

FISCAL YEAR 2011 WORKPLAN & Fiscal Year 2010 Workplan Amendments



During the Volunteer Shoreline Mapping training session on January 23, 2010, Program Scientist Judy Ott distributed clip board cases with materials the volunteers would need. Note the *Comprehensive Conservation and Management Plan* (CCMP) held by the volunteer on the lower right.

Charlotte Harbor National Estuary Program Technical Report 10-1 Amended: 8/23/10



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The Charlotte Harbor National Estuary Program is a partnership of citizens, elected officials, resource managers and commercial and recreational resource users working to improve the water quality and ecological integrity of the greater Charlotte Harbor watershed. A cooperative decision-making process is used within the program to address diverse resource management concerns in the 4,700-square-mile study area. Many of these partners also financially support the Program, which, in turn, affords the Program opportunities to fund projects such as this. The entities that have financially supported the program include the following:

U.S. Environmental Protection Agency
Southwest Florida Water Management District
South Florida Water Management District
Florida Department of Environmental Protection
Florida Coastal Zone Management Program
Peace River/Manasota Regional Water Supply Authority
Polk, Sarasota, Manatee, Lee, Charlotte, DeSoto, and Hardee Counties
Cities and Towns of Sanibel, Cape Coral, Fort Myers, Punta Gorda, North Port, Venice,
Fort Myers Beach, Winter Haven, and Bonita Springs
and the Southwest Florida Regional Planning Council.

Charlotte Harbor National Estuary Program

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GLOSSARY OF ACRONYMS

BMP	Best Management Practice
CAC	Citizens Advisory Committee
CAMA	Coastal and Aquatic Managed Areas
CCHMN	Coastal Charlotte Harbor Monitoring Network
CCMP	<i>Comprehensive Conservation and Management Plan</i>
CFRPC	Central Florida Regional Planning Council
CHEC	Charlotte Harbor Environmental Center
CHEVWQMN	Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network
CHNEP	Charlotte Harbor National Estuary Program
CH-RAMP	Charlotte Harbor-Regional Ambient Monitoring Program
CWPRA	Coastal Wetlands Planning, Protection and Restoration Act
CZM	Coastal Zone Management
EAR	Evaluation and Appraisal Report
EPA	Environmental Protection Agency
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FWC	Florida Fish & Wildlife Conservation Commission
FWRI	Fish and Wildlife Research Institute
GIS	Geographical Information System
GPRA	Government Performance and Results Act
HAS	Hydrological Alterations Subcommittee
HCS	Habitat Conservation Subcommittee
LID	Low Impact Development
MFL	Minimum Flows and Levels
NRCS	Natural Resources Conservation Service
NEP	National Estuary Program
NOAA	National Oceanic and Atmospheric Administration
NWR	National Wildlife Refuge
PIVOT	Performance Indicators Visualization Outreach Tool
PLRG	Pollutant Load Reduction Goal
PR/MRWSA	Peace River/Manasota Regional Water Supply Authority
R&R	Research and Restoration
RPC	Regional Planning Council
SFWMD	South Florida Water Management District
SRPP	Strategic Regional Policy Plan
SWFWMD	Southwest Florida Water Management District
SWFRPC	Southwest Florida Regional Planning Council
SWIM	Surface Water Improvement Management
SWUCA	Southern Water Use Caution Area
TAC	Technical Advisory Committee
TBRPC	Tampa Bay Regional Planning Council
TMDL	Total Maximum Daily Load
USACOE	United States Army Corps of Engineers
USF&WS	United States Fish and Wildlife Service
USGS	United States Geological Service
WCIND	West Coast Inland Navigation District
WMD	Water Management District
WQ	Water Quality
WQQOS	Water Quality Quantifiable Objectives Subcommittee

Purpose and EPA Guidance

This document provides annual financial and task-based information to meet federal workplan requirements. The focus of this workplan continues to be the implementation of the *Comprehensive Conservation and Management Plan (CCMP)*.

On March 4, 2002, Suzanne Schwartz, Director of the Oceans and Coastal Protection Division of the Environmental Protection Agency (EPA) issued guidance for the development of the FY 03 Workplans prepared by the nation's NEPs. For ease of use, new requirements were shown in bold text. New guidance requirements included special grant condition regarding the use of travel funds and Government Performance and Results Act (GPRA) reporting. NEPs were also to have an Implementation Tracking System, Environmental Progress Report and Environmental Indicators in place by 2006. Furthermore, additional information (success stories) is expected for accomplishments of the past year. According to the guidance, NEP Workplans must include the following items:

Goals and Accomplishments

1. A description of program accomplishments (programmatic, environmental, etc.) and transferable success stories made during the past year;
2. A discussion of which goals were achieved;
3. Discussion of major goals/focus for the coming year and any changes in priorities;

Ongoing Projects

4. Status of projects that are ongoing from previous year. This shall include a summary of the deliverables and associated milestones or completion delivery dates, project name or CCMP action, the cost, and organization responsible;

New Projects

5. A description of new projects, activities, or products to be produced in coming year(s) to meet those goals, a discussion of how they are linked to CCMP action plans or seven purposes of section 320, milestones and/or completion/delivery dates for new tasks, cost of the project, activity, or product, and the source of funds to carry it out;
6. Organization responsible for each new project/activity/product and the role of any partners in their development/use;

Administrative and Financial

7. List of staff and description of their responsibilities/activities;
8. A description of Grants provided from the NEP to local entities. This should include the amount provided, organization conducting the work, purpose, deliverables, and completion dates;
9. Total funds leveraged (section 320 and others) and their source;
10. The non-Federal cost share (match) and its source (specify in-kind or cash from particular entity; if in-kind, indicate type - e.g., office space); if staff, please specify individual, their position and employer, and an estimated dollar value of their contribution to the match; and
11. Travel Documentation.

Summary of Program Accomplishments

Fiscal Year 2009

This section corresponds to parts 1 through 3 of the EPA Workplan Guidance.

FY 09 Programmatic and Environmental Accomplishments

Highlights

Climate Ready Estuary

- One of two national estuary programs inducted by the EPA for a second round of Climate Ready Estuary support. A total 11 of 28 national estuary programs are participating in this program.
 - Completed Vulnerability Assessment for the Charlotte Harbor Watershed.
 - Completed the first Climate Ready Adaptation Plan in the country. On November 18, the City of Punta Gorda City Council unanimously voted to accept the report and pledged to incorporate relevant portions into their comprehensive plan update and other normal products of the city to improve resilience to climate change.
- Initiated development of Climate Change Environmental Indicators. The vulnerability assessment used to identify 176 candidate indicators. The top 18 are undergoing detailed evaluation.

Emerging Issues Workshops

- Partnered with Florida Gulf Coast University, EPA and local partners to present Green Infrastructure Workshop for Summer 2009.
- Hosted a Reservoir Workshop to address the controversial issue of reservoir planning, design, and construction in a scientifically defensible manner.
- Hosted a workshop to evaluate the science behind Lower Peace River Minimum Flows and Levels proposed by the Southwest Florida Water Management District. Developed recommendations to protect the economic and natural resources of Charlotte Harbor.

Clean Water

- Five Resolutions that address fertilizer application, wastewater treatment and facility design and storm water infrastructure have been adopted by the Southwest Florida Regional Planning Council and are undergoing review and adoption procedures by member governments. Nine of eleven local governments shared by the Council and CHNEP have adopted urban fertilizer ordinances regulating the application, timing and location of fertilizer in response to one of the resolutions.

Caloosahatchee River Flows

- On March 19, requested U.S. Army Corps of Engineers to resume environmental discharge of Lake Okeechobee water to the Caloosahatchee River. Environmental pulse releases to the Caloosahatchee River resumed on March 27.

Public Outreach

- Distributed the children's book *Adventures in the Charlotte Harbor Watershed: A Story of Four Animals and their Neighborhoods* created by CHNEP to each student at one grade level in seven School Districts. The books were given to students in third, fourth or fifth grade as selected by the School District.

- Published the CHNEP calendar of donated images that depict the beauty of the natural environment. The public helped select the images by completing an online survey. A total of 24,000 copies were distributed.
- Completed map of shoreline conditions. Citizen volunteers helped to collect the data.
- Filled gaps in natural resource opportunities by sponsoring the Charlotte Harbor Nature Festival in Charlotte County, Florida-friendly landscaping workshops in Hardee and Desoto counties, a littoral shelf demonstration in Sarasota County, and several lake signage projects in Polk County.
- Completed over 50 outreach projects through partnerships in the watershed.

Other Accomplishments

Management Conference

The Management Conference is cited as the most important function of the CHNEP. It is composed of Policy, Management, Technical Advisory and Citizens Advisory committees. In support of the Management Conference function, the CHNEP prepares and implements a task-based budget with specific deliverables. A Science Forum was started in 2007 and continued through 2009. The Science Forum meets the morning of the TAC and includes presentations of recent science findings.

Grants

In 2003, a commitment to pursuing grant opportunities was implemented as a component of the Long Range Financial Strategy. Early successes included sheparding public support for the acquisition of the 72,000-acre Babcock Ranch. In 2009, several grants were successfully obtained through CHNEP's grant applications efforts:

- CHNEP was awarded a technical assistance grant in the second round of EPA Climate Ready Estuaries grants
- Region 4 of EPA funded CHNEP a Wetland Development Program Grant for: *Climate Change Vulnerability Assessment and Adaptation Opportunities for Salt Marsh Types in Southwest Florida*
- CHNEP partnered with organizations to submit grant proposals, though these proposals were not awarded funding, the partnerships formed during the proposal process are continuing to flourish into 2010:
 - EPA CARE Level 1 grant: Sustainable Environment for East Lee, Buckingham and Lehigh Acres (Lee County, East Water District)
 - NOAA ARRA grant: Charlotte Harbor Area Restoration Partnership (CHARP) (Calusa Land Trust, Friends of Charlotte harbor Aquatic Preserves, Lee County 2020 Conservation Program)
 - Gulf of Mexico Program grant: Regional Geospatial Clearinghouse for Coastal Climate Change Resilience (City of Fort Myers,
 - EPA STAR grant: Forecasting Ecosystem Services from Wetland Condition Analyses (SWFRPC)
 - Economic Development Administration grant: Disaster Resistance Planning & Recovery Program (SWFRPC)

Outreach

The CHNEP is continuing the publication of its newsletter, *Harbor Happenings*, the annual calendar, and its website. CHNEP staff and committee members have provided presentations at a variety of venues and on a variety of topics.

- Published four issues of the program newsletter *Harbor Happenings* on the "happenings" of concern to the CHNEP on a wide variety of topics including latest research findings, restoration

accomplishments, changes in legislation, upcoming events and information about CHNEP's partners including the water management districts. Each issue of the 16-page color newsletter was provided to nearly 9,000 subscribers and another 3,000 copies were given out at events, by nature centers, libraries and other by other partners. Each issue is translated into Spanish and placed on the website.

The CHNEP has hosted, or otherwise provided funding to support, a variety of workshops and events including:

- The annual Charlotte Harbor Regional Nature Festival is hosted and sponsored by CHNEP with sponsor support from many local businesses, agencies, organizations and citizens. The festival is free because of this generous sponsor support and proceeds from an onsite raffle of exhibitor-donated items. An estimated 3,000 people attend to learn from approximately 60 nature-based exhibitors, guided walks and rides, talks, children's discovery zone and more.
- CHNEP sponsored the annual Sustainable Communities workshop.
- CHNEP held a reservoir workshop on April 13-14, 2009, at the Charlotte County Event and Conference Center, to identify the hydrologic and environmental benefits and impacts of surface water reservoirs within the watershed. In 2008, the Citizens Advisory Committee expressed their concern about the number of potential reservoirs and their impact to the environment and asked the CHNEP to address this through a workshop. The workshop provided a forum for information exchange and interaction among and between scientists and citizens. Experts gave 25 presentations, a keynote presentation was made by Cynthia Barnett, author of "Mirage: Florida's Vanishing Water," and a team of peer review experts helped guide the facilitated discussions held during the workshop. A document was developed to help participants come to the workshop with an understanding of reservoir ecology, reservoir habitat in Florida, water supply plans and more. An estimated 140 people attended and others participated live on the Internet through Elluminate, a program made available by Sea Grant/IFAS. The pre-conference document and presentations are posted on the website www.CHNEP.org as a PDF file. A recording of the second day is also available from the website. A report was approved by the Management Conference. Seven partners sponsored the event, including PBS&J (\$1,500), CF Industries (\$1,500), Scheda Ecological (\$500) and, at \$100 each, Lemon Bay Conservancy, Coastal Wildlife Club, Friends of the Charlotte Harbor Aquatic Preserves and the Sierra Club-Greater Charlotte Harbor Chapter.
- CHNEP sponsored US EPA Green Infrastructure Wet Weather Workshop at Florida Gulf Coast University.
- CHNEP sponsored Gulf of Mexico Alliance update held at Mote Marine Laboratory in Sarasota on December 15, 2008. Approximately 120 people attended this community-focused workshop to provide public input on how best to restore, protect and improve the health of the Gulf of Mexico.
- CHNEP sponsored the December 15, 2008, Estero Bay Agency on Bay Management "Cela Tega" to bring 31 public and private land acquisition managers and agents in the Estero Bay watershed together to identify common challenges. "Cela Tega" is a phrase of natives of southwest Florida that means "taking a view from high ground" or "overview."
- CHNEP sponsored wading trips through local environmental education organizations to provide the public with opportunities to explore our estuaries first hand.
- Approximately 50 people attended the two half-day Florida Friendly Plant Workshops on January 29, 2009, at SFCC in Arcadia and Bowling Green. (These counties don't have an active chapter of the Florida Native Plant Society or county staff dedicated to a program such as Florida Yards & Neighborhoods.) The agenda covered drought information, organic gardening, an Ask-the-Expert session and a native plant sale. The workshop was developed

and held in cooperation with SFCC, Deluxe Trees and Shrubs, Pine Lily Nursery, All Native Garden Center and others.

- The Peace River Environmental Education Network (PREEN), sponsored by CHNEP, held a meeting at the Circle B Bar Nature Center. Ralph Montgomery of PBS&J presented an overview of the Peace River Cumulative Impact Study, Karen Hagood offered a guided tour of the newly-opened center and members provided updates on projects. The program was attended by approximately 30 people with people from Polk, Hardee, Desoto and Charlotte counties, including representatives from the school districts of Polk, Hardee and DeSoto counties.
- Presented "The Peace River" to Lakes Region Audubon meeting at the Circle B Bar Ranch in Polk County, with 35 in attendance. Answered 30 minutes of questions.
- The CHNEP awarded the Estero Bay Agency on Bay Management (EBABM) a \$3,000 grant to facilitate a public conference on Estero Bay. The Estero Bay Watershed Public Symposium took place on September 28 and 29, 2009. The main purpose of the event was to broaden public understanding of the nature of and issues surrounding the Estero Bay Watershed. A secondary purpose, networking for professionals involved in affected agencies was also accomplished.

The CHNEP expanded National Estuaries Days from a fall celebration to a year-round Estuaries Day, Every Day celebration. Numerous events were held by partners. The events listed are representative of events sponsored by CHNEP.

- Lee County Parks & Recreation held "Estuaries Day, Every Day" at Bunche Beach with displays set up by environmental organizations, including CHNEP, free kayaking lessons, a guided kayak paddle and bird walk.
- Lakes Education/Action Drive held a day-long conference "Integrating Water Resource Management" on October 7 at USF Polytechnic in Lakeland. Fourteen speakers shared their information with 77 people.
- The Charlotte Harbor Environmental Center Alligator Creek Preserve on September 27, 2008, held Native People of Southwest Program. Fifty-two people attended the program, including viewing the film "Shadows & Reflections: Florida's Lost Peoples," which emphasizes wise use of estuarine resources. UF Professor George Luer gave an informative slide program about local native peoples.
- The Sanibel Captive Conservation Foundation organized 400 volunteers who participated in coastal cleanup on 20 miles of beaches on north Captive, Captive and Sanibel islands, removing 28-yards of debris.
- Charlotte County Natural Resources provided a guided boat tour for 44 people of the natural creeks within Lemon Bay through Stump Pass to the Gulf of Mexico.
- Lemon Bay Conservancy provided a guided kayak tour of Coral Creek for 41 people followed by a picnic for 46 people.
- Keep Lee County Beautiful held its annual monofilament madness marine cleanup. More than 150 volunteers in boats, kayaks and canoes launched from three sites in Lee County removing 7,500 pounds of monofilament fishing line and other harmful debris from mangrove areas.
- The Estero Bay Buddies held their annual "paddling the Estero River" on September 26, 2009, with 50 people participating. Three different options were offered to accommodate the beginner, intermediate and advanced paddler.

In addition, partners completed the following public outreach grants:

- “Water” we doing? Watershed rescue traveling trunks: The Lakes Education/Action Drive in cooperation with Polk County and the Polk County School board created three educational traveling watershed trunks for classroom and community use. One trunk provides information on wetlands and watersheds and is geared for use in first grade classrooms. One trunk provides information on uplands is geared for use in fifth grade classrooms. The third trunk provides information on the watershed and can be used in fifth through seventh grade classrooms.
- Naturalization of a retention pond: The Unitarian Universalist Congregation of Venice converted a retention pond into a place that showcases native plants, provides habitat for wildlife and helps educate people on the need for and value of increasing habitat for wildlife.
- DeSoto Diaries: DeSoto County Parks & Recreation created a guide for people of all ages to learn about local flora and fauna. The activity guide contains puzzles, word searches, coloring pages, terms and continuing education projects. A total of 3,000 copies will be distributed through park staff.
- The estuary in every class: Three hundred seventh grade students at the Port Charlotte Middle experienced an interdisciplinary unit of study on estuaries that involved science, social studies and language arts curricula. Several in-class activities provided background information about estuaries in general and Charlotte Harbor specifically. Students then visited Ponce de Leon Park to learn, first-hand, about the estuary, the wildlife of the area and their habitats. Each student then taught an adult in their household about the Charlotte Harbor estuary by using the CHNEP publication "Committing to the Future."
- Manatee, Estuary & Seagrass Education Project for Lee County: Third grade students in 16 Lee County classes learned more about manatees, including their natural history, importance of estuarine and seagrass habitats, during manatee, estuary and seagrass education programs. CHEC led in-school activities for students using an interactive puppet play where participants act as reporters to interview Ms. Trichechus manatus Latirostris.
- IMC Peace River Park Boardwalk Educational Signage: Twelve educational signs with steel frames were designed, constructed and installed at the expanded Mosaic Peace River Park in Homeland. The signs help tell park visitors about issues of importance to the Peace River, its floodplain, the Charlotte Harbor estuary, migratory birds, amphibians, invasive species and human impacts on the ecosystem. The 18 x 24 inch fiberglass embedded panels contain both photos and text. They are mounted on cantilevered posts that extend from the new addition to the boardwalk. Installation was provided free by Polk County Leisure Services.
- Sailing through the environment of Charlotte Harbor: Seventh grade students at LA Ainger Middle School collected data and specimens while enjoying being on a boat in Charlotte Harbor -- a unique and life changing experience that many would otherwise would never have had. The 150 students included exceptional, at risk and regular education students took part in one of five learning excursions. Each student gathered water quality and observational data and gathered specimens during a wading trip. With this grant, 25% of the seventh grade students in Charlotte County were reached.
- Project EAGLE, Winter Haven Chain of Lakes Cleanup: Lakes Education/Action Drive in cooperation with FWC, CHNEP, Keep Winter Haven Clean and Beautiful, the City of Winter Haven and the City of Lakeland, hosted Project EAGLE, a clean-up involving 442 volunteers removed 3,000 pounds of trash from 17 lakes in Winter Haven and Lakeland. Immediately Volunteers were thanked with lunch and 11 environmental displays.
- Ecosystems and habitats: A need for preservation: Desoto County Parks & Recreation created an interpretive sign about ecosystems, habitats and the need for preservation. The

sign will increase environmental awareness of the 13,000 people who visit Morgan Park each year.

