

FISCAL YEAR 2010 WORKPLAN & Fiscal Year 2009 Workplan Amendments



CAC member Roger DeBruler, Charlotte Sea Grant Program Assistant shows people how to remove hooks from fish at the Charlotte Harbor Nature Festival on November 22, 2008.

Charlotte Harbor National Estuary Program Technical Report 09-1 Draft-3/5/2009



1926 Victoria Avenue
Fort Myers FL 33901
(239) 338-2556
www.CHNEP.org

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, and Winter Haven
and the Southwest Florida Regional Planning Council.

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U. S. Environmental Protection Agency, Region 4

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Florida Fish & Wildlife Conservation Commission

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Mr. Kayton Nedza

Staff

Dr. Lisa B. Beever, Director

Ms. Elizabeth S. Donley, Esq., Deputy Director

Ms. Maran Brainard Hilgendorf, Communications Manager

Ms. Judy Ott, Program Scientist

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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 |
| 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 Calendar Year 2008

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

Calendar Year 2008 Programmatic and Environmental Accomplishments

Summary of CHNEP Accomplishments Calendar Year 2008

Highlights

CCMP Update

On March 24, 2008, the CHNEP *Comprehensive Conservation and Management Plan* (CCMP) Update was adopted. Through a different organization and the use of color graphics, the document was reduced from 750 pages to 160 pages with more content. The new CCMP features a graphic vision series. The draft quantifiable objectives and priority actions were the result of a survey among management conference participants and interested public followed by dozens of subcommittee meetings to craft strategies. The plan addresses hydrologic alterations, water quality degradation, fish and wildlife habitat loss, and stewardship gaps. Priority action SG-Q was added to address climate change issues. As a result, CHNEP to climate change grants discussed in a later section. The update may be found at: <http://www.chnep.org/CCMP/CCMP.htm>.

Environmental Indicators Update

On May 17, 2008, CHNEP updated its Environmental Indicators to reflect the CCMP update. Twelve priority indicators were selected to highlight in a Watershed Report. Contracts have been issued to address data gaps for publication of a 2009 Watershed Report. Two important contracts were completed to provide data related to environmental indicators. They include the Tidal Shoreline Conditions map and a Historic Subbasins map.

Children's Book

Adventures in the Charlotte Harbor Watershed was published! In 2001, a Children's Book was identified as a major environmental education gap for the study area. This 64-page illustrated book for children was developed in partnership with Carol Mahler who wrote the book, Rachel Rebekah Renne who illustrated it and many others who contributed and reviewed it. 20,000 copies were printed. All seven school districts in the counties that participate in the CHNEP distributed the book to their third grade students. (Manatee gave the books to their fifth grade students.) Jelks Family Foundation provided \$5,000 toward the 2009 printing of the Children's Book. The book is also posted at: <http://www.chnep.org/info/ChildrensBook/ChildrensBook.htm>.

Fertilizer Ordinances

CHNEP's host agency, the Southwest Florida Regional Planning Council, adopted a resolution outlining recommendations for local fertilizer ordinances on March 15, 2007. CHNEP endorsed it and forwarded the resolution to its partners. To date, ten of the eleven local governments shared by CHNEP and SWFRPC have adopted an ordinance regulating content, timing of application, and

location of application of lawn fertilizer. CHNEP assisted Sarasota and Charlotte County governments develop and print brochures to inform its citizens about the ordinances.

2008 Watershed Summit

The third Triennial Watershed Summit was held from March 25-27, 2008. It is an important step in the CHNEP process of bringing public and private stakeholders together to inform the community regarding ongoing studies and critical environmental issues facing the region. The Summit is an opportunity to review progress and discuss current and emerging issues affecting the Charlotte Harbor watershed. The theme was *From Data to Policy: Our Partnership in Action* and will result in a special issue of the *Florida Scientist* in 2009. More can be seen at: <http://www.chnep.org/Events/Summit08/Summit08.htm>.

On-Going Work

Management Conference

The Management Conference is cited as the most important function of the CHNEP. It is composed of Policy, Management, Technical, and Citizen 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 2008. Science Forum meets the morning of the TAC and includes presentations of recent science findings. Judy Ott replaced Catherine Corbett as CHNEP Scientist.

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 2008, several grants were successfully obtained through CHNEP's grant applications efforts:

- Region 4 of EPA funded CHNEP to conduct a climate change vulnerability assessment for the 7-county study area. A key feature of the assessment is a literature-based database. The project includes \$30,000 federal funds and \$35,600 match.
- CHNEP was named one of six Climate Ready Estuary (CRE) pilot programs in the nation by EPA. The project includes \$50,000 federal funds and \$50,000 match.
- Through the Association of NEPs, CHNEP helped Sanibel-Captiva Conservation Foundation obtain funding from NOAA to complete the Clam Bayou Oyster Restoration Project. The project includes \$19,925 federal funds and \$33,019 match for a total of \$52,945.
- Additional grants submitted include an Ordway Dunn Foundation grant for the Calusa Land Trust St Jude Harbor restoration at \$15,000 and an EPA STAR grant for an Ecosystems Services assessment at \$458,121 (that is still under review).

Outreach

The CHNEP is continuing the publication of its newsletter, *Harbor Happenings*, the annual calendar, and its web site. *Harbor Happenings* is now being translated into Spanish and placed on the web site. The newsletter provides information 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. CHNEP staff and committee members have provided presentations at a variety of venues and on a variety of topics.

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

- Charlotte Harbor Regional Nature Festival sponsored by CHNEP with more than 50 exhibitors, guided walks and rides, talks, children's zone. Approximately 1,800 attended.
- CHNEP sponsored Sustainable Communities two-day workshop.
- CHNEP held a professional development workshop Public Issues and Conflict Management, taught by NOAA Coastal Services Center, on December 16 and 17 at Kimal Event Center in Venice.
- 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 Florida Friendly Plant Workshop on April 26, 2008, at SFCC in Arcadia. The agenda covered drought information, organic gardening, a long 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.
- Rotonda West Homeowners Association, because of the diligent work of a few homeowners, has created an excitement within the association to use native plants along the many waterways. Bob Winters had received a micro-grant from CHNEP to develop information material then received a larger grant from SWFWMD for plantings. Sue Scott, on behalf of CHNEP, spoke with approximately 80 homeowners to teach them more about water quality, interconnectedness, and the plants they'll use to improve the quality of their water.
- Several events were held by partners in celebration of CHNEP National Estuaries Days. The events listed were nearly all sponsored by CHNEP.
 - The Friends of Charlotte Harbor Aquatic Preserves held a "mucking about" wading trip in Pine Island Sound on October 13, 2007. Seventeen people learned about the estuary first hand on this guided adventure.
 - DeSoto County Parks & Recreation offered a guided canoe trip on the Peace River on October 6, 2007. Twenty-nine people participated and there was a waiting list of 12 more! CHNEP sponsored this event.
 - CHEC held "Southwest Florida's Native Peoples" on September 29, 2007, at the Alligator Creek Preserve with 38 people participating. The program from 9 to 1 included a tour of the site, visit of the Animal Clubhouse and Butterfly Garden and viewing of the film *The Domain of the Calusa* (which emphasizes the wise use of estuarine resources). Butterfly plant seedlings were available along with CHNEP information packets. CHNEP sponsored this event.
 - Charlotte County led 36 people on one of two guided boat tours of Lemon Bay on October 2, 2007. Participants learned about estuaries, watersheds and actions that deteriorate water quality and ways to reduce harmful impacts. They identified flora and fauna along the way and received information about CHNEP. CHNEP sponsored this event.
 - Manatee County Conservation Lands Management led 41 4-H club members on a Conifer Celebration on Duette Preserve on October 6, 2007. The volunteers donated 164 hours while planting 700 longleaf pine trees. CHNEP sponsored this event.
 - The Peace River Center for Writers offered "Literary passage to Charlotte Harbor and Cabbage Key." Sixty people enjoyed the day while learning about Charlotte Harbor from Missy Christy of Charlotte County, and reciting poetry on September 27, 2007. CHNEP sponsored this event.
 - Lemon Bay Conservancy held Coral Creek Kayak/Canoe Adventure and Picnic on October 7. Twenty-eight people learned about the history of Coral Creek by narration, enjoyed a paddle and picnic which promoted interest in the preservation of the area.

- The Friends of Charlotte Harbor Aquatic Preserves held a Coral Creek-Cape Haze Paddle on October 21, 2007. With the assistance of seven volunteers, 17 people learned about the estuary first hand on this guided adventure.
- The Friends of Charlotte Harbor Aquatic Preserves held a Matlacha Pass Paddle on November 18, 2007. With the assistance of eight volunteers, 26 people learned about the estuary first hand on this guided adventure.
- Keep Lee Beautiful held its annual Monofilament Madness AKA Marine Cleanup on October 28, 2007. Volunteers totaling 110 used their marine vessels to remove debris from the watershed, including monofilament fishing line. More than 3,000 pounds of debris were dropped off at four staging areas.
- The Peace River Audubon Society held a 30th anniversary program on November 17, 2007. The 50 people who braved the cold weather at Ponce de Leon Park took part in a wading trip and learned about the local environment through talks and displays, including a photographic display of flora and fauna and a conservation display to help people think about steps to take to protect the environment.
- The Charlotte Harbor Environmental Center at Cedar Point offered "Explore Your Estuary" on September 22, 2007 from 8 a.m. to 2 p.m. Twenty-seven people participated in guided walks, games, crafts, scavenger hunts, lecture and video.
- The Sanibel Captiva Conservation Foundation organized 400 volunteers who participated in coastal cleanup on 20 miles of beaches on north Captiva, Captiva and Sanibel islands, removing 28-yards of debris on September 15, 2007. CHNEP sponsored this event.
- Lee County Parks & Recreation held "Estuaries Day, Every Day" at Bunche Beach on October 27, 2007, 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, 2008, at USF Polytechnic in Lakeland. Fourteen speakers shared their information with 77 people. CHNEP sponsored this event.
- Keep Charlotte Beautiful organized a coastal cleanup with 700 people participating on September 20, 2008, including two dive teams, boaters and kayakers, who were able to remove 8,000 pounds of trash from 56 miles of waterways and shorelines.
- Keep Lee County Beautiful held its annual monofilament madness marine cleanup on October 26, 2008. This year 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.

In addition, partners completed the following public outreach grants:

- During five trips each seventh grade students at Port Charlotte Middle School participating in a "Learning about our Estuary" program. On each trip approximately 35 students studied the estuary and enjoyed its beauty through a tour of the Peace River Wildlife Center, nature walk through the mangroves, sand paintings, seining for animals and water quality testing of dissolved oxygen, coliform, turbidity, nitrates, pH and phosphates. Animals found included juvenile flounder, blowfish, pipefish, stone crabs, hermit crabs, blue crabs and glass minnows. In addition the teacher did classroom work to prepare and discuss the natural environment both before and after the field trips.
- The document *Smart Way to Grow your Florida Yard, Florida Yard Maintenance Guide* was developed for distribution to builders, developers, realtors, landscape architects and irrigation contractors on how to maintain Florida-friendly yards.

- The Gopher Tortoise children's activity book was developed and 5,000 copies were printed. Turtle Talk Zander Srodes will distribute to children throughout the CHNEP study area.
- Two brochures were developed by Peace River Audubon Society to provide residents with guidance to help in their efforts *Protecting Charlotte Harbor: Simple things you can do at home*. One brochure provides guidance on how to landscape for wildlife and the other describes changes that can be made to reduce energy and water consumption.
- 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.
- Students in the Polk County learned about the importance of water conservation and how using rain barrels can help conserve water in the landscape. Seven programs were held at the Polk Environmental Education Resource (PEER) Center and five at individual schools. The 974 students and 106 adults decorated rain barrels for use in school gardens. This program has led to other conservation activities taken by the students and schools.
- The City of Winter Haven Natural Resources Division developed the Upper Peace Kayak Environmental Education Program (UPKEEP) to help citizens experience first hand the wonder of the natural environment. CHNEP funds helped purchase kayaks that allow the public access to the water with an guide. In the first three months, 87 citizens took part in activities at South Lake Howard Nature Park, Lake Summit, lake Eloise, Lake Elbert and Lake Silver. During the summer the kayaks will be used through the city's summer programs that more than 1,600 children partake in. Additional outings are planned.
- A Florida-friendly demonstration garden at Polk County Utilities building was developed to serve as an educational site to promote Florida-friendly lawn and landscape practices to the residents of Polk County.
- Lee County Extension held a Florida Yards & Neighborhood conference on February 9, 2008. Approximately 150 people attended the day-long program that included presentations, exhibitors and a plant sale.
- Students in 50 third-grade classrooms in Lee County enjoyed the Manatee Fantasea Roadshow. The program begins with an interactive educational puppet skit with the students learning about the estuary. The students take on the roles of news reporters attending a press conference for the famous marine mammal *Trichechus manatus latirostis*, a large manatee puppet. They learn about manatee natural history, importance of estuarine and seagrass habitats to the health and well being of all, including manatees. A student sound technician circulates with a prop microphone, prompting the student reporters to ask questions. Charlotte Harbor Environmental Center is able to offer these programs because of funding from a CHNEP grant.
- Cape Water Action, an outreach of the Caloosahatchee River Citizens Association, was created to educate Cape Coral residents on water quality issues and solutions. A meeting was held November 17, 2007 and a half-day conference on May 10, 2008 with 35 people in attendance at each. CWA organizers have made a commitment to continue quarterly meetings for at least two years.
- Coastal Wildlife Club held two "Sea Turtle Adventures" workshops for 49 teachers who work in the CHNEP study area. The workshop helps teachers increase their awareness of coastal resources with particular emphasis on sea turtles. The workshop provided teachers with both field and classroom activities, a binder of resource materials connected to overnight component allowed on-the-beach time observing Turtle Patrol volunteers complete

nest evacuations and beach walks to discuss light and nesting habitat issues. The teachers have all been overwhelmingly positive.

Thirty-six 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:

- CHNEP participated in Cape Coral's "An Evening Under the Sea" on February 28, 2008. Fourteen marine and aquatic organizations provided information to the public with children outnumbering adults three to one. The program included a puppet show with kids circulating in costume providing information on estuaries, stewardship and the role of filter feeders and other species.
- Sarasota County Environmental Services assessed the scallop population in Lemon Bay on two two-day dives. Following FWRI procedures using 100 m transects, 45 scallops were found from North Roberts Bay south to Dona and South Roberts Bay with the highest concentration at the sites nearest to Venice Inlet to the north. The second dive was in Lemon Bay south to Stump Pass, 6 scallops were found in the southern part of the bay within Sarasota County. The data captured included scallop size, habitat, pertinent environmental factors and a GIS layer will be developed to spatially represent the data and make it understandable to the public.
- Pilot Club of Fort Myers Beach involved 288 (38 more than in 2007) volunteers, including many students, to "think globally, act locally" during the 2006 International Coastal Cleanup on September 15 when they picked up 1484 pounds of debris, including 4163 cigarette butts and 792 food wrappers and 954 straws. Volunteers included area families and students from Beach Elementary, Lehigh Middle, Franklin Park, Fort Myers High, and Mirror Lake Elementary Schools.
- The Myakka River Management Coordinating Council website (www.MyakkaRiverManagement.org) helps the council communicate with council members, the public, media and interested others.
- The Bob Riley Method encasements was used to plant mangroves as an experiment in establishing mangroves along hardened shoreline in Cape Coral. Within the month, the popagules were sprouting leaves and establishing themselves in this harsh environment.
- Fifty-five community leaders in Polk County participated in five 2.5 hour workshops and two day-long field trips to enhance their understanding of water-related issues. One field trip included a bus tour of the Peace River watershed ending with a boat tour of Charlotte Harbor.
- The Charlotte Harbor Sierra Club distributed 166 5-minute shower timers at the El Jobean Christmas Parade on December 8.
- A six-hour professional development program "Gopher the Cache" was provided to six middle school teachers of gifted children. The teachers learned about gopher tortoises, their habitat and how to use GPS as a teaching tool.
- The Charlotte County Health Department presented "Charlotte Harbor Water Quality Monitoring to Determine High Priority Contaminated Areas due to Septic/Sewage Pollutants" at the FEHA AEM meeting August 11-15.
- The Gulf Coast Society of Fundraising Executives coordinated a workshop on the community's responsibility to incorporate environmentally sustainable practices in their fundraising activities. The day-long program was held September 12 at Hodges University in Lee County.

