



Charlotte Harbor National Estuary Program

Committing To Our Future

*A Public-Private Partnership
to Protect the Charlotte Harbor Estuarine
and Watershed System*





This summary of the Charlotte Harbor National Estuary Program *Comprehensive Conservation and Management Plan (CCMP)* was created with information from the CCMP approved in 2001 and 2008 and various sources provided by the U.S. Environmental Protection Agency and the Southwest Florida Regional Planning Council.

The *CCMP 2008 Update* and this document, the *CCMP Summary 2008 Update*, may be obtained as PDF files from the Program website at www.CHNEP.org. Printed copies are available from the Program Office and can be requested through the website.

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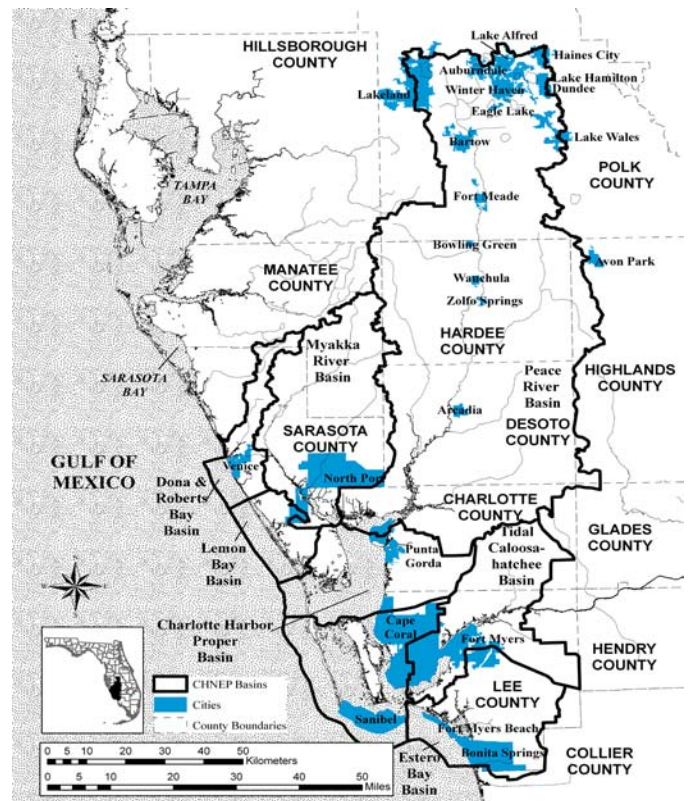
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When an estuary's components are in balance, all life flourishes.





Estuaries are places where rivers meet the sea. They are fascinating and beautiful ecosystems distinct from all other places on earth.

An estuary is a partially enclosed body of water where fresh water from the land and rivers mixes with salt water. In western Florida, the Gulf of Mexico provides the salt water. Harbors, bays, lagoons and portions of rivers are often estuaries. Healthy estuaries are among the most productive and valuable places on earth and are necessary for humans and wildlife. The land from which fresh water drains into the estuary is the estuary's watershed.

The National Estuary Program was established in 1987 by an amendment to the Clean Water Act to identify, restore and protect estuaries along the coasts of the United States. Governors nominate areas to be designated estuaries of national significance. By engaging local communities in the process, National Estuary Programs focus on improving water quality in an estuary while maintaining the integrity of the whole system — its chemical, physical and biological properties as well as its economic, recreational and aesthetic values — and the land-water connection.

Once selected for inclusion, the Program creates a decision-making team to identify and prioritize the problems in the estuary. A plan is developed, approved and then implemented.

Twenty-eight National Estuary Programs are at work safeguarding the health of 42 percent of the continental United States shoreline. One of every seven Americans lives within one of the NEP designated watersheds.

Albemarle-Pamlico Sounds,
North Carolina
Barataria-Terrebonne, Louisiana
Barnegat Bay, New Jersey
Buzzards Bay, Massachusetts
Casco Bay, Maine
Charlotte Harbor, Florida
Corpus Christi Bay, Texas
Delaware Estuary, Delaware,
Pennsylvania and New Jersey
Delaware Inland Bays
Galveston Bay, Texas
Indian River Lagoon, Florida
Long Island Sound, Connecticut
and New York
Lower Columbia River, Oregon
and Washington

Maryland Coastal Bays
Massachusetts Bays
Mobile Bay, Alabama
Morro Bay, California
Narragansett Bay, Rhode Island
New Hampshire Estuaries
New York-New Jersey Harbor
Peconic Bay, New York
Puget Sound, Washington
San Francisco Estuary, California
San Juan Bay, Puerto Rico
Santa Monica Bay, California
Sarasota Bay, Florida
Tampa Bay, Florida
Tillamook Bay, Oregon

*Estuaries ~ where
rivers meet the sea
Watersheds ~ area
that drains to a
common waterway*





Estuaries

*Wherever there are
estuaries,
there is unique beauty.*

The relationship between plants, animals and humans makes up an estuary's ecosystem. Estuaries are the receiving end of all the water that flows over the watershed. When the components of an estuary and its watershed are in balance, all life flourishes.

Many different habitat types are found in and around estuaries. Habitats found in southwest Florida include shallow open waters, freshwater and saltwater marshes, sandy beaches, mud and sand flats, oyster reefs, mangrove forests, seagrass beds, wetlands and wooded swamps.

Many diverse habitats are found in the watershed. The greatest diversity of wildlife can be found in mangrove forests, hydric pine flatwoods, hardwood hammocks and dry pine flatwoods.

Estuaries provide many species of birds, mammals, fish and other wildlife places to live, feed and reproduce. Estuaries provide habitat for an estimated 75 percent of America's commercial fish catch and 80 to 90 percent of the recreational fish catch. Many species of fish and shellfish rely on the sheltered waters of estuaries as protected places to spawn, giving estuaries the nickname "nurseries of the sea" or "cradle of the sea."

