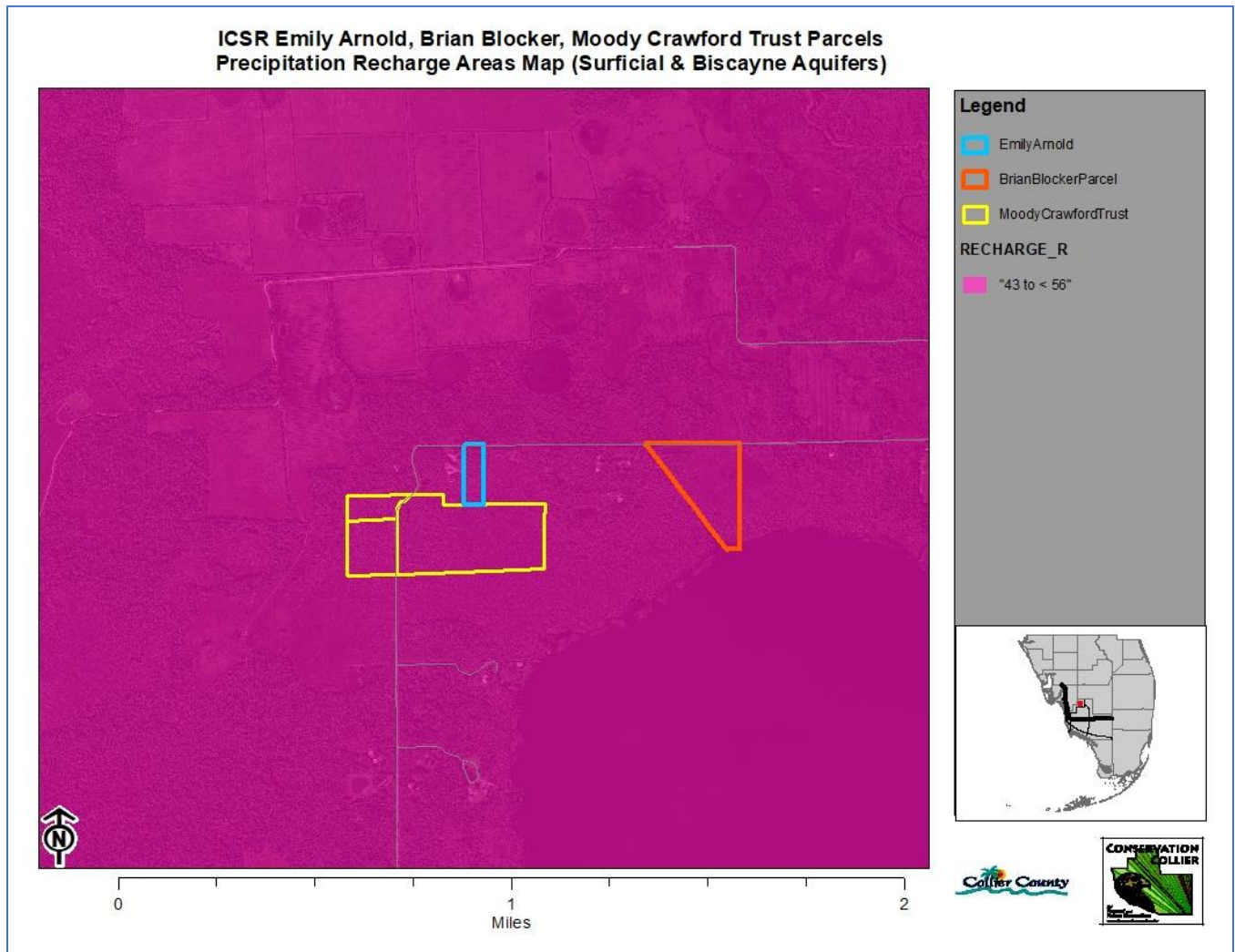
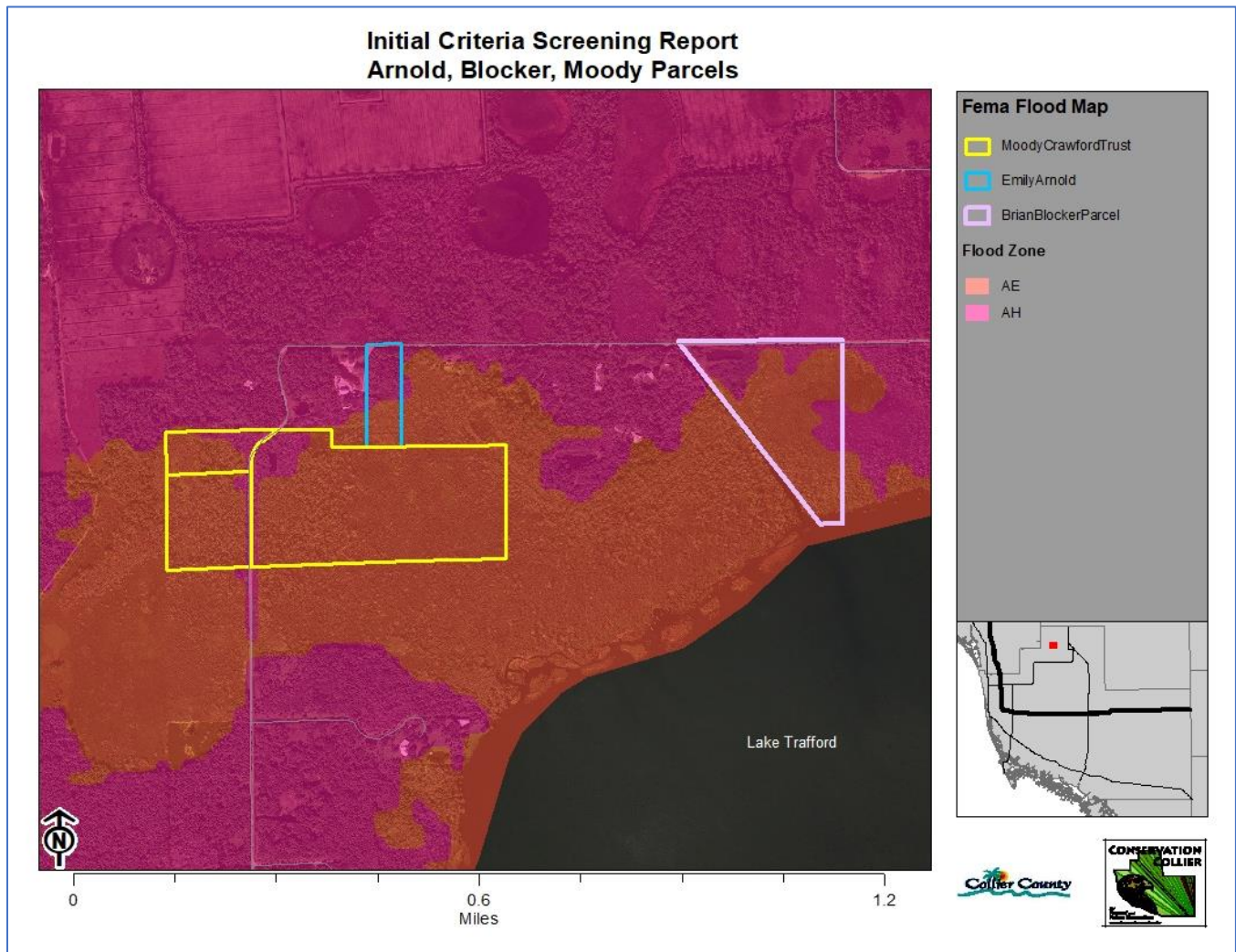
