

DRAFT

**Conservation Collier Otter Mound Property
Interim Management Plan**

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1.0 Purpose and Scope of the Interim Management Plan

The Otter Mound property was purchased by Collier County in July 2004 through funds from the Conservation Collier program. The property will be open to the public and will be managed only for the conservation, protection and enhancement of natural and historical resources and for public outdoor recreation that will be compatible with the conservation, protection and enhancement of the site and its surrounding lands. Educational tours for local schools and groups will most likely be conducted at the site. A nature trail, benches, and educational interpretive signs shall be provided for visitors.

This interim management plan is intended to identify the key management priorities and issues within the site and give direction for management for the next 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. Installation of temporary “No Trespassing” signs
2. Installation of bollards to restrict vehicular access to the site
3. Development of an Interlocal Agreement with City of Marco Island for management partnership
4. Survey and identification of historical and archeological sites
5. Survey and identification of endangered plant locations
6. Debris removal
7. Selective invasive exotic vegetation removal and management
8. Vegetation removal along the historic shell wall
9. Creation of a trail system
10. Installation of entrance sign with prohibited activities listed
11. Benches along trail and trash bin at entrance
12. Interpretive and/or plant identification signs along trail

2.0 Management Authority and Responsibilities

The primary management authority and responsibility will rest with the Collier County Environmental Services Department with some level of shared authority and responsibility with the City of Marco Island, pursuant to approved interlocal agreement. Staff will explore the potential for limited partnerships with the Marco Island Historical Society, Southwest Florida Archeological Society, and other local organizations that may want to provide some limited management assistance. Written agreement(s) will be developed for any contemplated management partnerships and all necessary approvals sought before implementation.

3.0 Interim Site Plan

3.1 Location and Site Description

Otter Mound is located within Section 21 Township 52 Range 26. It is south of Addison Court, east of West Inlet Drive and west of East Inlet Drive on the southeastern tip of Marco Island in Collier County, Florida. The 1.77-acre site contains a tropical hardwood plant community dominated by a mixture of native and non-native species. The property is an important archeological site as documented by the Marco Island Historical Society and the Archeological and Historical Conservancy. Staff will confirm its registry on the Florida Master Site File and determine any other potential for historic listing. It contains undisturbed shell middens, a historic pioneer structure (outhouse) as well as a historic man-made shell wall that runs along a northern and interior section of the property. Otter Mound is within the urban boundary of Collier County.

3.2 Signage

Until invasive exotic vegetation is removed and trails are installed to protect the natural and historical resources, as well as the public, “No Trespassing” signs will be placed a minimum of every 500 feet along the property’s boundaries in accordance with Florida state statute 810.011. A sign denoting the site as conservation land will be placed near the entrance including information on when the property will be open to the public.

Once invasive exotic vegetation has been removed, trails have been created and resources have been adequately identified and protected, the “No Trespassing” signs and temporary entrance sign shall be removed. A sign denoting the site as a conservation area, identifying the prohibited activities within the preserve (citing ordinance 76-48) and stating the hours of operation will be installed at the entrance to the preserve. Interpretive and/or plant identification signs will be placed along the trail.

Collier County Environmental Services staff will coordinate with members of the Marco Island Historical Society when creating signage pertaining to historical and archeological sections of the site. The placement of signage will also be coordinated with an archeologist or an experienced Archeological and Historical Conservancy or Marco Island Historical Society member so that no archeological sites are disturbed during installation.

3.3 Easements, Concessions or Leases

A 4,051 square foot preservation easement exists that encompasses the man-made shell wall and the land surrounding it.

3.4 Structures

Currently a series of whelk shell “walls” extend over 300 feet through the north and west portions of the property. Ernest Otter created these walls in the 1930’s and 1940’s. A historic outhouse, built at approximately the same time, exists in the northwest section of the property. The site also contains a large mound of significant deposits that represent prehistoric activity. This midden is comprised of 15 feet of shell deposits that represent periods dating back 1,500 years.

3.5 Surrounding and Adjacent Land Uses

The property is completely surrounded by developed residential or vacant residential property. Addison Court is directly north of the site. Both developed residential and vacant residential property exist across this roadway and south of the site. Developed residential parcels lie to the east and west of Otter Mound.