Besides serving as important habitat for wildlife, the land that buffers many estuaries provides other valuable services. Water draining from the uplands carries sediments, nutrients and various pollutants. As the water flows through freshwater and saltwater marshes, sediments and pollutants are filtered out. This filtration process creates cleaner and clearer water, which benefits both people and marine life. Wetland plants and soils also act as a natural buffer between the land and the ocean, absorbing floodwaters and dissipating storm surges. This protects upland organisms as well as valuable real estate from storm and flood damage. Mangroves, grasses and other estuarine plants also help prevent erosion and stabilize the shoreline.

Estuaries provide aesthetic enjoyment for the people who live, work or play in and around them. Boating, fishing, swimming and bird watching are just a few of the numerous recreational activities people enjoy in estuaries.

From the largest landscape features to the smallest microscopic organisms, an estuary is a fascinating place. Wherever there are estuaries, there is unique beauty. As rivers meet our sea — the Gulf of Mexico — both ocean and land contribute to an ecosystem of specialized plants and animals.





The Creation of the CHNEP

The Charlotte Harbor National Estuary Program is a partnership of citizens, elected officials, resource managers, and commercial and recreational resource users who are working to protect the greater Charlotte Harbor estuarine system from Venice to Bonita Springs to Winter Haven by improving the water quality and ecological integrity of the 4,700-square-mile watershed. The partnership works as an advocate for the estuarine system by building consensus that is based on sound science.

The Charlotte Harbor study area encompasses both the estuarine system and watersheds. The estuaries are Dona and Roberts Bays, Lemon Bay, Gasparilla Sound, Charlotte Harbor, Pine Island Sound, Matlacha Pass, San Carlos Bay and Estero Bay as well as the Myakka, Peace and the tidal portion of the Caloosahatchee rivers. The 4,700-square-mile watershed includes all or portions of Charlotte, DeSoto, Hardee, Lee, Manatee, Polk and Sarasota counties. A small portion of Highlands, Glades, Collier and Hillsborough counties are also part of the watershed.

In 1995, then Governor Lawton Chiles, on behalf of the state of Florida and in cooperation with the Southwest Florida Regional Planning Council, Mote Marine Laboratory and Southwest Florida Water Management District SWIM Program, submitted an application to the U.S. Environmental Protection Agency to designate the estuarine system around Charlotte Harbor as an “estuary of national significance.” The application was accepted and a National Estuary Program was created.

From October 1996 to April 2000, more than 200 individuals who represent organizations interested in preserving the Charlotte Harbor estuarine system used a cooperative decision-making process to identify resource management concerns. These individuals serve on one of four committees that, with the Program Office, are collectively known as the Management Conference.

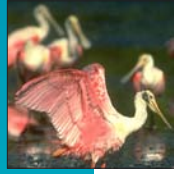
The Management Conference developed a 20-year *Comprehensive Conservation and Management Plan* (CCMP) that identifies the region’s common priority environmental issues and the actions needed to solve them. An update of the 20-year plan will be initiated every five years. This document is a summary of the *CCMP 2008 Update*.

When the CCMP was completed and accepted by the Management Conference, the state of Florida and the U.S. Environmental Protection Agency in 2001, it marked the beginning of action to protect and restore the estuary and its watershed.

The Management Conference now reviews progress and identifies concerns not consistent with the plan’s goals — continuing to use a cooperative decision-making process based on sound science. The Management Conference addresses these concerns and, when consensus is reached, that position is presented by the Charlotte Harbor National Estuary Program — backed by its partners, including the counties, cities, businesses, environmental organizations, government agencies and citizens of the watershed.



The 20-year Comprehensive Conservation and Management Plan calls on those who live, work and enjoy the amazing Charlotte Harbor estuarine system to serve as its advocate. Fish and wildlife habitat loss, water quality degradation, changes to water flow and gaps to stewardship are the problems common throughout the study area identified by the hundreds of individuals who developed the plan.



Management Conference

The Management Conference is the decision-making team for the CHNEP.

The Conference is composed of four committees and the Program Office. Each committee serves a specialized role to fulfill the goals and objectives in the *Comprehensive Conservation and Management Plan*. The Policy Committee has ultimate authority to establish policy. Members include elected city and county representatives as well as representatives from local, state and federal government agencies. The Management Committee oversees the operation of the Program. The Technical Advisory Committee (TAC) guides technical decisions, and a Citizens Advisory Committee (CAC) represents the interests of the public and commercial and recreational resource users.



Partners in the CHNEP include:

- Cities and towns (24)
- Counties (7)
- Citizen associations
- Environmental education organizations and facilities
- Businesses, industries and associations
- State agencies (26 divisions within 8 agencies)
- Regional agencies (3)
- Water management districts (2)
- Special districts, including community development, conservation and easement, soil and water conservation, water control and water and sewer (more than 80)
- Federal agencies (8)
- Private science or resource management groups (16)
- Land trusts (14)



The first Comprehensive Conservation and Management Plan was endorsed by members of the CHNEP Management Conference during a ceremony held April 13, 2000.



The Process

The Management Conference identified three priority regional problems to guide the development of the initial *Comprehensive Conservation and Management Plan* (CCMP) to a specific long-term vision for the region's estuarine and watershed resources. A fourth common problem was identified in the update to coalesce stewardship actions in the first CCMP 2001 into a common problem name of stewardship gap. While these problems vary geographically in extent and severity, they are common throughout the study area. Fifteen quantifiable objectives (see next page) and 64 priority actions with strategies were then developed to help address these problems.

The success of the CCMP depends upon the broad support of the citizens of the watershed. The Management Conference obtains this support through outreach and education efforts designed to enhance understanding of the value of the natural resources, the problems confronting the resources and actions that can be taken to resolve these problems. The citizens' role is critical; therefore, the plan incorporates a public education strategy.

