

# Conservation Collier McIlvane Marsh Property Interim Management Plan



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### ***1.0 Purpose and Scope of the Interim Management Plan***

The McIlvane Marsh project consists of 8 properties totaling 339 acres acquired between July 2007 and July 2009 with funds from the Conservation Collier program (Exhibit 1). Another parcel totaling 29.33 acres (Triangle Licensing Corp) is scheduled to close in August 2009. Its acquisition will result in a total of 368 acres under Conservation Collier ownership. Collier County additionally owns a 20-acre parcel within the marsh donated for mitigation in 1999. The State of Florida, under management by Rookery Bay National Estuarine Research Reserve (RBNERR), owns or is in the process of acquiring 399 acres in a mosaic pattern with Conservation Collier for a total of 787 acres out of approximately 870 acres currently or shortly to be in conservation status. There are six remaining privately-owned parcels totaling 80 acres located on the western side of the Marsh. Conservation Collier parcels will be managed for conservation, protection, enhancement of natural resources and for public outdoor recreation that will be compatible with the conservation, protection and enhancement of the site and the surrounding lands.

This Interim Management Plan is intended to identify the key management priorities and issues within the site and give direction for management for two years. This document is meant to be the precursor to a Final Management Plan, which will outline more specific aspects of site management.

#### Key Interim Management Objectives

1. Protect, manage and restore (as appropriate) the native habitat on site
2. Develop Partnership agreement(s) for management with surrounding land owning agencies and private individuals
3. Plan for appropriate public access
4. Explore opportunities for post acquisition grant funding
5. Determine impact on resources necessary to manage the area for the dynamics and impacts associated with Public Access

#### Action Plan

- 1a. Install a temporary Conservation Land sign at the at Curcie Road access point to McIlvane Marsh area and evaluate the need for No Dumping / No Trespassing signs along internal rights of way.
- 1b. Seek grant funding for invasive exotic vegetation removal.
- 1c. Meet and coordinate with surrounding conservation land managers and agencies for coordination of invasive exotic vegetation treatment and development of wildlife survey protocols.
- 2a. Coordinate with property owner agencies surrounding the Marsh, including Collier Seminole State Park, Ten Thousand Islands National Wildlife Refuge and RBNERR for long term management and public access cooperation.
- 2b. Write and execute a formal Memorandum of Agreement (MOA), also known by the U.S. Fish and Wildlife Service (USFWS) as a "Management Agreement," for cooperative land management actions with appropriate adjoining agencies.
- 2c. Coordinate management of the 20-acre mitigation parcel acquired by Collier County in 1999 with Conservation Collier management.

- 3a. Coordinate appropriate public use plan with RBNERR and TTINWR.
- 3b Evaluate appropriate areas for public parking.
- 3c. Evaluate potential and costs for fishing/canoe launch/wildlife viewing dock. Evaluate reports of lead contamination in area waters.

## ***2.0 Management Authority and Responsibilities***

The McIlvane Marsh properties have not been officially named at present. Eight parcels totaling 369 acres are included within the portfolio of properties assigned to the Collier County Facilities Management Department, with the Conservation Collier Program responsible for direct management of these lands. Conservation Collier Program staff will handle day to day management activities and will seek to cooperate and form partnerships with adjoining land-owner local, state and federal agencies and to obtain various types of grants for management and public use activities where possible.

## ***3.0 Interim Site Plan***

### ***3.1 Location and Site Description***

The McIlvane Marsh is an 800-acre mangrove salt marsh generally located northeast of Marco Island and southwest of the intersection of U.S. 41 (Tamiami Trail) and County Road 92 (San Marco Road) in Sections 29 and 30, Township 51 South, Range 27 East, Collier County, Florida. The McIlvane Marsh area can be accessed via Curcie Road, which turns north off C.R. 92 approximately 1.8 miles south of U.S. 41. The first 800 feet of Curcie Road is County-maintained right-of-way (ROW). Curcie road continues beyond the County-maintained ROW as an unpaved private access road to the north edge of the McIlvane Marsh, then curving west and continuing for approximately 2.1 miles to a terminus point in the northwestern portion of the marsh. This unpaved road can be used to legally and physically access Conservation Collier lands, though it traverses over lands owned by The State of Florida Department of Environmental Protection, managed by RBNERR. There are several other non-contiguous portions of public ROW dedicated along the edges of properties within the marsh; however there are no actual roadways in these locations. Rookery Bay staff advises that the Picayune Strand Restoration Project (part of the Comprehensive Everglades Restoration Project) may increase conveyance of water into the area for Curcie Road and McIlvane Marsh and that this may result in the need to evaluate additional water conveyance under Curcie Road.