- A Florida wildlife library was developed for students and adults to use at St. Andrew Catholic School in Cape Coral. The middle school students will use the books as part of an ongoing study of plants and animal kingdom.
- Honor students and parents at Lemon Bay High School in Englewood participated in a teacher-led kayak tour of the Coral Creek and Charlotte Harbor. They learned ecological aspects of the habitats encountered along the trip, how habitats changed from freshwater to the estuary. Students taught their parents along the way about things they knew, including that salinity was high due to low rainfall and high evaporation.
- Members of the Cape Coral Friends of Wildlife monitored burrowing owl nests and gopher tortoise burrows, checking on the sites by cleaning the sites, replacing poles and perches and marking poles so visible. The members also marked each site with GPS.
- Artists Roseline Young and Ricki Howie prepared banners for others to paint during the Art Royale event at Alliance for the Art on November 17. The Blue Watters banners depict the estuary and wildlife habitat and will be displayed throughout the study area to encourage residents to become better environment stewards.
- FNPS volunteers created a butterfly garden at the CHEC-Cedar Point site with 45 plants representing 30 species. The plants purchased provide larval food and nectar for native butterflies. The site is open to the public.
- The Lovers Key State Park offer free wading trips on a regular basis to introduce visitors to what lives in the estuaries. They also learn about the ecosystem, water quality, sea grass beds and habitat issues. With CHNEP support, they were able to purchase dip netting equipment and a bubble tank so they can see more closely the gastropods, crabs, grass shrimp, file-fish, pipe fish, blow fish, sea robins and more that are home in the estuary.
- Forty students in the marine biology course at North Port High School took a three-hour trip to Lemon Bay Park where they waded with dip nets, buckets and seine nets and captured small invertebrates and fish. They observed and photographed these items as well as the bird life and brown algae. Some of the students used water test kits to take samples to measure pH, phosphates, nitrates, temperatures and clarity. The students presented and discussed their findings.
- The City of North Port held a 10-week summer camp where children learned about environmental issues through activities, including dissecting an owl pellet to see what they eat, raising butterflies and studying what plants they need to live, and how to read rings on trees and local weather over the last 100 years.
- FrogWatch website www.frogwatch.net will be hosted through 2008. The website serves as a clearinghouse of information gathered by volunteers and experts as well as a database of frog monitoring data.
- Palm Island Estates (PIE) created a demonstration native plant garden at the ferry landing entrance to the Charlotte County island. The garden showcases native plants and educates property owners on their importance and use in island landscapes.
- Children in the Hallmark Homeschool Group in North Port planted several butterfly host plants at the Nokomis Community Park. While the children learned a great deal during this project, habitat and food were provided for several different types of butterflies, including monarchs, queens, gulf fritillary, variegated fritillary, zebra longwing and Julia.
- The Southwest Gulf Coast Regional Envirothon was held December 8, 2007 at the Caloosahatchee Regional Park. The Envirothon is an environmental education competition made up of teams of five students. Approximately 120 students from five counties, including Charlotte and Lee, participated.
- The Lakes Education/Action Drive organized Lakes Appreciation Month Celebration to promote volunteer participation in lake restoration activities such as habitat restoration,

invasive plant identification and removal, and debris pick-up and removal. During the month of July, 161 volunteers removed 2,700 pounds of trash from 26 lakes in Polk County.

- "An Evening Under the Sea" was held February 29 in Cape Coral as an exposition of the 15 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. Students from nine public and private schools worked together to perform an original interactive puppet show called "The Mermaid Returns."
- The City of Bonita Springs developed a litter patrol of 12 residents who have pledged to pick up litter in their neighborhoods and participate in coordinating meetings. During just one effort on August 3, 2008, six members collected and removed more than 38 55-gallon-size bags of trash near a canal.
- The Fisherman's Wharf Condo Garden Club in St. James City removed invasive exotic plants throughout their property, including alongside canals, and began planting native plants suitable for the location.
- On March 30, 2008, Cape Coral held its first annual Canal Clean-Up Day. Approximately 90 volunteers removed 2,500 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.
- Each of the six 4th grade classes at Taylor Ranch School in Venice discovered the wonders of Lemon Bay estuary and watershed during CHEC-led wading trips. The students netted exciting finds such as jellyfish and pipefish while wading and observed an eagle's nest and native Florida flora while hiking during the trips that occurred on October 3, 4 and 5, 2007. These trips helped the students during their time in labs, centers and readings develop an understanding of how living things interact with each other and the environment and how humans impact the fragile ecosystem.
- 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:

- Tidal Shorelines Conditions geodatabase from PhotoScience was completed. Digital data from Volunteer Shoreline monitoring program tied to parcel data.

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

Final report for FY05 Research and Restoration Partner project "*Valisneria americana* restoration in the Caloosahatchee River." This project was designed to evaluate the efficacy of transplanting *Valisneria americana* into the tidal Caloosahatchee River. The strategy was

to use mature Caloosahatchee River stocks maintained in culture at Mote Marine Laboratory to establish a viable population of *Valisneria* in the river by transplantation. The 1st transplant attempts were unsuccessful, and all grass were lost. A 2nd transplant attempt at 1 of the sites failed due to herbivory. Using knowledge gained in the earlier experiments, a 3rd experiment using intermediate sized rosettes transplanted within cages was undertaken to determine whether multiple rosette plantings survived better than single plantings. The experiment was protected from large herbivores with four cages using fowl wire attached to PVC frames. Treatments were single plantings of rosettes, rosettes tied and planted in groups of five, and five rosettes naturally attached by rhizomes. By the end of September 2006 transplanted rosettes were responding positively to caging with growth rates greater than 25 mm per day, probably as a result of herbivore exclusion. Unfortunately, salinity rose rapidly beginning in October, causing a concomitant decline in the presence of *Valisneria* throughout the upper river study area. Experiment 3 plantings also failed at this time.

Restoration

- Numerous students and boaters volunteered to participate in a mangrove restoration event which took place on the east and west walls of Charlotte Harbor. The group planted and dispersed approximately 10,000 propagules in an attempt to restore the red mangrove fringing shoreline which was damaged during Hurricane Charley.
- CHNEP Scientist completed 10-24-07 draft Water Quality Plan Formulation document for the Southwest Florida Feasibility Study.
- Kick-off for Upper Peace River BMAP, included valuable presentation by David Tomasko. Under a FDEP contract, he found that in perched mineral lakes, there is a direct relationship ($R^2=0.7$) between nutrients and Chlorophyll a. In organic lakes with high colored dissolved organic matter, no statistically significant relationship exists. CDOM may reduce phytoplankton growth and associated Chlorophyll a.
- Final Report to the South Florida Water Management District on the Hendry Creek Basin Onsite Treatment and Disposal System Voluntary Homeowner Management Program.
- Presentation on OSTDS management and Hendry Creek Pilot Project results to SWFRPC subcommittee considering developing resolution on OSTDS management.
- The City of Punta Gorda chosen as the adaptation plan site for the Climate Ready Estuary pilot program. Urban Design Manager David Hilston presented the concept to the City Council. CHNEP Director Lisa Beaver outlined the program. City Council voted unanimously in support of working with the SWFRPC and CHNEP to develop an adaptation plan for their City.

Advocacy and Review

From time to time, CHNEP advocates positions to protect the watershed and estuaries. Toward this end, the following positions have been taken this fiscal year:

- Letter to State Legislative delegation objecting to proposed legislation preempting local governments from adopting ordinances regulating fertilizer application.
- Letter to FDEP requesting additional information related to CFI South Pasture Mine modifications which would add a reservoir and water quality treatment cells.
- Letter to FDEP requesting local flexibility in monitoring plans associated with NPDES, MS4 permits.
- Letter sent to review the draft Caloosahatchee River Watershed Protection Plan (CWRPP). Fifteen broad areas were identified for comments. SWFRPC used CHNEP letter as a base for their own, supporting CHNEP comments.

FY 08 Goals Achieved

Major goals that were achieved in FY 07 include:

- Completion of key contracts related to the CHNEP visions, including a historic basin boundary map and pre-development vegetation map.
- Adoption of the Environmental Indicators Report Update to reflect the CCMP update. Collection of available products to form a State of the Watershed report.
- Conduct the triennial Charlotte Harbor Watershed Summit.
- Completion of a tidal shoreline condition database and map to fill integral knowledge gaps for the environmental indicators and allow integration with GIS maps.
- Continue to update and revise the Research Needs Inventory.
- Coordination between SFWMD and SWFWMD for biennial seagrass maps including technical transfer and SFWMD staff training.

Major goals expected to be achieved in FY 09

Major goals that are predicted to be achieved in FY 08 include:

- Completion of key contracts related to the CHNEP Watershed Report.
- Completion of the Climate Ready Estuary projects: Vulnerability Assessment and Adaptation Plan.
- Continue to update and revise the Research Needs Inventory.

Major goals/focus for FY 10

Major goals for the coming year include:

- Publication of a State of the Watershed report.
- Adoption of an Interlocal Agreement in support of the CCMP Update, including expanding the partnership.
- Refinement of numeric water quality targets and initiation of development of exceedance criteria.
- Special issue of Florida Scientist dedicated to research and monitoring results in the Charlotte Harbor watershed.
- Preparation for hosting the Fall 2010 ANEP Conference

Priority Changes

Significant priority changes were made as a result of the CCMP update last year. In 2007, another priority action was added to the then draft CCMP:

- Build capacity for communities and their local leadership to mitigate and adapt to the effects of climate change through joint efforts.

Final FY 08 Travel

Table 1 details travel expenditures for FY 08. Travel included attendance of at least two staff members at each ANEP meeting.

Table 1. Training and Conference Travel Fiscal Year 2008

| Completed Travel FY 08 | | | | |
|-------------------------------|---------------------------------------|---|-------------------------|----------------|
| Date | Reason for Travel | Staff Member | Location | Expense |
| November 5 – 9, 2007 | ERF Conference | C. Corbett, J. Boswell | Providence Rhode Island | 2451 |
| November 13-15, 2007 | ANEP Fall Meeting | L. Beever | Puerto Rico | 1,850.00 |
| February 24-28, 2008 | ANEP Spring Meeting | L. Beever, L. Donley | Washington, DC | \$3,495 |
| June 2008 | Capitol Hill Oceans Week Presentation | L. Beever | Washington, DC | 1105 |
| July 2008 | Smart Growth Workshop | M. Hilgendorf | Bradenton, FL | 330 |
| October 2007 - September 2008 | in-state travel to various meetings. | L. Beever, C. Corbett M. Hilgendorf, L. Donley | Within Study-Area | \$6169 |
| Total: | | | | \$15,400 |

Predicted FY 09 Travel

Table 2 details travel expenditures for FY 09. Travel includes attendance of at least two staff members at each ANEP meeting.

| Table 2. Training and Conference Travel Fiscal Year-2009 | | | | |
|---|---|---|-------------------------|----------------|
| Date | Reason for Travel | Staff Member | Location | Expense |
| October 2008 | Florida FWC Climate Change Conference | M. Hilgendorf | Orlando, FL | \$865 |
| October 2008 | FLOW Conference | L. Beever | San Antonio, TX | |
| November 16 - 19, 2008 | ANEP Autumn Meeting | L. Donley | New York City | \$1,335 |
| November 2008 | Restoring America's Estuaries Conference (Climate Change modules) | Shared expenses with Partner | Providence Rhode Island | \$1,580 |
| November 2008 | SLAMM Training/Water Quality Trading Workshop | J. Ott | Tallahassee | \$640 |
| December 2008 | GOMA meeting/NOAA Workshop | M. Hilgendorf | Sarasota, FL | \$370 |
| January 2009 | Florida Social marketing Conference | M. Hilgendorf | Ocala, FL | \$330 |
| January 2009 | SCENE Conference | M. Hilgendorf | Gainesville, FL | \$400 |
| January 2009 | Low Impact Development Workshop | L. Beever | Pinellas County, FL | \$550 |
| October 2007 - January 2008 | Other in-state travel to various meetings. | L. Beever, J. Ott, L. Donley, M. Hilgendorf, J. Boswell | Within Study-Area | \$870 |

Projected Travel for remainder of FY 09

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| February 22-25, 2009 | ANEP Spring Meeting | L. Beever, L. Donley | Washington, DC | \$2,500 |
| February 26 – 28, 2009 | Public Interest Law Conference | L. Beever | Gainesville, FL | \$550 |
| Spring 2009 | Statewide Meeting w/Gulf of Mexico Program | M. Hilgendorf | Tallahassee, FL | \$640 |
| Spring 2009 | Technology Transfer | L. Beever, J. Ott | Unknown | \$2,200 |
| Spring 2009 | Met with EPA Region 4 | L. Beever, J. Ott, M. Hilgendorf, L. Donley | Atlanta, GA | \$2,000 |
| Summer 2009 | US EPA Community Involvement Conference | M. Hilgendorf | Unknown | \$1,500 |
| February-September 2009 | Other in-state travel to various meetings, workshops and conferences. | L. Beever, J. Ott, M. Hilgendorf, L. Donley | Within Study-Area | \$4670 |

Total:

\$21,000

Workplan Projects for FY 07/08 and 08/09

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

Deliverables include:

- Committee Agenda Packets
- FY 07 Audit and FY 08 Audit
- Required Progress Reports
- Required Invoice Packets

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| 1.1 | Management Conference | |
| Objective: To provide a committee structure that supports the implementation of the <i>Comprehensive Conservation and Management Plan (CCMP)</i> . | | |
| Previous Work: The CHNEP Management Conference was established in 1996 to support the development of the CCMP. Since that date, committee and subcommittee packets have been the staple of the CHNEP process. The FY 08/09 Workplan was adopted in May 2008 and amended in July 2008. Progress reports are issued monthly and incorporated in committee packets. In May 2006, the City of Bonita Springs joined the Management Conference and provided funding. In 2006, a triennial evaluation report was submitted to EPA. After EPA reviewed the report and conducted an on-site evaluation, CHNEP passed the triennial implementation review. Staff has been working with the Management Conference to revise and update the CCMP. The updated CCMP was conceptually approved in Autumn 2007 and adopted March 24, 2008. | | |
| 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. | | |
| 2009 Deliverables: <ul style="list-style-type: none"> ▪ Agenda Packets for committees and subcommittees ▪ Advertising and meeting space ▪ ▪ Adoption of FY 09/10 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 2009 ▪ October 2008 ▪ September 2009 ▪ September 2009 ▪ November 2008 and February 2009 ▪ June 2009 ▪ March 2008 | |
| 2010 Deliverables: <ul style="list-style-type: none"> ▪ Agenda Packets for committees and subcommittees ▪ Advertising and meeting space ▪ Adoption of FY 10/11 Workplan Report ▪ Evidence of extending CHNEP partnership ▪ Priority Action GPRA Report. ▪ Travel to ANEP ▪ Final Interlocal Agreement distributed fro adoption | Target Dates: <ul style="list-style-type: none"> ▪ Mail one week before meeting ▪ Advertise on-line minimum of one week preceding date ▪ June 2010 ▪ September 2010 ▪ September 2010 ▪ November and February ▪ December 2010 | |

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| 1.2 | General Administration and Supplies | |
| Objective: To support necessary administration of the CHNEP. | | |
| Previous Work: Annually, the SWFRPC conducts a single audit report. For FY 08, the auditors issued an unqualified opinion (of adhering to generally acceptable accounting principles) letter. | | |
| 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. | | |
| 2009 Deliverables: | | Target Dates: |
| <ul style="list-style-type: none"> ▪ FY 08 Audit Report | | <ul style="list-style-type: none"> ▪ January 2009 |
| 2010 Deliverables: | | Target Dates: |
| <ul style="list-style-type: none"> ▪ FY 09 Audit Report | | <ul style="list-style-type: none"> ▪ February 2010 |

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| 1.3 Grants and Contracts Administration | |
| Objective: To implement the CCMP by ensuring compliance with awarded grant requirements, including reporting and invoicing. | |
| Previous Work: The CHNEP program staff has been administering the EPA Cooperative Agreement since the inception of the NEP. In the past, CHNEP has either sought or been awarded additional grants from EPA and other agencies, such as the U.S Army Corps of Engineers. Each of these grants has compliance requirements, including specific reporting needs and invoicing processes. In addition, CHNEP has been awarded grant funds for projects that are contracted out to third parties, such as the Regional Coastal funds awarded by USEPA Region 4. Program staff members are responsible for administering the contracts and ensuring all reporting requirements are met. Staff invoices Management Conference partners for contributions and reimbursement for shared project costs. | |
| 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 Mangrove Restoration project grant awarded in July 2007. Staff is preparing for the close-out of one of the EPA Assistance Grants and continues to work with partners to streamline invoicing tasks. | |
| 2009 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 |
| 2010 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. Information can be delivered in a variety of methods. These methods are varied and include newsletters, websites, events, publications, conferences, field trips, workshops, etc. This budget groups these activities into four categories. Subtasks include:

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

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| 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> . | |
| Previous Work: The <i>CCMP</i> was updated in 2008 as was the <i>CCMP Summary</i> , a colorful, succinct version of the <i>CCMP</i> . Four issues of <i>Harbor Happenings</i> have been published each year since 1997 except for 2004 when several hurricanes struck the region. The printed newsletter is distributed to approximately 7,000 subscribers with another 3,000 copies distributed at nature centers, libraries and at events. The newsletter is also posted on the Program website as an Adobe Acrobat PDF file and is translated into Spanish. The CHNEP website at www.CHNEP.org is a clearinghouse for materials produced by and for the program. Calendars of donated images showing the beauty of the natural environment have been published since 2005. In 2008 a children's book was published and distributed free to 18,000 children through the school districts in the seven counties that participate in the CHNEP. Recent videos produced include a 26-minute video <i>Neighbor-to-Neighbor Florida-Friendly Landscaping</i> and 10 related one-minute interstitials produced in cooperation with WGPU, a local PBS station. The videos are broadcast by WGPU and government access channels and is available as a DVD for viewing. Various displays and posters have been produced and collateral has been printed as required. Several interns have been hired since FY03 to assist with public information and education projects. | |
| Description: Communication techniques vary. Specific techniques are identified in the <i>CCMP</i> . The quarterly newsletter <i>Harbor Happenings</i> covers watershed issues, events and updates on Program activities and progress made toward implementing the <i>CCMP</i> . The newsletter will be expanded from 12 to 16 pages in 2009. Contributions by program partners and distribution are expected to continue to increase. The program website, www.CHNEP.org , 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 will develop a strategic communication plan that will incorporate community-based social marketing. | |
| 2009 Funded Deliverables: <ul style="list-style-type: none"> ▪ CCMP Update and Summary ▪ Quarterly Newsletter ▪ Website and FTP site ▪ 2009 Calendar ▪ Children's book ▪ Videos ▪ Collateral, Displays, Reprintings, etc. ▪ Publications Brochure ▪ Interns | Target Dates: <ul style="list-style-type: none"> ▪ December 2008 and April 2008 ▪ April, July, September, January ▪ Ongoing ▪ September 2008 ▪ April 2008 ▪ May 2008 ▪ September 2008 ▪ April 2008 ▪ Ongoing |
| 2010 Funded Deliverables: <ul style="list-style-type: none"> ▪ Quarterly Newsletter ▪ Website and FTP site ▪ 2010 Calendar ▪ Children's Book ▪ Internship ▪ Collateral, Displays, Reprintings, etc. ▪ 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"> ▪ April, July, September, January ▪ Ongoing ▪ November 2009 ▪ March 2009 ▪ Ongoing ▪ September 20 ▪ September 2009 ▪ February 2010 ▪ September 2009 ▪ September 2010 |