The Program also has specific responsibilities to further the implementation of the management plan. Important activities include assuring coordination among the many organizations in the region, coordinating data management, assisting in the implementation of the long-term monitoring strategy, locating potential funding sources, evaluating federal activities for consistency with the CCMP, measuring progress made to implement the plan and tracking key indicators of the health of the estuarine system.

The completion of the *CCMP* and its subsequent acceptance by the Management Conference, the state of Florida and the U.S. Congress in June of 2001 marked the beginning of action to restore and protect the estuarine system. An update of the plan is initiated every five years.

Priority Problems

Hydrologic (Water Flow) Alterations

Adverse changes to amounts, locations and timing of freshwater flows, hydrologic functions of floodplain systems and of natural river flows.

Water Quality Degradation

Including, but not limited to, pollution from agricultural and urban runoff, point-source discharges, septic tank system loadings, atmospheric deposition and ground water.

Fish and Wildlife Habitat Loss

Degradation and elimination of headwater streams and other habitats caused by development, conversion of natural shorelines, cumulative impacts of docks and boats and establishment of exotic species.

Stewardship Gaps

Limitations in people's knowledge of choices and management decisions that will lead to sustainability within their community. These gaps include overarching issues such as public outreach, advocacy and data management.



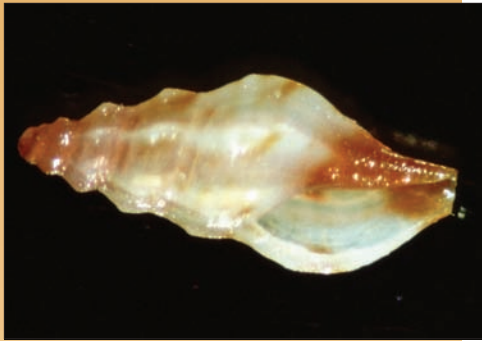
Restore
Enhance
Improve
Achieve



Fifteen quantifiable objectives were developed to help address the four priority regional problems identified by the Management Conference.

Water Quality Degradation

- Maintain or improve water quality from year 2000 levels. By 2011, bring all impaired water bodies into a watershed management program such as reasonable assurance or basin management action plan. By 2015, remove at least two water bodies from the impaired list by improving water quality.
- By 2015, develop and meet site-specific alternative criteria that are protective of living resources for dissolved oxygen, *chlorophyll a*, turbidity/total suspended solids, salinity and pesticides.
- By 2025, reduce severity, extent, duration and frequency of harmful algal blooms (HABs), including macroalgae, phytoplankton and periphyton, through the identification and reduction of anthropogenic influences.
- By 2025, meet shellfish harvesting standards year round for the Myakka River Conditionally Restricted area and the conditionally approved areas of Lemon Bay, Gasparilla Sound, Myakka River, Pine Island Sound Western Section and Pine Island Sound Eastern Section.



Fish and Wildlife Habitat Loss

- Meet the stated objectives for the target extent, location and quality of habitats in the CHNEP study area, including native submerged aquatic vegetation, submerged and intertidal unvegetated habitats, especially mud flats and sand flats, mangrove habitats, saltwater marsh habitats, freshwater wetland systems, oyster bars, native upland communities and the habitat quality of the water column.
- By 2025, achieve a 100 percent increase in conservation, preservation and stewardship lands within the boundaries of the CHNEP study area. The increase will be based upon 1998 acreage of existing conservation, preservation and stewardship lands.
- By 2020, on conservation, preservation, stewardship and other public lands achieve controllable levels of invasive exotic plants, as defined by the Florida Exotic Pest Plant Council, and exotic nuisance animals, as defined by the Florida Fish and Wildlife Conservation Commission. Encourage and support the removal and management of invasive exotic plants on private lands.



Hydrologic Alterations

- By 2015, identify, establish and maintain a more natural seasonal variation (annual hydrograph) in freshwater flows for the Caloosahatchee River, Peace River and its tributaries, the Myakka River with special attention to Flatford Swamp and Tatum Sawgrass, and Estero Bay and its tributaries.
- By 2020, restore, enhance and improve where practical historic watershed boundaries and natural hydrology for watersheds within the CHNEP study area, with special attention to Outstanding Florida Waters and Class I water bodies.
- By 2020, enhance and improve to more natural hydrologic conditions water bodies affected by artificially created structures throughout the CHNEP study area. Reduce negative hydrologic effects of artificially created structures such as weirs, causeways, dams, clay settling areas and new reservoirs. These structures include the Sanibel Causeway, Franklin Lock (S-79), Myakka River, the causeway between Lovers Key State Recreation Area and Bonita Beach, the water-control structure on the south end of Lake Hancock, the structure on Coral Creek, the Gator Slough canal collector system in Lee and Charlotte counties, the Peace Creek canal system and the Cow Pen Slough in Sarasota County.
- By 2010, for each watershed, identify the linkages between local, water management district, state and federal government development permitting and capital programs affecting water storage, flood control and water quality. By 2012, identify and recommend reforms through tools such as comprehensive watershed management plans. By 2015, implement the reforms.



Stewardship Gaps

- By 2025, a minimum of 75 percent of all residents will have recalled attending a watershed event, reading watershed material or hearing watershed/estuary information on radio or TV. A minimum of 50 percent of all residents in the CHNEP study area can recognize estuaries and watersheds. A minimum of 10 percent of all residents will be able to claim personal actions that protect the estuaries and watersheds.
- By 2010, the CHNEP will serve as a recognized resource to elected officials or their agents from local, state and federal government for policy advice.
- By 2010, the program long-term monitoring strategy and data management strategy will be implemented and resulting informational websites maintained systematically.
- By 2010, key geographic and scientific information will be presented in ways that are meaningful to the majority of the CHNEP study area population.



The Study Area



Peace River

Myakka River

Caloosahatchee River

The Charlotte Harbor study area includes eight basins that have hydrological, ecological and management distinctions. These basins are the Dona and Roberts Bays, Lemon Bay, Charlotte Harbor proper, Pine Island Sound/Matlacha Pass and Estero Bay coastal environments and the Myakka, Peace and Caloosahatchee rivers. A map is provided on pages 12 and 13.