McIlvane Marsh is a tidally influenced wetland consisting primarily of open marsh and mangrove wetlands with small upland island areas, primarily on its northern and eastern edges. Approximately 15-acres of pine flatwood uplands exist on the north side of the marsh and 6 acres of cleared uplands on the eastern edge of the marsh where a communication tower site is located. Also on the eastern side of the marsh, in what were historically uplands, state mitigation lands contain a 51-acre borrow-pit lake created as a result of limestone fill mining which occurred under Collier County Excavation Permit number 59.145 (Marco Woods) issued in July 1982, South Florida Water Management District Water Use Permit No. 110589335, issued in November 1982, and US Army Corps of Engineers dredge and fill permit No. 82J-10657, issued

in April 1983. Another, older approximately 1-acre borrow pit created between 1963 and 1973 lies on the north-central side of the marsh. Vegetation communities present within the marsh include, in order of dominance: mangrove swamp, saltwater marsh, inland ponds or sloughs, and pine flatwood.

### *3.2 Signage*

An access gate exists at the end of the paved portion of Curcie road, approximately 800 feet off C.R. 92. A temporary sign identifying Collier County Conservation Land will be posted at the gate. Temporary No Trespassing / No Dumping signs may also be posted along the unpaved portion of Curcie Road. All landowners, including Conservation Collier, will be able to put signs onto the main gate.

### *3.3 Easements, Concessions or Leases*

As noted previously, there is legal and physical access to Conservation Collier properties via public ROW along Curcie Road and via ROW dedications. Additionally, there are several non-contiguous portions of public ROW dedicated along the edges of properties within the marsh but which have no physical roadway existing. No other easements, concessions or leases exist on the parcel or are proposed for the future, unless they further conservation objectives, such as a conservation easement.

### *3.4 Structures*

The entire 800-acre marsh area is undeveloped and covered with natural vegetation except for a 2.02-acre homestead (West parcel) with a recreational motor vehicle located north of the 80-acre former Trinh parcel, with one individual residing there. There are also three communication towers and a small building that houses communication equipment on a ten-acre privately owned property on the eastern side that is surrounded by Conservation Collier-owned property.

State and Army Corps permits issued in the 1980's authorized the construction of a berm separating the mining project from State surface waters on the south side of the limestone fill mine excavation. The State of Florida, as part of mitigation for development projects in the local area, has recently completed berm breaches and installation of geoweb crossings and culverts under the access road to allow for overland flow of water in the marsh. This project was conducted on state lands; however the benefits will extend to County-owned lands.

### *3.5 Surrounding and Adjacent Land Uses*

The Marsh is surrounded on the east, south and west by state and federal conservation lands; Collier Seminole State Park to the east, TTINWR to the south and RBNERR to the west. Parcels adjoining the northern boundary of the marsh include undeveloped Agriculturally-zoned lands, Fiddler's Creek Planned Unit Development (PUD) and JDs Auto Ranch, an automotive recycling and dismantling yard. In addition to the lands acquired for the Conservation Collier Program, Collier County also owns a 20-acre mitigation parcel on the western side of the marsh that is between Conservation Collier lands on both its east and west boundaries. The State of Florida owns, or will shortly own, 399 acres in a mosaic pattern with Conservation Collier lands. Upon completion of the August 2009 acquisition of the Triangle Licensing Corp 29.33-acre parcel, a total of 787 acres out of 870 acres will be in conservation status.

