FLORIDA COASTAL MANAGEMENT PROGRAM

Grant Abstracts, FY 2010-2011

FY 10-11 COASTAL PARTNERSHIP INITIATIVE PROJECTS

RESILIENT COMMUNITIES

PROJECT: Develop Coastal System Adaptation Strategies through Sea Level Rise Modeling **RECIPIENT:** The Nature Conservancy & Apalachicola National Estuarine Research Reserve

FCMP FUNDS: \$30,000

ABSTRACT: The Nature Conservancy (TNC), in partnership with the Apalachicola NERR, will model the impacts of sea level rise on coastal wetland distribution and the species dependent on wetlands in the Apalachicola Bay system. Specifically, TNC will 1) model sea level rise through year 2100; 2) identify impacts on fish & wildlife species dependent on at-risk habitats; 3) assemble potential adaptation strategies suitable for project area; and 4) convene workshops to conduct a valuation study, identify ecosystem services, and solicit expert recommendations on adaptation strategies.

PROJECT: Pinellas County Post-Disaster Redevelopment Plan

RECIPIENT: Pinellas County

FCMP FUNDS: \$60,000

ABSTRACT: Pinellas County will use FCMP funds to update and strengthen its Post-Disaster

Redevelopment Plan (PDRP), first developed in 1994. The updated PDRP will incorporate "best policies and practices", address key issues and identify implementation strategies. A Steering Group and additional stakeholders will develop PDRP Action Plan components, e.g., for land use, historic preservation, environmental restoration and infrastructure. The <u>Tampa Bay Regional Planning Council</u> will assist the County in developing the updated PDRP.

COASTAL RESOURCE STEWARDSHIP

PROJECT: Building Coastal Stewardship at Barrier Island Sanctuary & Education Center

RECIPIENT: Sea Turtle Conservancy, Inc. & Brevard County

FCMP FUNDS: \$30,000

ABSTRACT: The non-profit organization, Sea Turtle Conservancy, and Brevard County will continue to promote coastal stewardship at the <u>Barrier Island Sanctuary & Education Center</u> located within the <u>Archie Carr National Wildlife Refuge</u>. Project tasks include: 1) implement Year 2 of the Summer Eco-Camp to further awareness on coastal habitat conservation and ecology of sea turtles; 2) produce additional Sea Turtle and Coastal Stewardship Kits for loan to area educational institutions; 3) expand and conduct workshops on sea turtle conservation & beach habitat management; and 4) support the 2010 *Tour de Turtles* educational program.

PROJECT: Estuaries of Volusia County Education & Stewardship

RECIPIENT: Marine Discovery Center & Indian River Lagoon National Estuary Program

FCMP FUNDS: \$30,020

ABSTRACT: The Marine Discovery Center, in partnership with Indian River Lagoon National Estuary Program, will expand its environmental stewardship campaign to Volusia County landowners – the campaign seeks to educate citizens on the threat of invasive species, the importance of mangrove and oyster habitats and engages landowners to become better stewards of their shoreline properties. FCMP funds will be used for landowner database & mapping, shoreline audits, workshop and education material design and distribution, monitoring, technical assistance, printing and supplies.

PROJECT: Coastal Focus: A Stewardship, Outreach & Education Program

RECIPIENT: Coastal Wildlife Club & Charlotte Harbor National Estuary Program (NEP)

FCMP FUNDS: \$29,980

ABSTRACT: Coastal Wildlife Club, with Charlotte Harbor NEP, will use FCMP funds to increase and enhance public stewardship of coastal wildlife, habitats and other natural resources in Southwest Florida, with a focus on sea turtles and shorebirds. Information on, and threats to, coastal wildlife will be disseminated through 1) teachers' workshops; 2) workshops for law enforcement, eco-tour operators & others likely to interface with threatened and endangered species; 3) field trips for school children; 4) printing of the *Turtle Talks Activity Book*; and 5) at public awareness workshops.

ACCESS TO COASTAL RESOURCES

PROJECT: Bagdad Mill Site Park & Loop Trail, Design & Permitting

RECIPIENT: Santa Rosa County

FCMP FUNDS: \$30,000

ABSTRACT: Santa Rosa County will design passive recreational facilities, including an entertainment pavilion, restrooms, an information kiosk, fishing pier, boardwalk, kayak launch and other amenities at the Bagdad Mill Site, located adjacent to the Blackwater River. The Bagdad Mill Site property is owned by the State of Florida and leased to Santa Rosa County for management and park development. FCMP funds will be used for design costs: construction documents, drawings and permit packages.

