



HARBOR HAPPENINGS

Uniting Central and Southwest Florida to protect water and wildlife

Winter 2021: Volume 25, Issue 1

WONDEROUS WILDLIFE

Wildlife depend on sufficient amounts and quality of habitat for them to live, eat, and reproduce. Florida is home to some of the most diverse wildlife in the country, and only through the protection of these different species and the restoration of their respective habitats can we continue to enjoy them. In this issue, see how the Coastal & Heartland National Estuary Partnership members are working to map, protect, and restore important habitat areas so we can have healthy wildlife populations for generations to come.



EXECUTIVE DIRECTOR UPDATE

Happy New Years! In what has been undoubtedly a hard year, we wrapped up 2020 with some wonderful conservation successes with regards to protecting wildlife habitat in the CHNEP area.

First, the CHNEP was pleased to write a letter of support to the Florida Department of Environmental Protection for the purchase of Orange Hammock Ranch, which they did on May 29, 2020 with \$19.5 million of public Florida Forever funds and \$1.5 million from the Conservation Foundation of the Gulf Coast - an active member of the CHNEP. The 5,777-acre property in the City of North Port protects drinking water and wildlife habitat for species such as bobwhite quail, indigo snake and the Florida black bear. The property also connects to 120,000 acres of existing protected land, allowing endangered Florida panther now breeding in nearby Babcock-Webb Wildlife Management Area to potentially once again utilize this historical habitat. To ensure these habitat benefits are maintained and enhanced, the ranch will be managed by Florida Fish and Wildlife Conservation Commission going forward as a Wildlife Management Area.

Additionally, the CHNEP Policy Committee unanimously supported a resolution in support of the citizens of Manatee County having the opportunity to vote for additional water and habitat protection, which passed with 71% Manatee County voter support. This “Water Quality, Fish and Wildlife Habitat Preservation and Parks” measure will provide dedicated county funding for additional water quality protection, natural areas preservation and parks in Manatee County.

Natural areas and wildlife is not only important to the quality of life in our region, but also to our economy. Based on 2018–2019 data, 29.4 million Florida residents and visitors enjoyed Florida’s state parks and trails, which resulted in \$2.6 billion in direct economic benefits and approximately \$176 million in increased sales tax revenue. In addition, 37,119 full-time and part-time jobs were supported as a result of state park operations. Florida is ranked first in the nation in spending by anglers (including spending for both saltwater and freshwater fishing), with approximately 3 million anglers spending almost \$5 billion in 2011. This spending is estimated to support 80,211 jobs, and to generate \$0.7 billion in federal tax and \$0.5 billion



Jennifer Hecker

in local and state tax. The Florida Fish and Wildlife Conservation Commission documented the economic importance of wildlife viewing activities in 2011 as contributing \$4.9 billion dollars and supporting 44,623 jobs.

Protecting wildlife and their habitat is an important economic driver for maintaining our tourism-sectors. Additionally, in CHNEP’s 2020 Economic Valuation Study of Natural Resources in the CHNEP Area (www.chnep.org/natural-resource-economic-valuation), we calculated that all counties experienced positive real estate values for properties in close proximity to conservation lands in their areas. The continued investments we are collectively making such as those aforementioned in North Port and Manatee County are not only going to ensure that future generations can enjoy the wildlife experiences we currently do, but that our financial engines are maintained to be sustainable both environmental and economically for years to come.

Wishing you the best in this coming year and thank you for your continued support,

A handwritten signature in blue ink that reads "Jennifer Hecker".



Bob Waters

Do you work with children or have children needing entertaining educational activities? If so, CHNEP's Adventures in the Watershed e-learning is here free for your use!

These online interactive lessons, geared for grades 3-5, teach about the animals and their habitats in the the Caloosahatchee, Peace River and Myakka Rivers, and Southwest Florida Estuaries.

Check them out at: www.chnep.org/online-learning-portal



Coastal & Heartland National Estuary Partnership

Our 2021 Calendars are available! Extra copies available on a first come basis, for pick up throughout our service area. To find the location nearest to you, go to: www.chnep.org/calendar-pickup-locations

Future calendars are available to be mailed directly to your home through the "Subscribe" link in the upper right corner of the CHNEP website.