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| 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> . | |
| Previous Work: The CHNEP develops a Watershed Summit every three years (2002, 2005, 2008) to discuss latest research findings. Each year since 2003, public conferences are held that focus on specific watersheds within CHNEP. “Cape Coral Canals: A Public Conference on Water Quality and Quantity” was held March 25, 2006 with approximately 100 people attending; “Keeping the Peace: A Peace River Management Conference” was held October 2006 with approximately 70 attending, and the “Everglades Coalition” was held in January 2008 with approximately 250 attending. Since 2000, CHNEP has drawn on the strength of its partners to celebrate National Estuaries Days with public hands-on experiences from festivals to guided walks and boat tours to increase their understanding and concern about the local environment. Since 2002, CHNEP has offered its partners an affordable professional development training. On May 10-11, 2006, EPA provided their “Community Culture and the Environment: A Guide to Understanding Sense of Place.” NOAA Coastal Services has offered several workshops including “Community Planning and Development” on December 4-6, 2007 and July 30-31, 2008, and “Public Issues and Conflict Management” on December 16-17, 2008. Target outreach projects have focused on programs that are specifically mentioned in the CCMP, including Florida-friendly programs and audiences targeted such as teachers, hotels and the agriculture industry. CHNEP hosted several workshops to help residents understand the importance of using native plants on their property. Native plant demonstration sites at public locations were also sponsored. A new video inspires others to use native plants on their property. WGPU Public Media’s Curious Kids Nature Club website is redesigned to focus on issues of concern to CHNEP. The material will also be available on DVDs. CHNEP participates in events hosted by others throughout the year. Reports on all of these events are posted on the program website. | |
| Description: National Estuaries Days will be celebrated with our partners in September 2009. The Charlotte Harbor Regional Nature Festival will be held November 21, 2009. 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. | |
| 2009 Deliverables: | Target Dates: |
| <ul style="list-style-type: none"> ▪ National Estuaries Days ▪ Charlotte Harbor Nature Festival ▪ Sustainable Communities Conference ▪ Public Issues and Conflict Management ▪ Public Workshop ▪ Florida-Friendly Programs ▪ Guides, workshops, etc. to target audiences | <ul style="list-style-type: none"> ▪ Sept – Nov 2008 and 2009 ▪ November 22, 2008 ▪ December 12-13, 2008 ▪ December 16-17, 2008 ▪ September 2009 ▪ Ongoing ▪ Ongoing |
| 2010 Deliverables: | Target Dates: |
| <ul style="list-style-type: none"> ▪ National Estuaries Days ▪ Charlotte Harbor Nature Festival ▪ Sustainable Communities Conference ▪ Professional Development Workshop ▪ Public Workshop ▪ Florida-Friendly Programs ▪ Guides, workshops, etc. to target audiences | <ul style="list-style-type: none"> ▪ September 2009 ▪ November 21, 2009 ▪ December 2009 ▪ September 2009 ▪ September 2009 ▪ Ongoing ▪ Ongoing |

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| 2.3 Public Outreach Grants | |
| Objective: To support CHNEP partners public outreach initiatives to further the <i>Comprehensive Conservation and Management Plan (CCMP)</i> . | |
| <p>Previous Work: The CHNEP offers public outreach grants up to \$3,000 to Florida residents, organizations, businesses, government agencies, schools, colleges and universities. Since 2000, the CHNEP has awarded 106 public outreach grants. In FY09, 13 projects were supported.</p> <ol style="list-style-type: none"> 1. Sailing Through the Environment of Charlotte Harbor: L.A. Ainger Middle School, Rotonda West 2. Learning About our Estuary: Port Charlotte Middle School 3. Manatee, Estuary and Seagrass Education Project for Lee County: Charlotte Harbor Environmental Center 4. Ecosystem and Habitat Signage: A Need for Preservation: DeSoto County Parks & Recreation 5. Naturalization of a Retention Pond: Unitarian Universalist Congregation of Venice 6. Project EAGLE, Winter Haven Chain of Lakes Cleanup: Lakes Education/Action Drive 7. Butterfly Garden: Fishermen’s Village Yacht Club 8. Peace River Paddle Documentary: Mike Britt 9. Reaching Out to the Hispanic Community: Southwest Florida Latino Environmental Education Network 10. “Smart Angler” Program: Snook Foundation 11. The Mangrove Gathering Eco Cafe 2009 Season: Society for Ethical Ecotourism in Southwest Florida 12. Water, Wings & Wild Things: Polk’s Naturefest 2009: Polk County Environmental Lands Program 13. Shoreline Stabilization and Habitat Enhancement in the Mullock Creek Basin: Florida Gulf Coast University | |
| <p>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.</p> <p>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 are posted on the website at www.CHNEP.org.</p> | |
| <p>2009 Deliverables:</p> <ul style="list-style-type: none"> ▪ Public Outreach Grants (POG) 2010 Guidance Document ▪ Approximately 13 public outreach projects | <p>Target Dates:</p> <ul style="list-style-type: none"> ▪ December 2008 ▪ November 2008 to September 2010 |
| <p>2010 Deliverables:</p> <ul style="list-style-type: none"> ▪ POG 2011 Guidance Document ▪ Approximately 13 public outreach projects | <p>Target Dates:</p> <ul style="list-style-type: none"> ▪ December 2009 ▪ November 2009 to September 2011 |

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| 2.4 | Micro-Grants |
| <p>Objective: To provide year-round support of CHNEP partners public outreach initiatives that further the <i>Comprehensive Conservation and Management Plan (CCMP)</i>.</p> | |
| <p>Previous Work: The first \$250 micro-grant was awarded in March 2002. Since then 288 grants have been completed: 19 in FY02, 31 in FY03, 44 in FY04, 42 in FY05, 37 in FY06, 50 in FY07 and 65 in FY08. A list of all projects completed with a micro-grant is posted on the website at www.CHNEP.org. A select list of projects concluded in 2008 is provided here.</p> <ul style="list-style-type: none"> ▪ Myakka River Management Coordinating Council website ▪ Roseline Young: Blue Waters, Banners for a Better Environment ▪ Englewood Elementary School: Habitats and Ecosystems in our Local Environment, a field trip for four fourth-grade classes ▪ Fort Myers Beach Pilot Club: Coastal Cleanups on Ft Myers Beach ▪ Taylor Ranch School: Estuary Exploration for six classes of fourth grade students ▪ Mangrove Gathering Eco Café ▪ Southwest Florida Exotic Species Workshop ▪ Cape Coral Friends of Wildlife Burrowing Owl Festival ▪ Southwest Florida Gulf Coast Regional Environthon ▪ North Port High School: Marine Science Wading Trip to Lemon Bay Park ▪ Cape Coral Parks and Rec: An Evening Under the Sea ▪ FNPS Mangrove Chapter: Plant Native Day ▪ Southwest Florida Amphibian Monitoring Network: Website maintenance and domain fee for FrogWatch ▪ City of North Port Parks & Recreation Department: Environmental Fun Week at Mykkahatchee Creek Environmental Park ▪ Arts and Humanities Association of DeSot County: Native Plant Image Contest ▪ Cape Coral Canal Cleanup Day ▪ CREW Land & Water Trust Wildflower Festival ▪ FGCU Whitaker Center: A Community-Based Long-Term Ecological Research Initiative for Citizen-Scientists of Southwest Florida ▪ Friends of Lovers Key Estuary Wading Trips at Lovers Key State Park ▪ Lakes Education/Action Drive: Lakes Appreciation Month Celebration ▪ Lee County School District: Learning Locally-Monday Group ▪ Lee County Veterans Park: Explore and Discover our Earth ▪ Lemon Bay High School: Estuarine Teach-a-Parent Kayak Trip ▪ Sierra Club Calusa Group: Earth Day Festival at Koreshan State Park ▪ St. Andrew Catholic School Florida Wildlife Literacy Project | |
| <p>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 are posted on the website at www.CHNEP.org.</p> | |
| <p>2009 Deliverables:</p> <ul style="list-style-type: none"> ▪ Approximately 44 small, innovative projects | <p>Target Dates:</p> <ul style="list-style-type: none"> ▪ Available year round |
| <p>2010 Deliverables:</p> <ul style="list-style-type: none"> ▪ Approximately 44 small, innovative projects | <p>Target Dates:</p> <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. One of the more important roles of the CHNEP is to serve as a central location of information for the Charlotte Harbor watershed. The program consistently compiles and analyzes data on hydrology, water quality and fish and wildlife habitat for the entire study area so that resource managers, scientists, decision makers and citizens can obtain information gathered by our program partners on a watershed basis or by subbasin. Examples of projects include the:

- *Water Quality Data Analysis and Report for the Charlotte Harbor National Estuary Program* by Janicki Environmental, Inc in 2003 and 2007,
- *An Analysis of Hydrologic Conditions within the Charlotte Harbor National Estuary Program Study Area* by URS Corporation in 2006,
- *Assessment of Boat Propeller Scar Damage within the Greater Charlotte Harbor Region* by the Florida Marine Research Institute in 2005,
- *Historic Coastal Benthic Habitat Map* by Photo Science, Inc. in 2007,
- *Historic Hydrologic Subbasins Map* by Gurr Consulting Services in 2008 and the
- *Tidal Charlotte Harbor Shoreline Condition Map* by Photo Science in 2008.

Another role of the CHNEP is to ensure that studies and monitoring undertaken in one area of the watershed are duplicated in others as much as practicable to address data gaps and to act as a central clearinghouse for data. CHNEP partners often request information, data, technical presentations and analyses regarding the Charlotte Harbor region.

Subtasks include:

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

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| 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. | | |
| Previous Work: The first comprehensive monitoring program for the coastal region of Charlotte Harbor began in 1996 with the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network (CHEVWQMN). The Coastal Charlotte Harbor Monitoring Network (CCHMN), an inter-agency program, was started in April 2001 and is managed by CHNEP. CHNEP funded the upload of these data into STORET and train participants in methods. CHNEP staff oversees management and facilitates issue resolution for the CCHMN. In 2003 and 2004, the Fisheries Independent Monitoring Program by the Fish and Wildlife Research Institute (FWRI) expanded into southern Charlotte Harbor through funding by the SFWMD. The SFWMD and SWFWMD are utilizing the same timeframe for seagrass mapping efforts to ensure data comparability for seagrass coverage harbor-wide. CHNEP staff assisted FDEP Aquatic Preserves staff with analysis and report of 1999-2006 seagrass transect monitoring data. In support of these indicators and water quality targets, CHNEP staff completed a status and trends analysis of seagrass aerial extent for the special issue of <i>Florida Scientist</i> and developed a 3-day technical exchange workshop on colored dissolved organic matter in 2007. In 2008, CHNEP staff coordinated with SCCF, USF and FDEP to initiate an automated field sensor program for chlorophyll a, turbidity and CDOM. The TAC continued to refine environmental indicators, the Research Needs Inventory and numeric water clarity targets based on seagrass light requirements by basin. CHNEP staff also submitted 2 articles to the Charlotte Harbor special issue of the <i>Florida Scientist</i> on mangrove coverage trends to address environmental indicators and an update on the numeric water quality targets. | | |
| Description: Continue coordination, implementation 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. The TAC will continue to refine the environmental indicators, the Research Needs Inventory and numeric water clarity targets based on seagrass light requirements by basin. A working group will assist Janicki Environmental, Inc with refining the water quality targets. 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. | | |
| 2009 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 on-going monitoring to support water quality targets ▪ Identify and fill gaps in water quality needed to refine water quality targets ▪ Coordinate with Janicki Environment, Inc. to refine seagrass based water quality targets ▪ Coordinate automated sensor monitoring program for chlorophyll a, turbidity & CDOM | Target Dates: <ul style="list-style-type: none"> ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ On-going | |

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| <ul style="list-style-type: none"> ▪ Coordinate partners to develop consistent and geographically complete water quality, seagrass and mangrove information ▪ Submit water quality, seagrass and/or mangrove status manuscripts in scientific journal ▪ Respond to Requests for Information pertaining to research and data collection ▪ Assist with grant proposals for research and restoration in region ▪ Coordinate with SFWMD and SWFWMD for collection and reporting of biennial seagrass maps | <ul style="list-style-type: none"> ▪ On-going ▪ On-going ▪ On-going ▪ On-going |
| <p>2010 Deliverables:</p> <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 on-going monitoring to support water quality targets ▪ Coordinate automated sensor monitoring program for chlorophyll a, turbidity & CDOM ▪ Identify and fill gaps in water quality needed to refine water quality targets ▪ Coordinate partners to develop consistent and geographically complete water quality, seagrass and mangrove information ▪ Submit water quality, seagrass and/or mangrove status manuscripts in scientific journal ▪ Respond to Requests for Information pertaining to research and data collection ▪ Assist with grant proposals for research and restoration in region ▪ Coordinate with SFWMD and SWFWMD for collection and reporting of biennial seagrass maps ▪ Water Quality Targets Refinement | <p>Target Dates:</p> <ul style="list-style-type: none"> ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ On-going ▪ October 2009 |

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| 3.2 | Targeted Research |
| Objective: To conduct research targeted for implementation of the <i>Comprehensive Conservation and Management Plan (CCMP)</i> . | |
| Previous Work: The CHNEP continued its support of the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network (CHEVWQMN) to provide quality assurance, data management, and data analyses for the data collected by the volunteers. With funds from SWFWMD and CHNEP, CHEC continued to provide monthly water quality maps of the entire estuarine portion of the study area. CHNEP provided funds for SWFRPC to maintain its Internet Mapping Site (ArcIMS). CHNEP contracted with Photo Science to create a tidal Charlotte Harbor shoreline condition map and database incorporating volunteer-collected data. CHNEP contracted with Gurr Consulting to develop an historic hydrologic subbasin map. The 2008 Watershed Summit was conducted and Florida Academy of Sciences was contracted to begin developing the special issue of <i>Florida Scientist</i> devoted to the summit results. SWFRPC began a study of climate change effects on ecosystems and infrastructure through EPA Region IV Funding and Headquarters Funding. The program contracted with Gurr, Inc. to develop an historic vegetation map in the Upper Peace River and the CHNEP areas of Sarasota County. | |
| Description: The CHNEP will continue its on-going 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. | |
| 2009 Deliverables: | Target Dates: |
| <ul style="list-style-type: none"> ▪ Continue CHEVWQMN, CHEC Water Quality Website, SWFWMD Arc IMS ▪ Tidal Shoreline Condition Map ▪ Analysis of Climate Change Effects on Ecosystems and Infrastructures surrounding the Charlotte Harbor Estuary ▪ Climate Ready Estuaries Pilot | <ul style="list-style-type: none"> ▪ On-going ▪ October 2008 ▪ August 2009 ▪ September 2009 |
| 2010 Deliverables: | Target Dates: |
| <ul style="list-style-type: none"> ▪ Florida Scientist special issue ▪ Water Quality Targets Refinement ▪ Water Quality Targets Exceedance Criteria & Locations ▪ Historic Vegetation Map for study area ▪ Lemon Bay Independent Fisheries Monitoring Results ▪ Up-date Water Quality Status and Trends | <ul style="list-style-type: none"> ▪ October 2009 ▪ October 2009 ▪ October 2009 ▪ December 2009 ▪ May 2010 ▪ September 2010 |

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| 3.3 Research and Restoration Partners | |
| Objective: To promote innovative techniques in research and restoration | |
| <p>Previous Work: These projects started in 1997 with the funding of Early Action Demonstration Projects with six projects costing a total of \$85,000. This grew to 12 projects in 1998 at a cost over \$140,000. In 1999, the projects were split into Public Outreach Grants and Restoration Partners grants with 4 projects at approximately \$70,000 going to water quality monitoring, restoration of habitat or baseline benthic invertebrate data collection. In 2000, four habitat restoration projects were funded for a little over \$60,000. In 2001, the grants changed again to allow the funding of applied research. Six projects at a cost of \$73,000 to the program were funded for restoration of habitat on Sanibel, coastal Venice and the Charlotte Harbor Buffer Preserve as well as research into Old Mined Lands and the content of metals and pesticides in oysters in the Caloosahatchee River. In 2002-2004, the program budgeted approximately \$100,000 annually for the Research and Restoration Partners grants. In 2005 through 2007, the budget was decreased to approximately \$50,000, with a 2008 expenditure of \$68,866.</p> | |
| <p>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.</p> | |
| <p>2009 Deliverables:</p> <ul style="list-style-type: none"> ▪ Approve RRPP RFP guidance document ▪ Commit to partnership funding of RRPP projects ▪ Final reports from RRPP projects | <p>Target Dates:</p> <ul style="list-style-type: none"> ▪ September 2008 ▪ January 2009 ▪ September 2010 |
| <p>2010 Deliverables:</p> <ul style="list-style-type: none"> ▪ Approve RRPP RFP guidance document ▪ Commit to partnership funding of RRPP projects ▪ Final reports from RRPP projects | <p>Target Dates:</p> <ul style="list-style-type: none"> ▪ September 2009 ▪ January 2010 ▪ 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