WORKING WATERFRONTS

PROJECT: Bagdad Waterfront Economic Development Study **RECIPIENT:** Bagdad Waterfronts Partnership & Santa Rosa County

FCMP FUNDS: \$40,000

ABSTRACT: The <u>Bagdad Waterfronts Partnership</u>, through community visioning, will use FCMP funds to contract with the University of West Florida's Haas Center to conduct an Economic Development Study & Implementation Plan for the Village of Bagdad. The study will identify appropriate recreation and eco-tourism opportunities that complement the area's natural and cultural resources; analyze infrastructure needs and zoning changes needed to improve business start-ups; and include recommendations on implementation and funding sources for economic development.

PROJECT: Wonders of Wakulla Eco-Tourism & Marketing Campaign

RECIPIENT: Wakulla County

FCMP FUNDS: \$50,000

ABSTRACT: Wakulla County will use FCMP funds to develop a marketing strategy that promotes the County as a nature- and heritage-based tourism destination. Work to be conducted includes development/ design/distribution of advertising materials and displays; website enhancements; educational outreach to residents and visitors to increase awareness and protection of coastal resources; and development of tracking mechanisms to identify effective advertising efforts.

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FY 10-11 FCMP GRANTS TO STATE AGENCIES

PROJECT: Waterfronts Florida Partnership Program Implementation

AGENCY: Department of Community Affairs (DCA)

CONTACT: Elisabeth Salinas

FCMP FUNDS: \$75,000

ABSTRACT: The DCA will pass through \$37,500 to two Waterfronts Florida Partnership Communities designated in June 2009 – the <u>City of Fort Myers</u> and the community of <u>Millville</u>. The communities will conduct or complete vision plans, develop a waterfront revitalization plan and begin implementation of the plan. The Waterfronts Florida Program works with these local governments to address natural resource protection & management, hazard mitigation, land use planning & development, public access, protection of cultural and historic features and effective public participation.

PROJECT: Woodville Karst Plain, Multi-Discipline Characterization Pilot Project AGENCY: Department of Environmental Protection/Florida Geological Survey (FGS)

CONTACT: Rodney DeHan FCMP FUNDS: \$133,900

ABSTRACT: The FGS will use the <u>Woodville Karst Plain</u> (WKP) as a pilot project for multi-discipline characterization, and expand the current WKP team's expertise by augmenting the hydrogeological characterization with biological, chemical and ecological monitoring and data analysis. This effort will focus on coastal portions of the WKP, *i.e.*, Spring Creek and surrounding near-shore environment. FGS staff will test the hypothesis that a mechanism acting as a "hydrological valve" might control interplay between ground water flow, tidal cycles and potentiometric surfaces, affecting the flow rate and water levels in <u>Wakulla</u> and <u>Spring Creek</u> systems. Tasks are to conduct sediment and soil samples to further analyze system ecology and microbiology; monitor groundwater; and compile and store results of data and analysis.

PROJECT: Beaches Composite Sampling **AGENCY:** Florida Department of Health

CONTACT: David Polk FCMP FUNDS: \$64,680

ABSTRACT: The Department of Health (DOH) will use FCMP funds to evaluate the impact of adding a second day of sampling to the weekly schedule of the <u>Florida Healthy Beaches</u> monitoring program. With the additional data, DOH expects to determine when and how to implement additional sampling throughout the state. DOH will also determine the representativeness of the current sample strategy (one sample per location), and will investigate whether composite sampling will increase the representative nature of samples. Analysis will help Florida more effectively adjust to anticipated US EPA water quality standard changes in 2012.

PROJECT: Autonomous Measurement/Network Model, Sarasota Bay Water Quality

AGENCY: FFWCC/Fish & Wildlife Research Institute

CONTACT: James Ivey FCMP FUNDS: \$130,491

ABSTRACT: The Fish & Wildlife Research Institute will study anthropogenic non-point source stressors on the Sarasota Bay environment by collecting high resolution data of multiple abiotic and biotic parameters using an autonomous water quality platform. Bi-weekly discrete sampling will be used to complement and ground-truth the autonomous data set. The resulting model will be used to help focus mitigation strategies for the various anthropogenic stressors affecting the Bay's environmental quality. FCMP funds are for salaries, travel, sampling, spectrophotometer and Florida Institute of Oceanography contracts and publication costs.