- Shoreline Stabilization and Habitat Enhancement: Florida Gulf Coast University's Mullock Creek Basin demonstration project is part of a larger effort to improve the entire stormwater drainage system of the East Mullock Drainage District in San Carlos Park, Lee County. The project includes removing invasive exotic plants, such as Melaleuca and Brazilian pepper, along 180 linear feet by a canal, placing a shoreline stabilization product known as Shoresox along the steep incline and installing native plants in the 15 foot buffer between private residences and the canal. More than 50 people volunteered more than 370 hours to the project.
- Butterfly Garden: Fisherman's Village created a garden with native plants to attract butterflies, residents and visitors. Educational signage and brochures were provided to help explain the natural environment and how people can do more to protect it.
- The Mangrove Gathering Eco Café: These gatherings are held in Lee County and provide a venue for people to discuss and collaborate on environmental issues. Music is performed. CHNEP sponsored the gatherings on May 18, July 10 and September 11 that 113, 74 and 79 people attended.
- Water, Wings & Wild Things: Polk's Naturefest 2009 on October 31 at Circle B Bar Reserve introduced visitors to the importance of their connection with the local natural resources and how best to conserve and protect the water supply.

In fiscal year 2009, 47 microgrants were completed by partners. These grants support events and projects that help fulfill the CCMP. A complete list of these awards is posted on the website at http://www.chnep.org/Grants/microgrants_awarded.htm. Particularly interesting micro-grants included:

- Approximately 85 volunteers removed 1,620 pounds of trash -- 10 cubic yards -- from Billy's Creek during the annual cleanup effort on December 6, 2008.
- A successful seventh annual Burrowing Owl Festival was held by Cape Coral Friends of Wildlife on Saturday, February 21, 2009. More than 2,500 people learned about the native owls and other environmental concerns through exhibits, talks, guided tours, and native plants and butterfly gardens. The festival helps educate residents about the burrowing owl, a species of special concern, and how they can co-exist with them. The festival included exhibits, presentations, guided walks and tours, a student art contest and a butterfly tent.
- Littleton Elementary School hosted a sea science night on November 14, 2008 for approximately 200 students and parents. Many local environmental organizations and agencies presented information and provided exhibits and activities, including touch tanks and fish tanks, manatee bones and a selection of wildlife.
- Calusa Nature Center installed an estuary touch tank of marine species such as crabs and mollusks and an estuary/reef aquarium of fish and other species. Programs are held three times a week to educate the public about the different species found in local estuaries.
- "An Evening Under the Sea" was held January 18, 2009, in Cape Coral as an exposition of marine and aquatic organizations of Lee County, including conservation information, touch tanks, interactive games, face painting and crafts for elementary-aged children and their families. The purpose of the event is to educate and encourage visitors to conserve our local marine and estuarine environments for the present and future. Twenty students worked together to perform an original interactive puppet show called "Mermaid Dreams II."
- After the Lee County Sea Grant agent provided an overview of the classification, life cycle, diet, habitat, benefits and problems to humans of the spiny dogfish, 16 pairs of youth with the

4-H marine biology club dissected a spiny dogfish. They then discussed the shark's digestive system, including diet and comparisons to a human's digestive system, and respiratory system.

- On February 28, 2009, the Mangrove Chapter of the Florida Native Plant Society held its annual "Plant Native" Day at Cedar Point Environmental Park in Englewood. About 120 people attended, with the first 25 receiving a free Leavenworth's tickseed plant. Laural Sciller of Florida Native Plants spoke on the selection of native plants to attract butterflies and Jane Wallace spoke on the evolution of a chapter garden.
- Six watershed signs for Shell and Prairie Creeks were created by Rick Fried, a Florida Master Naturalist. The City of Punta Gorda receives its water supply mostly from a reservoir formed by the damming of Shell and Prairie Creeks. The creeks are also enjoyed for recreation. The signs let everyone know that they are in a watershed protection area that provides drinking water supply. The signs were placed by the road and on the bridges. The Charlotte County Signage Department used recycled and donated material to ensure the success of the project.
- Author Bay Bannon visited with students in first, second and fourth grade classrooms at Garden, Venice and Lamarque elementary schools in south Sarasota County. Using activities that included puppets and storytelling and classroom activities, she taught the students about gopher tortoise, burrowing owl, eastern cottontail rabbit, indigo snake, Florida mouse, and the four species featured in the CHNEP children's book -- alligators, herons, otters and mullets. Teachers were given copies of both her book, *Gimble Gopher Tortoise*, and the CHNEP book *Adventures in the Charlotte Harbor Watershed*.
- The Scrub Jay Jamboree was held on March 1, 2009, to raise awareness of the scrub jay and its habitat in the Harbour Heights community. 200 people participated. This effort also raised funds to acquire scrub jay habitat.
- On March 15, 2009, Cape Coral held its second annual Canal Clean-Up Day. Approximately 150 volunteers removed 6,000 pounds of debris -- tires, plastic chairs, wood -- from canals, mangroves and the waterfront in Cape Coral. The effort raised awareness and gave the volunteers pride in their community. (At the first cleanup, 75 volunteers picked up 2,500 pounds of debris.)
- On April 1, 2009, the environmental education faculty representatives participated in a networking and professional development event with refreshments. A teacher from each school in the Lee County School District serves as a liaison with teachers at their schools. At the event, community environmental experts met personally with teachers to schedule presentations for Earth Week and share other material. Elementary school representatives also picked up the CHNEP children's book *Adventures in the Charlotte Harbor Watershed* to give to each third grade student.
- In commemoration of Earth Day 2009, Charlotte County planted three native trees as a start of an arboretum on the administration center grounds in Port Charlotte, including a mulberry and a dahoon holly.
- CREW Land & Water Trust held their seventh annual Wildflower Festival on March 27 and 28, 2009, with approximately 250 people participating in guided hikes and exhibits. A presentation was given on wildflowers at CREW at Bass Pro Shops. Children from first to twelfth grades entered the art contest with prizes awarded in each category for the best rendering of a wildflower native to southwest Florida.
- Explorations V Children's Museum in Lakeland held their 28th annual Children's Festival on April 18, 2009. More than 600 children and 350 adults participated in the day-long hands-on, fulfilled adventures in learning through 30 indoor exhibits, including Water Matters! Partly funded with a CHNEP public outreach grant, and 30 outdoor activities in Munn Park.

- Art for a Better Environment displayed murals created with prior micro-grant support at the Cape Coral Art Studio on July 23. The artwork motives and encourages new work and discussions on how art can change behavior and awareness of problems and solutions to become better stewards of the environment and protection of natural resources. Children created fabric art of fish, turtles, manatees then created slogans calling for the respect and preservation of our estuaries with an emphasis on a clean, unpolluted water environment. Adults and children were then asked to become ambassadors for change in their circles of influence.
- Under the guidance of Russ Hoffman from Beautiful Ponds, residents of Villas of Sabal Trace in Murdock removed invasive exotic plants of Brazilian pepper and carrotwood from the sunny northwest corner of a wetland. The residents then planted several native species, including mimosa, cardinal flower, yellow beggar's tick, stiff sunflower, dune sunflower, tickseed, lance leaf tickseed and sea ox-eye daisy, in this 30 x 14 foot test area. Volunteers participated in a wildlife workshop. They anticipate clearing exotics from the remainder of the wetland preserve area and replacing them with natives.
- Florida Master Naturalist Program students developed two kiosks on plants and wildflowers along the trails of CHEC at Alligator Creek State Preserve. The kiosks help visitors and residents identify plants and flowers along the trails. The volunteers photographed the plants found, researched the species then prepared explanations of each plant for the kiosk.
- The UF/IFAS Polk County Extension Service in Bartow expanded their native plant demonstration garden. The plantings demonstrate the ease of planning and maintenance and that they require little or no fertilizer, water or pesticide applications.
- The Early Bird Kiwanis in North Port conducted a fishing clinic and tournament on June 20, 2009 for children from 3 to 14. Approximately 500 people attended with the free program. The children stopped at five educational stations to learn about the natural environment of southwest Florida before receiving a free fishing pole.
- It is generally assumed that Melaleuca, an invasive exotic tree, uses tremendous amounts of water through transpiration compared to native species and, if not controlled, has the potential to dry up wetlands. This hypothesis has not been tested under natural conditions. Lee County land managers will collect sap flow data on trees in the Galt Preserve, a Conservation 20/20 acquisition on Pine Island, to quantify the amount of water lost through transpiration, complementing previous studies.
- Students from 4 to 16-years-old learned about the environment at the Beach Bums Summer Camp at the Cape Coral Yacht Club by doing! In a classroom they learned about the local marine environment then they went to the field to monitor local seagrass beds and their inhabitants along with the Volunteer Scientific Resource Team.
- Using materials provided by the CHNEP, St. Andrew Catholic School in Cape Coral incorporated estuaries and watersheds into their sixth grade unit on plants and seventh grade unit on environmental science. Students conducted research to understand estuaries and watersheds, created a "mangrove forest" for the entire school, which displayed their knowledge of terms and environment, and investigated water quality from several local sources for salinity, pH, dissolved oxygen and turbidity.
- Nine 11-15 year-old campers at the Caloosahatchee Regional Park Teen Odyssey summer camp visited the Calusa Nature Center and the Naples Zoo to, among other things, hike through cypress and pine flatwood habitats, see live native animal presentations on butterflies, alligators, bears and snakes and see animals that live in our local estuaries,
- Each school year, hundreds of students of all ages visit the CREW Marsh Trails to experience "real Florida." As part of their experience, the students often dip net for

macroinvertebrates in the marsh. This project allowed CREW to provide the dip nets to students in a location that is safe and convenient.

- The Summer 2009 Ecotour Providers series in Lee County helped ecotourism providers and others increase their abilities with knowledge, tips and tools during sessions on (1) watersheds and cultural history, (2) wetlands plants and ethnobotany, (3) facts, fins and fisheries and (3) the Gulf of Mexico in Your Backyard with 40, 54, 53 and 26 people attending, a total of 173.
- On June 20, approximately 25 volunteers picked up 45 bags of trash from the upper reaches of the Peace River. Three groups launched from Bartow, Homeland and Fort Meade. The cleanup was organized by the Polk Friends of the Parks, City of Winter Haven and the FDEP Homeland Office.
- The City of Bonita Springs created its own monofilament recycling program by creating 10 PVC fishing line bins. The bins are placed at popular ramps, docks, waterways and beaches in the city. The line is gathered by volunteers who send it to be recycled into products.
- The first ever Great Bay and Sound Scallop Search was held in Charlotte County on September 12. Coordinated by Charlotte County Sea Grant, volunteers were recruited and trained to snorkel for scallops while boat captains collected the data. A total of 120 volunteers helped to find 94 live bay scallops.
- A brochure was developed to help those who visit the Hardee County Extension Office learn more about the native plants near the building. The brochure describes each plant and provides suggestions on how to obtain additional information.
- Cape Coral Friends of Wildlife created 25 reflective signs that read "Slow Please Owl Crossing" with a silhouette of a burrowing owl. The signs were placed on streets with high traffic volume where burrowing owls are found. The owls, a species of special concern, often burrow near the road and fly low to the ground.

Research

The CHNEP conducts research through partners, contractors, and by staff. The wide variety of research fills gaps in knowledge related to hydrologic alterations, water quality degradation, and habitat loss. Research projects are chosen from a Research Needs Inventory adopted in 2004.

Completed elements of the CHNEP research program include:

- FY 05 Technical Project "Comparison of Water Quality Results from Fixed Station and Random Sampling Monitoring Programs in the Charlotte Harbor and Estero Bay Aquatic Preserves: 2001 – 2007" final report was completed by Florida Department of Environmental Protection, Charlotte Harbor Aquatic Preserves. The purpose of the report was to compare the results of 2 different water quality monitoring designs within the estuaries of the CHNEP study area. The report is available on the CHNEP website.
- FY 06 Technical Project "Historic Hydrologic Subbasin Delineation" final report, GIS product and data base were completed by Gurr Consulting. The purpose of the project was to determine historic flow-ways and watershed boundaries throughout the CHNEP study area by evaluating historical soil surveys, GLOS, and aerial photos. The project deliverables included a geodatabase of historic basin boundaries, elevations, soils, waterways and land covers, as well as the historic aerials and navigation charts, topographic maps and metadata, which are available upon request due to the large file size.
- FY 07 Technical Project "Mapping Characteristics and Condition of the Charlotte Harbor Coastal Shoreline using Volunteer Boater Observations and Photointerpretation" final report, presentation to the TAC, GIS product and data base were completed by Photo Science. The purpose of the project was to map the types and conditions for native and exotic vegetation

along the estuary and tidal creek shorelines throughout the CHNEP study area. A combination of aerial photography and field verification by volunteers was used. The data was compiled by shoreline condition and type into an ArcGIS database and includes metadata, quality assurance and ground truthing of aerial images and volunteer field data. The deliverables are available through the CHNEP website and upon request for the larger files.

- FY 08 Technical Project “Implementation of Enhancements to the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Project” updated field methods were implemented by Florida Department of Environmental Protection, Charlotte Harbor Aquatic Preserves. Final products include up-dated field methods manuals, training procedures and comparison of 1 year of data collection using previous and current methods to assist with quality assurance and data analyses. The methods manual is available on the CHNEP website.
- FY 09 Technical Project “Water Quality Targets Refinement Project” Interim Reports 1 and 2 and presentations to the TAC were completed by Janicki Environmental. Interim Report 1 validated the hydrologic segmentation scheme used to analyze water quality and seagrass data. Interim Report 2 developed seagrass targets for restoration and protection throughout the CHNEP estuaries. The results of these reports will be used as the basis for the next project steps of developing pollutant loadings and numeric nutrient criteria. The Interim Reports 1 and 2 are available on the CHNEP website.

Partners completed the following projects under CHNEP’s Research and Restoration Partners Program:

- FY 05 RRPP “Using Stable Nitrogen Isotopes to Quantify the Influence of Potential Nutrient Sources in the Peace River Watershed” final report was completed by the Charlotte Harbor Environmental Center (CHEC). Nitrogen isotope ratios were measured in suspended particulate organic matter (including algae), sediment organic matter and stream-side vascular plants in the Peace River and Horse, Joshua and Charlie Creeks to distinguish between “organic” (i.e. livestock or mammal waste) vs. “inorganic” (i.e. fertilizer) nitrogen sources. The results of the study will be used to help identify sources and appropriate management practices to reduce nitrogen loads throughout the subwatersheds. The report is available on the CHNEP website.
- FY 07 RRPP “Evaluating the risks that pharmaceutical-related pollutants pose to Caloosahatchee River wildlife: observations on the bull shark, *Carcharhinus leucas*” final report and presentation to the TAC were completed by Mote Marine Laboratory. The purpose of the project was to assess the ecological risks of pharmaceutical-related compounds in the Caloosahatchee River by examining the presence and concentrations of 12 widely prescribed drugs in surface waters of the river and juvenile bull sharks. The results provided information about the presence of commonly used pharmaceuticals, including contraceptives, lipid-lowering drugs, antidepressants and anti-inflammatory agents which will be used to direct management actions and future research. The report is available on the CHNEP website.
- FY 07 RRPP “The Fate and Transport of Caloosahatchee River Estuary Turbidity Maximum (ETM) Sediment” final report and presentation to the TAC were completed by Florida Gulf Coast University (FGCU). An Estuary Turbidity Maximum occurs in estuaries where outflowing freshwater meets inflowing marine water resulting in high sediment concentrations in localized regions that affect the health of a variety of organisms including seagrass, oysters and clams. The project investigated the location and variability of the ETM near the confluence of the Caloosahatchee River ebb flows and the San Carlos Bay flood

flows over several months. The results showed that the ETM stayed within San Carlos Bay, but the intensity and location varied depending on river discharges. The information will be available to be used evaluate affects of changes in Caloosahatchee River releases. The report is available on the CHNEP website.

- FY 07 RRPP “Do coastal land alterations impact estuarine food webs?” final report and presentation to the TAC was completed by Mote Marine Laboratory. The purpose of the project was to provide information about the impacts of coastal habitat alterations on mangrove associated fishes, specifically juvenile common snook in 4 tidal creeks along the east side of Charlotte Harbor. The project demonstrated the extent that changes in fish community structure can cause changes in the trophic food web within the mangrove creeks. The report is available on the CHNEP website.
- FY 08 RRPP “Venetian Waterway Park Segment 8 Exotic Vegetation Removal” final report was completed by the Venice Area Beautification, Inc. The report describes the volunteer efforts and results to remove exotic vegetation (mostly Brazilian Pepper) and litter in the Venetian Waterway Park along the Intracoastal Waterway in Venice. Over 400 volunteers collected over 44 cubic yards of debris, and cut and mulched exotic invasive vegetation including Brazilian pepper, carrotwood, rosary pea, smilax and more. Native vegetation will be restored and maintained in the future by county and city staff. The report is available on the CHNEP website.
- FY 08 RRPP “Wild Turkey Strand Restoration” final report was completed by Lee County Conservation 2020. The project included hydrologic restoration of wildfire control plow line, treatment exotic invasive vegetation and monitoring vegetation regrowth in the Wild Turkey Strand Conservation 2020 preserve in Lee County. The restoration occurred on 265 acres and included removal of Melaleuca, Brazilian pepper, night shade, West Indian marsh grass and regarding of 1,000 foot plow line. To estimate (and reduce) future restoration costs, vegetation regrowth rates were compared in 15 1 meter square plots that were: regraded/planted, regraded/not replanted, not regraded/not replanted vs. no vegetation treatment. Addition monitoring is needed of the plots to estimate annual and seasonal changes. The report is available on the CHNEP website.