2021 Climate Summit

The CHNEP is hosting a 2021 Southwest Florida Climate Summit in May 2021, together with our sponsors: Florida Gulf Coast University and the Environmental Defense Fund. The free public regional event is designed to share knowledge, showcase climate action, engage leadership across sectors, and mobilize the collaboration needed to tackle this significant challenge at scale. Speakers will include innovative thinkers and leaders from the government, academic, and the nonprofit sectors to exchange dialogue and ideas on expanding the region's capacity to respond to climate challenges and build climate resilience. For information and to register to participate, check the CHNEP website closer to event date.



Welcome to Our New Conservation Associate Intern

Sophia Brown, recently graduated from Florida Gulf Coast University with a Bachelor of Science in Biology. She is passionate about conservation and loves being outdoors!



Harbor Happenings, Winter 2021: Volume 25, Issue 1

CHNEP publishes this educational magazine on recycled paper. Sign up for a free subscription on our website - www.CHNEP.org.

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Harbor Happenings Winter 2021

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HABITAT RESTORATION NEEDS

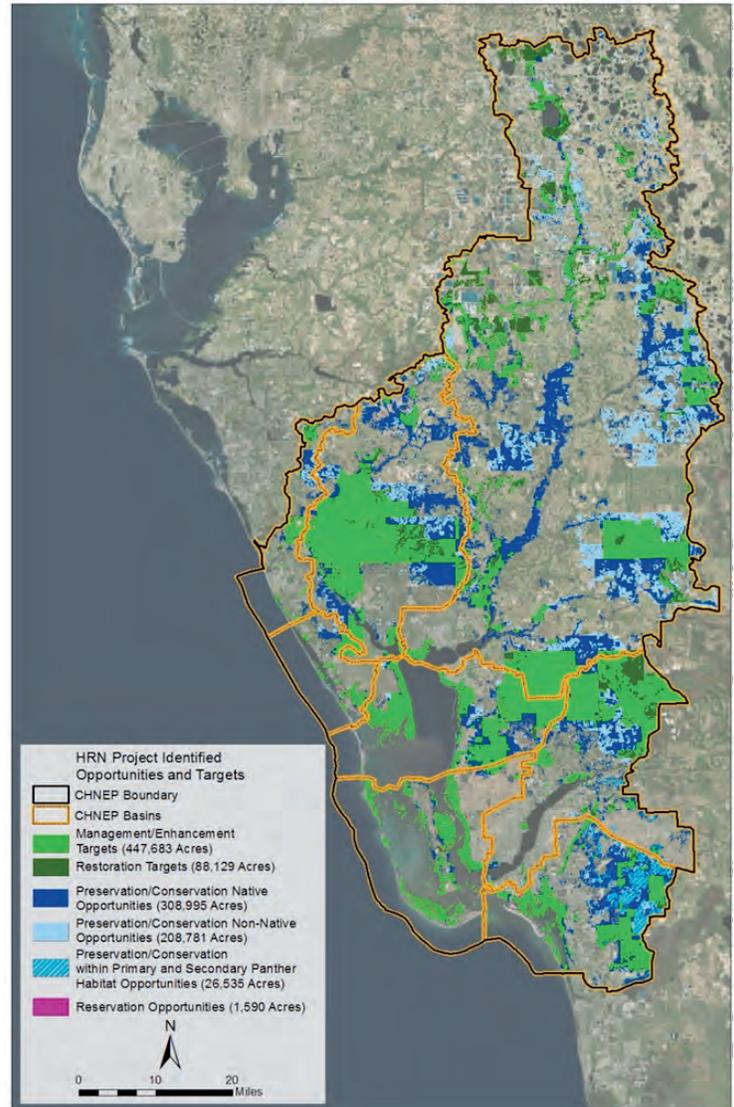
The Coastal & Heartland National Estuary Partnership (CHNEP) developed a Habitat Restoration Needs (HRN) plan to protect wildlife and their habitat in the original CHNEP area. The plan identifies and maps areas within existing parks and preserves that should be targeted for restoration and enhancement or for continued management actions. The plan lays out a comprehensive habitat protection and restoration vision for the next 50 years, developed and supported by all the partners in the CHNEP.