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| 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. | |
| Previous Work: The CHNEP program office designed a database and GIS shape file procedure which houses proposed restoration ideas. Through the efforts of many partners in coordination with the CHNEP, a restoration needs inventory has been produced. Restoration includes improvements to water quality, habitat, and hydrology and is ready for loading on an internet map server. In addition, the work has been used as the primary source for the Southwest Florida Feasibility Study alternatives development. In addition, the CHNEP program office supports restoration efforts of our partners' watershed initiatives such as such as the Southern Water Use Caution Area (SWUCA) Recovery Strategy, Minimum Flows and Levels, Reasonable Assurance Plans, Basin Management Action Plans, development of basin water budgets etc. In addition, information is generated upon requests of partners. | |
| 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. | |
| 2009 Deliverables: <ul style="list-style-type: none"> ▪ Update and disseminate CHNEP Restoration Needs Inventory ▪ GPRA Report ▪ Watershed Management Plans and “Verified Lists” development ▪ Minimum Flows and Levels ▪ 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 | Target Dates: <ul style="list-style-type: none"> ▪ July 2009 ▪ September 2009 ▪ Based on Impaired Waters Rules dates ▪ Based on MFL Schedules ▪ As opportunities arise. ▪ As opportunities arise. |
| 2010 Deliverables: <ul style="list-style-type: none"> ▪ GPRA Report ▪ Watershed Management Plans and “Verified Lists” development ▪ Minimum Flows and Levels ▪ 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 2009 ▪ Based on Impaired Waters Rules dates ▪ Based on MFL Schedules ▪ As opportunities arise. ▪ As opportunities arise. |

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| 4.2 Everglades Restoration | |
| Objective: To support development and implementation of Everglades Restoration. | |
| Previous Work: CHNEP staff have participated in the development of the Southwest Florida Feasibility Study (SWFFS), co-chaired the Southwest Florida Regional Restoration Coordination Team (SWF RRCT), and served on the Science Coordination Group (SCG). Staff has proposed methods to develop water quality targets for the Charlotte Harbor and Estero Bay regions and have worked with SFWMD to refine these methods and ensure they are incorporated into other SWFFS efforts such as habitat suitability models. On October 20, 2006, CHNEP Director and USFWS Biologist presented science and restoration priorities to the Everglades Restoration Working Group. | |
| 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. | |
| 2008 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 2007 ▪ On-going ▪ On-going |
| 2009 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 2008 ▪ On-going ▪ On-going |

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

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| 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> . | |
| Previous Work: The Management Conference approved the CHNEP Legislative Agenda in 2003. This Agenda is presented to the both the State and Federal legislative delegations annually. In FY2005-2006, the Management Conference recommended that CHNEP develop letters of support for two State bills, and one Federal bill. In addition, the Management Conference directed staff to develop model language for land development code for pervious low volume parking lots to be used throughout the Study Area. CHNEP staff have been actively working to develop closer relationships with the Federal elected officials that represent the Study Area. | |
| 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. | |
| 2009 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 | Target Dates: <ul style="list-style-type: none"> ▪ November 2008- April 2009 ▪ As Appropriate ▪ As Appropriate ▪ ▪ As Opportunities Arise ▪ January 2009 |
| 2010 Deliverables: <ul style="list-style-type: none"> ▪ Revised FY2011 Legislative Agenda by mid-autumn ▪ 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 | Target Dates: <ul style="list-style-type: none"> ▪ Mid-November 2009 ▪ November 2009- April 2010 ▪ ▪ As Appropriate ▪ As Appropriate ▪ As Opportunities Arise ▪ ▪ January 2010 |

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| 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. | |
| <p>Previous Work: On February 21, 2003, the Policy Committee adopted the Advocacy and Review Procedures that were developed by the Management Conference. Since adoption of the Advocacy and Review Procedures, CHNEP has submitted over 40 letters of either support or comment to other agencies. The topics of the letters: Corps and South Florida Water Management District Lake Okeechobee Protocols, Corps Phosphate Mine Inquiry, Caloosahatchee Coordination, Charlotte Harbor Total Maximum Daily Loads (TMDL) and Pollutant Load Reduction Goals (PLRG), SWANCC Request, Funding Request, and Babcock Acquisition. In FY 05, letters were sent to EPA (Gypsum Research), SFWMD (Water Supply/Environmental Regulations), SWFWMD (SWUCA), and Corps (404 permit).</p> <p>The CHNEP developed a Federal Consistency Review Report in 1999 which sets forth a procedure for ensuring compliance with the USEPA requirements. In 2000 and 2003, the Management Conference approved the submission of a letter to the U.S. Corps of Engineers requesting a Programmatic EIS regarding the permitting and funding activities within the Peace and Myakka River Basins of the Greater Charlotte Harbor watershed.</p> | |
| <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>2009 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 FY2009 |
| <p>2010 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 |

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| 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. | |
| Previous Work: The CHNEP Management Conference adopted the first CCMP in 2000. The EPA approved the CCMP in 2001. In 2007-2008, CHNEP identified grant opportunities for partners to fund projects identified in the Research Needs Inventory. At the time of the Workplan development, CHNEP staff continues working with partners to revise the Research Needs Inventory and to identify funding for land acquisition and restoration. | |
| Description: As part of the Long Range Funding Strategy, it was recommended that CHNEP aggressively pursue Federal and State Funding assistance and new funding sources. 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 (revision expected in FY2008), in conjunction with the CCMP, guides CHNEP staff when reviewing grant opportunities. In FY07/08 CHNEP staff were successful in capturing over \$470,000 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. | |
| 2009 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"> ▪ On going ▪ Ongoing, usually bi-monthly ▪ As Requested ▪ As Appropriate |
| 2010 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 |

Task 7: Climate Ready Estuaries – Region 4

The CHNEP applied for a grant from US EPA Region 4 to conduct an analysis of the effects that climate change stressors may have on the ecosystems and human infrastructure within the region surrounding Charlotte Harbor and Lemon Bay. The final product of the analysis will be a Vulnerability Assessment.

The goals of the US EPA Region 4 Climate Ready Estuaries project are:

- To conduct an assessment of significant potential effects on the human and native ecosystems of the Charlotte Harbor National Estuary Program study area;
- To provide an overview that will identify potentially critical areas that need to be addressed related to adaptation for the Charlotte Harbor area, and
- To develop an outline of options for minimizing the social, economic, and environmental costs of anticipated effects.

This project will lay the groundwork for the development of conceptual models of climate change effects, habitat succession predictive tools, and local government guidance resolutions.

The project consists of 10 discrete tasks.

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| 7.0 | Vulnerability Assessment |
| <p>Objective: To identify projected impacts and develop an outline of options for minimizing the social, economic, and environmental costs of anticipated effects of climate change within that portion of the Charlotte Harbor Estuary area that is in the region served by the Southwest Florida Regional Planning Council.</p> | |
| <p>Previous Work: The CHNEP was awarded funding for this grant in late June 2008. Work will commence in July 2008.</p> | |
| <p>Description: This project supports Priority Action SG-Q: “Build capacity for communities and their local leadership to mitigate and adapt to the effects of climate change through joint efforts.” The CHNEP will conduct an analysis of the effects that climate change stressors may have on ecosystems and human infrastructure within the region surrounding Charlotte Harbor and Lemon Bay. Stressors delineated in the EPA Climate Ready Estuaries draft <i>Synthesis of Adaptations Options for Coastal Areas</i>, will be considered for use in the analysis. Public participation will be actively sought throughout the project; the progress and outputs of the project will be communicated to local governments, stakeholder groups and the public at large for use in developing coastal and land use planning, and avoidance, minimization, adaptation and mitigation of climate change impacts throughout the CHNEP study area.</p> | |
| <p>2009 Deliverables:</p> <ul style="list-style-type: none"> ▪ Tasks 2 through 10 output ▪ Quarterly Reports | <p>Target Dates:</p> <ul style="list-style-type: none"> ▪ Ongoing ▪ January, April, July |
| <p>2010 Deliverables:</p> <ul style="list-style-type: none"> ▪ None – Project expected to be complete | <ul style="list-style-type: none"> ▪ |

Task 8 Climate Ready Estuaries – EPA Headquarters

The CHNEP applied for a grant from US EPA Headquarters to develop a Climate Change Adaptation Plan for one of the coastal cities with the Study Area. The grant was awarded with an anticipated start date of October 1, 2008. The CHNEP in conjunction with the SWFRPC will conduct a climate change Vulnerability Assessment for the Greater Charlotte Harbor region. The information developed through the Vulnerability Assessment will be applied to the City of Sanibel to evaluate its overall climate change vulnerability “score.” Potential climate change mitigation strategies and adaptation techniques will be identified and a process for implementing identified actions will be developed. The resulting draft Climate Change Adaptation Plan will be presented for public comment and citizen input at workshops and meetings. The final Adaptation Plan will be structured so that it can be modified and revised as additional information about vulnerabilities and resilience become available and so that it can be tailored for application to other cities and municipalities

The goals of the US EPA Headquarters Climate ready Estuaries project are:

- To apply the Vulnerability Assessment to a Southwest Florida coastal city;
- To develop a Climate Change Adaptation Plan for the coastal city and
- To provide the tools to local and region leadership to apply the Adaptation Plan to other municipalities, counties and regional governments.

The project consists of 14 tasks.

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| 8.0 | Adaptation Plan |
| Objective: To develop a Climate Change Adaptation Plan for a southwest Florida coastal city within the CHNEP Study Area. | |
| Previous Work: The CHNEP applied to US EPA Headquarters to participate in the Climate Ready Estuaries Pilot Program. The Program was notified that it was awarded \$50,000 to develop an Adaptation Plan, with funding to be available October 1, 2008. | |
| Description: This project supports Priority Action SG-Q: “Build capacity for communities and their local leadership to mitigate and adapt to the effects of climate change through joint efforts.” The CHNEP will be working with SWGFRPC staff to apply the information developed through the Vulnerability Assessment (Task 7.0) to the City of Sanibel to evaluate its overall climate change vulnerability “score.” Potential climate change mitigation strategies and adaptation techniques will be identified and a process for implementing identified actions will be developed. The resulting draft Climate Change Adaptation Plan will be presented for public comment and citizen input at workshops and meetings. The final Adaptation Plan will be structured so that it can be modified and revised as additional information about vulnerabilities and resilience become available and so that it can be tailored for application to other cities and municipalities. | |
| 2009 Deliverables: | Target Dates: |
| <ul style="list-style-type: none"> ▪ Task 1 ▪ Tasks 2, 3, and 4 ▪ Task 5 ▪ Tasks 6 and 7 ▪ Task 8 ▪ Task 9 ▪ Task 10 and 13 ▪ Task 11 ▪ Task 12 ▪ Task 14 | <ul style="list-style-type: none"> ▪ October ▪ November ▪ December ▪ Dec/Jan ▪ Feb ▪ Mar/Apr ▪ Apr ▪ June ▪ July ▪ July through September |

Table 3: On-Going Technical Projects (as of 10/1/08)

| Fiscal Year | Project/Contractor | Due Date | Outlay | Contract | Difference |
|--------------------|--|-----------------|---------------------|---------------------|---------------------|
| 2006 | Charlotte Harbor Estuaries Volunteer Monitoring Network | 12/31/2008 | \$19,534.58 | \$33,000.00 | \$13,465.42 |
| 2006 | Hydrologic Subbasin Boundary Map--Gurr Consulting | 6/27/2008 | \$38,025.00 | \$80,000.00 | \$41,975.00 |
| 2006 | Identities Effects of Ecoestrogens in Caloosahatchee--Mote | 6/1/2008 | \$13,977.10 | \$19,120.00 | \$5,142.90 |
| 2006 | ArcIMS website--SWFRPC | 12/31/2008 | \$28,783.48 | \$56,605.46 | \$27,821.98 |
| | Subtotal = | | \$100,320.16 | \$188,725.46 | \$88,405.30 |
| 2007 | Fate and Transport of Caloosahatchee ETM Sediment--FGCU | 9/30/2008 | \$12,625.08 | \$15,296.00 | \$2,670.92 |
| 2007 | Evaluating pharmaceutical to Caloosahatchee wildlife: bull shark--Mote | 9/30/2008 | \$13,759.70 | \$19,936.00 | \$6,176.30 |
| 2007 | Do coastal land alterations impact estuarine food webs?-- Mote | 9/30/2008 | \$0.00 | \$19,220.00 | \$19,220.00 |
| 2007 | Tidal Charlotte Harbor Shoreline Condition Map--Photo Science | 6/30/2008 | \$67,608.00 | \$100,000.00 | \$32,392.00 |
| | Subtotal = | | \$93,992.78 | \$154,452.00 | \$60,459.22 |
| 2008 | CHEC Water Quality Website - CHEC | 9/30/2009 | \$18,500.00 | \$21,000.00 | \$2,500.00 |
| 2008 | Wild Turkey Strand Preserve Restoration - Lee Co 2020 | 9/30/2009 | \$0.00 | \$20,000.00 | \$20,000.00 |
| 2008 | Segment 8 Exotic Vegetation Removal - Venice Area Beautification, Inc | 9/30/2009 | \$0.00 | \$5,000.00 | \$5,000.00 |
| 2008 | Restoration of Native Ground Cover on Sanibel Island - SCCF | 9/30/2009 | \$0.00 | \$4,000.00 | \$4,000.00 |
| 2008 | Do Upland Drainage Alterations Degrade Estuarine Creek Habitats - Mote | 9/30/2009 | \$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 - Barry Wharton | 12/31/2009 | \$0.00 | \$150,000.00 | \$150,000.00 |
| 2008 | Does Nitrogen from Sludge Farm Runoff Persist in CHNEP - CHEC | 2/27/2009 | \$0.00 | \$2,500.00 | \$2,500.00 |
| 2008 | Implementation of Enhancements to CHEVWQMN | 9/30/2009 | \$0.00 | \$30,000.00 | \$30,000.00 |
| | Subtotal = | | \$18,500.00 | \$272,366.00 | \$253,866.00 |
| TOTAL | | | \$212,812.94 | \$615,543.46 | \$402,730.52 |

Outlay=Amount expended on project as of September 30, 2008.

Contract= Contracted amount.

Difference=Unexpended amount left on contract.