Restoration

- FDEP Mullock Creek Basin Florida Friendly Yards project (CZ814) Final Report. The Charlotte Harbor National Estuary Program received FCMP funds to engage homeowners in the San Carlos Park community to implement Florida Friendly Landscaping (FFL) techniques. FFL practices improve stormwater quality through reduction of nutrient runoff, reduced water consumption by irrigation and increased wildlife habitat in residential yards. Project outcomes were to establish two Florida Friendly demonstration yards on publicly-accessible property and conduct three cycles of a four workshop series to educate homeowners on FFL design and plantings.
- Estero Bay State of the Bay Update. Lee County funded the SWFRPC to complete the update. CHNEP provided data, methods to replicate, and mapping assistance.
- On September 28th, the Estero Bay Agency on Bay Management hosted the Estero Bay Watershed Public Symposium, supported by CHNEP and others. The symposium site is at: <http://faculty.fgcu.edu/ndemers/EsteroWatershedSymp09/index.htm>.

Research Coordination and Technology Transfer

- CHNEP hosted a workshop to discuss proposed Lower Peace River Minimum Flows and Levels (MFLs) September 21, 2009. The workshop was requested by the CHNEP Policy Committee to provide a forum for exchange of technical information regarding the proposed Lower Peace River MFLs. Eighteen scientists and citizens attended and heard presentations from Southwest Florida Water Management District, Florida Department of Environmental Protection and CHNEP. As a result of the workshop, modifications to the Lower Peace River MFLs suggested by the CHNEP were incorporated into the rule. (Advocacy)
- CHNEP convened a Peer Review Guidelines Subcommittee at the request of the Policy Committee. The purpose of the subcommittee, which met August 17, 2009, was to evaluate the need for Peer Review Guidelines for CHNEP projects and publications, and to develop a list of options for those guidelines for consideration of the CHNEP Management Conference. As a result of the meeting, written “Review Procedures Followed for CHNEP Projects, Products, Grants and Contracts” were developed, approved by the Management Conference and made available to the public through the CHNEP website.
- Special Issue of *Florida Scientist (Research)*
- Science Forums were quarterly, before the TAC meetings, to exchange technical information of interest to scientists and resource managers throughout the CHNEP study area. Topics discussed included:
 - Restoration Projects map by CHNEP
 - Water quality and seagrass mapping by Sanibel Captiva Conservation Foundation
 - Blind Pass “Poll and Troll” seagrass protection zones by Florida Department of Environmental Protection
 - Smalltooth Sawfish data and critical habitat by Florida Fish and Wildlife Research Institute and NOAA
 - Seagrass propeller scar restoration by Seagrass Recover
 - Mangrove restoration by Lewis Environmental
 - Littoral shelf and wetland restoration by Sheda Ecological
 - Polk County and Winter Haven restoration projects by Polk County and City of Winter Haven
 - Tampa Bay Estuary Program Nitrogen Management Consortium and Process by TBEP
 - Lemon Bay Watershed Management Plan by Sarasota County
 - Rural BMPs by Florida Department of Agriculture and Consumer Services
 - Sea Turtle surveys by Mote Marine Laboratory
 - Scallop restoration by Florida Fish and Wildlife Research Institute and Sarasota County
 - Statewide Water Atlas by University of South Florida

CHNEP program presentations:

- Lakes Region Audubon
- Environmental Planning AICP presentation
- Museum of the Islands
- Instream FLOW Council Conference

Climate Ready Estuaries presentations, workshops and meetings:

- UF Law School Public Interest in the Environment conference
- presentation on climate change for Leadership Englewood
- Punta Boaters Alliance
- Climate Ready Estuaries partners meeting

- Climate Ready Estuaries 2009 EPA Workshop
- U.S. EPA Wet Weather, Green Infrastructure Workshop

Technical presentations:

- Matlacha Pass Seagrass Mapping and Monitoring for North Spreader Ecosystem Management Agreement Stakeholders.
- Estero Bay Resource Data Available through CHNEP for the Estero Bay Science Symposium.

DVD of CHNEP Videos: Since 2002, the CHNEP has produced videos to help the public better understand the natural environment, issues of concern and how to help protect the environment. Many of the videos have been broadcast by WGCU Public Media and by local government access channels. This past year we were able to combine them all onto one DVD and also place the shorter videos on the Internet on YouTube and elsewhere, which are linked from the CHNEP website. Libraries and clubs within the CHNEP study area will also be provided copies to loan to their patrons and members. The DVD is available on request by completing a form on the website at www.CHNEP.org

(http://www.chnep.org/info/request_form7-09.asp). The videos include:

- Neighbor-to-Neighbor Florida-Friendly Landscaping, 27 minutes and 10 1-minute videos, 2008
- Where Rivers Meet the Sea: 5 2-minute videos on estuaries, watersheds, animals, seagrasses and mangroves, 2006
- Boating and Seagrasses, 8 minutes, 2006
- What's an Estuary? Now you Know, 7 minutes, 2003, produced by the Association of National Estuary Programs
- Keep it Picture Perfect, 30 seconds, 2002
- Network of an Estuary: Charlotte Harbor National Estuary Program, 28-minutes and 8- minute videos, 2002
- New CHNEP Interactive Mapping Website Version 1.0.: This site is accessible for anyone anywhere in the world. No special software is needed to make custom maps, just access to the worldwide web! This site implements the bulk of CCMP Priority Action SG-S: Post raw data, geographic information system (GIS) and technical analysis on the internet under the data management strategy.
 - The entry page is at: <http://www.swfrpc.org/chnepgis.htm> which takes you to
 - The interactive mapping page at: <http://www.swfrpcgis.org/CHNEP/> .
 - It links out of the CHNEP site at <http://www.chnep.org/MoreInfo/FMIlinks.htm>
 - From <http://www.swfrpc.org/chnepgis.htm> click on the interactive mapping button (or go directly to: <http://www.swfrpcgis.org/CHNEP/>) to see the new ArcServer site for the CHNEP.
 - It currently includes 46 layers, grouped in categories. The groups include Political Boundaries, Fish and Wildlife Habitat, Hydrological, Water Quality, Stewardship, and Orientation layers.

Advocacy and Review

From time to time, CHNEP advocates positions to protect the watershed and estuaries. Toward this end, the following letters were forwarded in FY 09:

- Letter to SWFWMD Governing Board requesting modification to MFL including low flow threshold of 130 cfs, maximum diversion amount, trigger to move into block 2 or 3, and a re-evaluation in 5 years.
- Letter to Governor to encourage continued state support for the Estero Bay Aquatic Preserve programs, activities and office.
- Letter to FDEP requesting consideration of existing ambient monitoring programs in the Charlotte Harbor region as integral to achieve many regulatory objectives, including the NPDES, MS4 monitoring program, and provide flexibility to our regional partners in any new NPDES, MS4 monitoring requirements currently being considered by evaluating the potential benefits, use, and integration of existing, long-term sampling programs into the new requirements.
- Letter to SFWMD Governing Board reiterating the CHNEP Policy Committee recommendation that the Army Corps of Engineers continue beneficial flow discharges from Lake Okeechobee to the Caloosahatchee River and Estuary allowable under the Lake Okeechobee Regulation Schedule (LORS) adopted April 8, 2008.
- Letter to SFWMD supporting the *Caloosahatchee River Watershed Protection Plan* and submitting recommendations to Final Report.

Priority Changes

There were no significant priority changes enacted by the Management Conference in 2009.

Final FY 09 Travel

Table 1 details travel expenditures for FY 09. Travel included attendance of at least two staff members at each ANEP meeting.

Table 1: Training and Conference Travel Fiscal Year 2009

Date	Reason for Travel	Staff Member	Location	Expense
Oct. 2008	Florida FWC Climate Change Conference – meeting rescheduled from August 20-22,2008	M. Hilgendorf	Orlando, FL	\$860.64
Oct. 6-10, 2008	Instream FLOW Council Conference	L. Beever	San Antonio, TX	\$1,074.95
Nov. 16-19, 2008	ANEP Autumn Meeting	L. Donley	New York City	\$1,082.30
Nov.2008	Restoring America’s Estuaries Conference (Climate Change)	Shared expenses with Partner	Providence Rhode Island	\$1,576.58
Nov. 6-7, 2008	35 th Annual Conference on Ecosystems Restoration and Creation	W. Gray	Plant City, FL	\$359.25
Nov. 18-22, 2008	SLAMM Training/Water Quality Trading Workshop	J. Ott	Tallahassee	\$602.19
Dec. 2008	GOMA meeting/NOAA Workshop	M. Hilgendorf	Sarasota, FL	\$185.45
Dec. 15-17, 2008	Public Issues and Conflict Management Training	M. Hilgendorf	Venice, FL	\$183.92
Jan. 19-20, 2009	Florida Social Marketing Data Repository Committee	M. Hilgendorf	Ocala, FL	\$330.84
Jan. 28–29, 2009	SCENE Conference	M. Hilgendorf	Gainesville, FL	\$386.31
Jan. 15-16, 2009	Low Impact Development Workshop	L. Beever	Clearwater, FL	\$165.10
Feb. 22-25, 2010	ANEP Spring Meeting	L. Beever, L. Donley	Washington, DC	\$1,864.98
Feb. 26–28, 2009	Public Interest Law Conference	L. Beever	Gainesville, FL	\$129.90
Mar. 26-27, 2009	NAAEE Guidelines for Environmental Education Excellence	M. Hilgendorf	Altamonte Springs, FL	\$267.59
April 22-23, 2009	Everglades Restoration Science Coordination Group Meeting	L. Beever	West Palm Beach, FL	\$167.15
June 22-24, 2009	Climate Ready Estuaries 2009 Workshop	L. Beever	Washington, DC	\$846.71
July 28–29, 2009	CCTool Framework Advisory Group Meeting	L. Donley	Washington, DC	\$0.00 reimbursed
July 29 – 31, 2009	FLERA	J. Ott	Sarasota, FL	\$118.00
Aug. 4–6, 2009	Gulf NEP Directors and Gulf of Mexico Program	L. Donley	Mobile, AL	\$0.00 reimbursed
Oct. 2008 - Sept. 2009	Other in-state travel to various meetings, workshops and conferences.	L. Beever, J. Ott, M. Hilgendorf, L. Donley	Within Study-Area	\$5,129.20
Total:				\$15,331.06

Predicted FY 10 Travel

Table 2 details travel expenditures for FY 10. Travel includes attendance of at least two staff members at each ANEP meeting.

Table 2. Training and Conference Travel For FY 10				
Date	Reason for Travel	Staff Member	Location	Expense
Nov. 1-5, 2009	Coastal and Estuarine Research Federation	L. Beaver, J. Ott	Portland, OR	\$1,580
Nov. 6-8, 2009	ANEP Autumn Meeting	L. Beaver	Portland, OR	\$1,335
Jan. 12-15, 2010	Santa Monica State of the Bay Conference	L. Beaver	Los Angeles, CA	\$600
Jan. 15-16, 2009	Planning Forum 2009: Low Impact Development	L. Beaver	Clearwater, FL	\$550
Oct. - Dec. 2009	Other in-state travel to various meetings.	L. Beaver, J. Ott, L. Donley, M. Hilgendorf,	Within Study-Area	\$870
Projected Travel for remainder of FY 10				0
Feb. 1-3, 2010	EPA Southeast Climate Change Adaptation Workshop (Atlanta)	L. Beaver	Atlanta, GA	\$600
Feb. 4, 2010	Workshop	L. Beaver	St. Pete	\$140
Feb. 22-25, 2010	ANEP Spring Meeting	L. Beaver, L. Donley	Washington, DC	\$2,500
Feb. 26-28, 2010	Public Interest Law Conference	L. Beaver	Gainesville, FL	\$550
Spring 2010	Statewide Meeting w/Gulf of Mexico Program	M. Hilgendorf	Tallahassee, FL	\$640
Spring 2010	Technology Transfer	L. Beaver, J. Ott	Unknown	\$2,200
Spring 2010	Met with EPA Region 4	L. Beaver, J. Ott, M. Hilgendorf, L. Donley	Atlanta, GA	\$2,000
Summer 2010	US EPA Community Involvement Conference	M. Hilgendorf	Unknown	\$1,500
Feb. - Sept. 2010	Other in-state travel to various meetings, workshops and conferences.	L. Beaver, J. Ott, M. Hilgendorf, L. Donley	Within Study-Area	\$5,935
Total:				\$21,000

Workplan Projects for FY 10 and FY 11

Task 1: Management Conference and Administration

One of the most important services that the CHNEP provides to its partners is providing a venue to share information regarding habitat, hydrologic, and water quality protection. This venue is the CHNEP Management Conference. The Conference is composed of four committees including Policy, Management, Technical Advisory, and Citizens Advisory Committees and their various subcommittees.

Subtasks include:

- 1.1 Management Conference
- 1.2 General Administration
- 1.3 Grants and Contracts Administration

Workplan Management Goals:

Management Conference: Conduct quarterly meetings of each of the 4 committees each year. These active and engaged citizens, scientists, resource managers, elected officials and others are the core of the CHNEP. The communication provided between citizens, scientists and governments is the greatest benefit provided by CHNEP and organizes implementation of the entire CCMP, particularly SG-2 related to policy advice for a cost of \$130,000 annually.

Fiscal and Personnel Responsibilities: Comply with all requirements of incoming grants and fiscal/personnel policies of the host agency, SWFRPC. Approximately 20 grant reports are required each year. All such management costs approximately \$50,000 annually.

1.1	Management Conference	
Objective: To provide a committee structure that supports the implementation of the <i>Comprehensive Conservation and Management Plan (CCMP)</i> .		
Rationale: The Management Conference is the core of the CHNEP. Committee members have cited the Management Conference as the most valuable function the NEP has to offer. Management Conference meetings provide members the ability to share best practices, influence the policy of many jurisdictions and accomplish the implementation of the CCMP. Funding under this program goes toward staff support to prepare agenda packets, budgets, the required EPA reporting and other related tasks. Under Section 320 of the Clean Water Act, the CHNEP is required to convene a Management Conference for the seven purposes delineated at §320(b).		
Description: The primary committees of the CHNEP include the Policy Committee, the Management Committee, the Technical Advisory Committee (TAC), and the Citizens Advisory Committee (CAC). In addition, each committee has subcommittees. The committees and subcommittees each receive an agenda packet. Committee meetings and subcommittees where two or more elected officials attend are advertised in accordance with state law. Committees meet at various locations within the watershed, necessitating the occasional meeting space cost. The Management Conference will continue its work on the CCMP update. A signing ceremony occurred in Spring 2008 concurrently with the Watershed Summit. The management conference has elected to pursue a Memorandum of Agreement (MOA) or similar instrument defining roles and actions of CCMP signatories to CCMP implementation, pursuant to the CCMP Update procedures. However, due to the recent, significant economic downturn with the Study Area, the Policy Committee delaying pursuit of the MOA during 2008/2009.		
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ Agenda Packets for committees and subcommittees ▪ Advertising and meeting space ▪ Adoption of FY 11 Workplan ▪ Workplan Tracking System Update ▪ Evidence of extending CHNEP partnership ▪ Priority Action GPRA Report ▪ Travel to ANEP ▪ Draft Interlocal Agreement distributed for review 	Target Dates: <ul style="list-style-type: none"> ▪ Mail one week before meeting ▪ Advertise on-line minimum of one week preceding date ▪ June 2010 ▪ October 2010 ▪ September 2010 ▪ September 2010 ▪ November 2009 and February 2010 ▪ July 2010 	
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ Agenda Packets for committees and subcommittees ▪ Advertising and meeting space ▪ Adoption of FY 12 Workplan ▪ Evidence of extending CHNEP partnership ▪ Priority Action GPRA Report. ▪ Travel to ANEP ▪ Final Interlocal Agreement distributed for adoption 	Target Dates: <ul style="list-style-type: none"> ▪ Mail one week before meeting ▪ Advertise on-line minimum of one week preceding date ▪ June 2011 ▪ September 2011 ▪ September 2011 ▪ November and February ▪ December 2011 	

1.2	General Administration and Supplies	
Objective: To support necessary administration of the CHNEP.		
Rationale: NEP's in general are hosted by another agency. In CHNEP's case, it is the Southwest Florida Regional Planning Council (Council), another inter-jurisdictional decision-making body. Though the CHNEP Policy Committee sets CHNEP's programmatic policies, the Council establishes its personnel and purchasing policies and administrative processes. This task provides the necessary funding for CHNEP to implement those policies and processes.		
Description: General administration includes general staff functions such as staff meetings. Supplies such as postage, rentals, telephone, computer/graphic supplies are included in this task. Unforeseen expenses that are at the Director's discretion such as cellular telephone, special computer equipment or software, training materials, subscriptions, memberships, etc. are included.		
FY 10 Deliverables:		Target Dates:
<ul style="list-style-type: none"> ▪ FY 09 Audit Report 		<ul style="list-style-type: none"> ▪ January 2010
FY 11 Deliverables:		Target Dates:
<ul style="list-style-type: none"> ▪ FY 10 Audit Report 		<ul style="list-style-type: none"> ▪ February 2011

1.3 Grants and Contracts Administration	
Objective: To implement the CCMP by ensuring compliance with awarded grant requirements, including reporting and invoicing.	
Rationale: The annual EPA Assistance Grant, and the grants, contracts and purchase orders through which CHNEP partners fund the program contain reporting and invoicing requirements that must be fulfilled. This task supports both the compliance with these requirements and efforts to seek and apply for additional funds from various sources in order to fund the CHNEP to implement the CCMP.	
Description: Ensure compliance with awarded grants, and cooperative assistance agreements from Federal, state, local agencies and private sources. Develop and submit quarterly progress reports and final project reports as required. Invoice funding source as required, ensure successful project progress and completion. Search for funding for projects that support the CCMP. This task also supports staff time for the management of grants that do not include administrative support in the award, such as the FDEP annual assistance grant Staff has closed-out one of the EPA Assistance Grants and continues to work with partners to streamline invoicing tasks.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ Quarterly Progress Reports as required ▪ Final Reports (financial close out, work products) ▪ Invoices for payment ▪ Preparation and Close out of CE-97456002-6 	Target Dates: <ul style="list-style-type: none"> ▪ January, April, July, October ▪ As Required ▪ As Required
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ Quarterly Progress Reports as required ▪ Final Reports (financial close out, work products) ▪ Invoices for payment 	Target Dates: <ul style="list-style-type: none"> ▪ January, April, July, October ▪ As Required ▪ As Required

Task 2: Public Outreach

Public outreach is a critical component of implementing the CCMP. Required aspects of the CCMP include outreach to various publics. Subtasks include:

- 2.1 Communications/Publications
- 2.2 Events/Outreach
- 2.3 Public Outreach Grants
- 2.4 Micro-Grants

Workplan Outreach Goals:

Harbor Happenings newsletter: Over 11,000 copies of *Harbor Happenings* are distributed quarterly and is one of the main ways CHNEP reaches interested citizens, private agencies and governments. It works in conjunction with www.chnep.org. The newsletter and website provides a wide variety of information including upcoming events, recent scientific findings, new restoration projects, policies, and ways for citizens to become more involved. The newsletter implements SG-1 related to resident knowledge and understanding of the watersheds and estuaries and SG-4 related to meaningful information for a cost of \$29,000.