**4.0 Interim Management Objectives**

**4.1 Natural Resource Protection**

Existing Vegetation:

- **Ground Cover:** Mangrove areas do not appear to have ground cover. Scattered upland areas may contain ground cover similar to that observed on parcels located off Curcie Road along eastern side of the marsh area. Plants observed include: beakrush (*Rhynchospora sp.*), leather fern (*Arostichum spp.*), swamp fern (*Blechnum serrulatum*), and white beggar-ticks (*Bidens alba*).
- **Midstory:** Red mangroves (*Rhizophora mangle*), black mangroves (*Avicennia germinans*), white mangrove (*Laguncularia racemosa*), buttonwood (*Conocarpus erectus*), winged sumac (*Rhus copallina*), myrsine (*Myrsine floridana*), saltbush (*Baccharis angustifolia* and *B. halimifolia*), wax myrtle (*Myrica cerifera*) and scattered small cabbage palms (*Sabal palmetto*).
- **Canopy:** Red mangroves (*Rhizophora mangle*), black mangroves (*Avicennia germinans*), white mangrove (*Laguncularia racemosa*) and buttonwood (*Conocarpus erectus*), an approximate 15-acre area of slash pine (*Pinus eliotti* var *densa*) and several acres of wetland hardwoods are identified in the electronic FLUCCS record.

Unique Natural Features:

There are no known unique natural features.

Listed Plant Species:

No listed plant species have been directly identified.

Listed Wildlife Species:

Listed wildlife species include those found on the Endangered and Threatened Wildlife and Plants 50 CFR 17.11 and 17.12, November 2005 (FWS) or the Florida Fish and Wildlife Conservation Commission (FWCC) Florida’s Endangered Species, Threatened Species, and Species of Special Concern, July 2009. The following listed species have been observed or documented within McIlvane Marsh or are present on adjacent lands:

COMMON NAME	SCIENTIFIC NAME	STATUS	
		FWCC	FWS
American alligator	<i>Alligator mississippiensis</i>	SSC	Threatened due to similarity of appearance
American crocodile	<i>Crocodylus acutus</i>	E	T
Florida ribbon snake	<i>Thamnophis sauritus sackeni</i>	T	
Snowy egret	<i>Egretta rufescens</i>	SSC	
Wood Stork	<i>Mycteria americana</i>	E	E
Tri-colored heron	<i>Egretta tricolor</i>	SSC	
Osprey	<i>Pandion haliaetus</i>	SSC	
Little blue heron	<i>Egretta caerulea</i>	SSC	
Bald eagle	<i>Haliaeetus</i>	DELISTED	DELISTED on

	<i>leucocephalus</i>	but special rule F.A.C. 68A-16.002	current
Everglades snail kite	<i>Rostrhamus sociabilis plumbeus</i>	E	E
Florida panther	<i>Puma concolor coryi</i>	E	E
Florida black bear	<i>Ursus americanus floridanus</i>	T	Listed in other states but not in Florida

E=Endangered / T= Threatened / SSC= Species of Special Concern

**4.2 Site Security**

Security shall be provided initially by limiting access via the heavy-duty gate installed by the State 50 feet past the bridge at the end of the paved portion of Curcie Road. Conservation Collier staff, RBNERR and TTINWR staffs and seven owners of private properties within the marsh have the access code. Once public use is determined, appropriate access can be provided.

**4.3 Exotic Vegetation Removal and Maintenance Plan**

Invasive, exotic plants present include, in order of dominance: Brazilian pepper (*Schinus terebinthifolius*), Australian pine (*Casuarina sp.*), Melaleuca (*Melaleuca quinquinerva*), climbing fern (*Lygodium mycophyllum*), Java plum (*Sygyium cumini*) and other Florida Exotic Pest Plan Council (FLEPPC) category 1 and 2 exotic plants. Some exotic removal has already occurred within the marsh on state-owned parcels. The U.S. Fish and Wildlife Service (USFWS) is currently coordinating a mitigation project involving exotic removal adjacent to the 29.33-acre Conservation Collier parcel (f/k/a Triangle Leasing Corp.) adjoining Curcie Road. Staff has applied for and received notice of a USFWS Partners grant match award of \$21,500 to remove exotic vegetation on an 80-acre parcel along the north side of the marsh (f/k/a the Trinh parcel). Overall exotic vegetation removal and maintenance will be coordinated with surrounding state agencies. The State of Florida (via RBNERR) is currently conducting a 5-year mitigation project to remove exotics from 70 acres of wetlands and uplands within McIlvane Marsh.