4.0 Interim Management Objectives

4.1 Natural Resource Protection

Existing Vegetation:

FLUCCS – 426 – Tropical Hardwoods/Shell mound, characterized by Gumbo Limbo (*Bursera simaruba*), Jamaica Dogwood (*Piscidia piscipula*), Blackbead (*Pithecellobium sp.*), Strangler fig (*Ficus aurea*), White indigoberry (*Randia aculeata*), Marlberry (*Ardisia escallonoidies*), Rouge-berry (*Rivina humilis*), Mulberry (*Morus alba*), Yellow Elder (*Tecoma stans*), and others. In 2001 Smithsonian botanist Dr. Robert Read documented other tropical hardwoods and associates, including White stopper (*Eugenia axillaries*), Devil's claws (*Pisonia aculeate*), Florida privet, (*Foresteria segregata*), Snowberry (*Chiococca alba*), and Soapberry (*Sapindus saponaria*). Also observed by Dr. Read were Florida Thatch palm (*Thrinax radiata*) and Dildo cactus (*Cereus pentagonus*)- both state listed as Endangered.

All existing native vegetation shall be retained with the exception of vegetation lost to trail maintenance and enhancement. The location of the trail shall have minimal impacts to natural and historical resources on the site. A Vegetation Removal Permit, and any other required permit for site work, will be obtained from the City of Marco Island prior to the clearing of any vegetation.

Unique Natural Features:

The Otter Mound property represents an excellent example of a mature coastal hammock.

Possible Listed Species:

The site contains three federally endangered plant species: giant wild pine (*Tillandsia utriculata*), Florida thatch palm (*Thrinax radiata*) and dildo cactus (*Cereus pentagonus*). Other listed plant species may also be present on the site. A qualified botanist must conduct a more thorough survey of the plants.

4.2 Site Security

Security shall be provided by the Collier County Sheriff's Office via routine patrols in the area. Collier County Environmental Services staff, in performance of site management activities, and Marco Island Historical Society members shall periodically monitor the site for violations and security breaches. Temporary "No Trespassing" signs will be posted a minimum of every 500 feet along the property boundaries, and removable bollards shall be installed at the entrance to the main trail restricting access by unauthorized vehicles.

4.3 Exotic Vegetation Removal and Maintenance Plan

All invasive exotic plant species that are prohibited under Collier County LDC Section 2.4.4.12 shall be cut, treated and removed from the site. All other Florida Exotic Pest Plant Council Category I exotic species shall be cut, treated and removed from the site unless they are deemed historically significant. Great care will be taken when removing the exotic vegetation so as not to disturb archeological and historic artifacts. All exotic vegetation removal shall be conducted and monitored in coordination with a professional archeologist with experience in monitoring. Nuisance vegetation, both native and exotic, growing in and over the whelk wall will also be carefully removed. Any proposed plant removal from the vicinity of the shell walls should use herbicides with no pulling of plants to avoid subsequent erosion and disturbances to the walls. Removal of *Sanseveria* should rely on cutting and herbicides as pulling these plants will disturb the soil. All vegetation clearing shall be coordinated with the City of Marco Island.

4.4 Debris Removal

Collier County Environmental Services Department will coordinate the removal of debris from the site. Currently, some large piles of trash and vegetative debris exist along the entrance trail. Collier County Sheriff community service workers may be enlisted to remove the debris. If this is not feasible, a contractor shall be contracted to remove the trash.

4.5 Cultural, Historical and Archeological Resource Protection

The Archaeological and Historical Conservancy (ACH) conducted a phase one archaeological survey on the Otter Mound property in April 2000. ACH recommendations for management of the site stipulate that “efforts should be made to minimize impacts to [the parcel’s shell mound] features and the historic shell walls created by Ernest Otter that are found on the north and west sides of the parcel”. Also, “the general clearing of the parcel and removal of exotic vegetation and trash will require coordination with an archeologist”, and “the Otter shell walls that terrace the northern and western periphery of the parcel are historically significant and should be avoided during development.” The County will follow these recommendations and shall cooperate fully with any other direction from the Florida Division of Historical Resources on the protection and management of archaeological and historical resources, per provisions of the Land Development Code Section 2.2.25. In regards to the out-house structure, staff, in conjunction with a historian and/or historical architect will assess and determine how and whether to maintain it and whether it should remain on-site or be relocated. The management of the resources present on the Otter Mound property will comply with the provisions of Chapter 267, Florida Statutes, specifically Sections 267.061 2 (a) and (b).