Calendar: CHNEP distributes over 24,000 copies of its gorgeous annual calendar. It is based on an artwork competition which features the beauty of the study area's natural environment. Each month features an image selected in part by a website survey, additional images and information. The calendar has substantially increased interest in the CHNEP and subscriptions to *Harbor Happenings*. The competition supplies CHNEP with a variety of striking images for a wide variety of purpose. It is a source of donations. The calendar implements SG-1 related to resident knowledge and SG-4 related to meaningful information for a cost of \$29,000.

Children's Book: In 2001, a Children's Book was identified as a major gap in available public outreach information. Through a partnership with each of the seven school districts, a copy of a splendid *Adventures in the Charlotte Harbor Watershed: A Story of Four Animals and Their Neighborhoods* developed by local creative people for CHNEP is distributed to every student at one grade level (districts choice of third, fourth or fifth grade). For many children, it is the first book they ever owned themselves! Teachers are now working with CHNEP to develop curricula featuring the book. Scientific sidebars were written by many local scientists and educators. Opportunities have been developed for children to meet the author. The distribution of 20,000 copies annually implements SG-1 related to resident knowledge and understanding of the watersheds and estuaries for a cost of \$20,000.

Strategic Communications Plan and Implementation: EPA has provided special funding for the development of a Strategic Communications Plan. The goal is to have the plan completed by 2010 and begin implementation in 2011. This plan will assist in assuring cost-effective expenditure of limited outreach funds to implement SG-1 related to resident knowledge for a cost of \$20,000 for the plan and \$20,000 for implementation.

Public Outreach Grants and Microgrants: Grants broaden participation of individuals and groups to implement the CCMP. Approximately 10 public outreach grants and 50 microgrants are offered annually to garner the creativity and enthusiasm of people to improve water quality, hydrology, habitat and stewardship in the study area. Public Outreach Grants are selected by Citizens Advisory Committee members. Staff improves and approves grant requests. Grants help implement the entire CCMP at a cost of \$42,000 annually.

2.1 Communications/Special Publications	
Objective: To provide essential ongoing communications so that the CHNEP can address specific requirements and issues associated with the <i>Comprehensive Conservation and Management Plan (CCMP)</i> .	
Rationale: SG-1 requires communication with the public. Key methods are through the website, quarterly newsletters, and special publications. Special publications that reach new audiences, capture the imagination of citizens and broaden our partnerships are tested and improved upon. The annual calendar is very popular, routinely brings in the most number of donations to the program and expands the knowledge of citizens who do not normally participate in our programs. The Children's Book reaches every child in a certain age class within the study area's public school system. Videos reach the broad TV viewing public.	
Description: Communication techniques vary. Specific techniques are identified in the CCMP. The quarterly newsletter <i>Harbor Happenings</i> covers watershed issues, events and updates on Program activities and progress made toward implementing the CCMP. The newsletter was expanded to 16 pages in 2009 and each issue includes a poster. Contributions by program partners and distribution are expected to continue to increase. The program website, <i>www.CHNEP.org</i> , provides a wide array of technical and public outreach information. It has become an important link between the CHNEP and its varied audiences. Working with the broadcast, print and Internet media is a cost effective method of increasing the public's awareness and understanding of CHNEP and issues of concern. Videos are developed as outreach tools to reach specific audiences with specific messages. Internships serve many purposes, including extending staff and providing students with learning opportunities. This task also covers the cost of printing/producing such things as collateral materials (business cards, letterhead), displays, reprinting of resources such as posters and publications as well as postage for mailings. The Program is developing a strategic communication plan that will incorporate community-based social marketing.	
FY 10 Funded Deliverables: <ul style="list-style-type: none"> ▪ Quarterly Newsletter ▪ Website ▪ 2010 Calendar ▪ Children's book ▪ Videos ▪ Collateral, Displays, Reprintings, etc. ▪ Interns ▪ Citizens BMP/New Residents' Guide ▪ State of the Estuaries and Watersheds ▪ Environmental Places Map ▪ Strategic Communication Plan 	Target Dates: <ul style="list-style-type: none"> ▪ January, April, July, September ▪ Ongoing ▪ September 2009 ▪ February 2010 ▪ September 2010 ▪ Ongoing ▪ Ongoing ▪ September 2010 ▪ September 2010 ▪ September 2010 ▪ September 2010
FY 11 Funded Deliverables: <ul style="list-style-type: none"> ▪ Quarterly Newsletter ▪ Website and FTP site ▪ 2011 Calendar ▪ Children's Book ▪ Internship ▪ Collateral, Displays, Reprintings, etc. 	Target Dates: <ul style="list-style-type: none"> ▪ April, July, September, January ▪ Ongoing ▪ November 2010 ▪ February 2011 ▪ Ongoing ▪ Ongoing

2.2 Events/Outreach	
Objective: To provide events and outreach programs to address specific requirements associated with implementation of the <i>Comprehensive Conservation & Management Plan (CCMP)</i> .	
Rationale: Events involve people in the stewardship of their local natural resources. All events are developed in a collaborative way and typically receive funding from a broad partnership. They are developed to fill gaps in opportunities that are provided within the watershed.	
Description: National Estuaries Days will be celebrated with our partners as Estuaries Day, Every Day. The tenth annual Charlotte Harbor Regional Nature Festival was held November 21, 2009. The next festival will be held November 20, 2010. CHNEP works with NOAA and others to bring a professional development opportunity to area public outreach and environmental education specialists. Each year since 2003 CHNEP works with an area partner to bring a public workshop, tailored to a particular community's needs. Florida Friendly-friendly programs are a priority of CHNEP. Opportunities to supplement Florida-friendly efforts with partners such as WGPU will continue. Opportunities to target audiences as identified in the CCMP will continue.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ National Estuaries Days/Estuaries Day, Every Day ▪ Charlotte Harbor Nature Festival ▪ Sustainable Communities Conference ▪ Public Issues and Conflict Management ▪ Planning for Meaningful Evaluation ▪ Public Workshop ▪ Florida-Friendly Programs ▪ Guides, workshops, etc. to target audiences 	Target Dates: <ul style="list-style-type: none"> ▪ Ongoing ▪ November 21, 2009 ▪ November 3, 2009 ▪ December 16-17, 2008 ▪ May 12-13, 2010 ▪ September 27-28, 2009 ▪ Ongoing ▪ Ongoing
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ National Estuaries Days/ Estuaries Day, Every Day ▪ Charlotte Harbor Nature Festival ▪ Sustainable Communities Conference ▪ Professional Development Workshop ▪ Public Workshop ▪ Florida-Friendly Programs ▪ Guides, workshops, etc. to target audiences 	Target Dates: <ul style="list-style-type: none"> ▪ Ongoing ▪ November 20, 2010 ▪ December 2010 ▪ September 2010 ▪ September 2010 ▪ Ongoing ▪ Ongoing

2.3	Public Outreach Grants
Objective: To support CHNEP partners public outreach initiatives to further the <i>Comprehensive Conservation and Management Plan</i> (CCMP).	
Rationale: Public outreach grants broaden participation of individuals and groups for implementation of the CCMP. Often, the best public outreach grant ideas are replicated elsewhere in the watershed, at no cost to CHNEP.	
Description: Public Outreach Grant projects occur in the CHNEP study area and facilitate public education of environmental issues identified in the CCMP. Projects are typically completed in one year. No matching funds are required and the maximum funding per project is \$3,000. The maximum award was increased to \$5,000 for projects funded in FY11. The guidance document to apply for a public outreach grant is approved and disseminated by December of each year with applications due the following September. Draft applications are reviewed by staff and final applications are reviewed by the CAC Grants Committee. The CAC Grants Committee recommends applications for funding to the CAC, who makes recommendations to the Program Director. Funding decisions may be made as early as October. This timing allows teachers to apply at the beginning of the school year for work that can be done that same year. Projects may begin once a contract is signed and notarized by both parties. Information on all the projects funded with a grant is posted on the website at www.CHNEP.org .	
FY 10 Deliverables:	Target Dates:
<ul style="list-style-type: none"> ▪ Public Outreach Grants (POG) FY 10 Guidance Document ▪ Approximately 10 public outreach projects 	<ul style="list-style-type: none"> ▪ December 2009 ▪ September 2010
FY 11 Deliverables:	Target Dates:
<ul style="list-style-type: none"> ▪ Public Outreach Grants (POG) FY 11 Guidance Document ▪ Approximately 10 public outreach projects 	<ul style="list-style-type: none"> ▪ December 2010 ▪ September 2011

2.4	Micro-Grants
Objective: To provide year-round support of CHNEP partners public outreach initiatives that further the <i>Comprehensive Conservation and Management Plan (CCMP)</i> .	
Rationale: Micro-grants are a wonderful way for individuals or groups with a good idea that needs just a little bit of funding to implement that idea. It is a way to harness the creativity of people and test ideas.	
Description: One of the four Public Education Goals is “to establish and maintain environmental educational efforts with organizations, educational centers, and government agencies.” This project is also known as “micro-grants” which provide up to \$250 to support immediate public outreach opportunities. These funds allow the Program Office to respond to requests as they arise. The applicants provide audiences with information about CHNEP. Awards are granted under the Director’s authority to implement the CCMP. Information on all the projects funded with a grant is posted on the website at <i>www.CHNEP.org</i> .	
FY 10 Deliverables:	Target Dates:
<ul style="list-style-type: none"> ▪ Approximately 44 small, innovative projects 	<ul style="list-style-type: none"> ▪ Available year round
FY 11 Deliverables:	Target Dates:
<ul style="list-style-type: none"> ▪ Approximately 44 small, innovative projects 	<ul style="list-style-type: none"> ▪ Available year round

Task 3: Research

Research and monitoring are critical tasks to address gaps in knowledge that are obstacles to good decision-making and to determine the conditions of the resources within the Charlotte Harbor watershed.

Subtasks include:

- 3.1 Research Coordination
- 3.2 Targeted Research
- 3.3 Research and Restoration Partners

Workplan Research Goals:

Pre-Development Vegetation Map (PDVM): A multiple year PDVM project for the CHNEP study area will be completed in 2010. The PDVM can be used to help model pre-development hydrology to establish targets, quantify habitat loss and assist in developing restoration plans. It helps implement FW-1 related to habitat restoration and HA-1 related to natural hydrology for a total multi-year funding of \$150,000.

Water Quality Targets Refinement: This is a multi-faceted project that includes establishing seagrass targets, related water clarity targets, water clarity tracking by segment, updated pollutant loading throughout the CHNEP estuaries and numeric nutrient criteria for the CHNEP estuaries within the SWFWMD. Though the project was initially developed to fill gaps of knowledge related to high priority indicators for the CHNEP watershed report (state of the bay report), it is now intended to result in scientifically-defensible legal nutrient criteria adopted by EPA and the State of Florida. This project will be completed 2011 and implements WQ-2 related to site-specific criteria, SG-3 related to data management and SG-4 related to making scientific information meaningful to people for \$165,000.

Triennial Water Quality Status and Trends Analysis: The CHNEP completed a water quality status and trends analysis for data ending in 2001 and 2005. This project will be for data ending in 2008. Trends analysis is useful to identify waterbodies that meet water quality standards but are degrading; potential pollution sources for existing impairments; and success stories. Though more parameters are being analyzed than in past studies, the cost has gone down. This project will be completed in 2011 and helps to implement WQ-1 related to impaired waterbodies for \$71,000.

Water Atlas: University of South Florida has established a mechanism to provide on-line water atlases at www.wateratlas.org. Much of the programming has been completed by other contracts and will be a cost effective way to implement SG-3 related to data management and SG-4 related to making information meaningful to people for \$90,000.

Spectral Model: The model will help implement WQ-2 related to site specific criteria that is protective of living resources for \$50,000.

3.1 Research Coordination	
Objective: To coordinate monitoring approaches so that consistent and reliable information is available throughout the CHNEP study area and to identify research needs for implementation through partnerships.	
Rationale: Consistent data and analysis throughout the study area is necessary to understand it sufficiently to protect and restore natural systems. Most of the effort under this task provide for coordination among partner organizations to ensure consistent and accurate information and to compile and communicate CHNEP area-wide information. Funding under this program goes toward staff support to coordinate data collection and monitoring efforts.	
Description: Continue coordination, implementation, field audits and assistance for Coastal Charlotte Harbor Monitoring Network (CCHMN), automated field sensor water quality monitoring and seagrass transect monitoring. Identify additional opportunities for partners to enhance consistency and completeness, and fill gaps in water quality, seagrass and mangrove monitoring and mapping. Continue FWRI independent fisheries monitoring throughout the region, reinstitute monitoring in Estero Bay and expand monitoring into Lemon Bay. Continue to provide partners such as FDEP, EPA and NOAA with natural resource information and analyses regarding the Charlotte Harbor region as requested frequently, such as Southwest Florida Feasibility Study, Caloosahatchee River Watershed Protection Plan, SFWMD Lower Charlotte Harbor SWIM Plan, Impaired Waters determinations, Minimum Flows and Levels for rivers throughout the watershed and North Spreader Ecosystem Management Agreement.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ Conduct annual field audits, reporting and meeting of CCHMN partners ▪ Review and modify if needed analytes and methods used in ongoing monitoring to support water quality targets ▪ Coordinate automated sensor monitoring program for chlorophyll a, turbidity & CDOM ▪ Coordinate partners to develop consistent and geographically complete water quality, seagrass and mangrove information ▪ Submit manuscripts to scientific journals ▪ Respond to Requests for Information pertaining to research and data collection ▪ Coordinate with SFWMD and SWFWMD for collection and reporting of biennial seagrass maps 	Target Dates: <ul style="list-style-type: none"> ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ Conduct annual field audits, reporting and meeting of CCHMN partners ▪ Review and modify if needed analytes and methods used in ongoing monitoring to support water quality targets ▪ Coordinate automated sensor monitoring program for chlorophyll a, turbidity & CDOM ▪ Coordinate partners to develop consistent and geographically complete water quality, seagrass and mangrove information ▪ Submit to scientific journals ▪ Respond to Requests for Information pertaining to research and data collection ▪ Coordinate with SFWMD and SWFWMD for collection and reporting of biennial seagrass maps 	Target Dates: <ul style="list-style-type: none"> ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing ▪ Ongoing

3.2 Targeted Research	
Objective: To conduct research targeted for implementation of the <i>Comprehensive Conservation and Management Plan (CCMP)</i> .	
<p>Rationale: Research projects are targeted to fill critical gaps in knowledge which become obstacles to sound decision-making. Potential projects are drawn from the Research Needs Inventory, Environmental Indicators gaps and critical emerging needs that are identified through the Management Conference. In FY09 (continuing into FY10), new targeted projects were largely derived from gaps related to the top 12 environmental indicators which will be used to develop the CHNEP 7-county Watershed Report. In FY10, the opportunity to identify Estuarine Numeric Nutrient Criteria which can be used in EPA's 2011 Downstream Protection Values (DPVs) rule development emerged. In addition, the Triennial Water Quality Status and Trends report was due. These triennial reports are used in conjunction with the 303(d) list to identify restoration priorities. For FY11, the largely complete development of wateratlas.org allowed CHNEP to cost-effectively gain control of its data management system, substantially implementing SG-3 and SG-4. In addition, a substantial improvement to the Optical Model (of light attenuation) was identified and has significant implications for measurement (and control of) pollutants to protect and restore seagrasses. These two FY11 projects were deemed more critical than the next environmental indicator gap of updating the 1999 oyster map and the USGS proposal to refine the SPARROW model in the Peace River basin.</p>	
<p>Description: The CHNEP will continue its ongoing support of the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network (CHEVWQMN) and website of monthly water quality maps to FDEP and CHEC, respectively. The historic vegetation map project is being conducted to fill gaps in the watershed historic vegetation map. The map will be to compare current and historic vegetation to quantify habitat loss by type and location and prioritization of habitats for preservation and restoration. The special issue of the <i>Florida Scientist</i> devoted to research and monitoring results in the Charlotte Harbor watershed will be published. Exceedance criteria for the numeric water quality targets will be developed. SWFRPC will complete a study of climate change effects on ecosystems and infrastructure through EPA Region IV Funding and Headquarters Funding. The program will contract with FWRI to conduct Lemon Bay Independent Fisheries Monitoring. The program will coordinate the Tidal Shoreline Condition Map volunteer field data collection, data analysis and GIS map development. The TAC will continue to refine the Environmental Indicators, the Research Needs Inventory and Numeric Water Quality targets based seagrass light requirements and Estuarine Numeric Nutrient Criteria development. A working group will assist Janicki Environmental, Inc with refining the water quality targets and numeric nutrient criteria.</p>	
<p>FY 10 Deliverables:</p> <ul style="list-style-type: none"> ▪ Continue CHEVWQMN, CHEC Water Quality Website, SWFWMD Arc IMS ▪ Florida Scientist special issue ▪ Historic Vegetation Map for study area ▪ Lemon Bay Independent Fisheries Monitoring Results ▪ Tidal Shoreline Condition Survey Update ▪ Water Quality Targets Refinement ▪ Estuarine Numeric Nutrient Criteria ▪ Triennial Water Quality Status and Trends 	<p>Target Dates:</p> <ul style="list-style-type: none"> ▪ December 2009 ▪ October 2009 ▪ June 2010 ▪ June 2010 ▪ June 2010 ▪ August 2010 ▪ August 2010 ▪ September 2010
<p>FY 11 Deliverables:</p> <ul style="list-style-type: none"> ▪ Water Atlas ▪ Spectral Model 	<p>Target Dates:</p> <ul style="list-style-type: none"> ▪ 2011 ▪ 2011