**4.4 Debris Removal**

This area has been historically prone to trespass and illegal dumping. Much of the debris from past dumping has already been removed as part of restoration work done by the State of Florida and by individual property owners. The heavy duty gate installed on Curcie Road will protect Conservation Collier lands from dumping until an appropriate public access plan can be prepared. “No Dumping” signs and a fence may need to be installed. Staff will evaluate this need after determining whether the gate is effective at deterring trespass and dumping.

**4.5 Cultural, Historical and Archeological Resource Protection**

A Section, Township, and Range query of the Florida Master Site File for Sections 29 & 30, T51S, R27E, with result received on July 22, 2009, shows no recorded historical or archaeological sites present within the search area. However, the search area may contain unrecorded archeological sites, historical structures or other resources. The County will notify the Division of Historical Resources immediately if evidence is found to suggest any archaeological or historic resources are discovered. If such resources are identified on-site, staff shall cordon off the area, and a professional survey and assessment shall be instituted. The

archaeologist shall prepare a report outlining results of the assessments and issue recommendations to County staff about management of any sites discovered, per provisions of the Land Development Code Section 2.2.25. This report shall be sent to the Division of Historical Resources. The County shall cooperate fully with direction from the Division of Historical Resources on the protection and management of archaeological and historical resources. The management of these resources will comply with the provisions of Chapter 267, Florida Statutes, specifically Sections 267.061 2 (a) and (b).

#### *4.6 Listed Species Protection*

Many of the listed species present in McIlvane Marsh are birds. Recently, a group of trespassers shot and killed a number of birds in the marsh, some of them listed species. Any bird rookeries present on or adjacent to Conservation Collier will be protected by signage stating "Protection Area-No-Entry." Florida panthers use the northern portions of the marsh, as evidenced by FWCC telemetry data (2008 GIS telemetry layer), and Florida black bears have been sighted in the area. American crocodiles nest within 1.5 miles of McIlvane Marsh, at the Marco Airport. Staff will coordinate with state and federal agencies surrounding to determine protection actions within a final management plan.

#### *4.7 Public Access*

At present, there are no public access facilities within McIlvane Marsh. Staff has the gate combination and can provide limited access to County-owned parcels within the marsh area by appointment until comprehensive public access plans can be developed in concert with RBNERR and TTINWR. Staff will evaluate the site to determine potential public uses as part of the development of a final management plan. Estimated costs for a 5-space public parking lot are included within the Estimates Cost Table (Exhibit 3) for future planning purposes only.

#### *4.8 Site Monitoring and Long Term Management Plan*

Long term management of the site shall consist of invasive exotic vegetation re-treatment and periodic general observation wildlife surveys. Collier County shall be responsible for property maintenance with tasks contracted out as necessary and management partnerships sought with the surrounding public land management agencies. The site will be monitored for exotic vegetation re-growth semi-annually for two years following initial treatment. After two years, an appropriate exotic vegetation management plan will be developed, with the goal of having 5% or less exotic vegetation on site. Wildlife surveys shall be developed and coordinated with surrounding conservation agencies to determine monitoring plan goals, techniques and parameters. The overall goal of wildlife monitoring shall be for developing, evaluating, and guiding future management actions necessary to enhance and protect wildlife habitat.

#### *4.9 Partnerships*

Staff will seek out and evaluate potential for partnerships for conservation, protection, and education.

#### *4.10 Fire Management*

RBNERR reports that there are fire dependent communities on their parcels adjoining Conservation Collier lands and that they may, in the future, apply prescribed fire to these areas.



Staff will evaluate the potential for prescribed burning on County-owned lands and seek to coordinate with RBNERR on all fire management issues.