Coastal Environments: A series of bays, beaches, barrier islands and mangroves dominate the coastal environments of Venice, Lemon Bay, Pine Island Sound, Matlacha Pass and Estero Bay, which are located in Sarasota, Charlotte and Lee counties. Twelve barrier islands protect the estuaries and the mainland from storm waves and floods. Salt water from the Gulf of Mexico enters through 11 passes located between the barrier islands and San Carlos Bay, the mouth of the Caloosahatchee River. Passes are dynamic and close, shift or open because of natural events such as hurricanes and human efforts to maintain them.



The Charlotte Harbor estuarine system is mostly influenced by its large rivers. The amount of salt in each estuary varies dramatically, depending in part on the large fluctuations of river and streamflows from the Myakka, Caloosahatchee and Peace rivers between wet and dry seasons.

The watershed — the area that drains to a common waterway — for the Peace River is large, 26 times larger than the estuary into which it drains. For every acre of water, 26 acres of land drains into the estuary. By comparison, the watershed for Tampa Bay is four times larger than its estuary and the watershed for Sarasota Bay is eight times larger.



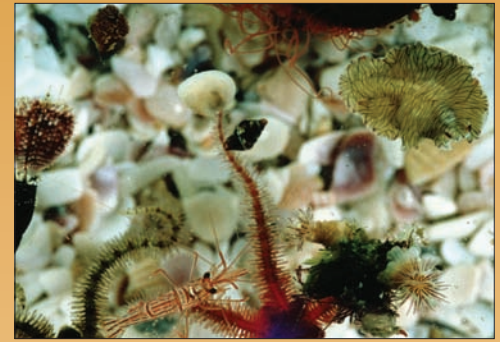
Much of the submerged land is designated an aquatic preserve and much of the shoreline is designated as buffer preserve to be “preserved in essentially natural conditions for future generations to enjoy” by the Florida Department of Environmental Protection. In addition, the tributary streams in Estero Bay are designated by the state as “Outstanding Florida Waters” to be protected from harm.

Some important resource management challenges, especially in the coastal environments that are dominated by urban development, are:

- Effect of boat traffic and dredging of the Intracoastal Waterway
- Health of mangroves and seagrasses
- Disposition of undeveloped yet platted land
- Effects on water quality of septic systems and stormwater runoff from developed areas
- Dynamically unstable tidal inlets
- Nuisance exotic vegetation and animals
- Canals, which change the amount, timing and quality of the water that runs into the estuaries
- Land-use changes, including urbanization



Myakka River: The Myakka River is the only river to be designated a Florida Wild and Scenic River. This designation provides for preservation and management of the 34-mile portion of the river within Sarasota County, 12 miles of which flow through the Myakka River State Park. Much of the 66-mile river's watershed lies to the north in Manatee County, but the Myakka River does not become well defined until numerous tributaries coalesce near the park. Two lakes and extensive marshes are prominent features of the park, which is famous for its diverse wildlife. While agriculture use dominates the majority of the upper basin and urban development in the lower basin, many acres of this watershed are protected as parks, forests and preserves.



Peace River: The Peace River flows 105 miles from its origin in the Green Swamp and Lake Hancock in central Polk County through Polk, Hardee, DeSoto and Charlotte counties to the estuary known as Charlotte Harbor. This river is the major freshwater contributor to the estuary. The river's rate of flow is directly related to groundwater levels, which have been falling significantly due to increased demand for the water and less rainfall. The health of the river and the estuary depend upon this water, as do the human inhabitants. The Peace River is the source of drinking water for more than 100,000 people. Agriculture, primarily cattle ranching, citrus production and row crop farming, as well as phosphate mining and residential development are the dominant land uses in this watershed. These land uses have resulted in alterations to the hydrology and natural flora and fauna of the landscape. To help protect the integrity of the Peace River and Charlotte Harbor, state laws and regulations require that land mined after July 1, 1975, be reclaimed, that the hydrology approximate that prior to mining and that habitat loss be appropriately mitigated. Since 1977, a state trust, supported with phosphate severance tax dollars, has provided funds for the voluntary reclamation of land mined prior to 1975.



Caloosahatchee River: The flow of this river is no longer controlled by nature. Dredging has straightened and deepened the river, damaged its many oxbows and connected it to Lake Okeechobee. Numerous structures allow the water flow to be controlled for water supply and boat traffic. The farthest west of five locks, the Franklin Lock and Dam separates the fresh water of the river from the salt water of the estuary. The CHNEP study area includes only the 30-mile reach of the river in Lee County from Franklin Lock to the Gulf of Mexico. The part of the watershed in the CHNEP study area is dominated by urban development. The receiving estuary provides critical wildlife and aquatic habitat and nursery areas.

