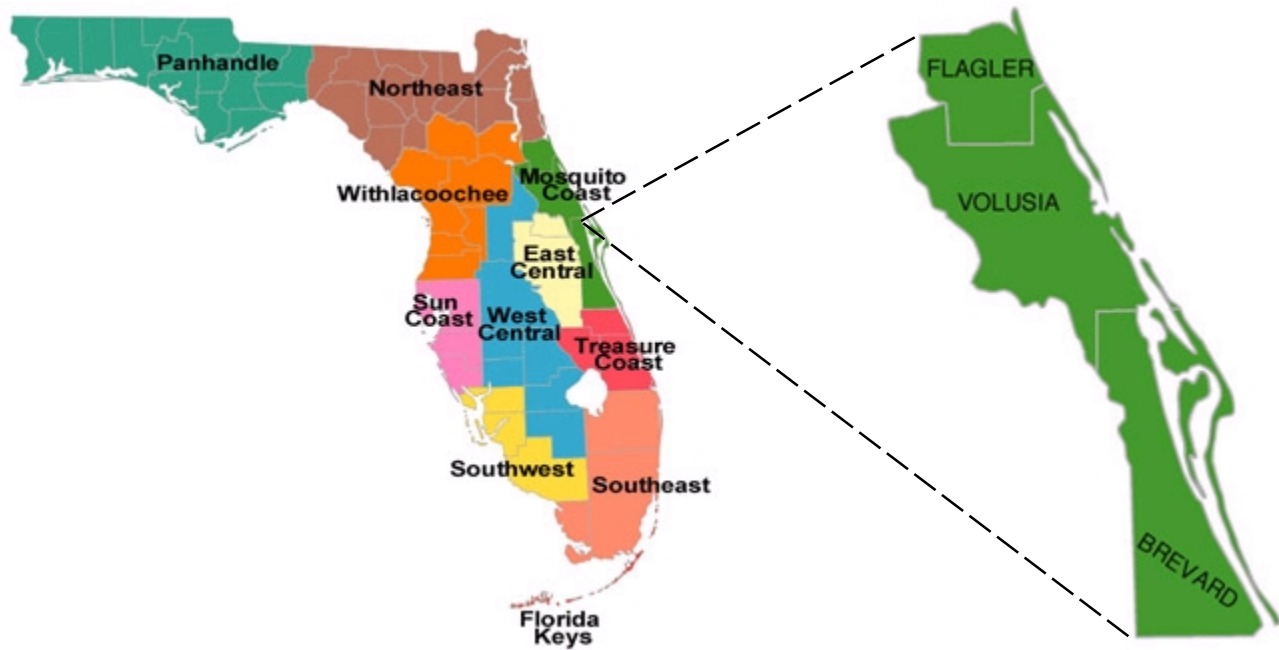


Mosquito Coast Regional Working Group



The Mosquito Coast Regional Working Group liaison is Keith Fisher, DEP Office of Coastal and Aquatic Managed Areas, 1000 Buffer Preserve Drive, Fellsmere, Florida 32948, phone: 321-953-5004, fax: 321-953-5006, e-mail: keith.fisher@dep.state.fl.us. Three of the seven projects completed in this working group were on the Merritt Island National Wildlife Refuge, an annual partner of the Uplands Program. The project manager for these three projects was:

Ron Hight, Refuge Manager
 U.S. Fish and Wildlife Service
 P.O. Box 6504, Titusville, Florida 32782
 Phone: 321-861-0667, Fax: 321-861-1276
 E-mail: ron_hight@fws.gov

The first two (combined) projects controlled melaleuca, while the third project targeted Brazilian pepper.