Vision: A diverse environment of interconnected, healthy habitats that support natural processes and viable, resilient native plant and animal communities.

The results include 1) mapped target areas where habitats can be enhanced or restored on existing protected lands and 2) mapped areas of opportunities for future protection. These mapped target and opportunities will be used to identify multi-partner opportunities and priorities for local and regional organizations and state and federal agencies in identifying, planning, and implementing habitat restoration and land acquisition projects needed to efficiently achieve habitat restoration goals. Strategies will support permanent conservation easements and acquisitions as well as effective protection and management of critical natural habitats including wildlife dispersal areas, habitat migration corridors, wetlands, flowways; as well as environmentally sensitive lands.

The goal of the Plan is to increase the acreages of native habitats in the CHNEP area, both strategically and opportunistically while balancing additional community needs including economic growth, water supply, water quality treatment, and flood protection.

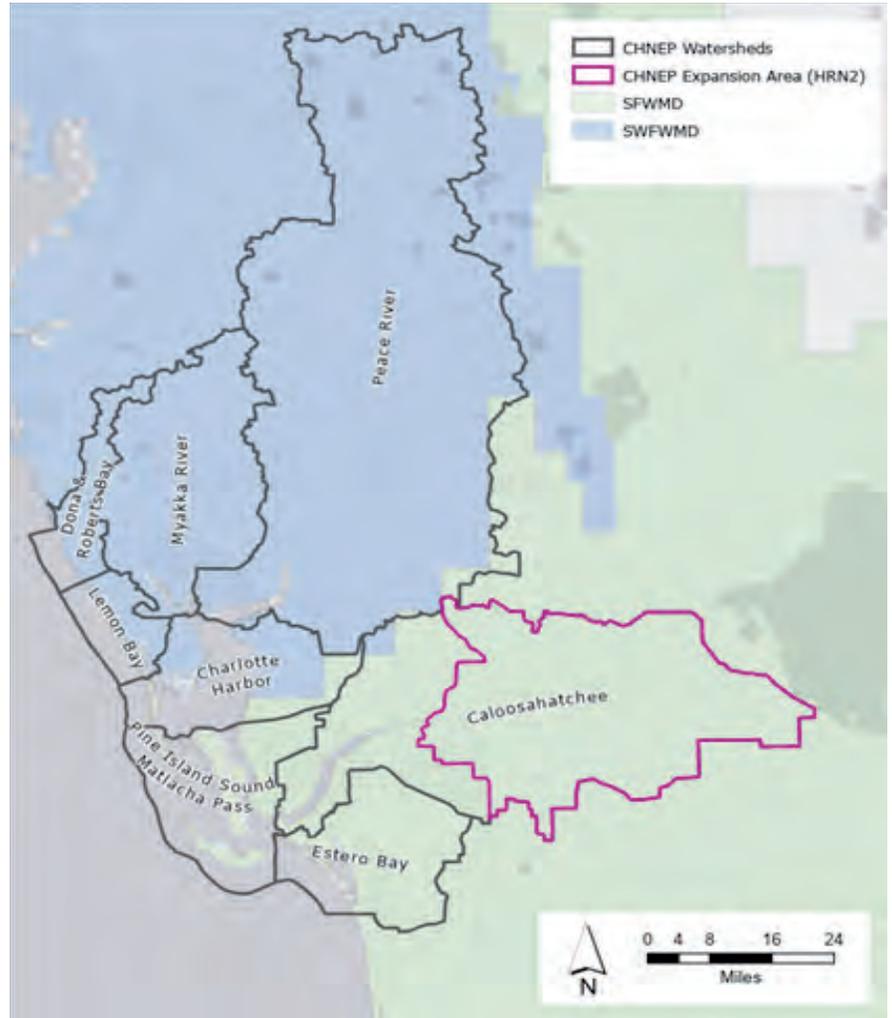
Full implementation of the Plan will have substantial positive impacts on the long-term sustainability of water quantity, water quality, natural systems, and species populations.