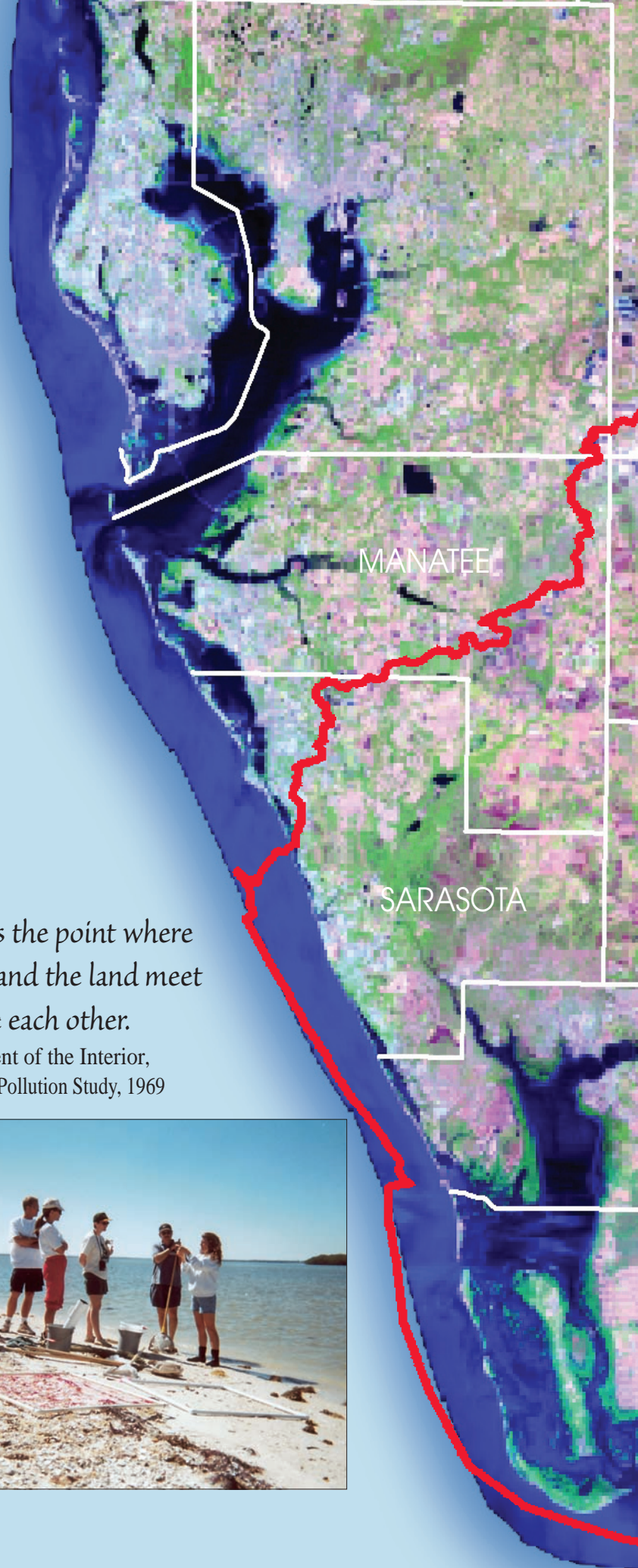


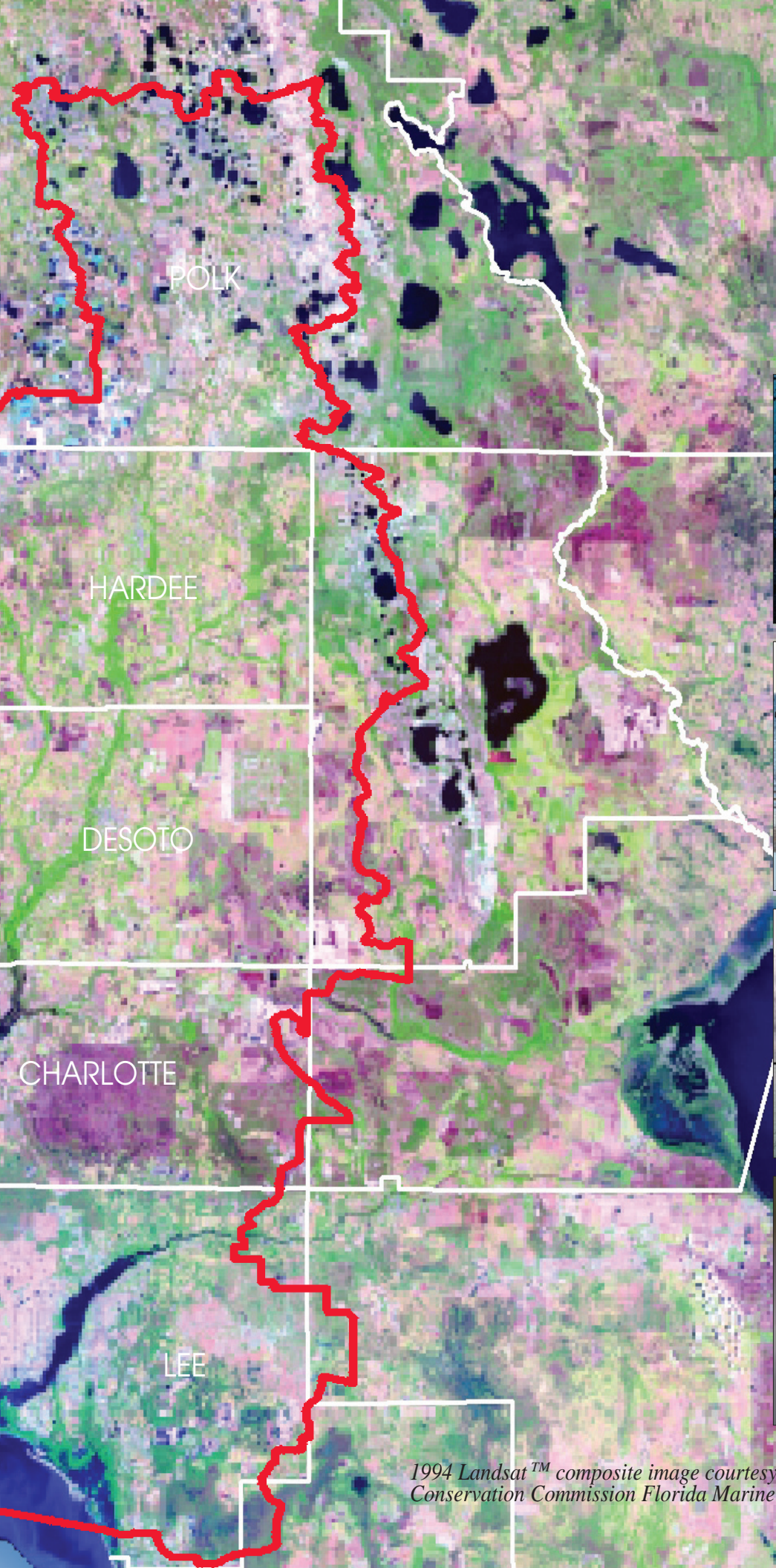
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The watershed covers a region of diverse and important rural and urban communities and an environment worth protecting. Fishing, agriculture, mining, tourism, retirement and construction compose the economic base.