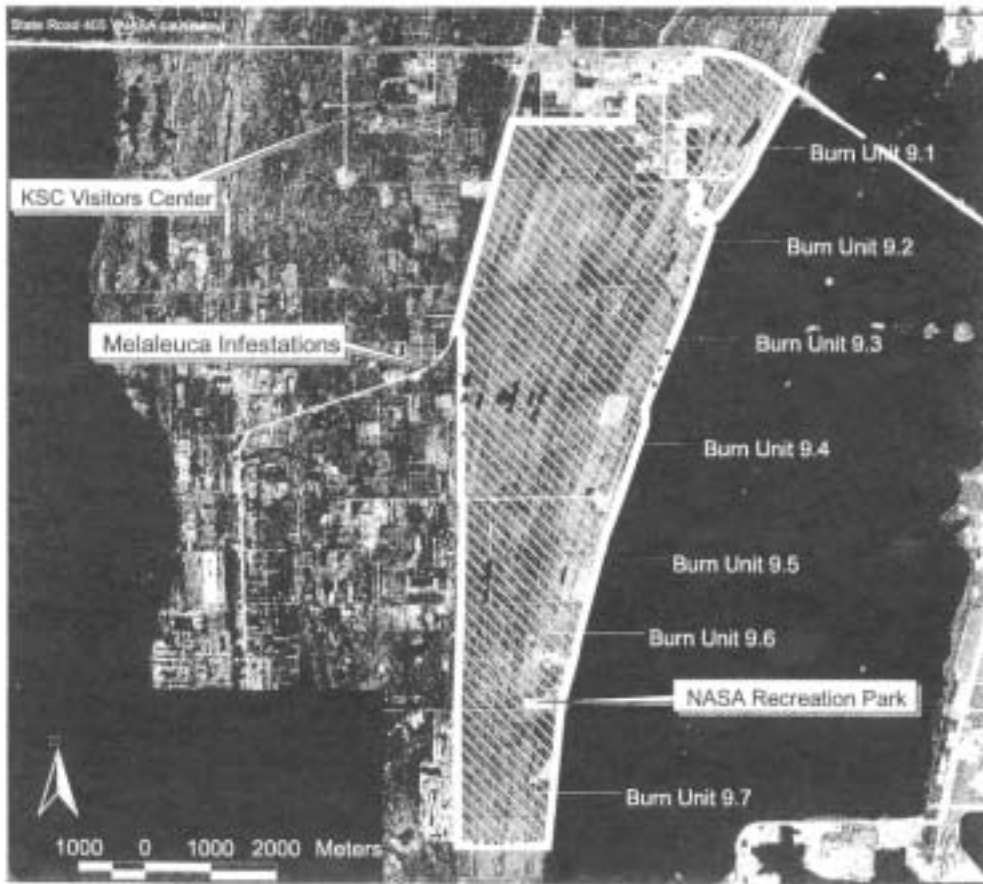
Merritt Island Melaleuca Invasive Exotic Plant Control	County: Brevard
PCL: Merritt Island National Wildlife Refuge	PCL Size: 139,174 acres
Project Manager: U.S. Fish and Wildlife Service	
Project ID: MC-027, -028	Project Size: 7,500 acres
Fiscal Year 02/03	Project Cost: \$73,274.17

In the 1960s, NASA acquired the land that is now the John F. Kennedy Space Center and turned those lands not vital to the space program over to the U.S. Fish and Wildlife Service. Today, the Service manages this 43-mile long barrier island as Merritt Island National Wildlife Refuge and Canaveral National Seashore. The refuge is adjacent to the Indian River and Banana Rivers, and Mosquito Lagoon. Approximately one-half of the refuge consists of brackish estuaries and marshes. The remaining land consists of coastal dunes, scrub oaks, pine forest, pine flatwoods, and palm and oak hammocks. Numerous rare plants and animals are found on the refuge. These include seventeen state-endangered plants, such as satinleaf (*Chrysophyllum oliviforme*), crested coralroot (*Hexalectris spicata*), Florida peperomia (*Peperomia obtusifolia*), beach star (*Remirea maritima*), bay cedar (*Suriana maritima*), coastal hoary pea (*Tephrosia angustissima*), and sea lavender (*Tournefortia gnaphalodes*).

Melaleuca was first introduced by early homesteaders that occupied the land before it became a refuge. Settlers planted the tree as an ornamental and shade tree, and it later escaped into the wetlands of the area. This project controlled melaleuca scattered throughout the 7,500 acres within Burn Unit 9. Melaleuca trees lightly to moderately infested swales that run north to south through the marshes on the refuge.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Melaleuca quinquenervia</i>	melaleuca	Category I	cut stump	Arsenal
			hand pull	n/a