HABITAT RESTORATION NEEDS WERE IDENTIFIED AND GOALS SET TO CREATE A CHNEP AREA WILDLIFE HABITAT RESTORATION VISION FOR THE NEXT 50 YEARS

To effectively protect and restore the Caloosahatchee River and estuary, CHNEP expanded its boundaries in 2019. This “expansion area” encompassed freshwater portions of the Caloosahatchee basin up to Lake Okeechobee in Glades and Hendry counties (see purple outlined area in map below). CHNEP recently completed a second phase of the Habitat Restoration Needs Plan to develop similar targets and identify opportunities in the CHNEP expansion area as well. Currently, the two plans are being integrated to one.

The results presented in the HRN represent a “snapshot” of what is currently possible with the data presently available. It should be noted that the identification of new environmental lands; and the ability to acquire, manage, enhance and/or restore such lands by local, state and federal agencies or conservation organizations within the overall CHNEP area, can change on a regular basis. These changes are dependent on current funding availability, administrative priorities, and economic conditions. Accordingly, the opportunities and targets defined in these HRN documents are anticipated to be periodically reevaluated.



This effort supports implementation of the Fish, Wildlife and Habitat Protection Action Plan in the CHNEP Comprehensive Conservation and Management Plan

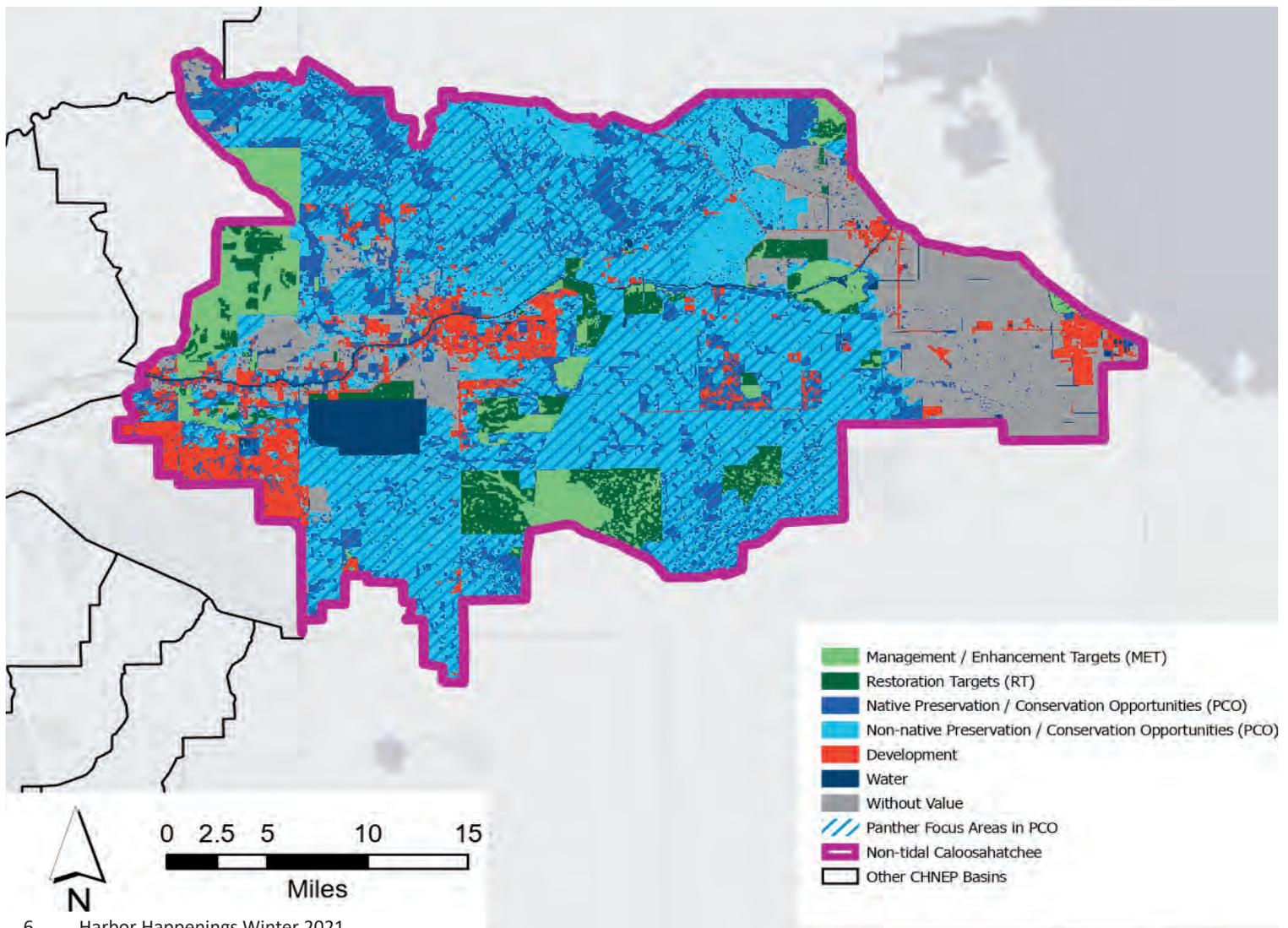


HABITAT RESTORATION NEEDS Cont.

In addition to habitat protection, the goals, opportunities, and targets developed in this Plan can have a positive impact supporting, protecting, managing, and restoring water quality/quantity and natural systems. The information contained in this report helps to guide the CHNEP partners and stakeholders in implementing the CHNEP Comprehensive Conservation and Management Plan (CCMP) and other regional planning efforts. Additionally, information in this report can be used by local, public, and private land conservation and management entities to assist in their efforts to conserve connected priority habitats needed to conserve water and wildlife resources in their communities.

Where to Find More Info

- HRN Phase I report covering the original CHNEP area is already available online at chnep.org/publications.
- HRN Phase II report outlining the CHNEP expansion area will be added online in February 2021.
- Data from both HRN Phase I & II will be added as an interactive mapper to the CHNEP Water Atlas at chnep.wateratlas.usf.edu later in 2021.
- Individual Fact Sheets for HRN results for each watershed will be available online at the CHNEP website shortly.