PROJECT: Archaeological Site Mapping in the Aucilla Wildlife Management Area

AGENCY: Department of State

CONTACT: Jim Dunbar FCMP FUNDS: \$69,410

ABSTRACT: The Dept. of State's <u>Bureau of Archaeological Research</u> (BAR), in collaboration with the Florida Fish & Wildlife Conservation Commission, will preserve cultural resources within the <u>Aucilla Wildlife Management Area</u>. Specifically, BAR will map at-risk archaeological sites as a means of protecting information that could be lost through degradation of site features. Twelve to fourteen sites in the Coon Bottom midden/ mound cluster that have been subject to vandalism and illegal artifact collection will be mapped. FCMP funds will be used to produce nine maps; develop and distribute a brochure about the Coon Bottom cluster; and produce a field report on work and environmental observations.

PROJECT: Calibration of Pollutant Load Model for the Guana-Tolomato-Matanzas NERR Watershed

AGENCY: DEP/Coastal & Aquatic Managed Areas

CONTACT: Mike Love FCMP FUNDS: \$150,000

ABSTRACT: The <u>Guana-Tolomato-Matanzas (GTM) National Estuarine Research Reserve</u>, in collaboration with the <u>St. Johns River Water Management District</u> (SJRWMD) will collect a sufficient level of watershed loading data (water quality and flow) to formulate comparative analysis with, and proper calibration adjustments to, existing models used in the GTM watershed. Comparing model-derived estimates of loading with actual field observations will allow SJRWMD and GTM to modify pollutant export coefficients, identify problem areas and estimate overall non-point loading in the GTM watershed with greater confidence</u>. FCMP funds are for storm event and baseflow monitoring, site maintenance, lab analysis, equipment rental and installation, shipping and site surveys.

PROJECT: DCA Coastal Program Support AGENCY: Department of Community Affairs

CONTACT: Beth Frost FCMP FUNDS: \$15,000

DESCRIPTION: FCMP funds will be used to continue a program of coordination, technical support, and review through the Department of Community Affairs' Division of Community Planning to evaluate federal actions for consistency with the FCMP, and to assist local governments in evaluating the impacts of coastal development. The Division is responsible for various growth management initiatives, including the Development of Regional Impact process, the Areas of Critical State Concern program, and the local government comprehensive planning process.

PROJECT: Development of the Governors' South Atlantic Alliance Issue Area Technical Team

AGENCY: DEP/Coastal & Aquatic Managed Areas/GTM NERR

CONTACT: Mike Shirley FCMP FUNDS: \$52,600

DESCRIPTION: The Governors' South Atlantic Alliance (SAA) was established in May 2009; its mission is to significantly increase regional collaboration among North Carolina, South Carolina, Georgia & Florida to sustain and enhance the regions' coastal and ocean resources. The Office of Coastal & Aquatic Managed Areas (CAMA) at DEP is the designated lead for Florida's coordination of the SAA initiative. CAMA will use FCMP funds to support the SAA Coordinator within the Coastal Training Program of the Guana-Tolomato-Matanzas National Estuarine Research Reserve, who will coordinate and facilitate the team meetings, workshops and teleconferences required to develop goals, strategies and objectives for the SAA Action Plan.

PROJECT: Submerged Aquatic Vegetation Restoration in the Florida Panhandle AGENCY: Department of Environmental Protection/Northwest Regulatory District

CONTACT: Amy Baldwin Moss

FCMP FUNDS: \$55,000

DESCRIPTION: DEP's Northwest District (NWD) will continue to restore submerged aquatic vegetation (SAV) populations in panhandle coastal counties (Escambia to Jefferson) through the utilization of salvaged and laboratory-grown SAV materials. Salvaged SAV will be acquired only from marine construction activities that are exempt from regulation or have met applicable permits for avoidance and minimization. *Ruppia maritima* is propagated at the NWD laboratory, and will be planted at appropriate restoration sites in Escambia and Santa Rosa Counties. NWD staff will also continue analysis that examines sediment (porewater) biogeochemistry to determine sediment nutrient conditions of natural beds of *H. wrightii* and *T. testudinum* and planted *R. maritima* beds. Project outcomes include salvaged seagrass cores planted in receiver sites; data on SAV transplant survival and colonization; photos of salvaged and transplanted SAV; and sediment (porewater) biogeochemistry data.