5.0 Exhibits

EXHIBIT 1: Location Map

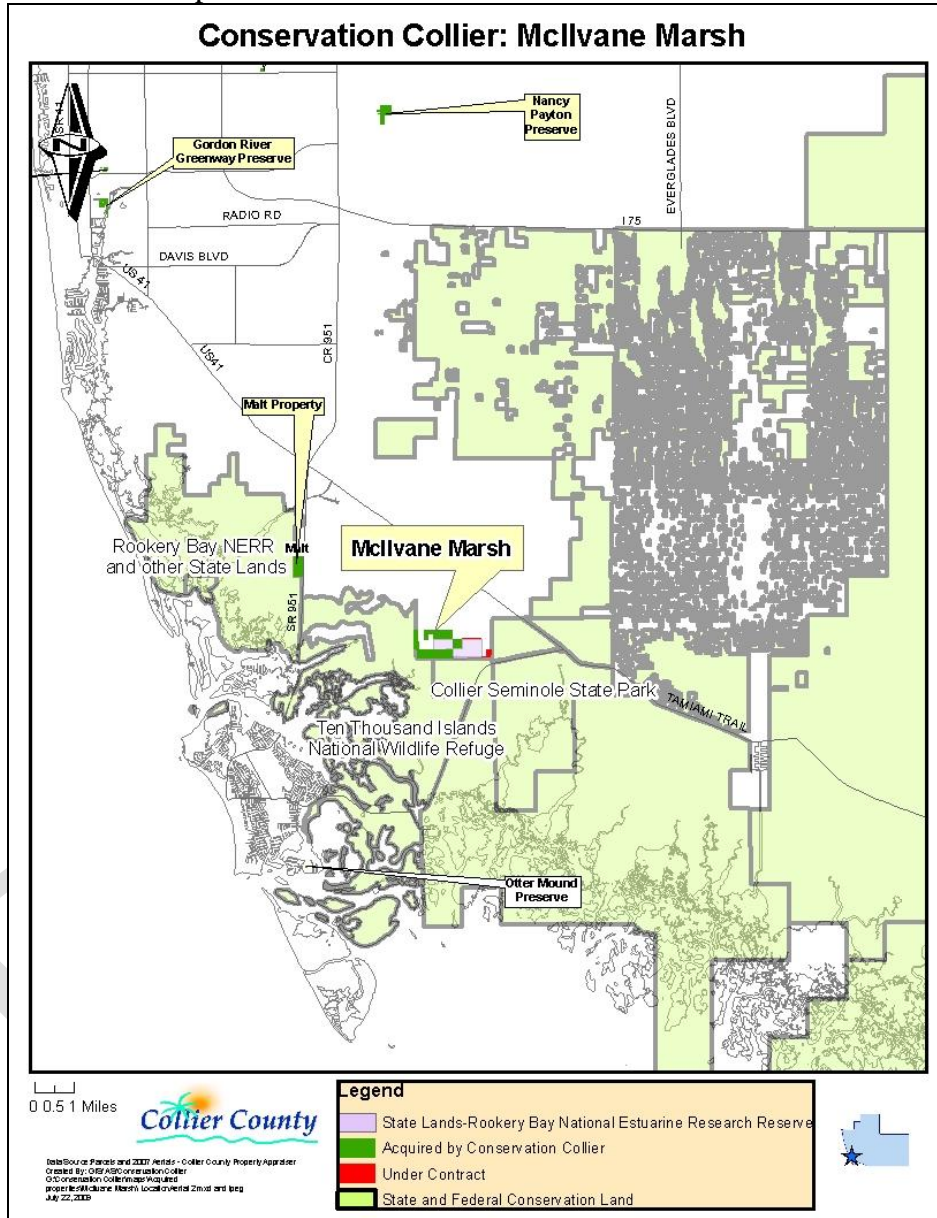


EXHIBIT 2: Aerial Map with Florida panther telemetry points  
**Map to be inserted here**

EXHIBIT 3: Estimated Cost Table for first two years

Management Element	Initial Cost	Annual Recurring Costs	Comments
Exotics Control	\$90,000	\$22,500	Based on approx. 60 acres of moderate infestation, kill in place initial for \$1,500 per acre and follow-up annual maintenance at \$375 per acre
Conservation designation sign	\$420	n/a	Three 3’X1.5’ – metal, brown with white letters, uninstalled, posts and hardware
Annual Road Maintenance		\$500 or \$5,000	\$500 is based on fire line mowing fee of \$.10 per linear foot (5,000 ft).-  \$5,000 is based on <i>USFWS</i> recommendation. Note the road extends over state lands, not ours.
Parking area	\$10,000		Based on 5-space gravel lot similar to that shown below.
<b>Total</b>			