SWFL ESTUARINE RESTORATION TEAM

One of the ways the CHNEP implements the Habitat Restoration Needs Plan is through our participation on the Southwest Florida Estuarine Restoration Team, also known as the SWERT. This team is comprised of representatives from local, state, and federal government agencies, non-profits, and other local scientists who work directly on projects that restore critical coastal and wetland habitats that have been altered or lost, as well as protecting those that remain.

Members work primarily in the coastal and freshwater wetlands areas of Sarasota, Manatee, Lee, Charlotte, and Collier counties. While SWERT members focus on individual projects, they also recognize they are more successful sharing knowledge and resources whenever possible. In some cases, they combine efforts to create larger regional projects.

At each meeting the group explores restoration projects in-progress or already completed and discusses what lessons they can apply to their own work or how they can collaborate. The SWERT mission is: *to develop partnerships which facilitate and implement restoration; develop a regional landscape-level habitat initiative; and focus on the restoration and enhancement of estuarine habitat including coastal marsh, mangroves, oyster reefs and seagrass for estuaries.*

This is carried out in four main ways:

- Identify information gaps, restoration techniques, planning needs and regional priorities;
- Develop maps of completed and planned restoration projects in the region;
- Facilitate management workshops to gather input on partner priorities and associated programs, and gain concurrence on implementation strategy;
- Coordinate with partners to direct future habitat restoration funding priorities.

CHNEP has helped the SWERT to implement some of its goals, namely by creating maps combining all available information of current and planned restoration projects - such as outlined



SWERT members together out at a restoration project.

in the CHNEP Habitat Restoration Needs Plan. Additionally, the CHNEP headed the Oyster Habitat Restoration Plan and Pilot Project, this plan maps areas that would be ideal for oyster restoration and the pilot project tested a variety of restoration techniques to understand what will work best in the conditions of southwest Florida estuaries. Reports and interactive maps for both projects can be found on the CHNEP Water Atlas website (chnep.wateratlas.usf.edu). CHNEP continues to share grant resources, write letters of support, and work with partners to obtain additional funding for restoration projects in the area.