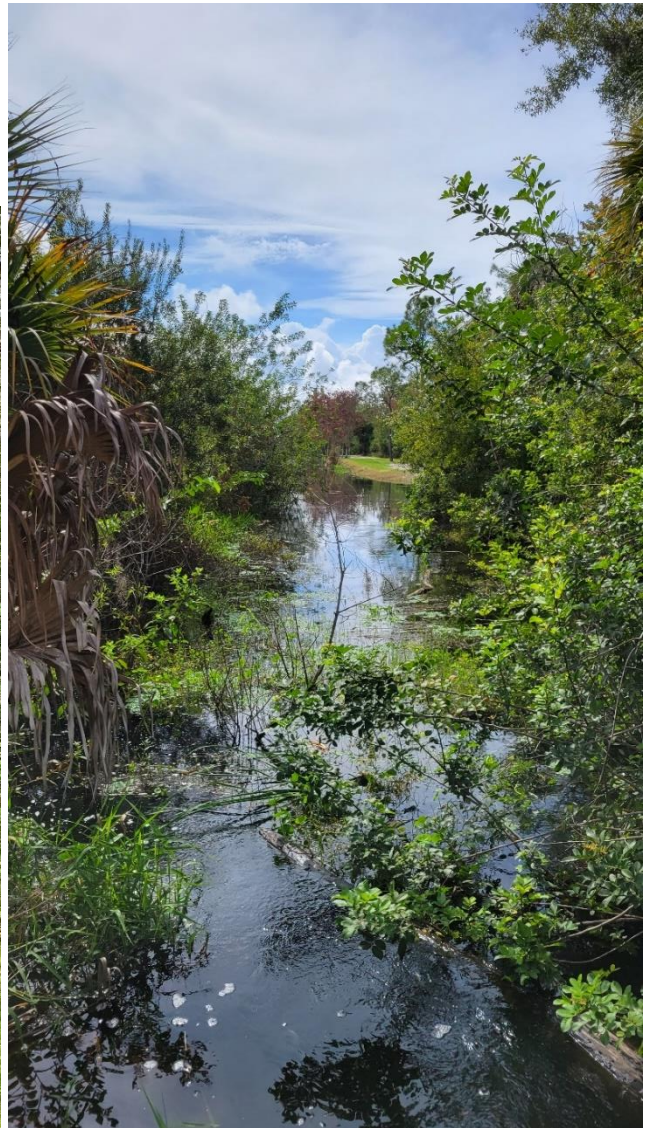


