

Estuary Conservation Association

www.estuaryconservation.org

Collier County RESTORE Act Project Proposal

Restoring Oyster Reef Habitat in the Cocohatchee Estuary



Project Sponsor: Estuary Conservation Association, Inc.

Contact Person: Joe Moreland, President

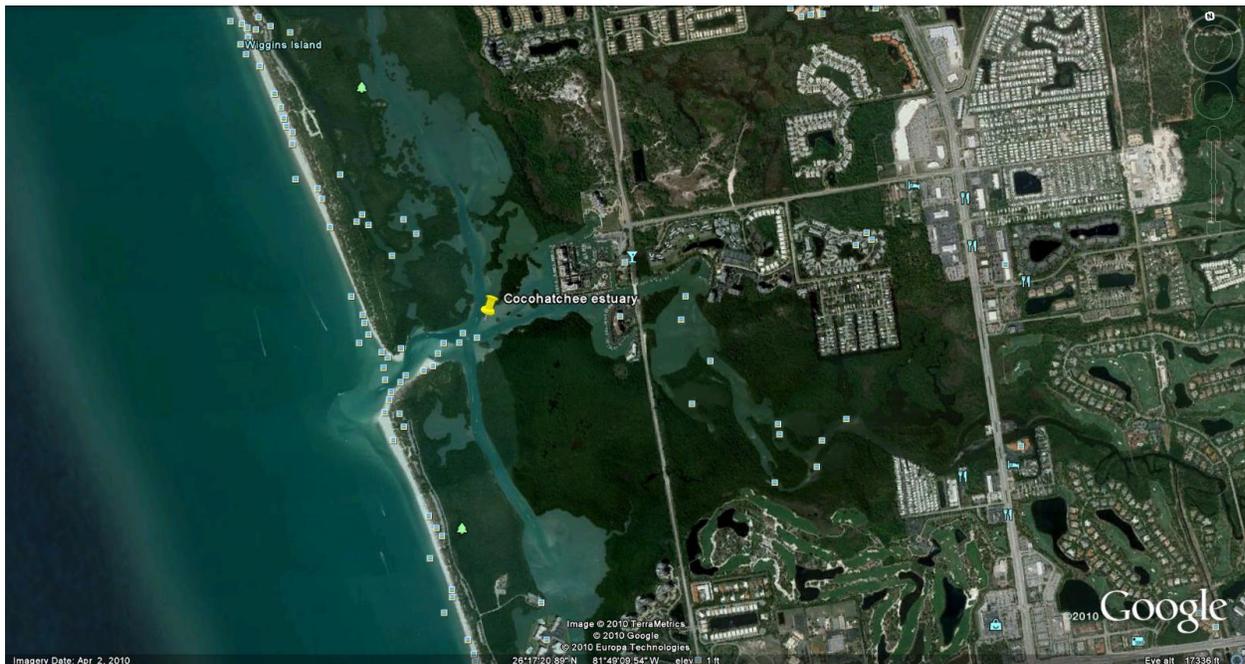
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Project Type: Restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats of the Gulf coast region

Encouraging stewardship of the Cocohatchee estuary that fosters a balance of nature and community

Project Location: Cocohatchee estuary (see map)



Project Description: The Cocohatchee River estuary, located on the Southwest Gulf coast of Florida in north Naples, is a subtropical ecosystem that has important natural Gulf coast features including mangrove forested wetlands, oyster reefs, sea grasses, and barrier island beaches. Changes in adjacent land use and water management have resulted in degradation of water quality and loss of critical habitats and wildlife. The Estuary Conservation Association, Inc. (ECA), a local community based non-profit organization, is requesting funds to partner with Florida Gulf Coast University (FGCU) and other local community interests to restore oyster reef communities in the Cocohatchee estuary through the placement of fossil shell material in suitable locations by local community volunteers. Natural settlement of larval spat from the Eastern oyster on shell bags placed in similar estuaries has been successfully demonstrated in restoration projects in Southwest Florida estuaries (see www.fgcu.edu/CAS/OysterResearch/index.html).

The proposed project is needed to help restore damaged coastal habitats within the Cocohatchee River estuary and to benefit associated marine wildlife, and help actively engage the local community in coastal stewardship. ECA seeks to engage

local community interests in active coastal stewardship through this project; supervised volunteers will help fill shell bags, transport bags to staging areas and stack bags on volunteer boats, and place bags in the Cocohatchee estuary at designated areas. Encouraging active stewardship of the Cocohatchee estuary by the local community is an important goal within ECA's five-year Strategic Plan.

With funding support from ECA, an environmental site assessment and associated development of a habitat resource map of the Cocohatchee estuary, designed to guide the proposed restoration, was recently completed by Florida Gulf Coast University (FGCU). FGCU's research project has identified conditions and sites suitable for oyster reef restoration within the Cocohatchee estuary. Reef building consists of securing fossil shell material from local quarries, using community volunteers to construct shell bags, transporting shell bags to staging areas, moving shell bags to a fleet of vessels operated by local volunteer boaters and partner organizations, and using community volunteers to place shell bags in locations identified on the resource map.

The proposed project is anticipated to provide positive environmental and economic benefits to the local community through improvement of estuarine habitat. Restoration directly benefits Gulf coast habitat, specifically reefs dominated by the Eastern oyster (*Crassostrea virginica*) with associated bivalve mollusks, gastropods, barnacles, crabs, amphipods, isopods and polychaete worms. Benefits to associated recreational and commercial fisheries, such as stone crab (*Menippe mercenaria*), blue crab (*Callinectes sapidus*), and red drum (*Sciaenops ocellatus*), and to threatened species, such as the American Oystercatcher (*Haematopus palliatus*). Improved water quality resulting from re-establishment of filter feeding organisms will benefit adjacent key habitats such as turtle grass (*Thalassia testudinum*), manatee grass (*Syringodium filiforme*) and Shoal grass (*Halodule wrightii*).

The proposed project is anticipated to result in construction and placement of 400 to 600 square meters of oyster reef material, representing up to approximately 300 feet of linear shoreline, and resulting in ecological benefits to an estimated 20 acres of Gulf coast estuarine habitats.

Project Partners: ECA has established partnerships with Florida Gulf Coast University, Collier County’s Office of Coastal Zone Management, Conservancy of Southwest Florida, Walmart, and Pelican Isle Yacht Club.

Project Budget and Timeline: ECA is requesting \$57,640 in RESTORE Act funds to match a commitment of funds and services from ECA and partners totaling over \$30,000. A detailed budget with descriptions of funds requested and matching contributions is attached. Project can be completed within 12 months of funding.

Budget Category	RESTORE Act Request	Amount and Source of Matching Funds
Personnel		
Staff	8500 (FGCU tech support)	3000 (ECA/FGCU research)
Volunteers		16680 (ECA members and community est. 800 hours X 20.85/hr)
Facilities Rental	5000 (FGCU lab @\$250/day x 20 days)	
Supplies	3500 (Shell material) 3000 (Community t-shirts)	
Contractual	20800 (project management) 3900 (Shell bag prep)	8240 (ECA boat and vehicle use, maint and fuel) 2500 (ECA admin services)
Other	6500 (Boat rentals: 3 barges, 8 deck boats)	
	1200 (Trailer rentals for shell bag transport)	
TOTAL Direct Charges	52,400	
TOTAL Indirect Charges	5240 (10%)	
TOTAL BUDGET	57,640	30,420