The Partnership is excited for the opportunity to support and implement restoration in the region with the SWERT- the natural habitats of central and southwest Florida are unparalleled, continued protection and restoration will have substantial positive impacts on the long-term sustainability of water quality, water quantity, natural systems, and species populations.



MYAKKA MARSHLAND CONSERVATION AND RESTORATION

Guest Contributor: Lee Amos, Conservation Foundation of the Gulf Coast

The Myakka River is special among Florida rivers for several reasons: it is the only river designated as a “Wild and Scenic River” and the only place in Florida with thermal springs. It is also almost entirely fed by rain water, rather than springs; and it is mysteriously and inexplicably devoid of naturally-occurring cypress trees and cypress swamps - containing large marshes in its floodplain instead. Of Myakka River’s four large “floodplain marshes”, three of them – Upper Myakka Lake, Big Flats, and Lower Myakka Lake – are found within Myakka River State Park. The fourth, Tatum Sawgrass Marsh, is on private lands to the north. The Myakka’s floodplain marshes are of particular interest to conservation land managers who wish to optimize their value for wildlife.

On the Myakka River, partners in the Coastal and Heartland National Estuary Partnership (CHNEP) are developing restoration and management methods to control exotic grasses and replace them with desirable native plants. Two key partners are the Florida Department of Environmental Protection & Florida Fish and Wildlife Conservation Commission, who are collaborating on restoration techniques within Myakka River State Park. A field of *Coreopsis*, brilliant yellow flowers spanning hundreds of acres (pictured above right), is what naturally appeared in 2018 after management personnel applied a regiment of herbicide, prescribed fire, and natural flooding to stress and kill exotic grasses growing in the “Big Flats” marsh. Land managers are removing or modifying decrepit dams that have artificially elevated water levels, causing wetter, muckier conditions that favor exotic grasses over native species such as these flowers.

Another important partner in the CHNEP is the Conservation Foundation of the Gulf Coast (CGFC), a not-for-profit land conservancy whose mission is to “protect land and water in southwest Florida for the benefit of people and nature.” The centerpiece of CGFC’s land programs is the creation of the Myakka Island Conservation Corridor (MICC), a conserved landscape larger than 22 of the Nation’s National Parks (116,000+ acres) and important for the recovery of the endangered Florida panther. The Myakka Island Conservation Corridor is a stretch of land connecting



three rivers and supporting three Congressionally-designated “estuaries of national significance” areas – Tampa Bay, Sarasota Bay and the Charlotte Harbor estuary watersheds. This landscape-scale, ecosystem-level initiative is designed to benefit many species, including species in these areas.

Since 2007, 16,000 new acres have been protected within the MICC. This was the result of a multi-agency effort to work with twenty-landowners, who together preserved nearly four miles of the Myakka River and 3,000 acres centered on Myakka’s largest floodplain marsh, the Tatum Sawgrass Marsh. At about 2,500 acres, Tatum Sawgrass Marsh is more than three times as large as Upper Lake Myakka, and because it sits immediately north of Myakka River State Park, its conservation and restoration greatly impacts the Park.

In 2019, the CHNEP provided a two-year grant to CGFC for the management of a one-mile section of marsh where the Myakka River enters the State Park. The objective of the “Gateway to Myakka River State Park” is to reduce the population of exotic invasive grasses in this area, so that fewer seeds wash downstream into the Park, and a buffer is created between restored Park areas and other lands to the north. This year, invasives are being treated, followed by planting native marsh plants as a result of this funding. This project will restore and enhance thousands of acres of habitat for native wildlife to utilize - an example of a project implementing the goals and objectives of the CHNEP’s collective Habitat Restoration Needs Plan.

CHNEP CONSERVATION GRANTS FUND CAPE CORAL HIGH SCHOOL BUTTERFLY SANCTUARY

The Coastal & Heartland National Estuary Partnership was pleased to help fund a project with Cape Coral High School through a CHNEP Conservation Grant. This project was titled: Cooter's Pond and Hawking's Pavilion: A Bee & Butterfly Sanctuary. The goal of this project was to create an integrated aquatic & terrestrial ecosystem as a platform for teaching S.T.E.M. principles and field science applications to IB Environmental, IB Biology, IB Chemistry, the Engineering Club, and all regular science, math and art students. This goal was achieved by the restoration of the pond area that is located in front of Cape Coral High School.