The collection of artifacts or the disturbance of the archaeological and historic sites within the Otter Mound property shall be prohibited unless prior authorization has been obtained from the Department of State, Division of Historical Resources.

4.6 Public Access

Public access will be limited until invasive exotic vegetation can be removed, trails can be created and natural and historical resources can be sufficiently protected. Trail

placement and creation will be closely coordinated with the Marco Island Historical Society, Southwest Florida Archeological Society, Collier County Museum, the Archeological and Historical Conservancy and the City of Marco Island. Automobiles will be able to park within the Addison Court right of way. Once invasive exotic vegetation is removed, a parking area will be created within the right of way to the east of the entrance trail. A concrete or recycled plastic fence, mimicking a low split rail fence, will be erected along the north end of the property that borders Addison Court. This fence will serve to direct public access to the main trail and differentiate the site from surrounding private property. Other fencing along the property border may be erected as needed. All required permits for fencing shall be obtained from the City of Marco Island prior to placement. Benches, interpretive signs and garbage receptacle(s) will be placed on the site.

4.7 New Plantings

New plantings of native vegetation shall be carefully coordinated with an archeologist to minimize the size and number of holes dug and to determine where planting holes will have the least adverse impact. Any new plantings will be done only after an overall assessment of the site to determine areas of highest and lowest sensitivity.

4.8 Site Monitoring Plan

Maintenance of the site shall consist of trash removal, trail upkeep, invasive exotic/nuisance vegetation re-treatment. The property will be monitored on a regular basis to ensure that all historical and archeological sites are sufficiently protected. The Collier County Environmental Services Department shall be responsible for property maintenance with tasks delegated as deemed necessary. Collier County Environmental Services staff shall develop a schedule for routine maintenance activities. The Conservation Collier program will fund any materials or contracted services required for management. Garbage and recycling (if appropriate) bins shall be installed once the trail has been created. Any garbage encountered during regular staff visits shall be removed from the site. Restricted vehicular access and periodic patrols by the County Sheriff's Office will discourage illegal dumping and disposal.