Melaleuca Burn Unit 9



Merritt Island Pepper Invasive Exotic Plant Control

PCL: Merritt Island National Wildlife Refuge

Project ID: MC-030

Fiscal Year 02/03

County: Brevard

PCL Size: 139,174 acres

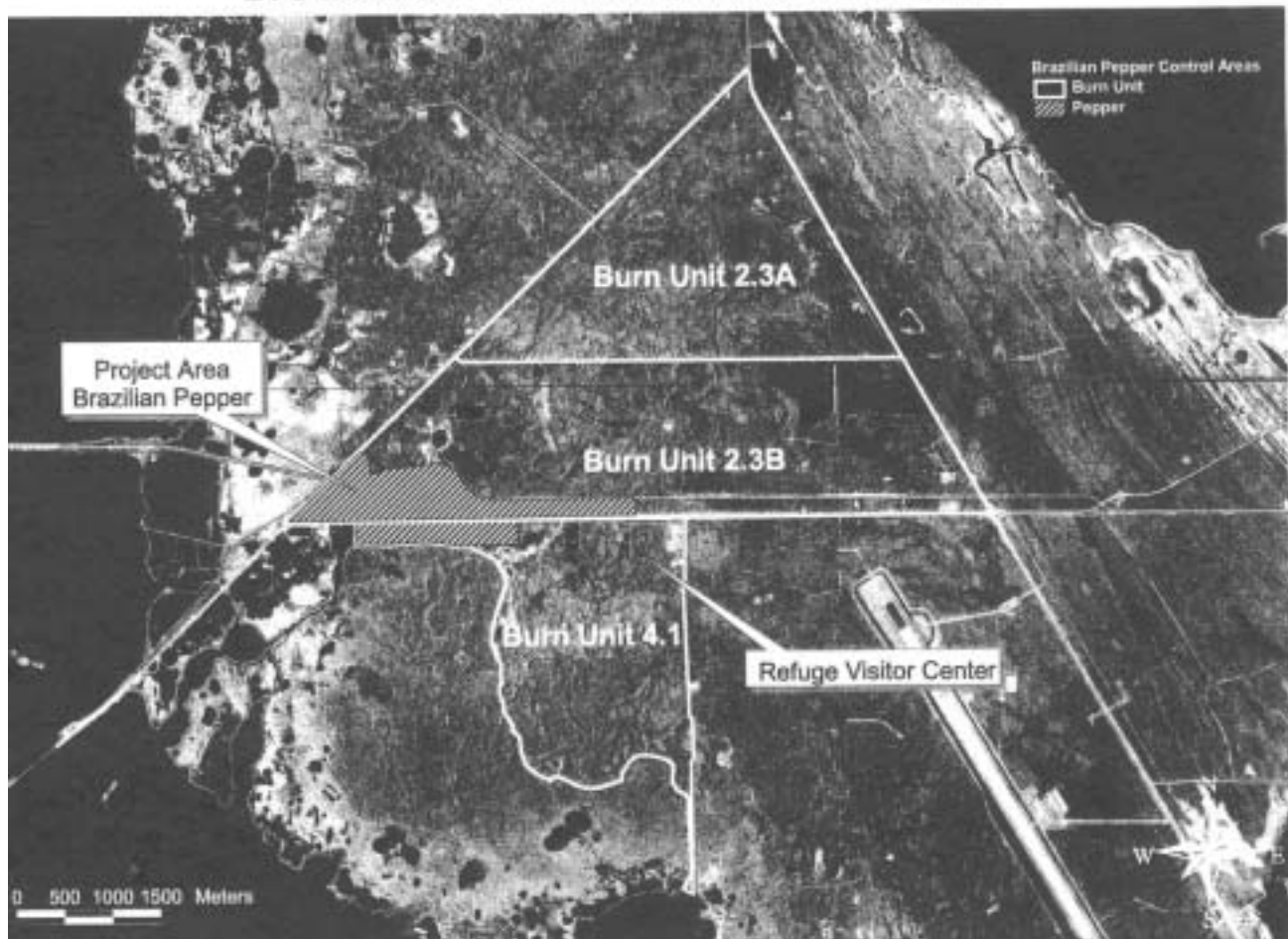
Project Size: 394 acres

Project Cost: \$72,000

Brazilian pepper was first introduced by early homesteaders who occupied the land before it became a refuge and planted the tree as an ornamental. This project controlled approximately 118 acres of Brazilian pepper that moderately infested the 394 acres of wetlands in Burn Units 2.3B and 4.1, which are near the MINWR Visitor Information Center. The Beach Road corridor is often the visitor’s first look at MINWR, so it is essential this view be unobstructed by exotic plants, to provide the visitor an accurate depiction of the natural communities of Merritt Island. This project also played a key role in the restoration of marshes that provide vital habitat for Henslow’s sparrows, bobolinks, sedge wrens, and other bird species. Canaveral National Seashore conducted an exotic control program on the east end of the Beach Road thoroughfare, thus linking with this project area and providing a corridor of native vegetation for wildlife and improving the visitor’s experience.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal	Garlon 4
			cut stump	Arsenal
			hand pull	n/a
<i>Melaleuca quinquenervia</i>	melaleuca	Category I	cut stump	Arsenal
			hand pull	n/a
<i>Casuarina equisetifolia</i>	Australian pine	Category I	basal	Garlon 4