Figure 23: FEMA Flood Zones

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



Left: Giant leather fern (*Acrostichum danaeifolium*), red maple (*Acer rubrum*), swamp fern (*Blechnum serrulatum*), willow (*Salix sp.*), and other aquatic vegetation growing on the Crawford Moody Trust parcel

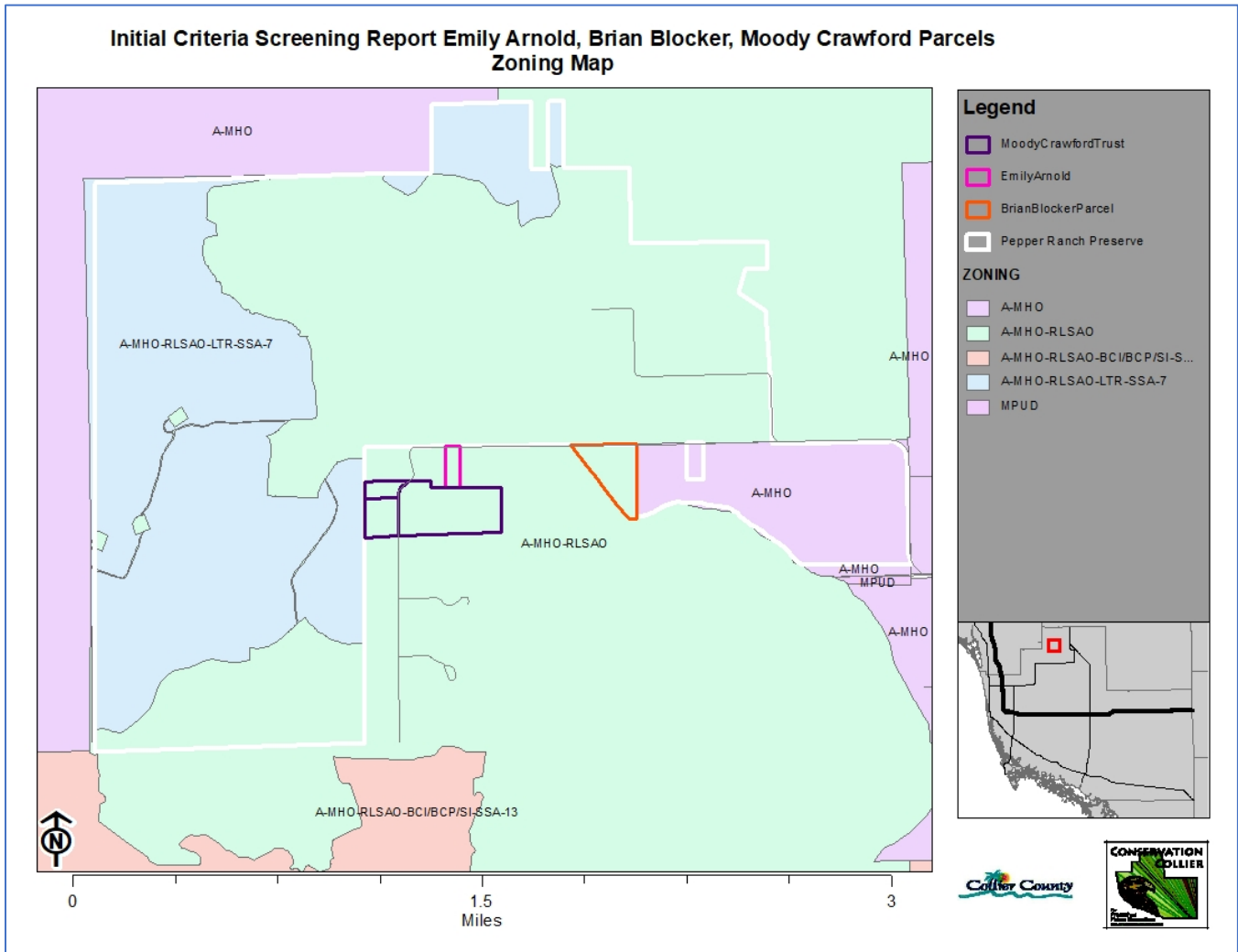
Right: Canal on border of Blocker parcel