PROJECT: Seagrass Restoration, Lignumvitae Key Submerged Lands Management Area

AGENCY: Department of Environmental Protection/DRP

CONTACT: Melba Nezbed FCMP FUNDS: \$200,000

DESCRIPTION: DEP's <u>Division of Recreation & Parks</u> (DRP) will continue to restore seagrass habitat damaged by boat groundings in the <u>Lignumvitae Key</u> Submerged Land Managed Area. DRP will: 1) identify seagrass restoration sites; 2) install bird stakes to introduce nutrients for establishment of seagrass beds; 3) emplace topographic fill in areas where injury has displaced or removed substrate; 4) conduct site inspections and monitoring; and 5) prepare baseline reports and maps. The goal of the restoration project is 50% vegetative cover by Year 3.

PROJECT: East Bay Oyster Restoration

AGENCY: Department of Environmental Protection/Northwest Regulatory District

CONTACT: Amy Baldwin Moss

FCMP FUNDS: \$45.670

DESCRIPTION: DEP's Northwest District (NWD) will restore approximately 11 acres of oyster habitat along two miles of the Garcon Point Peninsula in <u>East Bay</u> by constructing two rows of reefs comprised of fossilized oyster shell. The proposed oyster reefs will provide @ 30 acres of essential fish habitat, including the endangered Gulf Sturgeon; the reefs will also help protect vulnerable uplands that provide habitat to threatened and endangered species, especially the <u>rare pitcher plant</u>, panhandle lily, Henslow's sparrow and the least tern.

PROJECT: Waterfronts Florida Partnership Enhancements, Year 5

AGENCY: Department of Community Affairs

CONTACT: Julie Dennis FCMP FUNDS: \$90,000

ABSTRACT: In FY 10-11, DCA's Waterfronts Florida Partnership (WFP) program will continue activities that guide the development of a broader WFP mission to: develop regional strategies to secure and network Florida's critical maritime infrastructure; continue efforts to enhance resiliency in waterfront communities; expand development of business continuity plans in waterfront communities; and continue to promote regionalism amongst WFP communities.

PROJECT Seagrass Integrated Mapping & Monitoring, Year 4

AGENCY: FFWCC/Fish & Wildlife Research Institute

CONTACT: Paul Carlson FCMP FUNDS: \$150,000

ABSTRACT: In its fourth and last year, <u>FWRI</u> will continue development of the Seagrass Integrated Mapping and Monitoring program to enable resource managers to track changes in the distribution, abundance, and species composition of seagrass meadows around the state. FY 10-11 tasks include: 1) map <u>Big Bend</u> <u>offshore seagrass beds</u>; 2) establish a seagrass monitoring program in the <u>Ten Thousand Islands</u>; and 3) evaluate the effectiveness of obtaining seagrass imagery from FL Dept. of Revenue triennial property mapping.

PROJECT: Post-Disaster Redevelopment Plans, Year 5

AGENCY: Department of Community Affairs

CONTACT: Julie Dennis FCMP FUNDS: \$117,000

ABSTRACT: The Department of Community Affairs (DCA) will continue its initiative to guide development of post-disaster redevelopment plans (PDRP) to create sustainable communities. DCA's project tasks for the fourth phase of this initiative are to print the Best Practices Guidebook (completed with FCMP 08-09 funds); assist pilot communities with implementation of their PDRPs; and begin to incorporate sea level rise adaptation into the PDRP planning framework.

PROJECT: Hyperspectral Mapping, St. Joe Bay Aquatic Preserve AGENCY: DEP/Coastal & Aquatic Managed Areas (CAMA)

CONTACT: Kim Wren FCMP FUNDS: \$150,000

ABSTRACT: CAMA will obtain high resolution, color hyperspectral imagery of bathymetry, seagrass beds, the extent of prop scar damage and water quality conditions in the St. Joe Bay Aquatic Preserve. Collection of this imagery will allow CAMA staff to monitor changes in physical and biological conditions over the 4-5 years since the previous survey; determine evidence of deteriorated water quality; and evaluate the effectiveness of resource management measures within the preserve.

PROJECT: Aquatic Preserve Management Plan Update Support Services

AGENCY: DEP/Coastal & Aquatic Managed Areas (CAMA)

CONTACT: Karen Bareford

FCMP FUNDS: \$29,000

ABSTRACT: CAMA will conduct activities in support of its system-wide aquatic preserve management plan update project. FCMP funds will be used for critical support services that will sustain and facilitate the update process, including staff costs, travel, supplies and expenses related to stake-holder meetings, and the design and production of management plan documents, outreach materials and exhibits.