**Merritt Island National Wildlife Refuge
BRAZILIAN PEPPER CONTROL AREAS**



South Beaches Phase IV Invasive Exotic Plant Control

PCL: Archie Carr National Wildlife Refuge
 Project Manager: Brevard County Parks & Recreation
 Ray Mojica, Land Manager
 5560 North US Highway 1, Melbourne, Florida 32940
 Phone: 321-255-4466, Fax: 321-255-4499
 E-mail: rmojica@brevardparks.com

County: Brevard
 PCL Size: 234 acres

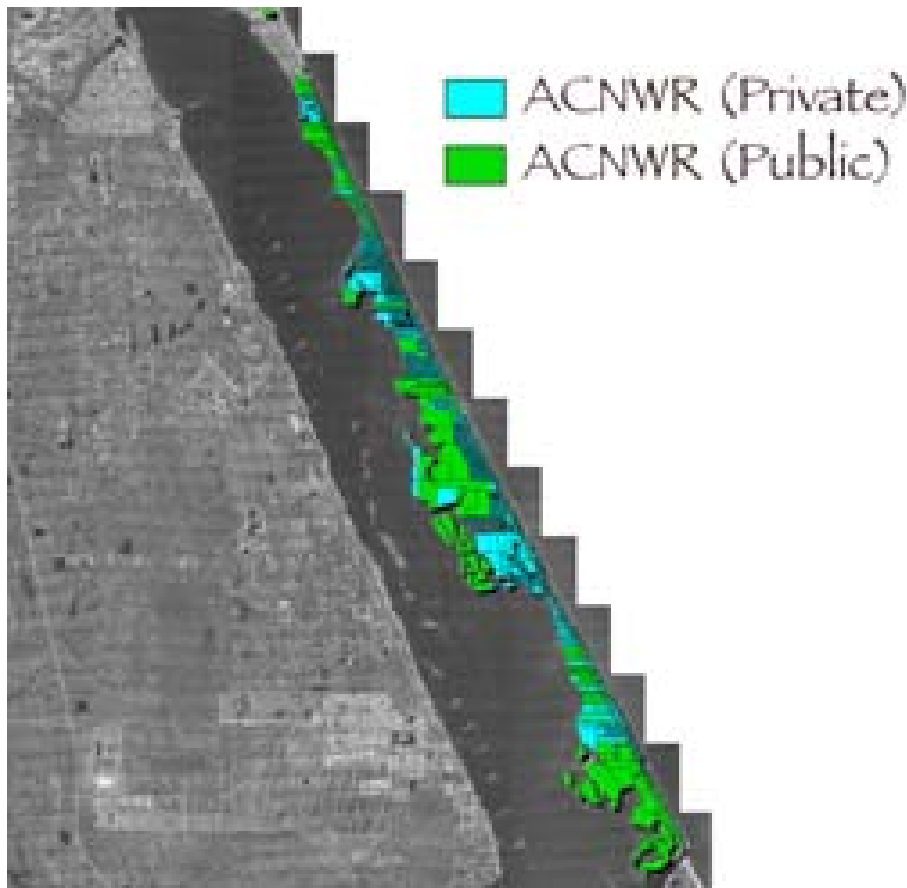
Project ID: MC-015
 Fiscal Year 02/03

Project Size: 51.29 acres
 Project Cost: \$63,595.62

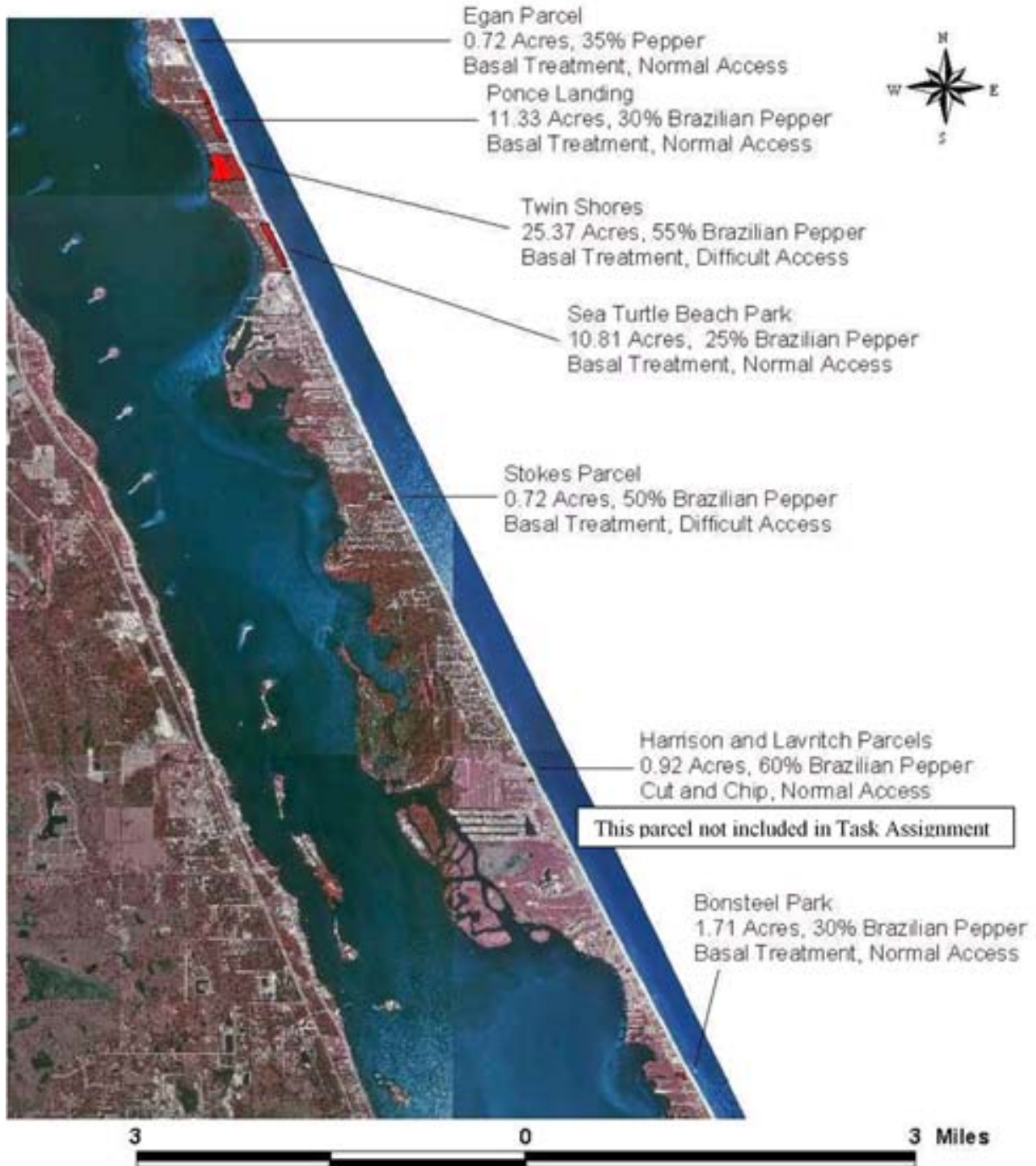
The South Beaches project is a cooperative effort between several partners, including federal, state, and local agencies. The project includes several parcels of publicly owned conservation lands within Brevard County's South Beaches Management Area. All of the property is located within the Archie Carr National Wildlife Refuge. The Refuge, designated by Congress in 1990, is recognized as one of the most important areas in the world for nesting loggerhead turtles and the most significant area in North America for nesting green turtles. Natural communities within the project area include Coastal Strand, Maritime Hammock, Beach Dune, and Mangrove Forest.

This project is the fourth phase of an aggressive program to remove Brazilian pepper and Australian pine from publicly held lands on the south beaches. This phase targeted six parcels managed by Brevard County Parks and Recreation Department under the Save Our Coast Program: the 0.72-acre Egan parcel, 11.33-acre Ponce Landing, 25.37-acre Twin Shores property, 0.72-acre Stokes parcel, and the 1.71-acre Bonsteel Park site, which is a beach access point. Sea Turtle Beach Park, a 10.81-acre site, was cleared of a Brazilian pepper monoculture with a "Brontosaurus" mower. The other five parcels had an average exotic coverage of 42%.