Table 4: On-Going Public Outreach Projects (as of 10/1/08)

| Fiscal Year | Title | Due Date | Outlay | Contract | Amount |
|--------------------|---|-----------------|--------------------|--------------------|--------------------|
| 2007 | POG Upper Peace River Flora and Fauna Study (Hardee County Outdoor Classroom) | 9/30/2009 | \$2,239.00 | \$2,989.00 | \$750.00 |
| 2007 | Strategic Communication Plan | 9/30/2010 | \$1,922.00 | \$15,000.00 | \$13,078.00 |
| 2007 | Internship: Contract with Sue Scott | ongoing | \$4,160.00 | \$9,500.00 | \$5,340.00 |
| 2007 | Public Workshop: Estero Bay | 9/30/2009 | \$0.00 | \$3,000.00 | \$3,000.00 |
| 2007 | Environmental Places Map | 9/30/2009 | \$0.00 | \$5,000.00 | \$5,000.00 |
| 2007 | Reprint <i>Story of the Greater Charlotte Harbor Watershed</i> | 9/30/2009 | \$0.00 | \$0.00 | \$0.00 |
| | Subtotal = | | \$8,321.00 | \$35,489.00 | \$27,168.00 |
| 2008 | POG "Water" we doing? Watershed rescue traveling trunks (LE/AD) | 9/30/2009 | \$0.00 | \$3,000.00 | \$3,000.00 |
| 2008 | POG IMC Peace River Park Boardwalk Educational Signage | 4/1/2009 | \$0.00 | \$3,000.00 | \$3,000.00 |
| 2008 | POG DeSoto Diaries | 1/25/2009 | \$0.00 | \$3,000.00 | \$3,000.00 |
| 2008 | Micro-Grant Manatee County traveling trunks | | \$0.00 | \$1,000.00 | \$1,000.00 |
| 2008 | Target audience: Virtual wading trip | | \$3,065.00 | \$23,500.00 | \$20,435.00 |
| 2008 | Citizens BMP/New Residents' Guide | 9/30/2009 | \$0.00 | \$6,000.00 | \$6,000.00 |
| | Subtotal = | | \$3,065.00 | \$39,500.00 | \$36,435.00 |
| | Total= | | \$11,386.00 | \$74,989.00 | \$63,603.00 |

Table 5: Ongoing Research and Restoration Projects Funding Sources

| Fiscal Year | Project/Contractor | SWFWMD | Local/Grants | Total |
|-------------|--|---------------------|---------------------|---------------------|
| 2006 | Charlotte Harbor Estuaries Volunteer Monitoring Network | | \$13,465.42 | \$13,465.42 |
| 2006 | Hydrologic Subbasin Boundary Map--Gurr Consulting | | \$41,975.00 | \$41,975.00 |
| 2006 | Identities Effects of Ecoestrogens in Caloosahatchee--Mote | | \$5,142.90 | \$5,142.90 |
| 2006 | ArcIMS website--SWFRPC | \$25,000.00 | \$2,821.98 | \$27,821.98 |
| 2007 | Fate and Transport of Caloosahatchee ETM Sediment--FGCU | | \$2,670.92 | \$2,670.92 |
| 2007 | Evaluating pharmaceutical to Caloosahatchee wildlife: bull shark--Mote | | \$6,176.30 | \$6,176.30 |
| 2007 | Do coastal land alterations impact estuarine food webs?-- Mote | | \$19,220.00 | \$19,220.00 |
| 2007 | Tidal Charlotte Harbor Shoreline Condition Map--Photo Science | \$16,196.00 | \$16,196.00 | \$32,392.00 |
| 2008 | CHEC Water Quality Website - CHEC | | \$2,500.00 | \$2,500.00 |
| 2008 | Wild Turkey Strand Preserve Restoration - Lee Co 2020 | | \$20,000.00 | \$20,000.00 |
| 2008 | Segment 8 Exotic Vegetation Removal - Venice Area Beautification, Inc | | \$5,000.00 | \$5,000.00 |
| 2008 | Restoration of Native Ground Cover on Sanibel Island - SCCF | | \$4,000.00 | \$4,000.00 |
| 2008 | Do Upland Drainage Alterations Degrade Estuarine Creek Habitats - Mote | | \$19,940.00 | \$19,940.00 |
| 2008 | Re-establishing Bay Scallops in Pine Island Sound -Mote | | \$19,926.00 | \$19,926.00 |
| 2008 | Mapping Pre-Development Cover & Surface Features - Barry Wharton | \$75,000.00 | \$75,000.00 | \$150,000.00 |
| 2008 | Does Nitrogen from Sludge Farm Runoff Persist in CHNEP - CHEC | | \$2,500.00 | \$2,500.00 |
| 2008 | Implementation of Enhancements to CHEVWQMN | | \$30,000.00 | \$30,000.00 |
| | Research and Restoration Total: | \$116,196.00 | \$286,534.52 | \$402,730.52 |

Table 6: Ongoing Public Information and Education Projects Funding Sources (as of 10/1/08)

| Fiscal Year | Project/ Organization | SWFWMD | Local/Grants | Total |
|-------------|---|---------------------|---------------------|---------------------|
| 2007 | POG Upper Peace River Flora and Fauna Study (Hardee County Outdoor Classroom) | | \$750.00 | \$750.00 |
| 2007 | Strategic Communication Plan | | \$13,078.00 | \$13,078.00 |
| 2007 | Internship: Contract with Sue Scott | | \$5,340.00 | \$5,340.00 |
| 2007 | Public Workshop: Estero Bay | | \$3,000.00 | \$3,000.00 |
| 2007 | Environmental Places Map | | \$20,000.00 | \$20,000.00 |
| 2007 | Reprint <i>Story of the Greater Charlotte Harbor Watershed</i> | | \$18,000.00 | \$18,000.00 |
| 2008 | POG "Water" we doing? Watershed rescue traveling trunks (LE/AD | | \$3,000.00 | \$3,000.00 |
| 2008 | POG IMC Peace River Park Boardwalk Educational Signage | | \$3,000.00 | \$3,000.00 |
| 2008 | POG DeSoto Diaries | | \$3,000.00 | \$3,000.00 |
| 2008 | Micro-Grant Manatee County traveling trunks | | \$1,000.00 | \$1,000.00 |
| 2008 | Target audience: Virtual wading trip | | \$20,435.00 | \$20,435.00 |
| 2008 | Citizens BMP/New Residents' Guide | | \$14,000.00 | \$14,000.00 |
| | Public Outreach Total: | | \$104,603.00 | \$104,603.00 |
| | Total Contacts: | \$116,196.00 | \$391,137.52 | \$507,333.52 |

Administrative and Financial

Description of Grants

Tables 5 and 6 provide the list of on-going 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 FY09, projects will begin in January or February of each year.

Fiscal Year 2009

1) **Project Name:** 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: Anticipated to be contracted January 2009 through March 2010.

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.

Deliverables: Final Report

2) **Project Name:** A Water Quality Monitoring Project to Ascertain the Extent Local Septic Systems have on Charlotte Harbor Waterways

Project Partners: Florida Department of Health-Charlotte County and CHNEP

Total Cost: \$47,670

CHNEP Funding: \$20,000

Completion Date: Anticipated to be contracted January 2009 through March 2010.

In Charlotte County, there are approximately 300 miles of navigable canals, an estimated 25,000 waterfront properties and 100,000 adjacent properties, many of which use on-site sewage treatment and disposal systems, or septic systems, to treat human waste. More than a third of these septic systems are believed to have failed because they were installed improperly, have broken over time or do not operate properly. It is reasonable to assume that in addition to fertilizer and stormwater runoff, septic discharge has a potential to negatively impact the water, plants and animals in these canals and in Charlotte Harbor. This project will build on previously collected water quality

monitoring data and augment it with an examination of constituents of septic input, such as bacteria, consumer chemicals and increased rates of loadings of carbon, nitrogen, phosphorus and ammonia into the canals leading to Charlotte Harbor.

Deliverables: Final Report

3) **Project Name:** 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: Anticipated to be contracted January 2009 through March 2010.

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.

Deliverables: Final Report

3) **Project Name:** 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: Anticipated to be contracted January 2009 through January 2010.

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.

Deliverables: Final Report

Fiscal Year 2008

1) **Project Name:** Wild Turkey Strand Preserve Restoration

Project Partners: Lee County Conservation 20/20 and CHNEP

Total Cost: \$41,617

NEP Funding: \$20,000

Completion Date: September 2009

Wild Turkey Strand Preserve is a 2,629 acre environmental preserve that is part of the Lee County Conservation 20/20 program. The preserve was purchased in 2003 for its environmental qualities. It is dominated by cypress, wet and mesic flatwoods, and freshwater marshes. The entire Wild Turkey Strand Preserve is managed according to a land stewardship plan which was written and adopted in 2005. Grant funding from the Charlotte Harbor National Estuary Program will allow treatment of non-indigenous invasive plants including melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolius*), wetland nightshade (*Solanum tampicense*), Caesar's weed (*Urena lobata*), West Indian marsh grass (*Hymenachne amplexicaulis*), and torpedo grass (*Panicum repens*) from

approximately 80 acres of management unit 5 and restore 2000 feet of emergency fire lines plowed/created by the Florida Division of Forestry created. Addresses FW-1 and FW-3 of CCMP.

Deliverables: Final Report

2) **Project Name:** Segment 8 Exotic Removal Project

Project Partners: Venice Area Beautification Inc., CHNEP, Sarasota County, Venice and others

Total Cost: \$10,000

NEP Funding: \$5,000

Completion Date: September 2009

The purpose of this project is to fund the eradication of exotic species along Segment 8 of the Venetian Waterway Park. The park is a multi-purpose bicycle/pedestrian trail approximately 10 miles long and includes the Shamrock Park and Nature Center, the historic train depot, picnic shelters, a canoe launch, a fitness trail and access to Caspersen Park and Beach. Segment 8 is ca. 3 miles long and this project will remove carrot wood, Brazilian pepper, lead tree, Australian pine, Chinese tallow, rosary pea, mimosa, camphor tree, air-potato, Melaleuca and castor bean. Addresses FW-1 and FW-3 of CCMP.

Deliverables: Final Report

3) **Project Name:** Restoration of Native Ground Cover on Sanibel Island

Project Partners: Sanibel-Captiva Conservation Foundation and CHNEP

Total Cost: \$9,633

NEP Funding: \$4,000

Completion Date: September 2009

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.

Deliverables: Final Report

4) **Project Name:** 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

NEP Funding: \$19,940

Completion Date: September 2009

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.

Deliverables: Final Report

Fiscal Year 2007

1) **Project Name:** Fate and Transport of Caloosahatchee ETM Sediment.

Project Partners: Florida Gulf Coast University and CHNEP

Total Cost: \$32,884

NEP Funding: \$15,296

Completion Date: September 2008

Suspended sediment concentrations and the associated light attenuation in Charlotte Harbor are important factors affecting the health of a variety of organisms, including oysters, clams and seagrasses. This proposal is an extension of ongoing work to study the localized trapped high concentrations of suspended sediments, called the estuarine turbidity maximum (ETM), in the Caloosahatchee River. Recent research by the Project Manager has shown that the ETM migrates as much as 20 km up and down the river over a timescale of weeks, and during high freshwater discharge can be flushed out of the estuary into the surrounding waters. This periodic flushing of ETM sediment introduces a strong pulse of highly concentrated suspended sediment into the environments near the mouth of the River, which is likely to adversely affect oysters, seagrasses, and other benthic organisms. The results of this study will provide further understanding of the effects of controlled freshwater releases from Lake Okeechobee into the Caloosahatchee River. This study will determine the relative amounts of ETM suspended sediment flux into regions outside of the mouth of the river, i.e. Matlacha Pass, Pine Island Sound, and south towards Estero Bay. An additional benefit of this study will be the estimation of suspended aggregate settling velocity, a crucial parameter for future numerical modeling of sediment transport in the Charlotte Harbor Estuary and surrounding waterways. The fieldwork for this proposal will take place during the wet season of 2007. The considerable analyses of the data that is required will be completed in the ninth months subsequent to the field work. Addresses WQ-2, WQ-A and WQ-E of 2007 CCMP.

Deliverables: Final Report

2) **Project Name:** Evaluating the Risks that Pharmaceutical-Related Pollutants Pose to Caloosahatchee River Wildlife: Observations on the Bull Shark, *Carcharhinus leucas*.

Project Partners: Mote Marine Laboratory and CHNEP

Total Cost: \$76,909

NEP Funding: \$17,761

Completion Date: September 2008

Recently, there has been growing concern about the ecological and human health risks posed by pharmaceutical-related pollutants originating from human excretion. These compounds can have

unexpected and often profound effects on non-target species because many drugs function by altering biological processes that are common in most organisms. Since these contaminants enter the natural environment primarily through domestic and industrial wastewater discharge, they pose their greatest threats to wildlife residing in aquatic habitats bordering highly populated regions. However, there has been very little research conducted on the exposure to and uptake of these pollutants in aquatic species. In the proposed study, researchers will assess the ecological risks that pharmaceutical-related compounds pose to the Caloosahatchee River Basin by examining the presence and concentrations of 12 widely prescribed drugs in surface waters of this river. Researchers will also determine if wildlife populations inhabiting the Caloosahatchee River are threatened by these potentially hazardous compounds by examining exposure to and accumulation of pharmaceuticals in juvenile bull sharks, an abundant and ecologically important resident of this river system. The compounds that will be examined include active components of human contraceptives, lipid-lowering drugs, anti-inflammatory agents, antidepressants, sexual function aids, and anti-psychotics. This will be a part of a larger, comparative study on pharmaceutical exposure in bull sharks residing in several wastewater impacted Florida rivers including the Indian River Lagoon, Hillsborough River, and the Caloosahatchee. By providing new information regarding the presence of potentially hazardous pharmaceuticals in the Caloosahatchee River, this study will fill gaps in water quality data needed to determine Total Maximum Daily Load levels for these poorly studied compounds. Furthermore, given that these compounds are derived from point source discharges, this study will contribute new data on the ecological impacts of wastewater treatment facilities in the Caloosahatchee River. Addresses WQ-B, WQ-D, WQ-H and WQ-M of 2007 CCMP.

Deliverables: Final Report

3) **Project Name:** Do Coastal Land Alterations Impact Estuarine Food Webs?

Project Partners: Mote Marine Laboratory, SWFWMD and CHNEP

Total Cost: \$40,240

NEP Funding: \$19,220

Completion Date: September 2008

Southwest Florida is experiencing increasing development of coastal habitats 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. Building upon recent and ongoing research, the proposed project will provide information on the impacts of coastal habitat alterations on mangrove associated fishes. Previous research showed that upland habitat alterations reduced number of fish species and fish abundance in mangrove creeks. The proposed research will determine the extent that these changes in fish community structure have in turn caused changes in the trophic web within mangrove creeks. Since juvenile snook, an economically and ecologically important species, rely on these creeks in their early years, changes in available prey can have far reaching impacts on adult snook populations and estuarine ecology. Changes in trophic structure within nursery habitats can influence growth rate, survival, and can cause emigration from poor habitats. If upland habitat alterations are causing trophic shifts, the implications are estuary wide, and more insidious than present data suggest. Addresses FW-C, FW-D, FW-E and FW-I of 2007 CCMP.

Deliverables: Final Report

Fiscal Year 2006

1. Project Name: Identities and Ecological Effects of Ecoestrogens Present in the Tidal Caloosahatchee River.

Project Partners: Mote Marine Lab and Charlotte Harbor NEP

Total Cost: \$38,471

NEP Funding: \$19,120

Completion Date: July 2008

Due to their ability to impair hormone-regulated processes such as development, reproduction and immune function, environmental pollutants that mimic the female sex hormone estrogen (i.e. "ecoestrogens") pose significant health risks to terrestrial and aquatic organisms. In a previous study, the researcher determined the presence of elevated concentrations of ecoestrogens in the Caloosahatchee River. This follow-up study will identify the specific chemicals and if the concentrations of these compounds are high enough to impact local wildlife by comparing vitellogenin levels in hogchoker fish from the Caloosahatchee and Myakka Rivers using Student's t-test. Addresses WQ-1.

Deliverables: Final Report

Public Outreach Grants

Public Outreach Grants typically take one year to complete. In FY06 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 2009

Thirteen public outreach grants were approved.

1. Sailing through the Environment of Charlotte Harbor

LA Ainger Middle School, Rotonda West

Total Cost: \$3,725 NEP Funding: \$3,000

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.

2. Learning about our Estuary, Port Charlotte Middle School

Port Charlotte Middle School

Total Cost: \$3,443 NEP Funding: \$3,000

An educational field trip is planned by Port Charlotte Middle School to facilitate a deeper understanding among its seventh grade students of the Charlotte Harbor region. To ensure the success of this effort, students will also complete supplemental bookwork focusing on conservation issues, local flora and the importance of wetlands.

3. Manatee, Estuary and Seagrass Education Project for Lee County

Charlotte Harbor Environmental Center

Total Cost: \$2,290 NEP Funding: \$1,660

Through an interactive educational puppet skit, discussion and video, 30 third grade classrooms in Lee County will learn about manatees, their natural history, importance of seagrass habitat to their health as well as threats from declining water quality, watercraft and how the students can help protect both local waters and manatees.

4. Shoreline Stabilization and Habitat Enhancement in the Mullock Creek Basin

Florida Gulf Coast University

Total Cost: \$12,100 NEP Funding: \$3,000

This 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 160 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.

5. Naturalization of a Retention Pond

Unitarian Universalist Congregation of Venice

Total Cost: \$9,648 NEP Funding: \$3,000

A large retention pond on the church property will be naturalized, bringing out its natural beauty that provides habitats for songbirds and other wildlife. This project will be a demonstration site with a walkway, benches, plant identification signs as well as information on the value of Florida-friendly plantings to reduce watering needs to create a green sanctuary and reduce fertilizer to improve water quality.

6. Project EAGLE, Winter Haven Chain of Lakes Cleanup

Lakes Education/Action Drive

Total Cost: \$33,762 NEP Funding: \$1,950

This project will improve water quality while educating the public about water resources. Project EAGLE is a half-day environmental cleanup of the lakes in Winter Haven that's followed by lunch and environmental displays. Last year more than 400 volunteers removed approximately two tons of trash and debris from the lakes.

7. Butterfly Garden

Fishermen's Village Yacht Club

Total Cost: \$4,500 NEP Funding: \$1,500

This site in Punta Gorda is visited by residences and visitors alike. A butterfly garden approximately 20 x 50 feet in size will be created of native plant species. Signs will be installed and literature will be available to discuss butterfly gardening, emphasizing the need for host and nectar plants.

8. 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.

9. 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.

10. “Smart Angler” Program

Snook Foundation

Total Cost: \$13,000 NEP Funding: \$3,000

This online educational outreach program will engage anglers to take a series of interactive “teaching” tests on topics ranging from habitat conservation to better fish handling techniques (to increase survival after release) to stock enhancement and state policies. The program will include hundreds of questions divided into five learning levels. Each question will include a link to a reference article where participants can research the topic. Upon completion, the anglers will be given the title of “Smart Angler” by the Snook Foundation.

11. The Mangrove Gathering Eco Café 2009 Season

Society for Ethical Ecotourism in Southwest Florida

Total Cost: \$1,200 NEP Funding: \$1,200

This public event blends information and entertainment into an evening that goes beyond consciousness rising. Long-time and newly-made friends become involved firsthand with the Earth and all its life, on a personal level. The free events are held every other month at the Eco Living Center at the Lee County Parks & Recreation Support Services Facility at Rutenberg Park. They provide a place to socialize and learn how to “live lighter on the planet.”

12. 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.