We receive uncounted benefits from estuaries that are difficult to quantify, such as clean air and scenic beauty.

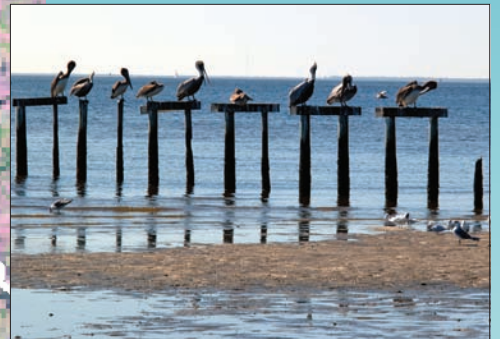
The estuary is the point where man, the sea and the land meet and challenge each other.

— U.S. Department of the Interior,
National Estuarine Pollution Study, 1969





Any estuary is really the summation of the whole basin. To think of it as nothing but the harbor is to ignore the greater part.
— Hal Borland (paraphrased)



1994 Landsat™ composite image courtesy of Florida Fish and Wildlife Conservation Commission Florida Marine Research Institute

The productivity and variety of estuarine habitat foster a wonderful abundance and diversity of wildlife.



At a Glance

The beauty, natural diversity and tropical and subtropical climate are some of the reasons why more and more people vacation in and move to the Charlotte Harbor area. In 1960, the population in the study area was approximately 350,000. By 2000, the population increased to 1.5 million. By 2020, it is expected to near 2 million, with 80 percent living near the coast. During the cold months, the population in the watershed swells by approximately 30 percent with those who enjoy the warmer climate and beauty of the area.

The CHNEP study area, a 4,700-square-mile watershed, includes 24 cities and all or most of seven counties. (A very small portion of four other counties lie within the study area.) The area stretches from Venice to Bonita Springs to Winter Haven. It includes 30 miles of the Caloosahatchee River, 105 miles of the Peace River and 66 miles of the Myakka River. Agriculture occurs on approximately a third of the study area, residential and commercial development occur on another third and the final third is split between mining, conservation land and open waters.

Barrier islands protect the estuaries and the mainland from damaging storm waves and floods and create a quiet place for mangroves, seagrasses, fish and birds to flourish. From north to south, these islands are Manasota Key, Don Pedro Complex, Little Gasparilla, Gasparilla, Cayo Costa, North Captiva, Captiva, Sanibel, Estero, Lovers Key and Big and Little Hickory. Passes allow salt water from the Gulf of Mexico to mix with the fresh water from the land. From north to south, these openings, which are mostly passes, are Venice Inlet, Stump Pass, Gasparilla Pass, Boca Grande Pass, Captiva Pass, Redfish Pass, Blind Pass, San Carlos Bay, Matanzas Pass, Big Carlos Pass, New Pass and Big Hickory Pass.

More than 170,000 acres of submerged resources are designated as six Florida aquatic preserves to be “preserved in essentially natural conditions for future generations to enjoy.” They are known as Lemon Bay, Gasparilla Sound/Charlotte Harbor, Cape Haze, Pine Island Sound, Matlacha Pass and Estero Bay. Charlotte Harbor and Estero Bay preserve state parks include approximately 56,000 acres of land adjacent to the aquatic preserves. These lands provide a buffer between human uses of the watershed and natural resources in the estuaries. They are known as the Punta Gorda, Cape Coral, Cape Haze, Port Charlotte and Estero management areas. From the mouth of the Caloosahatchee River north to Placida, approximately 84 percent of the shoreline is protected in a buffer preserve.

The Charlotte Harbor estuarine system is the second largest open-water estuary in Florida, the ninth largest in the Gulf of Mexico and the eighteenth largest in the country. The watershed for the Charlotte Harbor estuarine system is approximately eight percent of the state of Florida.

Land conserved in the watershed is managed by different agencies for different purposes. J. N. “Ding” Darling National Wildlife Refuge Complex



administers five refuges in Lee and Charlotte counties — J. N. “Ding” Darling, Pine Island, Matlacha Pass, Island Bay (Cape Haze) and Caloosahatchee. Many state parks and other protected lands are located in the watershed. The five state parks are Barrier Island GEOPark, which includes Stump Pass Beach, Don Pedro Island, Gasparilla Island and Cayo Costa State Park; the Myakka River, Florida’s largest state park with 45 square miles of woodlands, wetlands and prairie; Oscar Scherer, with 1,400 acres of pine flatwoods and scrubby flatwoods; Highlands Hammock, with virgin hardwood forest, cypress swamp, pine flatwoods, sand pine scrub, scrubby flatwoods, bayheads and marsh; and the 712-acre Lovers Key complex, which includes Black Island, Lovers Key, Inner Key and Long Key. The 8,593-acre Myakka State Forest, Paynes Creek State Historic Site and the 141-acre Koreshan State Historic Sites, the 65,770-acre Babcock/Webb and 13,243-acre Yucca Pens Unit wildlife management areas as well as the Pineland Archaeological Site and portions of the CREW Wildlife and Environmental Area are all located in the study area.

Preservation 2000, a land and water conservation state program, acquired more than 1 million acres throughout Florida during the 1990s. In 1999, Florida Forever was created as a follow-on program. Funds from this bond Program will continue to help several agencies acquire and manage conservation lands. Land has also been acquired for conservation through the efforts of the Southwest and South Florida water management districts; Charlotte, Lee, Sarasota and Polk counties; land trusts and others. Land trusts actively working to acquire environmentally sensitive land in the CHNEP study area include Calusa Land Trust and Nature Preserve of Pine Island, Conservancy of Southwest Florida, CREW Land & Water Trust, Florida Trail Land Trust, Inc., Gasparilla Island Conservation & Improvement Association, Inc., Great Outdoors Conservancy, Green Horizon Land Trust, Lemon Bay Conservancy, Inc., The Myakka Conservancy, Sanibel-Captiva Conservation Foundation, Southwest Florida Land Preservation Trust, The Nature Conservancy, Trust for Public Land and Barrier Island Trust.