3.3 Research and Restoration Partners	
Objective: To promote innovative techniques in research and restoration	
Rationale: Research and Restoration Partners Projects are funded to explore emerging issues of scientific interest and is CHNEP’s only method to fund restoration projects directly. In FY10, no RRPP projects were funded. New procedures will be developed to make RRPP proposals easier for applicants and more directly tied to critical CCMP and Clean Water Act implementation. For Research projects management implications have been required in final reports.	
Description: This grant process provides incentives and seed money for applied research on local issues and restoration within the greater Charlotte Harbor watershed. Applicants are permitted to request \$20,000 per supporting partner up to the cap allocated to this fund. Applicants are required to provide a 50% match that cannot be from SWFWMD funding sources. This grant could be used for small equipment, labor and plants as a contribution or incentive for public and private organizations to improve the environmental quality of their lands. It can also be used for analysis costs, travel and labor for researchers to study issues important to preserving the Charlotte Harbor ecosystem. A proposal would be submitted from an applicant and through a selection process involving the Technical Advisory, Management and Policy Committees; the top projects would be funded.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ Final Reports from approved FY2008 and 2009 RRPP 	Target Dates: <ul style="list-style-type: none"> ▪ September 2010
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ Approve FY 12 RRPP RFP guidance document 	Target Dates: <ul style="list-style-type: none"> ▪ September 2011

Task 4: Restoration

Restoration is the most physical expression of CCMP implementation. Operating and Capital projects to implement the CCMP are largely the responsibility of local and regional government. Nearly all of the costs are borne by CHNEP partners and through outside grants obtained by the partners and CHNEP. However, the CHNEP program office provides partners services coordinating watershed initiatives, cataloging restoration needs, participating in Everglades restoration activities, assisting in developing and refining Surface Water Improvement and Management (SWIM) plans, and conducting special studies such as Growth Management in Estero Bay basin. Restoration projects identified in the CCMP include:

- Exotics removal
- Enhancing shoreline habitat and restoring wetlands
- Install shallow water resource markers
- Increasing environmental compliance and enforcement
- Protecting environmentally sensitive land
- Implementing water conservation and reuse programs
- Re-establishing historic hydrologic connections
- Restoring groundwater levels
- Implementing 3-D circulation models
- Installing BMPs and reducing non-point source pollutant from stormwater runoff
- Providing central sewer within 900 feet of all waters
- Expanding Florida-Friendly Programs such as Florida Yards and Neighborhoods

Subtasks include:

- 4.1 Watershed Coordination
- 4.2 Everglades Restoration

Workplan Restoration Goals:

Land Acquisition: CHNEP tracks land acquisition and restoration activities completed by its partnership for the Government Performance and Results Act (GPRA). The annual CCMP goal for land acquisition is 9,034 per year from 1999-2025. Based on data through 2009, our current annual goal for land acquisition is 2,683 acres per year from 2010-2025 to meet CCMP targets because of past significant progress. 2009 acquisition was 5,176 acres, meeting the annual target.

Restoration: CHNEP tracks land acquisition and restoration activities completed by its partnership for the Government Performance and Results Act (GPRA). CHNEP staff participation in watershed planning efforts and the implementation of these efforts helps to increase restoration activities. Our restoration annual goal is 9,000 acres per year. 2009 restoration was 16,865 acres, meeting the annual target.

4.1 Watershed Coordination	
Objective: To develop and update a CHNEP Restoration Plan and participate in activities which will implement this plan and CCMP objectives and actions relating to restoration.	
Rationale: The most significant way CHNEP can restore water quality, hydrology and habitat is through its partnerships. Funding under this program goes toward staff support to review watershed assessments and plans, provide maps to partners which impact restoration choices and track restoration projects.	
Description: Provide staff support for restoration mapping efforts, including hosting the master restoration database and Shapefiles. Funding is allocated to support SWFRPC graphic services and GIS equipment costs. Tracking of restoration plan implementation is performed annually through the annual development of the Government Performance and Review Act (GPRA) report. Participation in watershed initiatives such as the Southern Water Use Caution Area (SWUCA) Recovery Strategy, Minimum Flows and Levels, Reasonable Assurance Plans, Basin Management Action Plans, Southwest Florida Feasibility Study, development of basin water budgets etc. are included in this subtask. Finally, partners such as EPA and NOAA request information and other support regarding restoration and conservation efforts within the Charlotte Harbor region somewhat frequently. In addition, opportunities arise where CHNEP can assist partners in restoration, Water Planning Alliance meetings, Estero Bay ABM meetings, Lemon Bay League meetings, etc.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ GPRA Report ▪ Watershed Management Plans and “Verified Lists” review ▪ Minimum Flows and Levels review ▪ Water Budget for Charlotte Harbor basins, including the Lower West Coast Water Supply Plan ▪ Staff support to regional watershed efforts other than CERP/SWFFS such as SWIM planning, TMDLs, SWUCA, Caloosahatchee Regional River Recovery Strategy, and Peace River Management Plan ▪ North Spreader Environmental Management Agreement 	Target Dates: <ul style="list-style-type: none"> ▪ September 2010 ▪ Based on Impaired Waters Rules dates ▪ Based on MFL Schedules ▪ As opportunities arise. ▪ As opportunities arise. ▪ May 2010
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ GPRA Report ▪ Watershed Management Plans and “Verified Lists” review ▪ Minimum Flows and Levels review ▪ Water Budget for Charlotte Harbor basins, including through the Lower West Coast Water Supply Plan development ▪ Staff support to regional watershed efforts other than CERP/SWFFS such as SWIM planning, TMDLs, SWUCA, Caloosahatchee Regional River Recovery Strategy, and Peace River Management Plan 	Target Dates: <ul style="list-style-type: none"> ▪ September 2011 ▪ Based on Impaired Waters Rules dates ▪ Based on MFL Schedules ▪ As opportunities arise. ▪ As opportunities arise.

4.2 Everglades Restoration	
Objective: To support development and implementation of Everglades Restoration.	
Rationale: The southern portion of CHNEP is within the area designated for Everglades Restoration and the Southwest Florida Feasibility Study. Funding under this program goes toward staff support to participate in these efforts.	
Description: The CHNEP will provide staff support to develop and implement Everglades Restoration. This includes serving on the SWFFS Study Group and its subcommittees, co-chairing the SWF RRCT, and participating on the SCG on behalf of Southwest Florida. Deliverables of the SWF RRCT include a Science Plan update and a Restoration Plan. Although the CHNEP will not provide primary support of restoration mapping outside the study areas, the CHNEP will host the database and shape files in support of the entire SWF RRCT area. These maps have been used as the primary input to the Alternatives Development Group (ADG) products.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ Presentation of Priorities ▪ SCG Participation ▪ Participation in and support for the SWFFS 	Target Dates: <ul style="list-style-type: none"> ▪ October 2009 ▪ Ongoing ▪ Ongoing
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ Presentation of Priorities ▪ SCG Participation ▪ Participation in and support for the SWFFS 	Target Dates: <ul style="list-style-type: none"> ▪ October 2010 ▪ Ongoing ▪ Ongoing

Task 5: Advocacy and Legislative Action

The CHNEP Policy Committee is comprised of elected officials and agency heads of federal, state, regional, county, and city agencies. These are the very agencies that will be the likely recipients of CHNEP advocacy and legislative action. The advocacy position represents a great commitment to partnership and trust between the CHNEP partners.

The goals of the CHNEP's advocacy and legislative action stance are:

- To implement the quantitative objectives and priority actions of the adopted *Comprehensive Conservation and Management Plan (CCMP)*,
- To provide policy-makers with a source of review and comment from an organization which represents the considered opinions of diverse interests, and
- To provide a voice for natural systems within the study area watersheds based on the best scientific information available.

Subtasks include:

- 5.1 Legislative Agenda
- 5.2 Advocacy and Review Procedures
- 5.3 Federal Consistency Review
- 5.4 Leveraged Grants

Workplan Advocacy Goals:

Advocacy: CHNEP tracks its advocacy actions and successes. Significant advocacy positions have been issued regarding Surface Water Improvement and Management (SWIM) designation, minimum flows and levels, everglades restoration and programmatic EIS for Peace and Myakka. The CHNEP advocacy goal is 100% success rate. In 2009, 4 letters were written (2 Peace MFL, 1 beneficial Caloosahatchee environmental flows and EPA nutrient criteria). All 4 appear to have been successful.

Leveraged Grants:

5.1 Legislative Agenda	
Objective: To provide a structure for pursuing legislative action to support the implementation of the <i>Comprehensive Conservation and Management Plan (CCMP)</i> .	
Rationale: Several priority actions of the CCMP necessitate legislative changes. Funding under this task goes toward staff support to identify needed legislation, to track legislation at the state and federal levels, and draft support letters for review by the Management Conference.	
Description: The Legislative Agenda is a formal document that presents projects, identified by the Management Conference, that implement the CCMP and which require additional support, either fiscal or policy, in order to be successfully completed. The Legislative Agenda is updated and revised to reflect the current and anticipated legislative opportunities for CHNEP to ensure that the CCMP is considered by elected officials when policy and funding decisions are being made. Moreover, with the updating of the CCMP throughout 2006 and 2007, the Legislative Agenda is undergoing review and revision by the Management Conference. Additionally, the Legislative Agenda is presented to policy-makers and decision-makers annually. Membership with the Association of National Estuary Programs (ANEP) and attendance at its meetings is encouraged by EPA. However, a portion of the \$4,500 dues is not eligible for EPA funding. Finally, this task also supports the Legislative Subcommittee.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ Present agenda to State and Federal Legislative Delegations throughout the CHNEP study area ▪ Tracking of relevant legislation ▪ Electronic updates to Subcommittee members ▪ Letters of support as appropriate to legislators and policy makers ▪ ANEP membership ▪ Revised Legislative Agenda 	Target Dates: <ul style="list-style-type: none"> ▪ November 2009 - April 2010 ▪ As Appropriate ▪ As Appropriate ▪ As appropriate ▪ As Opportunities Arise ▪ January 2010 ▪ Winter 2010
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ Present agenda to State and Federal Legislative Delegations throughout the CHNEP study area ▪ Tracking of relevant legislation ▪ Electronic updates to Subcommittee members ▪ Letters of support as appropriate to legislators and policy makers ▪ ANEP membership ▪ Revised Legislative Agenda 	Target Dates: <ul style="list-style-type: none"> ▪ Mid-November 2010 ▪ November 2010 - April 2011 ▪ As Appropriate ▪ As Appropriate ▪ As Opportunities Arise ▪ January 2011 ▪ Winter 2011

5.2 Advocacy and Review Procedures	
Objective: To implement the Advocacy and Review Procedures adopted in February 2003. To provide federal consistency review as required by EPA and incorporate the existing federal consistency review process of the State Clearinghouse as set forth in the CCMP on page 219.	
Rationale: Review and commenting on proposed legislation and rules has been identified as a key function of the CHNEP Management Conference. Since adoption of the Advocacy and Review Procedures on February 21, 2003, CHNEP has submitted over 60 letters of either support or comment to other agencies. Funding under this task goes toward staff support to review proposed rules and draft letters requesting modification.	
<p>Description: The Management Conference developed a list of major categories of actions that may require CHNEP review, comment or letters of support. Staff will continue to develop letters of review, comment, support and inquiry as directed by the Management Conference. Based on the Advocacy and Review Procedures, eleven categories of actions include:</p> <ul style="list-style-type: none"> ▪ Environmental Land Acquisition and Conservation ▪ Water Quality rules ▪ Hydrology rules ▪ Changes in structures specified in HA-4 ▪ Projects which improve water quality of Lake Hancock and the water exiting the lake ▪ Projects which significantly affect at least one of the habitats listed in FW-1 ▪ Projects which significantly affect hydrology in sub-basins ▪ Rules which reduce propeller damage to seagrass beds ▪ Projects that remove invasive exotic species ▪ Legislation that restricts citizen participation on environmental issues ▪ General permits affecting waterways ▪ Review of local comprehensive plans by the CHNEP partnership for implementation of the CCMP ▪ Participation in development of the Management Plan for the Babcock Ranch Preserve. <p>In FY 09, the CHNEP drafted more than 10 letters for Management Conference review and submittal.</p>	
<p>FY 10 Deliverables:</p> <ul style="list-style-type: none"> ▪ Review, Comment, Support and Inquiry Letters ▪ Public Testimony Review of at least 2 Comprehensive Plan Updates 	<p>Target Dates:</p> <ul style="list-style-type: none"> ▪ As required ▪ As Appropriate ▪ By end of FY 09
<p>FY 11 Deliverables:</p> <ul style="list-style-type: none"> ▪ Review, Comment, Support and Inquiry Letters ▪ Public Testimony 	<ul style="list-style-type: none"> ▪ As required ▪ As Appropriate

5.3 Leveraged Grants	
Objective: To supplement implementation of the <i>Comprehensive Conservation and Management Plan</i> (CCMP) through funding of projects from sources other than the EPA Cooperative Agreement.	
Rationale: Leveraging grants for partners to implement the CCMP is a key component of the Long Range Funding Strategy. Funding under this program goes toward staff support to grant objectives and to match them with partner needs toward CCMP implementation. In 2009, CHNEP investment in grantsmanship yielded over 20 times the cost in staff resources.	
Description: CHNEP staff are actively applying for and winning funding through grants from Federal, State and private organizations for our partner organizations to support the implementation of the CCMP. The CHNEP staff utilizes the Research Needs Inventory, in conjunction with the CCMP, guides CHNEP staff when reviewing grant opportunities. In FY 10 CHNEP staff were successful in capturing over \$299,725 in grant funding for partners. CHNEP staff assists partners in identifying, applying for and administering grants from various sources, including Federal and State agencies and private foundations. Staff also searches for funding for specific projects that are being conducted by partners, notify partners of grant opportunities and work with partners to form teams and partnerships for proposal submissions. Staff is maintaining a grants database to track annual grant opportunities to facilitate developing teams and projects in advance of the Request for Application announcements. In addition, CHNEP submits letters of support to granting agencies.	
FY 10 Deliverables: <ul style="list-style-type: none"> ▪ Proposal Templates for Grant Opportunities ▪ Email notification of available grants ▪ Support letters for inclusion with grant applications ▪ Draft and Final Grant applications 	Target Dates: <ul style="list-style-type: none"> ▪ Ongoing ▪ Ongoing, usually bi-monthly ▪ As Requested ▪ As Appropriate
FY 11 Deliverables: <ul style="list-style-type: none"> ▪ Email notification of available grants ▪ Support letters for inclusion with grant applications ▪ Draft and Final Grant applications 	Target Dates: <ul style="list-style-type: none"> ▪ Ongoing, usually bi-monthly ▪ As Requested ▪ As Appropriate

Table 3: Ongoing Technical Projects (as of 10/1/09)

Fiscal Year	Project/Contractor	Due Date	Outlay	Contract	Balance
2008	Restoration of Native Ground Cover on Sanibel Island - SCCF	9/30/2010	\$0.00	\$4,000.00	\$4,000.00
2008	Do Upland Drainage Alterations Degrade Estuarine Creek Habitats - Mote	4/20/2010	\$0.00	\$19,940.00	\$19,940.00
2008	Re-establishing Bay Scallops in Pine Island sound - Mote	9/30/2009	\$0.00	\$19,926.00	\$19,926.00
2008	Mapping Pre-Development Cover & Surface Features - HDR	6/30/2010	\$96,600.00	\$150,000.00	\$53,400.00
	Subtotal =		\$96,600.00	\$193,866.00	\$97,266.00
2009	Special Issue of <i>Florida Scientist</i> - FAS	10/31/2009	\$0.00	\$11,004.00	\$11,004.00
2009	Peer Review and Editorial Assistance for Special Issue of <i>Fl Scientist</i> - Corbett	10/31/2009	\$8,000.00	\$10,000.00	\$2,000.00
2009	Water Quality Targets Refinement	6/30/2010	\$75,925.00	\$105,000.00	\$29,075.00
2009	Lemon Bay Independent Fisheries Monitoring - FWRI	8/31/2010	\$0.00	\$42,000.00	\$42,000.00
2009	Spectral and Epiphyte Attenuation Enhancement of CH Light Model - Mote	5/31/2010	\$9,472.29	\$17,774.00	\$8,301.71
2009	Smokehouse Bay Preserve Restoration - Lee Co. 2020	5/31/2010	\$0.00	\$20,000.00	\$20,000.00
2009	Hardee Co. Peace River Submerged Aquatic Vegetation Study – Hardee Co. Outdoor Classroom	2/6/2010	\$0.00	\$2,226.00	\$2,226.00
2009	Improving Public Access to Water Quality Data Website - CHEC	12/31/2009	\$6,224.00	\$12,480.00	\$6,256.00
	Subtotal =		\$99,621.29	\$220,484.00	\$120,862.71
TOTAL			\$196,221.29	\$414,350.00	\$218,128.71

Outlay=Amount expended on project as of September 30, 2009.

Contract= Contracted amount.

Balance=Unexpended amount left on contract.

Table 4: Ongoing Public Outreach Projects (as of 10/1/09)

Fiscal Year	Project/Contractor	Due Date	Outlay	Contract	Balance
2007	Strategic Communication Plan	9/30/2010	\$0.00	\$13,078.00	\$13,078.00
2007	Internship (combined with FY 08)	9/30/2010	\$1,976.25	\$5,340.00	\$3,363.75
2007	Environmental Places Map	9/30/2010	\$0.00	\$5,000.00	\$5,000.00
	Subtotal =		\$1,976.25	\$23,418.00	\$21,441.75
2008	Target audience: Virtual wading trip	9/30/2010	\$0.00	\$20,435.00	\$20,435.00
2008	Citizens BMP/New Residents' Guide	9/30/2010	\$0.00	\$6,000.00	\$6,000.00
	Subtotal =		\$0.00	\$26,435.00	\$20,435.00
2009	FY 09 POG Peace River Paddle Documentary: Mike Britt	2/28/2010	\$0.00	\$3,000.00	\$3,000.00
2009	FY 09 POG Outreaching the Hispanic Community: SWFLEEN	6/30/2010	\$286.68	\$2,190.00	\$1,903.32
2009	FY 09 POG Water, Wings & Wild Things: Polk's Naturefest 2009	6/30/2010	\$2,000.00	\$2,000.00	\$2,000.00
2009	Micro-Grant: Softcomm, Inc. (mangrove plantings)	5/4/2010	\$0.00	\$5,000.00	\$5,000.00
2009	Guides, workshops, etc. to target audiences, including Florida-friendly programming	9/30/2010	\$11,119.44	\$15,800.00	\$4,680.56
2009	Internship	9/30/2010	\$0.00	\$2,000.00	\$2,000.00
	Subtotal =		\$13,406.12	\$29,990.00	\$18,583.88
Total=			\$15,382.37	\$73,843.00	\$60,460.63

Outlay=Amount expended on project as of September 30, 2009.