13. Ecosystems and Habitats: A Need for Preservation

DeSoto County Parks & Recreation

Total Cost: \$3,000 NEP Funding: \$1,500

With the human population increasing, habitats and ecosystems are decreasing. Education will help increase the awareness of preservation and how decreasing habitats and ecosystems will affect the local flora and fauna. This project will create an interpretive sign that will serve as a compliment to DeSoto Diaries Activity Guide, a project supported with a CHNEP public outreach grant last year.

Fiscal Year 2008

Of the 14 public outreach grants approved, three are in progress as of October 1, 2008.

1. IMC Peace River Park Boardwalk Educational Signage

Friends of the Park Foundation, Inc.

Total Funding: \$6,000 NEP Funding: \$3,000

The Friends is a private, nonprofit foundation formed in 1993 to promote and support public parks and recreation activities in Polk County. The Friends will develop 12 educational signs along the

new addition of the IMC Peace River Park Boardwalk to be constructed in 2008 in Homeland. The signs will inform park visitors of the importance of the Peace River and its floodplain to the Charlotte Harbor estuary, migratory birds and amphibians. The signs will also address man's impacts on the river ecosystem, including the Floridan aquifer, mining, agriculture, invasive species and urbanization.

2. DeSoto Diaries

DeSoto County Parks & Recreation

Total Funding: \$4,239 NEP Funding: \$3,000

This project creates a youth activity journal on DeSoto County's environment, including the ecology of the Peace River. The journal will include worksheets of word searches, coloring, puzzles and matching, as well as collages, fun facts and journal entries on observations, weather and personal reflections. The camper, park visitor or school group that receives this item will also learn the connectivity of how an individual choice in DeSoto County can affect the Peace River and ultimately the Charlotte Harbor estuary.

3. "Water" we doing? Watershed rescue traveling trunks

Lakes Education/Action Drive

Total Funding: \$11,186 NEP Funding: \$3,000

Two traveling trunks called "'Water' We Doing" will be developed with LE/AD in collaboration with the Polk County Environmental Education Resource Center (PEER). The trunks include ready-to-use student centers, laboratory investigations and facilitator-led demonstrations using the amazing and fascinating Peace River watershed that they live in as the integrative theme. These trunks are user friendly and ready to be used by teachers throughout the county with no additional preparation required. Each trunk contains supplies for five third grade level classrooms with a week of meaningful, researched activities and investigations.

Fiscal Year 2007

Of the 14 approved, one is in progress as of October 1, 2008.

1. Upper Peace River Flora and Fauna Study

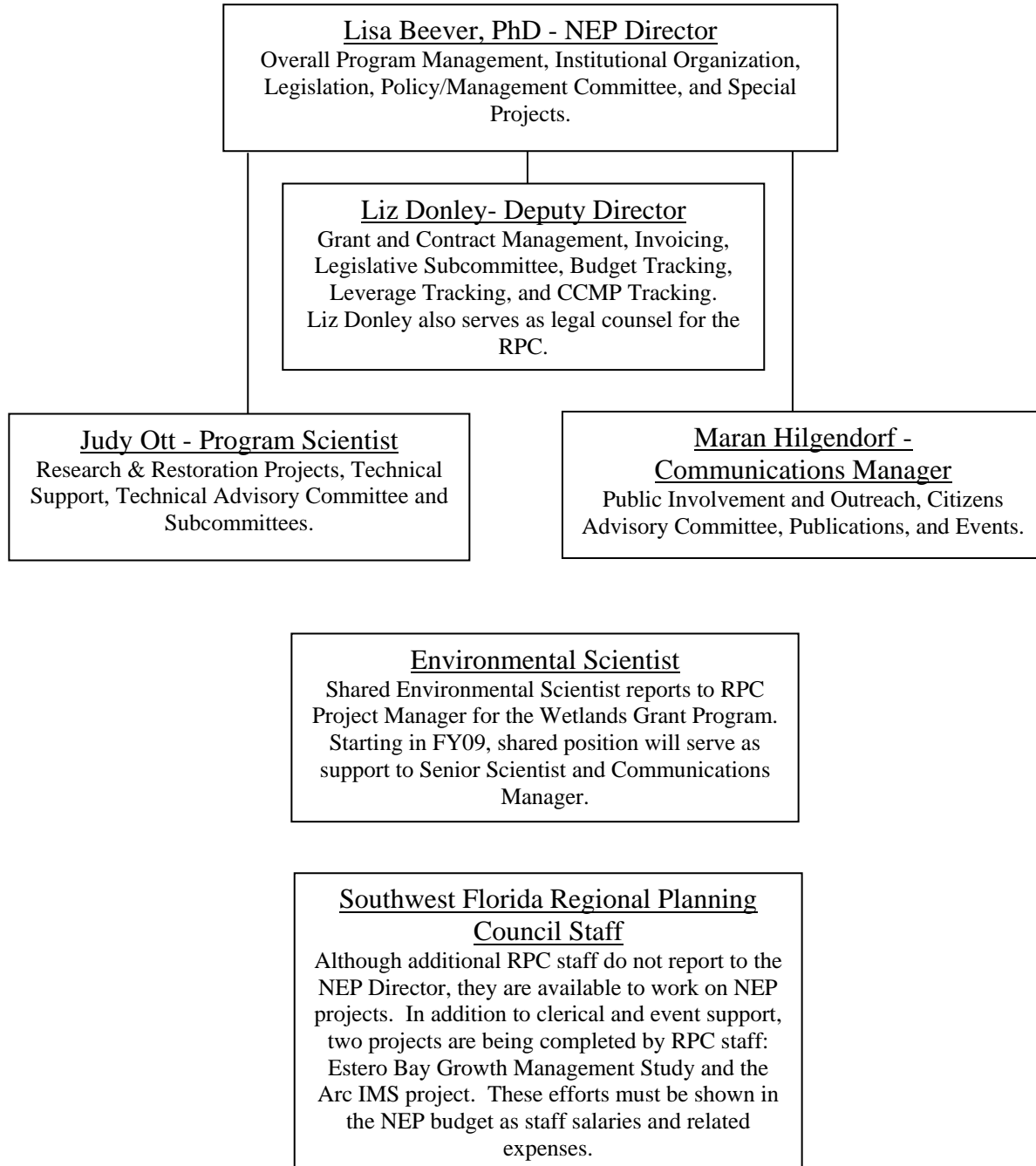
Hardee County Outdoor Classroom

Total Cost: \$6,037 NEP Funding: \$2,989

Students will conduct a study of the Peace River at select sites between Bartow and Gardner to determine the most common plants and animals found during the day. The results will be distributed on a CD to schools and libraries so that it will be a resource for others interested in studying the region.

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 7 and 8 identify time estimates by staff member by task.

Table 7: Expected Staff Time Allocations by Task for FY 09

| Task | Title | Director | Deputy Director | Comm Manager | Program Scientist | Env Scientist | FTE | Other RPC Salaries |
|------|-------------------------------|----------|-----------------|--------------|-------------------|---------------|------|--------------------|
| 1 | Management Conference | 30% | 48% | 15% | 20% | | 1.13 | \$0 |
| 2 | Outreach | 15% | 5% | 85% | 5% | | 1.07 | \$5,000 |
| 3 | Research | 20% | 0% | 0% | 40% | | 0.60 | \$0 |
| 4 | Restoration | 25% | 12% | 0% | 33% | | 0.70 | \$0 |
| 5 | Advocacy & Legislative Action | 10% | 13% | 0% | 2% | | 0.25 | \$0 |
| 8 | Climate Ready Estuary –HQ | 0% | 2% | 2% | 3% | 6% | 0.16 | \$13,382 |
| | | 100% | 80% | 100% | 100% | 6% | 3.86 | |

Table 8: Expected Staff Time Allocations by Task for FY10

| Task | Title | Director | Deputy Director | Comm Manager | Program Scientist | Env Scientist | FTE | Other RPC Salaries |
|------|-------------------------------|----------|-----------------|--------------|-------------------|---------------|------|--------------------|
| 1 | Management Conference | 30% | 50% | 15% | 20% | 0% | 1.15 | \$0 |
| 2 | Outreach | 15% | 5% | 85% | 5% | 0% | 1.10 | \$5,000 |
| 3 | Research | 20% | 0% | 0% | 40% | 0% | 0.60 | \$0 |
| 4 | Restoration | 25% | 12% | 0% | 33% | 0% | 0.70 | \$0 |
| 5 | Advocacy & Legislative Action | 10% | 13% | 0% | 2% | 0% | 0.25 | \$0 |
| | | 100% | 80% | 100% | 100% | 0% | 3.80 | |

**Table 9:
Total Leveraged (October 1, 2007-September 30, 2008)**

| 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 | \$769,500 | 0 | 0 | \$252,000 | \$418,000 | \$99,500 | 0 | 0 | 0 |
| CHNEP Program Committee Support | Primary | \$55,665 | 0 | \$4,000 | 0 | \$14,175 | 0 | \$15,828 | 0 | \$21,662 |
| EPA Region 4 Wetlands Development Program Grant | Primary | \$628,828 | \$470,494 | 0 | 0 | 0 | 0 | 0 | 0 | \$158,334 |
| Sailing through the Environment of Charlotte Harbor | Primary | \$3,910 | 0 | 0 | 0 | 0 | \$3,000 | \$910 | 0 | 0 |
| Learning about our Estuary! | Primary | \$1,910 | 0 | 0 | 0 | 0 | \$1,910 | 0 | 0 | 0 |
| "Water" we doing? Watershed rescue traveling trunks | Primary | \$11,186 | 0 | 0 | 0 | 0 | \$3,000 | \$8,186 | 0 | 0 |
| Manatee, Estuary & Seagrass Education Project for Lee County | Primary | \$3,630 | 0 | 0 | 0 | 0 | \$3,000 | \$630 | 0 | 0 |
| Upper Peace Kayak Environmental Education Program | Primary | \$4,239 | 0 | 0 | 0 | 0 | \$3,000 | 0 | 0 | \$1,239 |
| 23rd Annual Everglades Coalition Conference | Primary | \$83,308 | 0 | 0 | 0 | 0 | \$3,000 | 0 | \$80,308 | 0 |
| Gopher Tortoise Talks | Primary | \$3,027 | 0 | 0 | 0 | 0 | \$3,000 | 0 | 0 | \$27 |
| Protecting Charlotte Harbor: Simple things you can do at home | Primary | \$3,697 | 0 | 0 | 0 | 0 | \$2,205 | 0 | \$1,492 | 0 |
| Florida Yards & Neighborhoods (FYN) Conference | Primary | \$4,480 | 0 | 0 | 0 | 0 | \$1,600 | 0 | \$2,880 | 0 |

| 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 |
| Water Wonders Student Workshop Program | Primary | \$11,327 | 0 | 0 | 0 | 0 | \$2,473 | 0 | \$8,854 | 0 |
| IMC Peace River Park Boardwalk Educational Signage | Primary | \$6,000 | 0 | 0 | 0 | 0 | \$3,000 | 0 | \$3,000 | 0 |
| Native Plant Demonstration Garden at Polk County Utilities Building | Primary | \$3,695 | 0 | 0 | 0 | 0 | \$2,185 | \$1,510 | 0 | 0 |
| Sea Turtle Adventures 2008: A Workshop for Elementary Teachers | Primary | \$4,730 | 0 | 0 | 0 | 0 | \$2,700 | 0 | \$2,030 | 0 |
| DeSoto Diaries | Primary | \$4,239 | 0 | 0 | 0 | 0 | \$3,000 | 0 | 0 | \$1,239 |
| Reestablishing bay scallop populations in Pine Island Sound | Primary | \$39,852 | 0 | 0 | 0 | 0 | \$19,926 | 0 | 0 | \$19,926 |
| Wild Turkey Strand Restoration | Primary | \$41,617 | 0 | 0 | \$20,000 | 0 | 0 | \$21,617 | 0 | 0 |
| Do upland drainage alterations contribute to degradation of estuarine creek habitats? | Primary | \$39,880 | 0 | 0 | 0 | 0 | \$19,940 | 0 | 0 | \$19,440 |
| CHEC Biosolids supplemental work | Primary | \$5,000 | 0 | 0 | 0 | 0 | \$2,500 | \$2,500 | 0 | 0 |
| Restoration of native ground cover on Sanibel Island--SCCF | Primary | \$9,633 | 0 | 0 | 0 | 0 | \$4,000 | 0 | 0 | \$5,633 |
| Segment 8 Exotic Removal Project-Venice Area Beautification Inc | Primary | \$10,000 | 0 | 0 | \$5,000 | 0 | \$5,000 | 0 | 0 | 0 |
| Pre-Development Vegetation Map | Primary | \$150,000 | 0 | 0 | \$75,000 | 0 | \$75,000 | 0 | 0 | 0 |
| North Fort Myers Surface Water Restoration | Significant | \$257,500 | 0 | 0 | \$257,500 | 0 | 0 | 0 | 0 | 0 |

| 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 |
| Estero Bay Fisheries Independent Monitoring | Significant | \$169,343 | 0 | 0 | \$94,343 | \$75,000 | 0 | 0 | 0 | 0 |
| Estero Bay Partnership for Restoration Projects | Significant | \$1,54,6625 | 0 | 0 | \$300,000 | 0 | 0 | \$1,246,625 | 0 | 0 |
| Caloosahatchee River Watershed Protection Plan | Significant | \$45,091,276 | 0 | 0 | \$40,091,276 | 0 | \$5,000,000 | 0 | 0 | 0 |
| Southern CREW /Imperial River Flowway | Significant | \$3,850,336 | 0 | 0 | \$3,850,336 | 0 | 0 | 0 | 0 | 0 |
| Charlotte Harbor Watershed Management Plan - Charlotte County | Significant | \$143,000 | \$125,000 | 0 | 0 | 0 | \$18,000 | 0 | 0 | 0 |
| Murdock Village Watershed Management Study | Significant | \$268,000 | 0 | 0 | \$125,000 | 0 | \$143,000 | 0 | 0 | 0 |
| Charlotte County TMDL Initiative | Significant | \$102,000 | 0 | 0 | 0 | 0 | \$102,000 | 0 | 0 | 0 |
| Matlacha Pass Hydrologic Restoration Project | Significant | \$1,200,000 | 0 | 0 | 0 | 0 | \$1,200,000 | 0 | 0 | 0 |
| Lake Hancock Lake Level Modification (H008) | Significant | \$2,843,458 | 0 | 0 | \$2,843,458 | 0 | 0 | 0 | 0 | 0 |
| Lake Hancock Outfall Treatment System (H014) | Significant | \$1,334,430 | 0 | 0 | \$1,334,430 | 0 | 0 | 0 | 0 | 0 |
| Upper Peace River Resource Development (H024) | Significant | \$267,436 | 0 | 0 | \$267,436 | 0 | 0 | 0 | 0 | 0 |
| Peace Creek Canal Watershed (H034) | Significant | \$857,713 | 0 | 0 | \$857,713 | 0 | 0 | 0 | 0 | 0 |
| Myakka River Watershed Initiative | Significant | \$18,475,480 | 0 | 0 | \$18,475,480 | 0 | 0 | 0 | 0 | 0 |
| Punta Gorda Shell Creek WTP Expansion | Significant | \$14,507 | 0 | 0 | \$14,507 | 0 | 0 | 0 | 0 | 0 |
| CF Industries Aquifer Recharge and Recovery Project (H062) | Significant | \$969,070 | 0 | 0 | \$581,442 | 0 | 0 | \$387,628 | 0 | 0 |

| 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 |
| PR/MRWSA Regional Resource Development Feasibility Study (H063) | Significant | \$1,087,057 | 0 | 0 | \$1,087,057 | 0 | 0 | 0 | 0 | 0 |
| SWUCA Recovery - Upper Peace Karst Berms (H064) | Significant | \$158,327 | 0 | 0 | \$158,327 | 0 | 0 | 0 | 0 | 0 |
| PR/MRWSA Reservoir, Regional Integrated Loop System – Phase 1A, 2, 3 Interconnect | Significant | \$64,692,440 | 0 | 0 | \$32,346,220 | 0 | 0 | \$32,346,220 | 0 | 0 |
| Water Supply Flow Monitoring Project (H057) | Significant | \$98,146 | 0 | 0 | \$98,146 | 0 | 0 | 0 | 0 | 0 |
| IFAS BMP Implementation for Flatwoods Citrus (H528) | Significant | \$970,000 | \$546,000 | 0 | \$424,000 | 0 | 0 | 0 | 0 | 0 |
| Peace River Regional Reservoir Expansion | Significant | \$7,148,917 | 0 | 0 | \$7,148,917 | 0 | 0 | 0 | 0 | 0 |
| Peace River Facility Expansion | Significant | \$19,674,982 | 0 | 0 | \$19,674,982 | 0 | 0 | 0 | 0 | 0 |
| Charlotte County Regional Reclaimed Water Expansion (H027) | Significant | \$2,181,752 | 0 | 0 | \$1,309,051 | 0 | 0 | \$87,2701 | 0 | 0 |
| Babcock Ranch Preserve Conceptual Management Plan | Significant | \$119,000 | 0 | 0 | \$100,000 | \$10,000 | 0 | \$5,000 | 0 | \$4,000 |
| Lee County Density Reduction Groundwater Recharge Area Study | Significant | \$1,402,000 | 0 | 0 | 0 | 0 | \$1,400,000 | \$2,000 | 0 | 0 |
| Totals | | \$176,821,648 | \$1,141,494 | \$4,000 | \$131,791,621 | \$517,175 | \$8,125,939 | \$34,911,355 | \$98,564 | \$231,500 |