Manatees, dolphins, sharks, sea turtles, wood storks, roseate spoonbills, gopher tortoises, American alligators and mangroves are but a few of the species found in Charlotte Harbor. Among the species documented, 452 fish, 331 bird, 2,100 plant, 39 mammal, 67 reptile and 27 amphibian species are found in the study area. As of 1990, 86 species were federally or state listed as threatened or endangered, including the Florida black bear, manatee, wood stork, Florida scrub jay and brown pelican. The region is internationally famous for seashelling, snook fishing and the world’s richest tarpon fishing tournament. Mangroves are one of Florida’s true natives. The three species known as the red, black and white mangroves thrive in salty environments because they are able to obtain fresh water from salt water. Some secrete excess salt through their leaves, others block absorption of salt at their roots. Turtle grass, manatee grass and shoal grass are the three common species of seagrasses — flowering plants that live underwater — found in the study area.





Grants

The CHNEP offers three types of grants to Florida citizens, organizations, businesses, government agencies, schools, colleges and universities in order to further partnerships that will protect the Charlotte Harbor estuary by improving the ecological integrity of the greater Charlotte Harbor watershed. These grants are an important component of implementing the CCMP.

The research, monitoring, restoration and educational projects supported by these grants benefit the natural resources in the watershed, enhance our technical knowledge or improve community awareness. Projects vary greatly in scope and scale, ranging from biological surveys, wetland restoration projects and volunteer water quality monitoring to curriculum development and environmental education activities. Many projects are funded in cooperation with other sources. Consequently, the total value of the project is often much greater than the support provided by the CHNEP.

The CHNEP has awarded grants since 1996. Each year proposals are reviewed and selected on a competitive basis. From 1996 to 1998, the CHNEP supported Early Action Demonstration projects. These projects have long-term applicability and transferability and serve as models for addressing resource management issues.

Annually since 1999 the CHNEP has requested proposals for **Research and Restoration Partners** projects and applications for **Public Outreach** projects. Projects must address a Program goal and priority problem and must occur in the Charlotte Harbor watershed. Projects must demonstrate value to the community, incorporate a permanent management strategy and inform and educate. Restoration Partners projects must also have long-term applicability and serve as models for addressing habitat improvement and resource management challenges. Applications for Public Outreach grants are typically due in early September and proposals for Research and Restoration Partner Grants are typically due in October.



As of 2001, **micro-grants** have been offered to help establish and maintain environmental education efforts and further partnerships to help implement the CCMP. These grants provide up to \$250 and are available year round.

A directory of grant-supported projects as well as grant applications are available from the Program website at www.CHNEP.org.

Resources Are Available

The CHNEP is pleased to offer several resources free of charge to provide information to help you become part of the solution. These resources include a wide variety of publications for the general public and for the scientific community (some are only available as PDF files on the website), grant reports, PowerPoint presentations and reports from conferences and other events, videos and posters. New resources are listed on the website at www.CHNEP.org as they are created so the most current list of these resources is always available from the website. If you do not have access to the Internet, you may request the resource brochure from the CHNEP by calling toll-free 866/835-5785 x 214. This document only describes a few items created for the public.

- ***Harbor Happenings Newsletter***

Want to receive information on a regular basis? Subscribe to this free newsletter. Four times a year the 12-page newsletter provides current information on Program activities as well as topics and issues of concern in the greater Charlotte Harbor watershed.

- ***CHNEP Calendar***

Since 2005, the CHNEP has produced a calendar that, thanks to many talented and generous photographers and artists, captures the beauty found within the CHNEP geographic area. The calendar is mailed free to subscribers of the newsletter *Harbor Happenings*.

- ***The Story of the Greater Charlotte Harbor Watershed***

Written for the general public, this book characterizes the state of the natural systems and major resource management issues throughout the area and provides an overview of the physical, biological, historical and economic aspects of the greater Charlotte Harbor watershed. 92 pages. 1998; revised 2008.

- ***The Network of an Estuary: Charlotte Harbor National Estuary Program***

Clyde Butcher and 17 members of the CHNEP Management Conference tell the story of the value of our local estuaries, the importance of the CHNEP and issues of concern and actions undertaken by the Program's partners during this 27-minute video. Libraries within the CHNEP study area have copies available on loan.

- ***Mangroves, Seagrasses, Florida-Friendly Yards and more***

Working with WGPU Public Media, the CHNEP produced a series of short videos on topics of concern to the CHNEP. Each DVD includes 60-minutes of videos, including two-minute videos on mangroves, seagrasses, watersheds, estuaries and animals. DVD copies are available.

- ***Posters***

The CHNEP has produced four posters. Clyde Butcher donated the black-and-white image of the Myakka Canopy Trail in this 22-inch wide x 19.5-inch wide high poster. Mr. Butcher also donated the black-and-white image of Lake Hancock in this 17-inch wide x 24-inch high poster. Artist Diane Pierce features a captivating, real-life osprey/river scene in this 36-inch wide 24-inch high poster. Artist Shelly Castle depicts the biodiversity of plants and animals in the greater Charlotte Harbor watershed and portrays their interaction with the environment in this 39-inch wide x 26-inch high poster. The poster also includes a drawing of the CHNEP study area.

Workshops on native plants

A Florida-friendly yard is one that is beautiful, functional, and easy to maintain. It is also one that is ecologically sound and supports the local environment. The CHNEP is pleased to offer a series of workshops on native plants to help you create a Florida-friendly yard. The workshops are held on a regular basis and are open to the public. For more information, please contact the CHNEP at 866/835-5785 x 214.