Contract= Contracted amount.

Balance=Unexpended amount left on contract.

Administrative and Financial

Description of Grants

Tables 5 and 6 provide the list of ongoing grants to FY 07 from the NEP to local entities. Here are those grants plus FY 08 grants, including grant descriptions, funding, organization conducting the work, purpose, deliverables, and completion dates.

Research and Restoration Partners Grants

Research and Restoration Partners Grants are an opportunity for program partners to approach us for support for projects that will implement our CCMP goals. These grants encourage innovative research and restoration or provide seed money to initiate programs, and the projects typically take a year or more to complete. Projects begin as soon as the contract is signed and notarized by both parties. In previous years, projects generally began in April or May of each year, but starting in FY 09, projects will begin in January or February of each year.

Fiscal Year 2010

Due to limited funds, no Research and Restoration Partners Grants were offered during FY 10.

Fiscal Year 2009

Of the 5 Research and Restoration Projects Grants approved in FY 09, four are in progress as of October 1, 2009.

1. Spectral and Epiphyte Attenuation Enhancement of an Existing Charlotte Harbor Light Model with Respect to Seagrasses

Project Partners: Mote Marine Laboratory and CHNEP

Total Cost: \$35,549

CHNEP Funding: \$17,774

Completion Date: May 2010

Deliverables: Final Report

Increasing urbanization and water quality degradation can lead to declines in seagrass populations. Seagrass beds are particularly susceptible to light degradation caused by increases in color, turbidity, colored dissolved organic matter, epiphytes (plants that have no roots in the soil) or chlorophyll. Light requirements of seagrasses in Charlotte Harbor have been established and optical models have been developed to determine the role of specific attenuators. This project builds on that model by accounting for the spectral quality of the various attenuating substances and to recognize the role of epiphytes. The new optical model will be able to determine more accurate light requirements – and if Charlotte Harbor is meeting those light requirements.

2. Smokehouse Bay Preserve Restoration

Project Partners: Lee County Parks and Recreation Conservation 20/20 and CHNEP

Total Cost: \$53,927

CHNEP Funding: \$20,000

Completion Date: May 2010

Deliverables: Final Report

Smokehouse Bay Preserve is a 268 acre environmental preserve on Pine Island, which was purchased as part of the Lee County Conservation 20/20 Program. This project will regrade furrows and rows that were part of the 51 acre abandoned palm grove, treat nonindigenous invasive plants and install and monitor native plants on 59 acres of mangrove swamp.

3. Hardee County Peace River Submerged Aquatic Vegetation Study

Project Partners: Lee County Outdoor Classification and CHNEP

Total Cost: \$7,674

CHNEP Funding: \$2,226

Completion Date: February 2010

Deliverables: Final Report

Junior and senior high school students will identify the types of submerged aquatic vegetation present in approximately 25 miles of the Peace River within Hardee County. The composition of the river bottom (sand, rock, vegetation) will be assessed approximately every 1,000 meters (about 0.62 of a mile) of the river. If vegetation is present, the type and percent of coverage will be assessed. The Hardee County GIS Department will provide a computer software map overlaid with aerial photographs that will show the locations and results of the study. From this determination, management strategies can be developed to improve the water quality and habitat.

Fiscal Year 2008

Of the 5 Research and Restoration Projects Grants approved in FY 08, three are in progress as of October 1, 2009.

1. Restoration of Native Ground Cover on Sanibel Island

Project Partners: Sanibel-Captiva Conservation Foundation and CHNEP

Total Cost: \$9,633

CHNEP Funding: \$4,000

Completion Date: September 2010

Deliverables: Final Report

As a result of invasive non-native invasions and development, native, upland, herbaceous plant communities on Sanibel are all but lost. Over the past ten years hundreds of acres of conservation and private lands on Sanibel Island have been cleared of invasive non-native vegetation as part of an effort to restore native plant communities. Despite these efforts, restoration of upland herbaceous communities seems unlikely without specific additional efforts at reestablishment. The disturbance generated from large scale exotic removal results in the establishment of ruderal species that persist over many years in the upland areas. Further, with most of the desirable upland, herbaceous species now absent or rare, natural recruitment is not likely. This project seeks to test methods of reestablishment of native ground cover following a restoration project. Addresses FW-1 and FW-3 of CCMP.

2. Do Upland Drainage Alterations Contribute to Degradation of Estuarine Creek Habitats? Adding water quality analysis as an evaluation tool.

Project Partners: Mote Marine Laboratory and CHNEP

Total Cost: \$39,880

CHNEP Funding: \$19,940

Completion Date: April 2010

Deliverables: Final Report

Southwest Florida is experiencing increasing development of coastal and near-coastal areas, with associated loss and degradation of habitats. In some locations, efforts are being made to conserve habitats from development, while in other locations restoration is being used to mitigate habitat loss or degradation. Unfortunately, plans for development, conservation, and restoration or mitigation are being made with inadequate and incomplete information because there are few data demonstrating the ecological effects of this habitat alteration or restoration on estuarine ecology. Of particular concern are estuarine mangrove creeks that are the interface between the Charlotte Harbor estuary and upland habitats undergoing alteration and restoration. Previous research on Charlotte Harbor mangrove creeks of differing habitat quality has indicated that upland habitat alteration negatively impacts mangrove creek fishes, including juveniles of the economically important snook. However, thus far, assignment of creek habitat degradation categories has been based upon qualitative assessment of upland habitat alterations and effects on freshwater flow into the creeks. As part of a

larger effort to better quantify these creek habitat quality categorizations, this proposal seeks funds to examine water quality in the four study creeks as a measure of habitat quality. The hypothesis of the research proposed here is that differences in watershed development have resulted in measurable differences in water quality and in nutrient loading to the creek systems. This research will add to a multi-faceted program to examine the potential estuary-wide affects of upland habitat alterations on mangrove creeks and their associated fishes, thereby contributing to a better understanding of the real ecological impacts of development in Charlotte Harbor's watershed. Addresses HA-2 and HA-3 of CCMP.

3. Re-establishing Bay Scallops in Pine Island Sound

Project Partners: Mote Marine Laboratory and CHNEP

Total Cost: \$39,850

CHNEP Funding: \$19,940

Completion Date: September 2010 Deliverables: Final Report

This project is designed to expand on the success of two previous bay scallop (*Argopecten irradians*) restoration projects in Pine Island Sound in 2003/2004 and 2005. Following the previous restoration projects, a 2x and 100x increase in the abundance of bay scallops was observed at the restoration site compared the surrounding estuary (Leverone et al., 2004). Although bay scallops are no longer commercially fished, the reestablishment of sustainable bay scallop populations is highly desirable. Since *Argopecten* is dependent on healthy habitats with good to excellent water quality successful restoration of the bay scallop to its former range and abundance would be an important milestone in the management of water quality and maintenance of healthy seagrass beds. This project addresses CHNEP CCMP priority problems relating to Hydrologic Alterations: adverse changes to amounts, locations and timing of estuarine and freshwater flows. The objective of the project is to conduct a post-red tide scallop restoration in Pine Island Sound in a manner similar to the successful 2003-2005 project. The innovative enhancement strategy involves the release of competent bay scallop larvae within specific seagrass beds, which are critical for the maintenance of bay scallop populations. Competent larvae are late-stage larvae (pediveligers) that have successfully developed from the planktonic veliger stages through metamorphosis to prepare for settlement. The larvae can be expected to complete metamorphosis within three days, settling and attaching to the substratum (seagrass blades). The target is to create a threshold scallop density great enough to enable the local population to become self-sustaining.

Public Outreach Grants

Public Outreach Grants typically take one year to complete. In FY 06 the review schedule and process were modified, allowing contracts to be signed as early as November and granting the Program Director authority to approve applications once approved by the CAC. Projects may begin as soon as the contract is signed and notarized by both parties.

Fiscal Year 2010

Nine public outreach grants were approved.

1. Sailing Through the Environment of Charlotte Harbor

LA Ainger Middle School, Rotonda West

Seventh grade students in Englewood (Charlotte County) will participate in one of six environmental field trips on Charlotte Harbor as a result of this grant. Each of the 240 students, including special needs children, will be able to enjoy being out on the water of Charlotte Harbor and Lemon Bay –

some for the first time – while they collect and analyze data. The CHNEP is providing \$3,000 toward this \$3,725 project. This project helps implement the CHNEP CCMP by fulfilling SG-F.

2. The Estuary in Every Class Life

Port Charlotte Middle School

Port Charlotte Middle School's 300 seventh graders will participate in one of four educational field trips to Ponce de Leon Park to facilitate a deeper understanding of the Charlotte Harbor region. Each student seines in the water to examine organisms, test water, and observe the water environment, take a guided tour through the Peace River Wildlife Center, respond to a scavenger hunt of questions about the mangrove boardwalk, and create a sand art painting of wildlife of the area. To ensure the success of this effort, students complete supplemental bookwork focusing on conservation issues, local flora and the importance of wetlands. This is an interdisciplinary project that involves math, language arts, geography, and science classes. The CHNEP is providing \$2,960 toward this project. This project helps implement the CHNEP CCMP by fulfilling SG-F.

3. Florida Fresh Water Turtle Activity Book

Turtle Talks

Zander Srodes began Turtle Talks as a young teenage to educate students of the plight of endangered sea turtles. He then expanded his subject to include gopher tortoises. With this project, his program has expanded again to educate children about freshwater turtles. There are an estimated 50 species of freshwater turtles in North America. This grant allows him to provide a children's activity book about freshwater turtles found in Florida. The CHNEP is providing \$3,000 toward this \$8,265 project. This project helps implement the CHNEP CCMP by fulfilling FW-P.

4. DeSoto County Fourth Grade Classes Visit Charlotte Harbor

School District of DeSoto County Outdoor Classroom

Desoto County Public Schools provide hands-on environmental education fieldtrips to students in grades 1, 3, 5, and 7. This project will expand and develop the mission of the Outdoor Classroom allowing 120 fourth graders the opportunity to travel to Charlotte Harbor. The students will learn about watersheds and the biological importance of Charlotte Harbor as an estuary. While on a boat trip, they'll identify habitats, wildlife, and test the water quality. The participants will be asked to write an essay about their experience. The CHNEP is providing \$2,515 toward this \$3,703 project. This project helps implement the CHNEP CCMP by fulfilling SG-F.

5. Nurture Nature

East (Lee) County Water Control District

ECWCD initiated this multi-tiered program to educate and energize the local community – specifically home and business owners and youth in grades K-8 – on the water cycle, watershed, personal actions that pollute and stress the environment, benefits of native plants, impacts of invasive plants and best-practice solutions so the residents, businesses and students can become better stewards of the environment. The approach includes presentations, an otter mascot and educational materials provided at community events and in local schools. Surveys will be conducted throughout the campaign to gauge awareness and behavior changes caused by this project. The CHNEP is providing \$3,000 toward this \$69,682 project. This project helps implement the CHNEP CCMP by fulfilling HA-P.

6. Pine Island Library Landscaping

Florida Native Plant Society (FNPS) Coccoloba Chapter

With the support of others, Lee County has converted the landscape at the Cape Coral and Lakes libraries into one that showcases native plants. Exotics and extensive lawns are removed and replaced with native plants. This project will show patrons and residents the beauty and benefits of using native plants on their own properties. Native plants provide food and habitat for native wildlife and often reduce the need for irrigation and use of chemicals. As with the other libraries, several organizations are supporting this transformation. This project will be made possible with the support of FNPS, Master Gardeners, Master Naturalists, Pine Island Garden Club and Calusa Land Trust. The CHNEP is providing \$3,000 toward this \$4,500 project. This project helps implement the CHNEP CCMP by fulfilling HA-P.

7. Venice High School and Elementary School Cooperative Conservation

Kay Thorpe Bannon

This project is truly a partnership with students and teachers and with Dr. Bannon. High School Zoology Club students will develop a PowerPoint about gopher tortoises and habitat loss, which they'll present to students in ten third and fourth grade classrooms. Dr. Bannon will story-tell her book *How Gimble Gopher Tortoise Found a New Home*. The young students will then construct a picture dictionary of Florida native plants and, with the assistance of the South Venice Garden Club and Master Gardner Lu-Ann Rhoten will create a native plant garden. The older students will create a flier for adults on the many values of replacing lawns and exotic invasive plants with native plants. Their work will be chronicled in school newspapers. The CHNEP is providing \$2,987 toward this \$4,819 project. This project helps implement the CHNEP CCMP by fulfilling SG-F.

8. Lakeside Display Signs at Lake Bonny Park

Lakes Education/Action Drive

The Peace River, the major tributary to Charlotte Harbor, has its headwaters in Polk County. While the people are enjoying the recreational and aesthetic opportunities of the lake, they can become more aware of the interconnection of the lakes in the Upper Peace River watershed with the entire Charlotte Harbor watershed. The display will include information on stormwater runoff, the greatest source of pollution for lakes in the county, people's impact on their watershed and how positive choices can make a difference. This project creates a new lakeside education display at public parks on Lakes Bonny in Polk County. As many as 100 people visit this park each day. The CHNEP is providing \$3,000 toward this \$6,100 project. This project helps implement the CHNEP CCMP by fulfilling SG-F.

9. Lemon Bay/Myakka Trail Scenic Highway Informational Activity Book

Lemon Bay/Myakka Trail Scenic Highway Committee

The Florida Science Highway Program designated 47.9 miles of S.R. 776 from Venice to Port Charlotte, including two loop roads, as a scenic highway. This project will allow the volunteer committee to develop an activity book about the wide variety and exceptional intrinsic resources along the trail. Cultural and historic resources, some of which are one-of-a-kind sites, preserve a Florida from long ago. Natural and science resources provide active and leisured recreational and educational experiences while providing the traveler with vistas of native habitat. The CHNEP is providing \$3,000 toward this \$5,148 project. This project helps implement the CHNEP CCMP by fulfilling SG-F.

Fiscal Year 2009

Of the 13 approved, three are in progress as of October 1, 2009.

1. Peace River Paddle Documentary

Mike Britt

Total Cost: \$7,832 NEP Funding: \$3,000

Professional watershed managers, wildlife biologists, reporters and citizens will paddle and camp the Peace River from its headwaters in Bartow to the river mouth south of Arcadia. Along the 100 miles they will document the existing conditions through interviews with experts, business owners and the interested public. A video will be produced and widely distributed so others can vicariously travel the river learning about the river's availability as a recreational and economic resource and actions needed to ensure the long-term health of the river.

2. Outreaching the Hispanic Community

Southwest Florida Latino Environmental Education Network

Total Cost: \$3,520 NEP Funding: \$2,190

A network of regional environmental educators aims to communicate, educate and promote environmental and sustainable actions to the Spanish speaking Hispanic community within the CHNEP study area. Meetings will be scheduled in 2009 in cities known to have large populations of adults who speak Spanish. The meeting will be conducted in Spanish and will focus on environmental concerns.

3. Water, Wings & Wild Things: Polk's Naturefest 2009

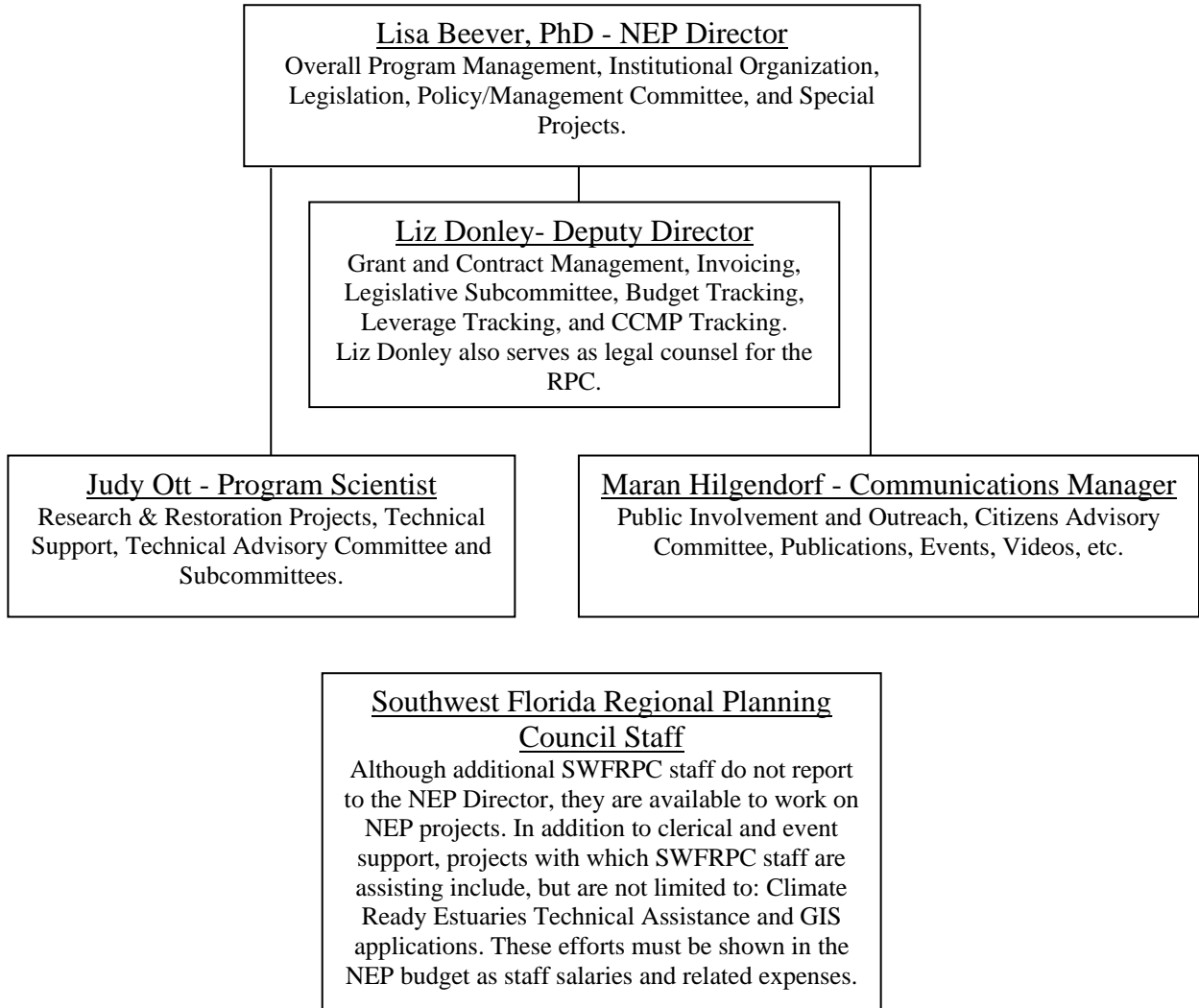
Polk County Environmental Lands Program

Total Cost: \$2,000 NEP Funding: \$2,000

This annual event provides an age-diverse audience with an opportunity to spend the day learning about natural resources and nature-based recreational opportunities at Polk's Nature Discovery Center within the Circle B-Bar Reserve along the northern shores of Lake Hancock in Polk County in the upper Peace River watershed. Presentations, music, educational exhibits, nature based arts and crafts, children's activities and native wildlife demonstrations highlight the connection to Polk county's natural resources.