**Table 10:
Total Leveraged (October 1, 2008- January 31, 2009)**

| 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 | \$ | 0 | 0 | \$220,000 | \$641,750 | \$87,250 | | 0 | 0 |
| CHNEP Program Committee Support | Primary | \$129,000 | 0 | \$3,225 | 0 | \$3,225 | 0 | \$3,225 | 0 | \$3,225 |
| Shoreline Stabilization and Habitat Enhancement in the Mullock Creek Basin | Primary | \$12,100 | 0 | 0 | 0 | \$9,100 | \$3,000 | 0 | 0 | 0 |
| Naturalization of a Retention Pond | Primary | \$9,648 | 0 | 0 | 0 | 0 | \$3,000 | 0 | 0 | \$6,648 |
| 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 | \$31,812 | 0 | 0 |
| Estuary Education for 7th graders | Primary | \$3,443 | 0 | 0 | 0 | 0 | \$3,000 | \$443 | 0 | 0 |
| Butterfly Garden | Primary | \$4,500 | 0 | 0 | 0 | 0 | \$1,500 | 0 | 0 | \$3,000 |
| 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 | \$2,190 | 0 | 0 | \$1,330 |
| "Smart Angler" Program | Primary | \$13,000 | 0 | 0 | 0 | 0 | \$3,000 | 0 | 0 | \$10,000 |
| The Mangrove Gathering Eco Café 2009 Season | Primary | \$1,200 | 0 | 0 | 0 | 0 | \$1,200 | 0 | 0 | 0 |
| Water, Wings & Wild Things: Polk's Naturefest 2009 | Primary | \$2,000 | 0 | 0 | 0 | 0 | \$2,000 | 0 | 0 | 0 |
| Ecosystems and Habitats: A Need for Preservation | Primary | \$3,000 | 0 | 0 | 0 | 0 | \$1,500 | \$1,500 | 0 | 0 |
| Spectral & Epiphyte Attenuation of Enhancement for CH Light Model | Primary | \$35,549 | 0 | 0 | 0 | 0 | \$17,775 | 0 | 0 | \$17,774 |

| 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 |
| Water Quality Monitoring to Ascertain Extent of Septic Systems on CH | Primary | \$49,670 | 0 | 0 | 0 | 0 | \$20,000 | \$29,670 | 0 | 0 |
| Smokehouse Bay Preserve Restoration | Primary | \$73,927 | 0 | 0 | 0 | 0 | \$20,000 | \$53,927 | 0 | 0 |
| Hardee Co. Peace River Submerged Aquatic Vegetation Study | Primary | \$4,452 | 0 | 0 | 0 | 0 | \$2,226 | \$2,226 | 0 | 0 |
| Restore America's Estuaries Conference – Climate Change | Primary | \$3,154 | 0 | 0 | 0 | 0 | \$1,577 | 0 | 0 | \$1,577 |
| Totals | | \$1,210,897 | \$ 0.00 | \$3,225 | \$220,000 | \$654,075 | \$161,053 | \$128,360 | 0 | \$44,184 |

FY 09 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. \$6,405 has been programmed to support additional special travel and local travel; including \$400 from non-local sources for travel that is ineligible for federal reimbursement. Minor parking, toll expenses, and boat rental fees will also be funded from this account.

Table 11: Projected Travel in FY 09 (FY2009 EPA Budget Sheet)

| Date | Purpose | # Travelers | Location | Length of Stay | Travel Mode/Est. Cost | Reg. Fee per Staff | Estimated Cost |
|--------------|--|-------------|---------------------|----------------|-----------------------|--------------------|----------------|
| 10/1/2008 | Florida FWC Climate Change Conference | 1 | Orlando | 5 days | Auto/\$140 | 195 | \$865 |
| October 2008 | InStream FLOW Conference | 1 | San Antonio, TX | 5 days | Auto | \$) | \$1,075 |
| Nov-08 | ANEP Annual Meeting | 1 | New York City | 4 days | Air /\$255 | \$100 | \$1,335 |
| Nov-08 | RAE | 1 | Providence, RI | 5 days | Auto/\$300 | \$505 | \$1,580 |
| Nov-08 | SLAMM Training/Water Quality Trading | 1 | Tallahassee, FL | 4days | Auto/\$245 | \$0 | \$640 |
| Dec-08 | GOMA/NOAA Workshop | 1 | Sarasota, FL | 3 days | Auto/\$110 | \$0 | \$370 |
| Jan-09 | Florida Social Marketing Committee | 1 | Ocala, FL | 2 | Auto/\$220 | \$0 | \$330 |
| Jan-09 | SCENE | 1 | Gainesville, FL | 2 | Auto/\$240 | \$0 | \$400 |
| Jan-09 | Low Impact Development | 1 | Pinellas County, FL | 1 | Auto/\$200 | \$195 | \$550 |
| Feb-09 | NEP/EPA Spring Mtg. | 2 | Washington, DC | 4 days | Air /\$520 | \$100 | \$2,500 |
| Jan-09 | Public Interest Law Conference | 1 | Gainesville, FL | 2 days | Auto/\$240 | \$0 | \$550 |
| Spring 2009 | Statewide mtg. w/ Gulf of Mexico Program | 1 | Tallahassee, FL | 4 days | Auto/245 | \$0 | \$640 |
| Spring 2009 | Technical Transfer | 2 | Various | 3 days | Air/\$700 | \$250 | \$2,200 |
| May-09 | Meet with Region 4 Staff | 4 | Atlanta, GA | 3 days | Air/\$1,000 | \$0 | \$2,000 |
| Summer 2009 | US EPA Community Involvement Conference | 1 | Unknown | 5 days | Air/\$500 | \$250 | \$1,500 |
| FY 09 | Local Travel | 4 | Various | <1 day | Auto | \$100 | \$4465 |
| | | | Total | | | | \$21,000.00 |

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.

Table 12: Projected Travel in FY 10

| Date | Purpose | # Travelers | Location | Length of Stay | Travel Mode/Est. Cost | Reg. Fee per Staff | Estimated Cost |
|-----------|---|-------------|----------------|----------------|-----------------------|--------------------|-----------------|
| Nov-09 | ANEP Annual Meeting | 1 | Portland, OR | 7 days | Air /\$600 | \$800 | \$2,500 |
| Dec-09 | Science Research/Restoration Workshop | 1 | Unknown | 3 days | Auto/\$300 | \$200 | \$1,000 |
| Dec-09 | NOAA Workshop | 1 | Unknown | 3 days | Auto/\$200 | \$0 | \$400 |
| Feb-10 | NEP/EPA Spring Mtg. | 2 | Washington, DC | 5 days | Air /\$800 | \$100 | \$2,500 |
| Mar-10 | Grant Writing/Admin Workshop | 1 | Unknown | 3 days | Auto/\$300 | \$100 | \$700 |
| Spring-10 | Technical Transfer | 2 | Various | 3 days | Air/\$500 | \$250 | \$2,000 |
| May-10 | Meet with Region 4 Staff | 4 | Atlanta, GA | 3 days | Air/\$1200 | \$0 | \$2,000 |
| Summer-10 | US EPA Community Involvement Conference | 1 | Unknown | 5 days | Air/\$500 | \$250 | \$1,500 |
| FY10 | Local Travel | 4 | Various | <1 day | Auto | \$0 | \$8,400 |
| | Total | | | | | | \$21,000 |

Workplan Budget

Income

Cash receivables to the program have been increasing from FY01 through FY06. Unspent funds, nearly \$1 million, were reprogrammed through the FY02 to FY08 workplans and have resulted in many completed technical and public outreach projects.

Total funding is projected at over \$1,620,000 for FY09, including projects that have carried-over from previous years. For FY10, funding is projected at over \$1,018,000. Recurring annual cash received from government partners is at \$900,000. Additional grants and private donations augment these funds.

In last year's FY09 Workplan and FY 08 amendment, carry-over contract funds totaled over \$318,000. For the FY10 Workplan and FY 09 amendment, carry-over contract funds total just over \$466,000, less than 50% more than last year but less than one-half of previous years.

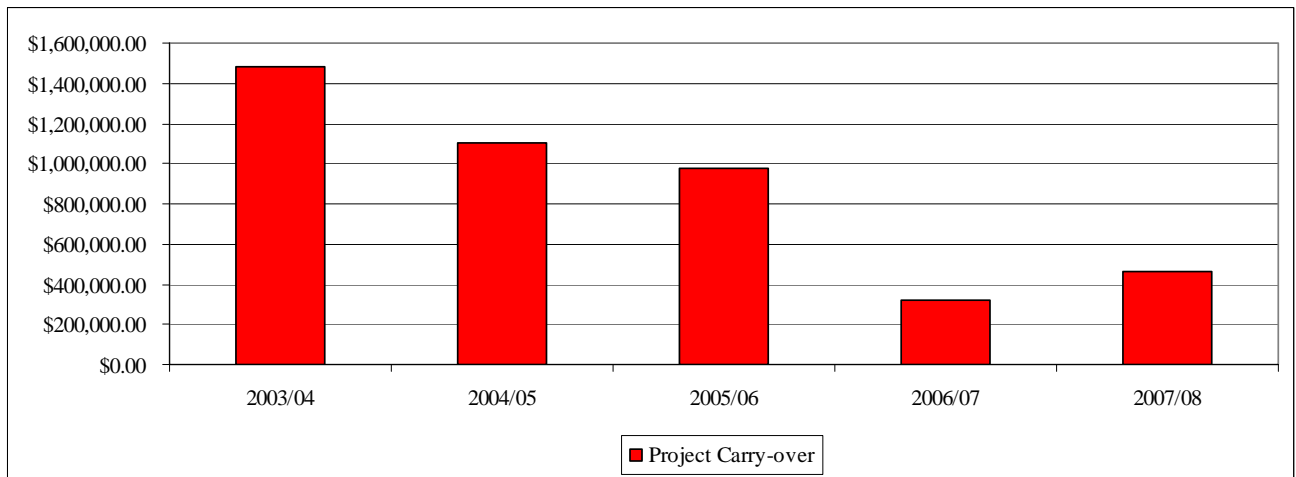
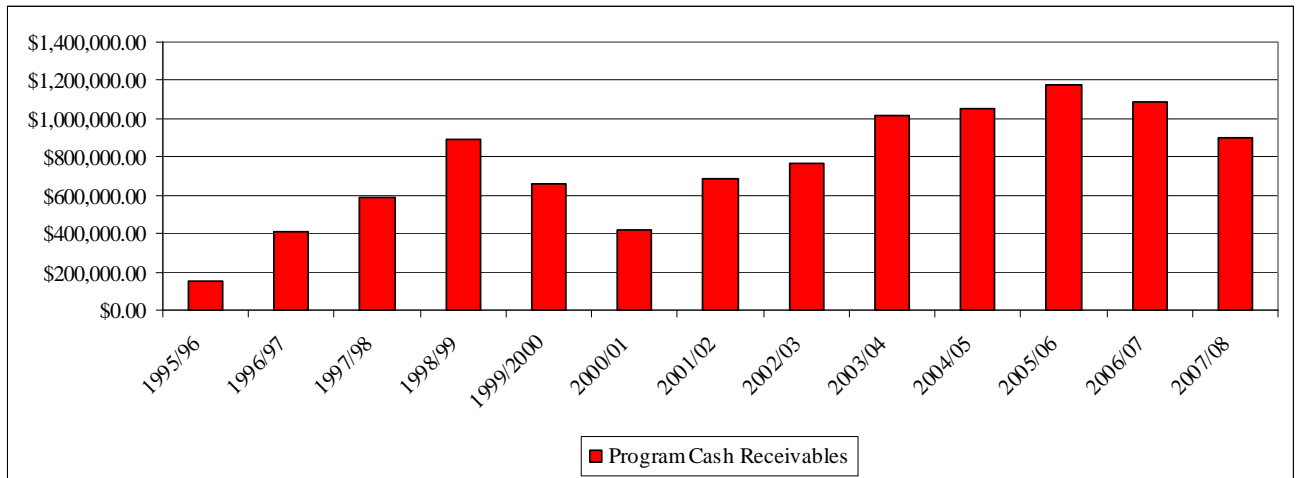


Table 13: Charlotte Harbor NEP FY 09 and 10 Income

| Funding Source | Approved FY 08 Funding | FY 09 Request | Approved FY 09 Funding | FY 10 Request |
|--|-------------------------------|-----------------------|-------------------------------|-----------------------|
| Federal | | | | |
| Section 320 Funding | \$418,000.00 | \$600,000.00 | \$591,750.00 | \$600,000.00 |
| EPA Climate Change Grants | \$30,000.00 | \$50,000.00 | \$50,000.00 | \$0.00 |
| Total Federal | \$448,000.00 | \$650,000.00 | \$641,750.00 | \$600,000.00 |
| State and Regional | | | | |
| DEP | \$75,000.00 | \$75,000.00 | \$75,000.00 | \$75,000.00 |
| SFWMD | \$61,755.00 | \$309,000.00 | \$30,000.00 | \$50,000.00 |
| SWFWMD | \$110,000.00 | \$110,000.00 | \$110,000.00 | \$110,000.00 |
| Peace Manasota Water Supply Authority | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 |
| Subtotal Regional Income | \$251,755.00 | \$499,000.00 | \$220,000.00 | \$240,000.00 |
| Local | | | | |
| Sarasota County | \$25,000.00 | \$25,000.00 | \$25,000.00 | \$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 | \$7,942.68 | \$7,000.00 | \$7,000.00 | \$7,000.00 |
| Nature Festival Sponsorship | \$5,527.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 |
| Florida Friendly Workshops | \$3,000.00 | \$3,000.00 | \$3,000.00 | \$3,000.00 |
| Book Donations | \$5,326.80 | \$5,000.00 | \$5,000.00 | \$5,000.00 |
| Watershed Summit Sponsorships | \$4,409.50 | \$12,000.00 | \$3,500.00 | |
| Donations | \$1,878.50 | \$1,500.00 | \$1,500.00 | \$1,500.00 |
| NOAA Workshop Registrations | \$720.00 | \$5,000.00 | \$700.00 | \$700.00 |
| NEP Workshop Registration | \$360.00 | \$1,000.00 | \$350.00 | \$350.00 |
| Cash on hand, end of FY 08 fiscal year | \$736,949.43 | \$211,667.49 | \$366,511.81 | |
| Uninvoiced SWFWMD Contracts, end of 08 | | | \$276,000.00 | |
| Anticipated local reserve, end of 09 | | | | \$42,194.29 |
| Subtotal Grant/Private Income | \$766,113.91 | \$251,167.49 | \$668,561.81 | \$64,744.29 |
| In-Kind | | | | |
| Match In-Kind: SFWMD Initiatives | \$448,000.00 | \$650,000.00 | \$641,750.00 | \$600,000.00 |
| Subtotal In-Kind | \$448,000.00 | \$650,000.00 | \$647,350.00 | \$600,000.00 |
| Grand Totals in the Fiscal Year | \$2,013,368.91 | \$2,165,167.49 | \$2,271,911.81 | \$1,598,994.29 |
| Program Cash | \$1,565,368.91 | \$1,515,167.49 | \$1,624,561.81 | \$964,494.29 |

FY 08/09 Budget Amendment

Major changes within the FY 08 budget included:

- Carry-over amounts from FY08 contracts were added, totaling just over \$466,000.
- SWFRPC charges “indirect” for staff leave such as vacation time and sick (scheduled and unscheduled). This practice began with a fairly new staff. With a more mature staff, leave is currently being used. This was removed from Salaries to program into projects.
- Reduction in postage costs due to newly adopted Green Resolution.
- Trimmed travel to reflect current anticipated costs.

Table 14: FY 09 Budget, adopted 5/19/08, revised 7/8/08

| Task # | Task | Personnel | Fringe | Travel | Supplies | Other | Indirect | Total |
|--------------|-------------------------|------------------|------------------|-----------------|-----------------|------------------|------------------|--------------------|
| 1 | Management & Admin. | \$82,000 | \$41,000 | \$15,000 | \$9,500 | \$3,450 | \$69,000 | \$219,950 |
| 2 | Public Outreach | \$80,000 | \$40,000 | \$2,500 | \$1,000 | \$222,350 | \$68,000 | \$413,850 |
| 3 | Research | \$87,000 | \$43,000 | \$1,000 | \$50 | \$243,150 | \$73,000 | \$447,200 |
| 4 | Restoration | \$49,000 | \$24,000 | \$5,000 | \$50 | \$500 | \$41,000 | \$119,550 |
| 5 | Advocacy & Leg Action | \$19,000 | \$9,000 | \$500 | \$0 | \$5,000 | \$16,000 | \$49,500 |
| 8 | Climate Ready Estuaries | \$21,200 | \$10,000 | \$654 | | | \$17,900 | \$49,754 |
| Total | | \$338,200 | \$167,000 | \$24,654 | \$10,600 | \$474,450 | \$284,900 | \$1,299,804 |

**Table 15: Budget Changes between
5/19/08 FY 09 Budget and FY 09 Budget Amendment (page 61)**

| Task # | Task | Personnel | Fringe | Travel | Supplies | Other | Indirect | Total |
|--------------|-------------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|
| 1 | Management & Admin. | (\$7,000) | (\$4,000) | (\$1,000) | (\$1,250) | (\$1,500) | (\$8,000) | (\$22,750) |
| 2 | Public Outreach | (\$10,000) | (\$5,000) | \$0 | \$0 | \$34,603 | (\$11,000) | \$8,603 |
| 3 | Research | (\$50,000) | (\$25,000) | \$0 | \$0 | \$431,211 | (\$43,000) | \$313,211 |
| 4 | Restoration | (\$5,000) | (\$2,000) | (\$2,000) | \$0 | (\$500) | (\$5,000) | (\$14,500) |
| 5 | Advocacy & Leg Action | (\$1,000) | \$0 | \$0 | \$0 | \$0 | (\$1,000) | (\$2,000) |
| 8 | Climate Ready Estuaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | | (\$73,000) | (\$36,000) | (\$3,000) | (\$1,250) | \$463,814 | (\$68,000) | \$282,564 |

SWFWMD 09 Contract

Based on the top selected indicators and gaps related to those indicators, projects were identified for funding under the FY09 Workplan. A total of \$140,000 is available to support this effort, \$30,000 of FY08 funds to support water quality refinements and \$110,000 of FY09 funds to support research priorities and indicators gaps. Janicki Environmental Services, Inc is uniquely qualified to conduct the following work to support the watershed report:

- Water clarity targets, segmentation scheme, and decision support system (using method consistent with Tampa Bay Estuary Programs and Sarasota County), \$30,000
- Seagrass targets (using methods consistent with Tampa Bay and Sarasota Bay estuary programs), \$15,000
- Pollutant loading estimates, \$60,000.