CHNEP 2007 calendar

The CHNEP 2007 calendar is a beautiful collection of photographs and illustrations that capture the beauty of the greater Charlotte Harbor watershed. The calendar is available for purchase or as a free download. For more information, please contact the CHNEP at 866/835-5785 x 214.



August	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31





Thoughts From CHNEP Management Conference Members

The completion of the CHNEP Comprehensive Conservation and Management Plan provides a significant opportunity for advocacy to protect, preserve and restore the Charlotte Harbor estuary. A number of important decision-making activities such as minimum flows and total maximum daily loads will occur in the near future and must consider a range of interests. The estuary program is now poised to provide technical and outreach assistance for these decisions to ensure the estuary is given equal consideration with other competing interests.

— Tom Welborn, U.S. EPA, Region 4

The CHNEP is all about the preservation and enhancement of the estuarine system. Success in this endeavor adds up to a higher quality of life for ourselves and our descendants.

— Fran Stallings, Ph.D.,
Environmental Confederation of
Southwest Florida

It is nice to know that the efforts we make in improving the quality and flow of the water to our lakes will not only improve our resource but also all of the waters downstream.

— Beverly Sidenstick, League of
Women Voters



through areas once overrun by exotic plants that have undergone extensive habitat restoration and are now thriving as marshes and hammocks. The natural recruitment of native plants and the restored hydrology are also marked by a welcome return of birds and other wildlife.

— Carla Kappmeyer, FDEP Charlotte
Harbor Aquatic and State Buffer
Preserves

The CCMP represents a truly unique opportunity to apply ecosystem management principles that focus on partnerships between the public and the governmental agencies that participate in the Charlotte Harbor National Estuary Program. The environmental resources and amenities of Charlotte Harbor will directly benefit by applying the CCMP, as will the quality of life by the watershed's citizens.

— Andreas Mager, Jr., National Marine
Fisheries Service

Estuaries provide that mixing zone where the ocean meets the fresh water of rivers and streams. The marshes of estuaries are more productive, on an acre for acre basis, than the wheat and cornfields of the Great Plains. Estuarine marshes also absorb and dissipate floodwaters and storm surges. We need to do everything possible to protect these valuable resources.

— Annon Bozeman, U.S. Army Corps of
Engineers

The future of Charlotte Harbor, its watershed, its wildlife and the land depends on citizens speaking out to ensure the environmental integrity of the natural systems. The CHNEP is providing everyone a voice in our future.

— Ellen Hawkinson, Peace River
Audubon

We are so very lucky, for uncountable reasons, to have the opportunity to live near such healthy, diverse estuaries as those found throughout the Charlotte Harbor region. The Florida Legislature recognized the value of the Charlotte Harbor estuaries when they designated six aquatic preserves to preserve these exceptional submerged resources for future generations to enjoy. The guidance, citizen support and interagency cooperation fostered by the CHNEP helps make accomplishment of that dream a reality.

— Judy Ott, FDEP Charlotte Harbor
Aquatic Preserves

The implementation of the CCMP will serve as a stepping stone for the restoration and improvement of the estuary for our children and the future.

— Ed Higby, Polk County Industry
Community Advisory Panel (ICAP)



The CHNEP's outreach program provides a powerful mechanism to inform and involve the public regarding significant activities affecting the Charlotte Harbor estuary. An informed and active public provides the foundation and support for balanced decisions that protect the unique and valuable resources of this nationally important resource.

— Bob Howard, U.S. EPA, Region 4

The technical information and the scientific community relationships developed will be a valuable resource in the future to promote better characterizations of, and to determine the threats to, the estuary. The coordinated estuary-wide water quality monitoring plan is an excellent example of the power of these technical cooperative efforts.

— Bo Crum, Section Chief, U.S. EPA, Region 4

Now that the CCMP is completed after five years of incredibly hard work by a large and devoted number of volunteers, all of us — organizations, businesses, government entities, non-profits and particularly individuals, have a well-defined path to follow for the future health of our Charlotte Harbor estuaries.

— Anna Bowditch, Charlotte Harbor Advisory Committee and Boca Grande resident

The CHNEP has brought the people of southwest Florida — citizens, scientists, resource managers, businesses and politicians — together to the table like nothing else. It is all about building partnerships and teams to accomplish the common goals of protection, restoration and enhancement of natural systems in Charlotte Harbor.

— David Ceilley, The Conservancy of Southwest Florida

Speakers Are Available

Speakers from the Charlotte Harbor National Estuary Program offer a free program to interested groups and organizations. The presentation focuses on the efforts of hundreds of people working together to ensure the health of the greater Charlotte Harbor watershed. Local participation is crucial to the Program's success. To learn more about the efforts of the Charlotte Harbor National Estuary Program, please contact the Program Office at 239/338-2556 and request that a presentation be made to your organization.

Committing To Our Future

Become a Steward

Stewardship is critical to the continued preservation, restoration and enhancement of the Charlotte Harbor estuarine system. This careful and responsible management of our natural resources is entrusted to the care of the people who live in, work in and enjoy the estuaries and watersheds.

The CHNEP brings citizens, elected officials, resource managers, and commercial and recreational resource users together as partners who will work as advocates for the estuarine system by building consensus based on sound science and assessment.

To learn more, visit the Program website, contact the Program Office, participate in the many activities the Program offers through its partners, such as wading trips, nature festivals, symposiums and more, and join the Technical and Citizens Advisory committees.



The Charlotte Harbor National Estuary Program

Comprehensive Conservation and Management Plan (CCMP)

is a starting point — a time to take stock in what we have accomplished.

To those who contributed time and energy,
your efforts are realized in this plan.

For those citizens of and visitors to the greater Charlotte Harbor watershed
who are learning about our issues for the first time,

we hope you will join us in our efforts
to protect the health of this special region.

The CCMP is our commitment to the future.



Charlotte Harbor National Estuary Program

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