List of Staff

The CHNEP staff includes 5 professional positions. As shown in the sub-task descriptions, many deliverables are prepared in-house. Several grants have been submitted to a variety of funding agencies.



To prepare cost estimate targets, staff estimates of time were developed. Tables 5 and 6 identify time estimates by staff member by task.

Table 5: Expected Staff Time Allocations by Task for FY 10

Task	Title	Director	Deputy Director	Comm. Manager	Program Scientist	FTE	Other RPC Salaries
1	Management Conference	20%	50%	15%	15%	1.00	\$5,000
2	Outreach	5%	5%	85%	2%	0.97	\$6,000
3	Research	20%	0%	0%	75%	0.95	\$0
4	Restoration	45%	10%	0%	5%	0.60	\$0
5	Advocacy & Legislative Action	10%	20%	0%	3%	0.33	\$0
		100%	85%	100%	100%	3.85	\$11,000

Table 6: Expected Staff Time Allocations by Task for FY 11

Task	Title	Director	Deputy Director	Comm. Manager	Program Scientist	FTE	Other RPC Salaries
1	Management Conference	20%	60%	15%	15%	1.10	\$5,000
2	Outreach	8%	5%	85%	2%	1.00	\$5,000
3	Research	20%	5%	0%	78%	1.03	\$4,000
4	Restoration	52%	10%	0%	5%	0.67	\$10,000
5	Advocacy & Legislative Action	0%	5%	0%	0%	0.05	\$0
		100%	85%	100%	100%	3.85	\$24,000

**Table 7:
Total Leveraged For FY 09**

Project Name	NEP Role	Total Leverage	Federal		State		Local		Private	
			Cash	In-kind	Cash	In-kind	Cash	In-kind	Cash	In-kind
320 Match	Primary	\$641,750	\$0	&0	\$0	\$641,750	\$0	\$0	\$0	\$0
Smokehouse Bay Restoration	Primary	\$73,900	\$0	\$0	\$0	\$0	\$20,000	\$53,900	\$0	\$0
Mote Spectral & Epiphyte Attenuation Enhancement for Charlotte Harbor	Primary	\$35,549	\$0	\$0	\$0	\$0	\$17,774	\$0	\$0	\$17,775
Hardee County Peace River Submerged Aquatic Vegetation Study	Primary	\$7,669	\$0	\$0	\$0	\$0	\$2,226	\$0	\$0	\$5,443
Lemon Bay Independent Fishery Monitoring	Primary	\$42,000	\$0	\$0	\$35,000	\$0	\$0	\$7,000	\$0	\$0
Pilot Public Private Partnership CEHR Conference	Primary	\$3,154	\$0	\$0	\$0	\$0	\$1,577	\$0	\$0	\$1,577
Assist local governments with SWIM Plan implementation - SFWMD	Primary	\$383,588	\$0	\$0	\$0	\$383,588	\$0	\$0	\$0	\$0
SFWMD direct support of CHNEP Program	Primary	\$95,983	\$0	\$0	\$25,255	\$70,728	\$0	\$0	\$0	\$0
Caloosahatchee River Watershed Protection Plan	Primary	\$11,612,482	\$0	\$0	\$0	\$11,612,482	\$0	\$0	\$0	\$0
Assist local governments in Implementing SWIM Plan in Caloosahatchee River and Estuary	Primary	\$138,026	\$0	\$0	\$0	\$138,026	\$0	\$0	\$0	\$0
Project Name: Southwest Florida Feasibility Study	Primary	\$203,183	\$0	\$0	\$0	\$203,183	\$0	\$0	\$0	\$0
Estero Bay Watershed Initiative	Primary	\$355,307	\$0	\$0	\$300,000	\$55,307	\$0	\$0	\$0	\$0

Project Name	NEP Role	Total Leverage	Federal		State		Local		Private	
			Cash	In-kind	Cash	In-kind	Cash	In-kind	Cash	In-kind
Butterfly Garden	Primary	\$4,000	\$0	\$0	\$0	\$0	\$1,000	\$0	\$0	\$3,000
Naturalization of a Retention Pond	Primary	\$9,648	\$0	\$0	\$0	\$0	\$3,000	\$0	\$0	\$6,648
Shoreline Stabilization and Habitat Enhancement in Mullock Creek Basin	Primary	\$12,100	\$0	\$0	\$0	\$0	\$3,000	\$9,100	\$0	\$0
Smokehouse Bay Preserve Restoration	Primary	\$73,927	\$0	\$0	\$0	\$0	\$73,927	\$0	\$0	\$0
Wild Turkey Strand Preserve Restoration	Primary	\$205,000	\$0	\$0	\$0	\$0	\$205,000	\$0	\$0	\$0
CHNEP Micro-Grant Program	Primary	\$16,477	\$0	\$0	\$0	\$0	\$16,477	\$0	\$0	\$0
Does Nitrogen from Sludge Persist in CH Study Area Supplement	Primary	\$5,000	\$0	\$0	\$0	\$0	\$2,500	\$0	\$0	\$2,500
Sailing through the environment of Charlotte Harbor	Primary	\$3,725	\$0	\$0	\$0	\$0	\$3,000	\$725	\$0	\$0
Project EAGLE, Winter Haven Chain of Lakes Cleanup	Primary	\$33,762	\$0	\$0	\$0	\$0	\$1,950	\$0	\$0	\$31,812
Estuary Education for 7th graders	Primary	\$3,443	\$0	\$0	\$0	\$0	\$3,000	\$0	\$0	\$443
Manatee, Estuary & Seagrass Education Project for Lee County	Primary	\$2,290	\$0	\$0	\$0	\$0	\$1,660	\$0	\$0	\$630
Peace River Paddle Documentary	Primary	\$7,832	\$0	\$0	\$0	\$0	\$3,000	\$4,832	\$0	\$0
Outreaching the Hispanic Community	Primary	\$3,520	\$0	\$0	\$0	\$0	\$3,520	\$0	\$0	\$0
"Smart Angler" Program	Primary	\$13,000	\$0	\$0	\$0	\$0	\$3,000	\$0	\$0	\$10,000
Ecosystems and Habitats: A Need for Preservation	Primary	\$3,000	\$0	\$0	\$0	\$0	\$1,500	\$1,500	\$0	\$0
Water, Wings & Wild Things: Polk's Naturefest 2009	Primary	\$2,000	\$0	\$0	\$0	\$0	\$2,000	\$0	\$0	\$0
Totals		\$13,991,315	\$0	\$0	\$360,255	\$13,105,064	\$369,111	\$77,057	\$0	\$79,828

**Table 8:
Total Leveraged (October 1, 2009 – January 31, 2010)**

PROJECT Name	Role	Total Leverage	Leveraged Federal		Leveraged State		Leveraged Local		Leveraged Private	
			Cash	In-kind	Cash	In-kind	Cash	In-kind	Cash	In-kind
320 Match	Primary	\$600,000	0	0	0	\$600,000	0	0	0	0
CHNEP Program Committee Support	Primary	\$129,000	0	\$3,225	0	\$3,225	0	\$3,225	0	0
Region 4 WDPG Salt Marshes	Primary	\$439,725	\$299,725	0	0	0	0	\$140,000	0	0
CHNEP Partner Support – contract/grant	Primary	\$180,000	0	0	\$180,000	0	0	0	0	0
CHNEP Partner Support : invoices, MOUs-	Primary	\$47,000	0	0	0	0	\$47,000	\$0	0	0
Nurture Nature	Primary	\$66,682	0	0	0	0	0	\$66,682	0	0
Sailing through the environment of Charlotte Harbor	Primary	\$725	0	0	0	0	0	\$725	0	0
Lakeside display signs at Lake Bonny Park	Primary	\$3,100	0	0	0	0	0	\$3,100	0	0
Cooperative Conservation	Primary	\$1,751	0	0	0	0	0	\$1,751	0	0
Florida fresh water turtle activity book	Primary	\$151	0	0	0	0	0	\$151	0	0
Lemon Bay/Myakka Trail scenic highway informational activity book	Primary	\$5,148	0	0	0	0	0	\$5,148	0	0
Pine Island library landscaping	Primary	\$1,500	0	0	0	0	0	\$1,500	0	0
DeSoto County Fourth Grade Classes Visit Charlotte Harbor	Primary	\$1,188	0	0	0	0	0	\$1,188	0	0
Totals		\$1,475,970	\$299,725	\$3,225	\$180,000	\$603,225	\$47,000	\$223,470	\$0.000	\$0.000

FY 10 Travel Documentation

Travel funds will be used for purposes such as travel to NEP Directors Meetings, National and state conferences, meetings with EPA staff in Atlanta and Washington D.C., and other overnight travel as needed. Funds are also programmed to support additional special travel and local travel, tolls and parking expenses; including travel that is ineligible for federal reimbursement

Table 9: Projected Travel in FY 10 (FY 10 EPA Budget Sheet)

Date	Purpose	# Travelers	Location	Length of Stay	Travel Mode/Est. Cost	Reg. Fee per Staff	Estimated Cost
Nov. 1 - 5, 2009	Coastal & Estuarine Research Federation Conference	2	Portland, OR	5 days	Air/\$650	\$400	\$3,000
Nov. 6 - 8, 2009	ANEP Annual Meeting	1	Portland, OR	2 days	Air /\$400	\$300	\$1,500
Jan. 5 - 6, 2010	Tampa Bay Catastrophic Planning Summit	1	Tampa, FL	2 days	Auto	\$0	\$120
Jan. 12 - 14, 2010	Santa Monica State of the Bay Conference	1	Los Angeles, CA	3 days	Air /\$240	\$0	\$600
Feb. 1 - 3, 2010	EPA Southeast Climate Change Adaptation Workshop	1	Atlanta, GA	3 days	Air/200	\$0	\$600
Feb. 2010	NEP/EPA Spring Mtg.	2	Washington, DC	5 days	Air /\$800	\$100	\$2,500
Feb. 25-26, 2010	16th Annual Public Interest Environmental Conference	1	Gainesville, FL	2 days	Auto	\$0	\$175
Mar. 2010	Grant Writing/Admin Workshop	1	Unknown	3 days	Auto/\$300	\$100	\$800
May 2010	NOAA Workshop	1	Unknown	3 days	Auto/\$200	\$0	\$400
Spring 2010	Technical Transfer	1	Various	3 days	Air/\$500	\$250	\$1,000
Spring 2010	Meet with Region 4 Staff	4	Atlanta, GA	3 days	Air/\$1200	\$0	\$2,500
Summer 2010	US EPA Community Involvement Conference	1	Unknown	5 days	Air/\$500	\$250	\$1,500
FY 10	Local Travel	4	Various	<1 day	Auto	\$0	\$9,305
	Total						\$21,000

FY 11 Travel Documentation

Travel funds will be used for purposes such as travel to NEP Directors Meetings, National and state conferences, meetings with EPA staff in Atlanta and Washington D.C.

Table 10: Projected Travel in FY 11

Date	Purpose	# Travelers	Location	Length of Stay	Travel Mode/Est. Cost	Reg. Fee per Staff	Estimated Cost
Nov. 2010	ANEP Annual Meeting	1	Punta Gorda	4 days	Auto	\$100	\$600
Nov. 2010	Tech Transfer/	1	Galveston, TX	5 days	Air/\$350	\$505	\$1,580
Dec. 2010	GOMA/NOAA Workshop	1		3 days	Auto/\$110	\$0	\$370
Jan. 2011	Florida Social Marketing Committee	1	Ocala, FL	2	Auto/\$220	\$0	\$330
Jan. 2011	SCENE	1	Gainesville, FL	2	Auto/\$240	\$0	\$400
Jan. 2011	Ecosystem Restoration & Creation	1	Pinellas County, FL	1	Auto/\$200	\$195	\$550
Feb. 2011	NEP/EPA Spring Mtg.	2	Washington, DC	4 days	Air /\$520	\$100	\$2,500
Feb. 2011	Public Interest Law Conference	1	Gainesville, FL	2 days	Auto/\$240	\$0	\$550
Spring 2011	Statewide mtg. w/ Gulf of Mexico Program	1	Tallahassee, FL	4 days	Auto/245	\$0	\$640
Spring 2011	Technical Transfer	2	Various	3 days	Air/\$700	\$250	\$2,200
May 2011	Meet with Region 4 Staff	4	Atlanta, GA	3 days	Air/\$1,000	\$0	\$2,000
Aug. 2011	FLERA	1	Florida	3 days	Auto	\$100	\$600
Summer 2011	US EPA Community Involvement Conference	1	Unknown	5 days	Air/\$500	\$250	\$1,500
FY 11	Local Travel	4	Various	<1 day	Auto	\$100	\$7,180
			Total				\$21,000

Workplan Budget

Income

Cash receivables to the program increased from FY 01 through FY 06. Unspent funds, nearly \$1 million, were reprogrammed through the FY 02 to FY 08 workplans and have resulted in many completed technical and public outreach projects.

Total funding is projected at over \$1,115,000 for FY 10, including projects that have carried-over from previous years. For FY 11, funding is projected at over \$1,136,000. Recurring annual cash received from government partners increased from over \$883,000 to \$1,153,000. Additional grants and private donations augment these funds.

In last year's FY 10 Workplan and FY 09 amendment, carry-over contract funds totaled over \$466,000. For the FY 11 Workplan and FY 10 amendment, carry-over contract funds total just over \$278,000, under 60% of the previous year and an all-time low by \$40,000 demonstrating improving invoicing by contractors and management by staff.

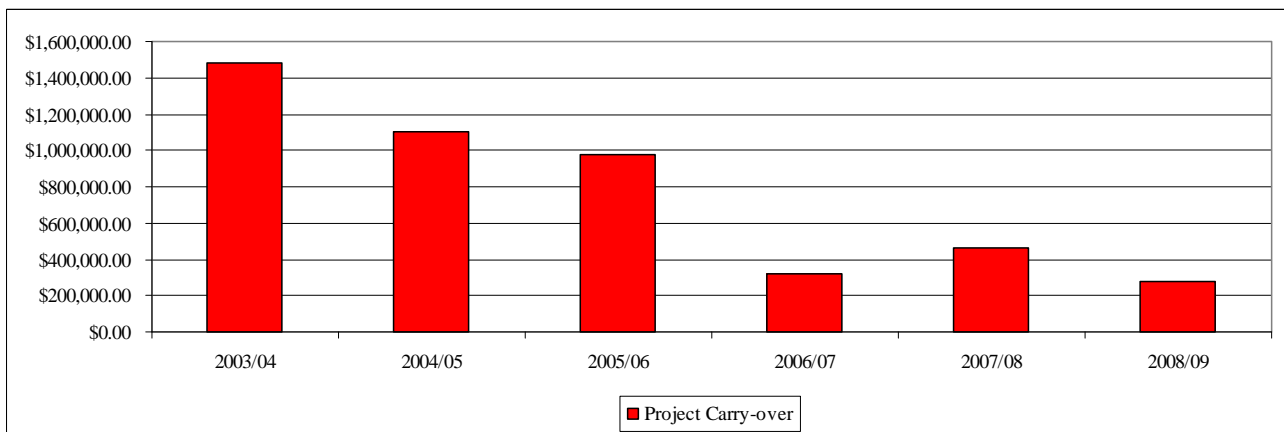
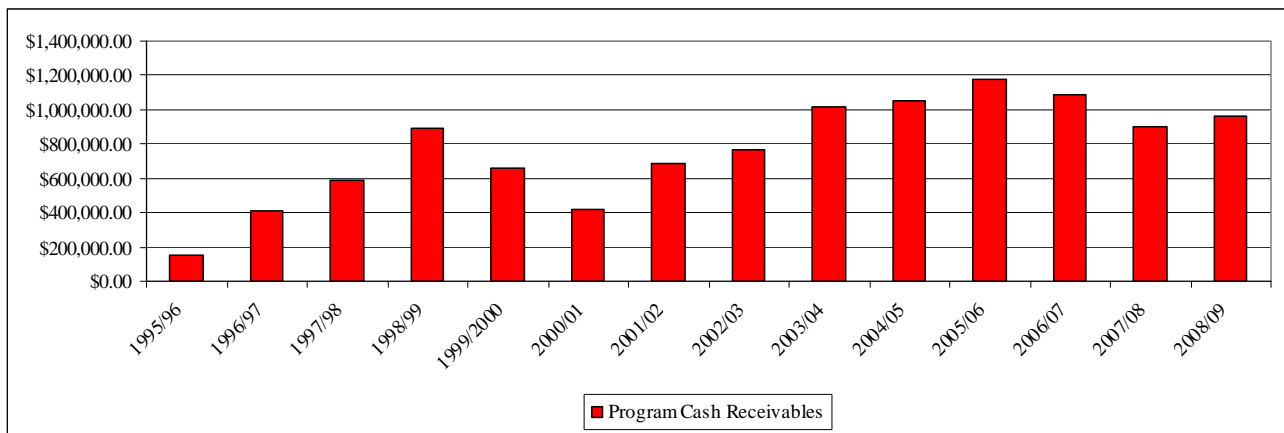