Target Plants	Common name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal, cut stump, hand pull	Garlon 4
			mechanical	n/a
<i>Casuarina equisetifolia</i>	Australian pine	Category I	basal, girdle, cut stump	Garlon 4



Brevard County Parks and Recreation Save Our Coast Sites



Sebastian Inlet Invasive Exotic Plant Control

County: Brevard

PCL: Sebastian Inlet State Park

PCL Size: 870 acres

Project Manager: Florida Park Service (DEP)
 Ronald N. Johns, Park Manager
 9700 South A1A, Melbourne Beach, Florida 32951
 Phone: 321-984-4853, Fax: 321-984-4854
 E-mail: ronald.n.johns@dep.state.fl.us

Project ID: MC-032

Project Size: 49 acres

Fiscal Year 02/03

Project Cost:

\$45,414.00

Sebastian Inlet State Park is situated on an Atlantic coast barrier island. Natural communities include Maritime Hammock, Beach Dune, and Mangrove Forest. This project was divided into two parts: one 5-acre area to mechanically remove trees with a Brontosaurus mower, and one 44-acre area to treat with herbicide.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	mechanical	n/a
			basal	Garlon 4

Volusia County Invasive Exotic Plant Maintenance Control

County: Volusia

PCL: *see below*

PCL Size: various

Project Manager: East Volusia Mosquito Control District
 David Farr
 801 South Street, New Smyrna Beach, Florida 32168
 Phone: 386-424-2920, Fax: 386-424-2924
 E-mail: dfarr@co.volusia.fl.us

Project ID: MC-038

Project Size: 155 acres

Fiscal Year 02/03

Project Cost: \$49,828.67

This project encompasses several county parks and one state park where initial control of Brazilian pepper was previously conducted. North Peninsula State Park and Lighthouse Point, Spruce Creek, and Smyrna Dunes County Parks are the sites targeted for maintenance control work. The natural communities of North Peninsula State Park and other conservation lands in the project area include Coastal Dune, Coastal Strand, Oak Scrub, Hardwood Hammock, Maritime Hammock, Mangrove Swamp, Salt Marsh, and Freshwater Marsh. Brazilian pepper totaled about 65 acres in sparse to dense stands throughout the project area. The County provided in-kind contributions of \$16,205.66 for this project.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal, cut stump	Garlon 4

Brazilian Pepper Invasive Exotic Plant Maintenance Control

County: Brevard

PCL: *see below*

PCL Size: various

Project Manager: Brevard County Parks & Recreation
Raymond Mojica, EEL Land Manager
5560 North US Highway 1, Melbourne, Florida 32940
Phone: 321-255-4466, Fax: 321-255-4499
E-mail: rmojica@brevardparks.com

Project ID: MC-037

Project Size: 331 acres

Fiscal Year 02/03

Project Cost: \$32,274.51

This project is part of an ongoing cooperative effort to remove invasive exotic plant species from within the Archie Carr National Wildlife Refuge and other County-managed sites that have received BIPM funds for treatment. The main project goals are: 1) to retreat invasive exotic plants (primarily Brazilian pepper) on all parcels within the Archie Carr National Wildlife Refuge, which are managed by the Florida Park Service, Brevard County Environmentally Endangered Lands Program, and the Brevard County Parks and Recreation Department, and 2) to retreat invasive exotic plants (primarily Brazilian pepper) on other parcels managed by Brevard County, including Pine Island Conservation Area, Kings Park, Coconut Point Sanctuary, Maritime Hammock Sanctuary, Washburn Cove Sanctuary, Hog Point Sanctuary, and the Barrier Island Ecosystem Sanctuary.

To extend the influence of the Archie Carr: Pepper Free by 2003 program, the U.S. Fish and Wildlife Service' Partnership program is contributing \$25,000 per year for 5 years for the treatment and re-treatment of private lands within the refuge boundaries. This work is an extension of work begun under a Department of Community Affairs funded program that has resulted in the treatment of over 260 homes within the refuge boundaries. Since this work directly benefits eradication efforts on public conservation lands, it will be used as a match to requested funds in addition to manpower and equipment matches provided by the individual management agencies.

Target Plants	Common Name	FLEPPC Rank	Treatment	Herbicide
<i>Schinus terebinthifolius</i>	Brazilian pepper	Category I	basal, cut stump	Garlon 4