Borrow pit pond on the Moody Crawford Trust parcel

Zoning

Figure 24: Collier County Growth Management Department Zoning Overlay

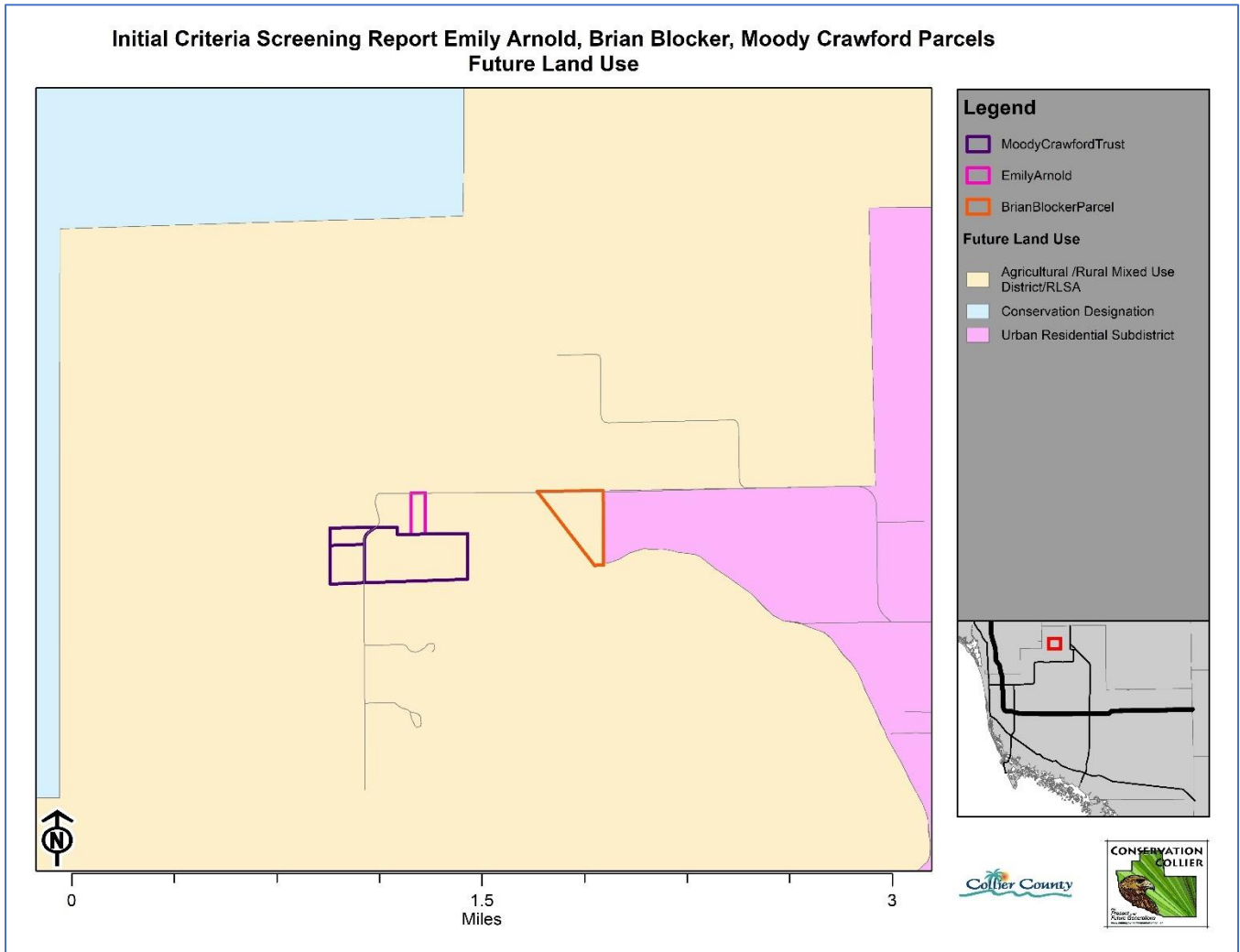


Initial Criteria Screening Report

Owner Name(s): Emily Arnold, Brian Blocker, Moody Crawford Trust

Date: October 2021

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



Management

Photoset 6: Management Considerations



Paragrass (*Brachiaria mutica*) infestation on the Blocker parcel

Additional Figures, Tables, and Photos

Photoset 7: Additional Photos



Butterfly orchid (*Encyclia tampensis*) growing on the Moody Crawford Trust parcel