Table 11: Charlotte Harbor NEP FY 10 and FY 11 Income

Funding Source	Approved FY 09 Funding	FY 10 Request	Approved FY 10 Funding	FY 11 Request
Federal				
Section 320 Funding	\$592,000.00	\$600,000.00	\$600,000.00	\$800,000.00
EPA Climate Change Grants	\$50,000.00	\$0.00	\$0.00	\$0.00
Total Federal	\$642,000.00	\$600,000.00	\$600,000.00	\$800,000.00
State and Regional				
DEP	\$75,000.00	\$75,000.00	\$75,000.00	\$75,000.00
SFWMD	\$44,552.14	\$50,000.00	\$28,000.00	\$50,000.00
SWFWMD	\$110,000.00	\$110,000.00	\$110,000.00	\$83,750.00
Peace Manasota Water Supply Authority	\$5,000.00	\$5,000.00	\$4,000.00	\$5,000.00
Subtotal Regional Income	\$234,552.14	\$240,000.00	\$217,000.00	\$213,750.00
Local				
Sarasota County	\$25,000.00	\$25,000.00	\$32,000.00	\$25,000.00
Charlotte County	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00
Lee County	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00
Polk County	\$15,000.00	\$15,000.00	\$250.00	\$15,000.00
Cape Coral	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00
Fort Myers	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00
Sanibel		\$7,500.00		\$7,500.00
Manatee County	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
Punta Gorda	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
Bonita Springs		\$2,500.00	\$2,500.00	\$2,500.00
Fort Myers Beach	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00
Venice		\$2,500.00		\$2,500.00
North Port	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Winter Haven	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Bartow		\$1,000.00		\$500.00
DeSoto County		\$1,000.00		\$500.00
Hardee County		\$1,000.00		\$500.00
Subtotal Local Income	\$99,500.00	\$115,000.00	\$94,250.00	\$113,500.00
Private/Other Grants/Misc.				
Sustainable Communities Conference	\$10,740.00	\$7,000.00	\$7,000.00	\$7,000.00
Nature Festival Sponsorship	\$10,623.50	\$11,000.00	\$11,000.00	\$11,000.00
Florida Friendly Workshops	\$3,000.00	\$3,600.00	\$3,000.00	\$3,600.00
Summit/Reservoir Workshop Sponsorships	\$4,400.00			\$10,000.00
Donations	\$488.32	\$1,500.00	\$300.00	\$300.00
NOAA Workshop Registrations	\$680.00	\$700.00	\$700.00	\$1,700.00
Book Donations	\$583.95	\$700.00	\$700.00	\$700.00
Calendar Donation	\$2,950.00		\$3,000.00	\$3,000.00
Fish America Foundation	23,774.66			
Cash on hand, end of FY 09 fiscal year	\$736,949.43	\$366,511.81	\$46,970.80	
Uninvoiced SWFWMD Contracts, end 09			\$160,000.00	
Anticipated local reserve, + 100K carryover				\$20,781.46
Subtotal Grant/Private Income	\$794,189.86	\$391,011.81	\$232,670.80	\$58,081.46
In-Kind				
Match In-Kind: SFWMD Initiatives	\$592,000.00	\$600,000.00	\$600,000.00	\$800,000.00
Subtotal In-Kind	\$592,000.00	\$600,000.00	\$600,000.00	\$800,000.00
Grand Totals in the Fiscal Year	\$2,352,242.00	\$1,946,011.81	\$1,743,920.80	\$1,966,081.46
Program Cash	\$1,760,242.00	\$1,346,011.81	\$1,143,920.80	\$1,159,081.46

FY 10 Budget Amendment

Major changes within the FY 08 budget included:

Carry-over amounts from FY 09 contracts were added, totaling just over \$278,000.

\$50,000 in unissued and canceled contracts in FY 10 was eliminated.

SFWMD approved \$28,000 for development of numeric nutrient criteria.

Tracking of staff time suggests less time on management conference and public outreach and more on research.

In recent tracking Deputy Director is 85% NEP/15% RPC rather than 80% NEP/20% RPC.

Table 12: FY 10 Budget (adopted 5/18/09)

Task #	Task	Personnel	Fringe	Travel	Supplies	Other	Indirect	Total
1	Management & Admin.	\$76,000	\$38,000	\$10,000	\$5,250	\$1,950	\$64,000	\$195,200
2	Public Outreach	\$72,000	\$36,000	\$2,500	\$1,000	\$203,750	\$61,000	\$376,250
3	Research	\$35,000	\$17,000	\$1,000	\$50	\$140,650	\$30,000	\$223,700
4	Restoration	\$44,000	\$22,000	\$7,000	\$50	\$0	\$37,000	\$110,050
5	Advocacy & Leg Action	\$18,000	\$9,000	\$500	\$0	\$5,000	\$15,000	\$47,500
Total		\$245,000	\$122,000	\$21,000	\$6,350	\$351,350	\$207,000	\$952,700

**Table 13: Budget Changes between
FY 10 Budget (adopted 5/18/08) and FY 10 Budget Amendment (page 56)**

Task #	Task	Personnel	Fringe	Travel	Supplies	Other	Indirect	Total
1	Management & Admin.	(\$8,000)	(\$4,000)	\$4,000	\$3,000	\$0	(\$6,000)	(\$11,000)
2	Public Outreach	(\$10,000)	(\$5,000)	\$0	\$0	\$19,461	(\$9,000)	(\$4,539)
3	Research	\$14,000	\$7,000	\$0	\$0	\$241,979	\$12,000	\$274,979
4	Restoration	\$2,000	\$1,000	(\$4,000)	\$0	\$0	\$2,000	\$1,000
5	Advocacy & Leg Action	\$4,000	\$2,000	\$0	\$0	\$0	\$4,000	\$10,000
Total		\$2,000	\$1,000	\$0	\$3,000	\$261,439	\$3,000	\$270,439

FY 11 Budget

As in previous years, the Technical Advisory Committee (TAC) recommends specific research projects for funding and Citizens Advisory Committee (CAC) recommend public outreach projects for funding. Carry-over funding for was shown in the FY 10 budget amendment. Next year the FY 11 budget will be amended to address carry-over from FY 10 and earlier.

Project tracking will be accomplished at the task level (1, 2, etc.) Staff hours and deliverables are tracked at the sub-task level. Table 20 is the CHNEP Budget. Additional fiscal controls occur through the contracts with partners. Contractual fiscal controls will remain in place. However, the broader CHNEP task-based controls allows for funding to be directed at a policy level.

Table 21 is the EPA Cooperative Agreement amounts. For FY 11, it is anticipated that the in-kind match will be restoration projects which are funded through the SFWMD and Lee County but may include cash match to support CHNEP programs. The EPA Cooperative Agreement budget does not include cash which supports the CHNEP from other partners.

Table 14: FY 10 Workplan Budget Amendment

Task #	Task	Personnel	Fringe	Travel	Supplies	Other	Indirect	Total
1	Mgmt. Conference	\$68,000	\$34,000	\$14,000	\$8,250	\$1,950	\$58,000	\$184,200
2	Outreach	\$62,000	\$31,000	\$2,500	\$1,000	\$223,211	\$52,000	\$371,711
3	Research	\$49,000	\$24,000	\$1,000	\$50	\$382,629	\$42,000	\$498,679
4	Restoration	\$46,000	\$23,000	\$3,000	\$50	\$0	\$39,000	\$111,050
5	Legislation	\$22,000	\$11,000	\$500	\$0	\$5,000	\$19,000	\$57,500
Total		\$247,000	\$123,000	\$21,000	\$9,350	\$612,789	\$210,000	\$1,223,139

Table 15: FY 10 EPA Cooperative Agreement

Task #	Task	Personnel	Fringe	Travel	Supplies	Other	Indirect	Total
1	Mgmt. Conference	\$68,400	\$34,200	\$9,000			\$57,600	\$169,200
2	Outreach	\$57,600	\$28,800	\$2,100		\$172,000	\$48,800	\$309,300
3	Research	\$28,000	\$13,600	\$900			\$24,000	\$66,500
4	Restoration	\$22,000	\$11,000	\$3,500			\$18,500	\$55,000
5	Legislation							\$0
In-Kind						\$600,000		\$600,000
Total		\$176,000	\$87,600	\$15,500	\$0	\$772,000	\$148,900	\$1,200,000

Table 16: FY 10 SWFWMD Contract

Task	Project	SWFWMD	Project Total
1	Triennial Water Quality Status and Trends	\$10,467	\$20,933
2	Estuarine Numeric Nutrient Criteria for SWFWMD area	\$55,159	\$110,317
3	Staff Support	\$44,375	\$88,750
Totals		\$110,000	\$220,000

Table 17: FY 10 Funding Sources

#	Task	Federal	FDEP	SWFWMD	SFWMD	Manatee	Local/ Grants	Total
1	Management & Admin.	\$169,200					\$15,000	\$184,200
2	Outreach	\$309,300					\$62,411	\$371,711
3	Research	\$66,500	\$39,750	\$110,000	\$28,000		\$254,429	\$498,679
4	Restoration	\$55,000	\$35,250				\$20,800	\$111,050
5	Legislation					\$5,000	\$52,500	\$57,500
Total		\$600,000	\$75,000	\$110,000	\$28,000	\$5,000	\$405,139	\$1,223,139

Table 18: FY 11 Workplan Budget

Task #	Task	Personnel	Fringe	Travel	Supplies	Other	Indirect	Total
1	Mgmt. Conference	\$82,500	\$36,400	\$10,000	\$6,250	\$1,950	\$69,000	\$206,100
2	Outreach	\$69,800	\$30,800	\$2,500	\$1,000	\$229,350	\$58,400	\$391,850
3	Research	\$63,800	\$28,100	\$1,000	\$50	\$140,567	\$53,400	\$286,917
4	Restoration	\$67,300	\$29,700	\$7,000	\$50	\$0	\$56,300	\$160,350
5	Legislation	\$3,500	\$1,600	\$500	\$0	\$5,000	\$3,000	\$13,600
Total		\$286,900	\$126,600	\$21,000	\$7,350	\$376,867	\$240,100	\$1,058,817

Table 19: FY 11 EPA Cooperative Agreement

Task #	Task	Personnel	Fringe	Travel	Supplies	Other	Indirect	Total
1	Mgmt. Conference	\$72,100	\$31,800	\$10,000	\$6,000	\$1,950	\$60,300	\$182,150
2	Outreach	\$69,800	\$30,800	\$2,000	\$1,000	\$225,200	\$58,400	\$387,200
3	Research	\$45,900	\$20,200	\$1,000	\$50		\$38,400	\$105,550
4	Restoration	\$51,800	\$22,900	\$7,000			\$43,400	\$125,100
5	Legislation							\$0
	In-Kind					\$800,000		\$800,000
Total		\$239,600	\$105,700	\$20,000	\$7,050	\$1,027,150	\$200,500	\$1,600,000

Table 20: FY 11 Proposed SWFWMD Contract

Task	Project	SWFWMD	Project Total
1	Water Atlas	\$35,000	\$ 70,000
2	Triennial Water Quality Status and Trends Assessment, portion delayed	\$25,000	\$ 50,000
3	Staff Support	\$23,750	\$ 47,500
Totals		\$83,750	\$167,500

Table 21: FY 11 Funding Sources

#	Task	Federal	FDEP	SWFWMD	SFWMD	Manatee	Local/ Grants	Total
1	Management & Admin.	\$182,150		\$23,750			\$200	\$206,100
2	Outreach	\$387,200					\$4,650	\$391,850
3	Research	\$105,550	\$49,750	\$60,000			\$81,117	\$286,917
4	Restoration	\$125,100	\$35,250				\$0	\$160,350
5	Legislation					\$5,000	\$8,600	\$13,600
Total		\$800,000	\$75,000	\$83,750	\$0	\$5,000	\$95,067	\$1,058,817

Table 22: Summary Public Education and Information Projects List (for FY 10 and FY 11)

Table 24 represents the individual public education and information projects that will be addressed in FY 10 (totaling \$227,260), including remainders of carry-over projects, and FY 11 (totaling \$224,800).

FY	Title	Amount
2007	Strategic Communication Plan	\$13,078
2007	Internship (combined with FY08)	\$3,364
2007	Environmental Places Map	\$5,000
2008	Target audience: Virtual wading trip	\$20,435
2009	FY09 POG Peace River Paddle Documentary: Mike Britt	\$3,000
2009	FY09 POG Outreaching the Hispanic Community: SWFLEEN	\$1,903
2009	FY09 POG Water, Wings & Wild Things: Polk's Naturefest 2009	\$2,000
2009	Micro-Grant: Softcomm, Inc. (mangrove plantings)	\$5,000
2009	Guides, workshops, etc. to target audiences, including Florida-friendly programming	\$4,681
2009	Internship	\$2,000
2010	Public Outreach Grants	\$30,000
2010	Micro-Grants	\$12,000
2010	Guides, workshops, websites, etc. to target audiences, including Florida-friendly programming	\$15,000
2010	Internship	\$2,000
2010	Public Information & Education Professional Development	\$1,800
2010	Charlotte Harbor Nature Festival	\$14,000
2010	Sustainable Communities Conference	\$7,000
2010	Quarterly Newsletter	\$29,000
2010	Children's book, reprinting and distribution	\$20,000
2010	Collateral, Displays, Reprintings, etc	\$7,000
2010	2010 Calendar	\$29,000
2011	Public Outreach Grants	\$30,000
2011	Micro-Grants	\$12,000
2011	Guides, workshops, websites, etc. to target audiences, including Florida-friendly programming	\$15,000
2011	Internship	\$2,000
2011	Strategic Communication Plan Implementation	\$20,000
2011	Public Information & Education Professional Development	\$1,800
2011	Charlotte Harbor Nature Festival	\$14,000
2011	Sustainable Communities Conference	\$7,000
2011	Watershed Summit	\$20,000
2011	Quarterly Newsletter	\$29,000
2011	7-County Watershed Report	\$7,000
2011	Citizens BMP/New Resident Guide	\$6,000
2011	Children's book, reprinting and distribution	\$20,000
2011	Collateral, Displays, Reprintings, etc	\$12,000
2011	2011 Calendar	\$29,000
Total		\$227,261

Table 23: Summary Technical Projects List (for FY 10 and FY 11)

Table 25 represents the individual technical projects that will be addressed in FY 10 (totaling \$353,979), including remainders of carry-over projects and FY 11 (totaling \$180,000).

Fiscal Year	Project Title	Amount
2008	Restoration of Native Ground Cover on Sanibel Island - SCCF	\$4,000
2008	Do Upland Drainage Alterations Degrade Estuarine Creek Habitats - Mote	\$19,940
2008	Re-establishing Bay Scallops in Pine Island sound - Mote	\$19,926
2008	Mapping Pre-Development Cover & Surface Features - HDR	\$53,400
2009	Special Issue of Florida Scientist - FAS	\$11,004
2009	Peer Review and Editorial Assistance for Special Issue of FI Scienetist - Corbett	\$2,000
2009	Water Quality Targets Refinement	\$29,075
2009	Lemon Bay Independent Fisheries Monitoring - FWRI	\$42,000
2009	Sprectral and Epiphyte Attenuation Enhancement of CH Light Model - Mote	\$8,302
2009	Smokehouse Bay Preserve Restoration - Lee Co. 2020	\$20,000
2009	Hardee Co. Peace River Submerged Aquatic Vegetation Study - Outdoor Classroom	\$2,226
2009	Improving Public Access to Water Quality Data Website - CHEC	\$6,256
2010	Triennial Water Quality Status and Trends Assessment	\$20,933
2010	Water Quality Targets Refinement Amendment - Nutrient Criteria Development	\$87,700
2010	Water Quality Targets Refinement Amendment - Downstream Protective Values & DO	\$50,317
2010	Shoreline Survey support	\$4,900
2011	Water Atlas -- USF	\$90,000
2011	Triennial Water Quality Status and Trends Assessment, portion delayed	\$50,317
Total		\$522,296

Table 24: FY 10 Budget Targets by SWFRPC Codes

Task #	Sub-Task	EPA	Fringe	Indirect	Travel	Supplies	Supplies	Supplies	Other	Other	Other	Other	Other	Other	Other	Other	Total	
		Translatio n Personnel																
1	Mgmt. Conference	\$68,000	\$34,000	\$58,000	\$14,000	\$1,500	\$6,000	\$750			\$200			\$1,000	\$250	\$500	\$184,200	
2	Outreach	\$62,000	\$31,000	\$52,000	\$2,500			\$1,000	\$59,000	\$55,461	\$200	\$85,000		\$22,800	\$250	\$500	\$371,711	
3	Research	\$49,000	\$24,000	\$42,000	\$1,000			\$50	\$163,850	\$218,129	\$150					\$500	\$498,679	
4	Restoration	\$46,000	\$23,000	\$39,000	\$3,000			\$50								\$0	\$111,050	
5	Legislation	\$22,000	\$11,000	\$19,000	\$500											\$5,000	\$57,500	
	Total	\$247,000	\$123,000	\$210,000	\$21,000	\$1,500	\$6,000	\$1,850	\$222,850	\$273,589	\$550	\$85,000	\$0	\$23,800	\$0	\$500	\$6,500	\$1,223,139

Table 25: FY 11 Budget Targets by SWFRPC Codes

Sub-Task #	Sub-Task	Personnel	Fringe	Indirect	Travel	Supplies	Computer/Graphic	Postage	Consulting	Advertising	Print/Copy	Meetings	Prof. Dev	Other Misc	Total
1	Mgmt. Conference	\$82,500	\$36,400	\$69,000	\$10,000	\$1,500	\$4,000	\$750		\$200		\$1,000	\$250	\$500	\$206,100
2	Outreach	\$69,800	\$30,800	\$58,400	\$2,500			\$1,000	\$79,000	\$200	\$107,000	\$42,800	\$250	\$100	\$391,850
3	Research	\$63,800	\$28,100	\$53,400	\$1,000			\$50	\$140,317	\$150				\$100	\$286,917
4	Restoration	\$67,300	\$29,700	\$56,300	\$7,000			\$50						\$0	\$160,350
5	Legislation	\$3,500	\$1,600	\$3,000	\$500									\$5,000	\$13,600
	Total	\$286,900	\$126,600	\$240,100	\$21,000	\$1,500	\$4,000	\$1,850	\$219,317	\$550	\$107,000	\$43,800	\$500	\$5,700	\$1,058,817