The cost to fund the total scope of work is \$105,000, leaving \$35,000 to be programmed for FWC to provide a measure of fish community structure, abundance and diversity over time, and exotic fish based on existing Fisheries Independent Monitoring data and additional Lemon Bay data.

FY 09/10 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 09 budget amendment. Next year the FY 10 budget will be amended to address carry-over from FY 09 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 10, 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 16: FY 08/09 Workplan Budget Amendment

| Task # | Task | Personnel | Fringe | Travel | Supplies | Other | Indirect | Total |
|--------------|-------------------------|------------------|------------------|-----------------|----------------|------------------|------------------|--------------------|
| 1 | Mgmt. Conference | \$75,000 | \$37,000 | \$14,000 | \$8,250 | \$1,950 | \$61,000 | \$197,200 |
| 2 | Outreach | \$70,000 | \$35,000 | \$2,500 | \$1,000 | \$256,953 | \$57,000 | \$422,453 |
| 3 | Research | \$37,000 | \$18,000 | \$1,000 | \$50 | \$674,361 | \$30,000 | \$760,411 |
| 4 | Restoration | \$44,000 | \$22,000 | \$3,000 | \$50 | \$0 | \$36,000 | \$105,050 |
| 5 | Legislation | \$18,000 | \$9,000 | \$500 | \$0 | \$5,000 | \$15,000 | \$47,500 |
| 8 | Climate Ready Estuaries | \$21,200 | \$10,000 | \$654 | | | \$17,900 | \$49,754 |
| Total | | \$265,200 | \$131,000 | \$21,654 | \$9,350 | \$938,264 | \$216,900 | \$1,582,368 |

Table 17: FY 08/09 EPA Cooperative Agreement
(with HQ Climate Ready Estuaries Pilot grant)

| Task # | Task | Personnel | Fringe | Travel | Supplies | Other | Indirect | Total |
|--------------|-------------------------|-----------------|-----------------|-----------------|------------|------------------|------------------|--------------------|
| 1 | Mgmt. Conference | \$65,600 | \$32,800 | \$13,500 | | | \$55,200 | \$167,100 |
| 2 | Outreach | \$56,000 | \$28,000 | \$2,100 | | \$161,400 | \$47,600 | \$295,100 |
| 3 | Research | \$26,100 | \$12,900 | \$900 | | \$24,000 | \$21,900 | \$85,800 |
| 4 | Restoration | \$14,700 | \$7,200 | \$4,500 | | | \$12,300 | \$38,700 |
| 5 | Legislation | | | | | | | \$0 |
| 8 | Climate Ready Estuaries | \$21,200 | \$10,000 | \$654 | | | \$17,900 | \$49,754 |
| In-Kind | | | | | | \$641,750 | | \$641,750 |
| Total | | \$83,600 | \$90,900 | \$21,654 | \$0 | \$827,150 | \$154,900 | \$1,278,204 |

Table 18: FY 08/09 SWFWMD Contract

| Task | Project | SWFWMD | CHNEP | Project Total | SWFWMD % |
|--------|--|-----------|-----------|---------------|----------|
| 1 | Research and Restoration Partner Project (Mote <i>Spectral & Epiphyte Attenuation for the Charlotte Harbor Optical Model</i>) | \$15,000 | \$15,000 | \$30,000 | 50% |
| 2 | Water Quality Target Refinement (Janicki Environmental) | \$37,500 | \$37,500 | \$75,000 | 50% |
| 3 | Research or Monitoring Priority (FWC Fisheries Assessment) | \$17,500 | \$17,500 | \$35,000 | 50% |
| 4 | Staff Support | \$40,000 | \$40,000 | \$80,000 | 50% |
| Totals | | \$110,000 | \$110,000 | \$220,000 | |

Table 19: FY 08/09 Funding Sources

| # | Task | Federal | FDEP | SWFWMD | SFWMD | Manatee | WMD Carry-over | Local/Grants Carry-over | Local/Grants | Total |
|---|---------------------|------------------|-----------------|------------------|-----------------|----------------|------------------|-------------------------|------------------|--------------------|
| 1 | Management & Admin. | \$167,100 | | | | | | | \$30,100 | \$197,200 |
| 2 | Outreach | \$295,100 | | | | | | \$63,603 | \$63,750 | \$422,453 |
| 3 | Research | \$85,800 | \$39,993 | \$110,000 | \$30,000 | | \$116,196 | \$286,535 | \$91,887 | \$760,411 |
| 4 | Restoration | \$38,700 | \$35,007 | | | | | | \$31,343 | \$105,050 |
| 5 | Legislation | | | | | \$5,000 | | | \$42,500 | \$47,500 |
| 8 | CRE | \$49,754 | | | | | | | \$0 | \$49,754 |
| | | \$636,454 | \$75,000 | \$110,000 | \$30,000 | \$5,000 | \$116,196 | \$350,138 | \$259,580 | \$1,582,368 |

Table 20: Draft FY 09/10 Workplan Budget

| Task # | Task | Personnel | Fringe | Travel | Supplies | Other | Indirect | Total |
|--------------|------------------|------------------|------------------|-----------------|----------------|------------------|------------------|------------------|
| 1 | Mgmt. Conference | \$76,000 | \$38,000 | \$10,000 | \$5,250 | \$1,950 | \$64,000 | \$195,200 |
| 2 | 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 | Legislation | \$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 21: FY 09/10 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 22: FY 09/10 Proposed SWFWMD Contract

| Task | Project | SWFWMD | CHNEP | Project Total | SWFWMD % |
|--------|---|-----------|-----------|---------------|----------|
| 3 | Triennial Water Quality Status & Trends | \$40,000 | \$40,000 | \$80,000 | 50% |
| 3 | Research or Monitoring Priority | \$30,000 | \$30,000 | \$60,000 | 50% |
| 3 | Staff Support | \$40,000 | \$40,000 | \$80,000 | 50% |
| Totals | | \$110,000 | \$110,000 | \$220,000 | |

Table 23: FY 09/10 Funding Sources

| # | Task | Federal | FDEP | SWFWMD | SFWMD | Manatee | Local/ Grants | Total |
|--------------|---------------------|------------------|-----------------|------------------|-----------------|----------------|------------------|------------------|
| 1 | Management & Admin. | \$169,200 | | | | | \$26,000 | \$195,200 |
| 2 | Outreach | \$300,600 | | | \$49,000 | | \$26,650 | \$376,250 |
| 3 | Research | \$66,500 | \$40,000 | \$110,000 | | | \$7,200 | \$223,700 |
| 4 | Restoration | \$55,000 | \$35,000 | | | | \$20,050 | \$110,050 |
| 5 | Legislation | | | | | \$5,000 | \$42,500 | \$47,500 |
| Total | | \$591,300 | \$75,000 | \$110,000 | \$49,000 | \$5,000 | \$122,400 | \$952,700 |

Table 24: Summary Public Education and Information Projects List

Table 24 represents the individual public education and information projects that will be addressed in FY 09 (totaling \$192,400) and FY 10 (totaling \$185,800), including remainders of carry-over projects.

| FY | Project Title | Amount |
|-----------|---|---------------|
| 2007 | POG Upper Peace River Flora and Fauna Study (Hardee County Outdoor Classroom) | \$750 |
| 2007 | Strategic Communication Plan | \$13,078 |
| 2007 | Internship: Contract with Sue Scott | \$5,340 |
| 2007 | Public Workshop: Estero Bay | \$3,000 |
| 2007 | Environmental Places Map | \$5,000 |
| 2007 | Reprint <i>Story of the Greater Charlotte Harbor Watershed</i> | \$0 |
| 2008 | POG "Water" we doing? Watershed rescue traveling trunks (LE/AD | \$3,000 |
| 2008 | POG IMC Peace River Park Boardwalk Educational Signage | \$3,000 |
| 2008 | POG DeSoto Diaries | \$3,000 |
| 2008 | Micro-Grant Manatee County traveling trunks | \$1,000 |
| 2008 | Target audience: Virtual wading trip | \$20,435 |
| 2008 | Citizens BMP/New Residents' Guide | \$6,000 |
| 2009 | Public Outreach Grants | \$30,000 |
| 2009 | Micro-Grants | \$12,000 |
| 2009 | Guides, workshops, etc. to target audiences, including Florida-friendly programming | \$15,800 |
| 2009 | Internship | \$2,000 |
| 2009 | Strategic Communication Plan Implementation | \$12,000 |
| 2009 | Charlotte Harbor Nature Festival | \$14,000 |
| 2009 | Public Information & Education Professional Development | \$1,800 |
| 2009 | Sustainable Communities Conference | \$7,000 |
| 2009 | Public Workshop | \$0 |
| 2009 | Charlotte Harbor 7-County Watershed Report | \$7,000 |
| 2009 | Quarterly Newsletter | \$28,000 |
| 2009 | Children's book, reprinting and distribution | \$20,000 |
| 2009 | Collateral, Displays, Reprintings, etc | \$13,800 |
| 2009 | 2009 Calendar | \$29,000 |
| 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 | Strategic Communication Plan Implementation | \$14,000 |
| 2010 | Public Information & Education Professional Development | \$1,800 |
| 2010 | Charlotte Harbor Nature Festival | \$14,000 |
| 2010 | Sustainable Communities Conference | \$7,000 |
| 2010 | Public Workshop | \$3,000 |
| 2010 | Quarterly Newsletter | \$29,000 |
| 2010 | Children's book, reprinting and distribution | \$20,000 |
| 2010 | Collateral, Displays, Reprintings, etc | \$9,000 |
| 2010 | 2010 Calendar | \$29,000 |
| Total | | \$441,803 |

Table 25: Summary Technical Projects List

Table 25 represents the individual technical projects that will be addressed in FY 09 (totaling \$258,500) and FY 10 (totaling \$140,000), including remainders of carry-over projects.

| Fiscal Year | Project Title | Amount |
|--------------------|---|--------------------------|
| 2006 | Charlotte Harbor Estuaries Volunteer Monitoring Network | \$13,465 |
| 2006 | Hydrologic Subbasin Boundary Map--Gurr Consulting | \$41,975 |
| 2006 | Identities Effects of Ecoestrogens in Caloosahatchee--Mote | \$5,143 |
| 2006 | ArcIMS website--SWFRPC | \$27,822 |
| 2007 | Fate and Transport of Caloosahatchee ETM Sediment--FGCU | \$2,671 |
| 2007 | Evaluating pharmaceutical to Caloosahatchee wildlife: bull shark--Mote | \$6,176 |
| 2007 | Do coastal land alterations impact estuarine food webs?-- Mote | \$19,220 |
| 2007 | Tidal Charlotte Harbor Shoreline Condition Map--Photo Science | \$32,392 |
| 2008 | CHEC Water Quality Website - CHEC | \$2,500 |
| 2008 | Wild Turkey Strand Preserve Restoration - Lee Co 2020 | \$20,000 |
| 2008 | Segment 8 Exotic Vegetation Removal - Venice Area Beautification, Inc | \$5,000 |
| 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 - Barry Wharton | \$150,000 |
| 2008 | Does Nitrogen from Sludge Farm Runoff Persist in CHNEP - CHEC | \$2,500 |
| 2008 | Implementation of Enhancements to CHEVWQMN | \$30,000 |
| 2009 | Special Issue of <i>Florida Scientist</i> - FAS | \$17,500 |
| 2009 | Peer Review and Editorial Assistance for Special Issue of <i>FL Scientist</i> -Corbett | \$10,000 |
| 2009 | Water Quality Targets Refinement - Janicki | \$105,000 |
| 2009 | Lemon Bay Independent Fisheries Monitoring - FWFI | \$42,000 |
| 2009 | Spectral and Epiphyte Attenuation Enhancement of CH Light Model-Mote | \$17,774 |
| 2009 | Water Quality Monitoring to Ascertain Extent of Septic Systems on CH-Charlotte Co. DoH | \$20,000 |
| 2009 | Smokehouse Bay Preserve Restoration - Lee Co. 2020 | \$20,000 |
| 2009 | Hardee Co. Peace River Submerged Aquatic Vegetation Study-Hardee Co. Outdoor Classroom | \$2,226 |
| 2009 | Improving Public Access to Water Quality Data Website-CHEC | \$12,480 |
| 2009 | Reservoir Workshop | \$24,000 |
| 2009 | An Analysis of Climate Change Effects on Ecosystems and Infrastructure surrounding the Charlotte Harbor Estuary | in-house, (\$65,600) |
| 2009 | Climate Ready Estuary Pilot Project | in-house, (\$100,000) |
| 2010 | Triennial Water Quality Status and Trends Assessment | \$80,000 |
| 2010 | Research or Monitoring Priority (may include CHEC website) | \$60,000 |
| Total | | \$813,711 |

Table 26: FY 08/09 Budget Targets by SWFRPC Codes

| Task # | Sub-Task | EPA | Personnel | Fringe | Indirect | Travel | Supplies | Supplies | Supplies | Other | Other | Other | Other | Other | Other | Other | Total | | |
|--------|------------------|-------------|------------------|------------------|------------------|-----------------|----------------|------------------|----------------|------------------|----------------------|--------------|-----------------------|---------------------|-----------------|---------------------|--------------|------------------|--------------------|
| | | Translation | | | | | | Computer/Graphic | Postage | Consulting | Carry-over Contracts | Advertising | Printing/Reproduction | Carry-over Printing | Meetings | Carry-over Meetings | | Professional Dev | Other Misc |
| 1 | Mgmt. Conference | | \$75,000 | \$37,000 | \$61,000 | \$14,000 | \$1,500 | \$6,000 | \$750 | | | \$200 | | \$1,000 | | \$250 | \$500 | \$197,200 | |
| 2 | Outreach | | \$70,000 | \$35,000 | \$57,000 | \$2,500 | | | \$1,000 | \$71,800 | \$49,603 | \$200 | \$97,800 | \$11,000 | \$22,800 | \$3,000 | \$250 | \$500 | \$422,453 |
| 3 | Research | | \$37,000 | \$18,000 | \$30,000 | \$1,000 | | | \$50 | \$246,980 | \$402,731 | \$150 | | \$24,000 | | | \$500 | \$760,411 | |
| 4 | Restoration | | \$44,000 | \$22,000 | \$36,000 | \$3,000 | | | \$50 | | | | | | | | \$0 | \$105,050 | |
| 5 | Legislation | | \$18,000 | \$9,000 | \$15,000 | \$500 | | | | | | | | | | | \$5,000 | \$47,500 | |
| 8 | Climate Ready | | \$21,200 | \$10,000 | \$17,900 | \$654 | | | | | | | | | | | | \$49,754 | |
| | Total | | \$265,200 | \$131,000 | \$216,900 | \$21,654 | \$1,500 | \$6,000 | \$1,850 | \$318,780 | \$452,334 | \$550 | \$97,800 | \$11,000 | \$47,800 | \$3,000 | \$500 | \$6,500 | \$1,582,368 |

Table 27: FY 09/10 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 | \$76,000 | \$38,000 | \$64,000 | \$10,000 | \$1,500 | \$3,000 | \$750 | | \$200 | | \$1,000 | \$250 | \$500 | \$195,200 |
| 2 | Outreach | \$72,000 | \$36,000 | \$61,000 | \$2,500 | | | \$1,000 | \$73,000 | \$200 | \$87,000 | \$42,800 | \$250 | \$500 | \$376,250 |
| 3 | Research | \$35,000 | \$17,000 | \$30,000 | \$1,000 | | | \$50 | \$140,000 | \$150 | | | | \$500 | \$223,700 |
| 4 | Restoration | \$44,000 | \$22,000 | \$37,000 | \$7,000 | \$0 | | \$50 | | | | | | \$0 | \$110,050 |
| 5 | Legislation | \$18,000 | \$9,000 | \$15,000 | \$500 | | | | | | | | | \$5,000 | \$47,500 |
| | Total | \$245,000 | \$122,000 | \$207,000 | \$21,000 | \$1,500 | \$3,000 | \$1,850 | \$213,000 | \$550 | \$87,000 | \$43,800 | \$500 | \$6,500 | \$952,700 |