5.0 Exhibits

EXHIBIT 1: Location Map

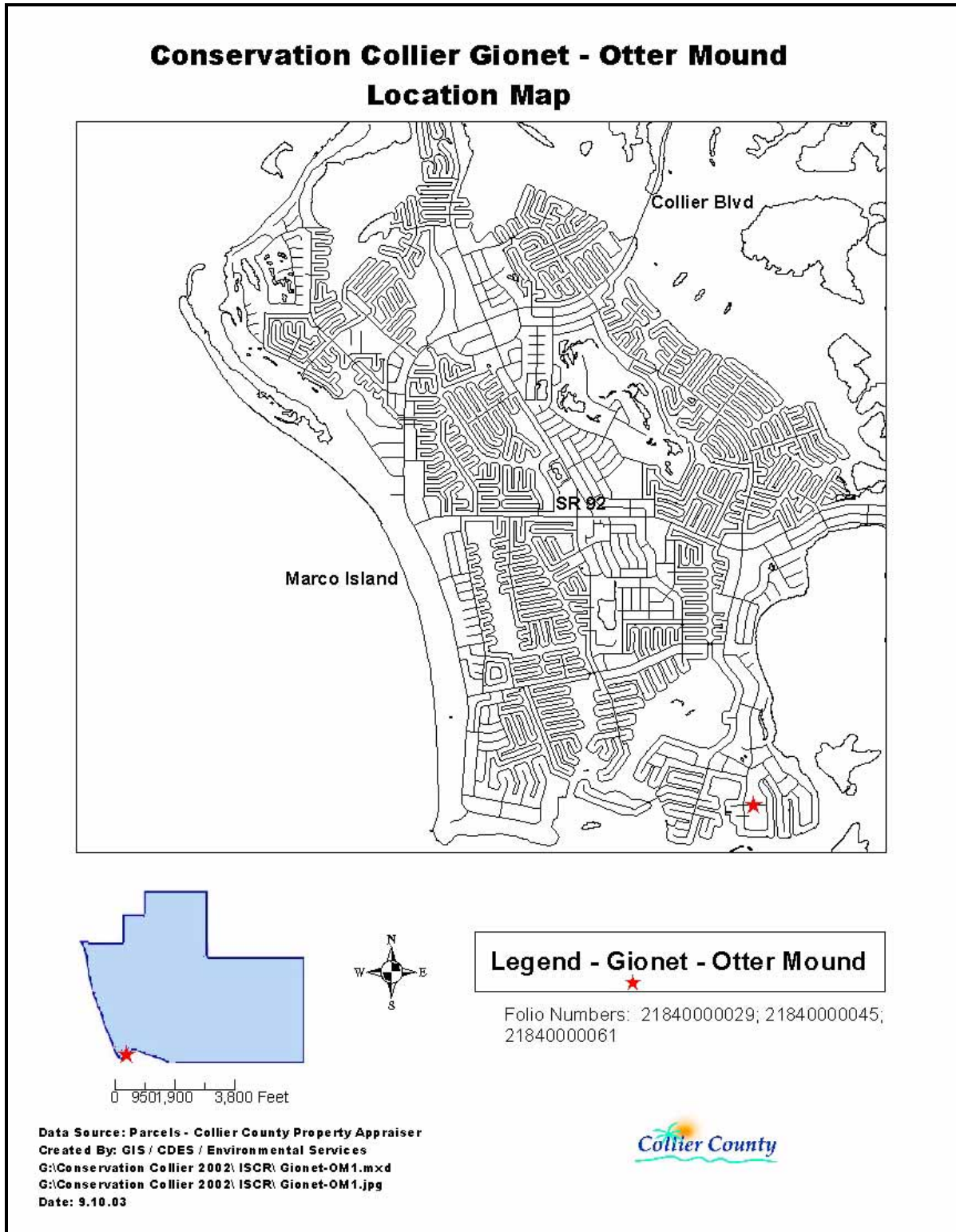
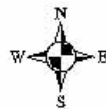
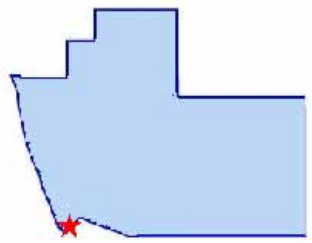


EXHIBIT 2: Aerial Map

Conservation Collier Gionet - Otter Mound Aerial Map



0 75 150 300 Feet

Legend - Gionet - Otter Mound

- Collier County Roads
- Gionet - Otter Mound

Data Source: Parcels - Collier County Property Appraiser
Created By: GIS / CDES / Environmental Services
G:\Conservation Collier 2002\ISCR\Gionet-OM2.mxd
G:\Conservation Collier 2002\ISCR\Gionet-OM2.jpg
Date: 9.10.03

Folio Numbers: 21840000029; 21840000045;
21840000061

EXHIBIT 3: Estimated Cost Table

Management Element	Initial Cost	Annual Recurring Costs	Comments
Exotics Control	\$10,000	\$250 per acre	Based on approx. 80% infestation, poison, cut and remove debris
Removable bollards	t.b.d	t.b.d	Staff is researching options
Access Trails	\$500	\$250	Melaleuca mulch \$2.00 per bag – for area 3' X 2' (length) X 4' (width) – double cost for labor if contracted. Projection developed using estimated length of 500 feet
Benches	\$1,200	n/a	2 benches (\$650 each)
Initial Debris Removal	t.b.d.	t.b.d.	t.b.d.
Trash Removal	\$800	t.b.d.	2 cement free standing garbage cans (\$400 each)
Conservation designation sign	\$600	n/a	One 3' X 1.5' – metal, white background, uninstalled
Fencing	\$3,700	t.b.d.	Split rail fence at \$10 per foot
Interpretive signs	\$1,000	n/a	2 larger interpretive signs (\$500 each) or 10 small signs (\$100 each)
Total	\$17,800+	\$500+	