The students prepared the pond area by removing debris and leveling a trail. Next, the students pruned the existing trees and ordered terrestrial natives and dug/amended soil and holes for planting the native plants. The students then purchased eight, fifty-five-gallon drums and wood to create two floating docks that measured 8 ft by 8 ft. These docks are being used by teachers for water testing and sampling that is performed by the students of Cape Coral High School.

Additionally, they ordered and painted bee houses to place around the site, as well as planted Florida-friendly plants and flowers around the periphery of the pond and in student-built flower beds. Members of the group treated the slopes of the pond to remove non-native species and entered the pond to plant native aquatic species at the pond's



edge. Others worked to then design and order nine signs that all had information on the principles of a sustainable landscape. Finally, 4x4's were placed to line the trail along with solar caps that are adjacent to the signage.

The Cape Coral High School students held a ceremony to unveil the new and improved pond with CHNEP staff in attendance. The pond, which is now a beautiful habitat for turtles and birds, will continue to educate students of Cape Coral High School for many years to come, as provide habitat for pollinators.

If you, or an organization you know, are interested in our Conservation Grant program, please visit: www.chnep.org/conservation-grants or email AWebb@chnep.org for more information.

THE CHNEP USES CONSERVATION GRANTS TO HELP CITIZENS AND ORGANIZATIONS IN CENTRAL & SOUTHWEST FLORIDA TO EDUCATE, PRESERVE, AND/OR RESTORE NATURAL RESOURCES IN THEIR OWN COMMUNITIES.



USING JUVENILE SPORTFISH TO MEASURE HABITAT

Guest Contributor: JoEllen Wilson, Bonefish & Tarpon Trust

Globally, coastal habitats are feeling the impacts of habitat loss. With increased coastal development and decline in water quality due to algae blooms and fertilizer runoff, we are experiencing it in our own backyard. Talk to any long time local and the message is the same, “the fishing isn’t as good as it used to be.” But there’s hope in the form of science, bull dozers, and really small fish.

Coral Creek Preserve State Park in Rotonda West was in the initial stages of development as a residential community with saltwater access before it shut down, leaving six dredged canals connected to Coral Creek by a marsh flat. The once pine and palmetto hammocks turned tidal canals are now inhabited by juvenile snook, tarpon, and a variety of other estuarine species through its marsh creek connection.

Several CHNEP partners looked at how to improve fish habitat in this area. The Southwest Florida Water Management District, Bonefish & Tarpon Trust (BTT), Florida Fish and Wildlife Conservation Commission (FWC), and CHNEP staff are coming together to design what the restoration would look like - including for prized sportfish. Since Coral Creek is made up of six separate canals, essentially six mini-habitats. BTT decided on an experimental design that combined various features typically seen in natural juvenile snook and tarpon habitats:

- A deep hole that stays warm in the winter, cool in the summer and protects rolling juvenile tarpon from preying birds.
- Restricted access to the canal through an intertidal sill that only allows water (and fish) passage at certain tides and storm events. This prevents large predators from entering.
- A shallow meandering salt marsh creek that is lush with mangroves and marsh grasses. This habitat provides refuge for the smallest tarpon and snook as well as their prey species.

CHNEP provided funding to BTT to tag and track juvenile tarpon and snook through the channelized canals. Fish were captured using a combination of nets, and tags were implanted inside the fish. Each tag

has its own unique code so that scientists can identify individuals. By tagging and recapturing fish, the growth, movement, survival and abundance could be tracked. This pre-restoration data serves as a baseline to gauge if the future restoration is successful. While focusing on the fish, this also measures aquatic habitat (i.e., faster growth means healthier habitat).

Post-restoration restoration, CHNEP partners BTT and FWC Charlotte Harbor Fisheries Independent Monitoring teams have already caught triple the amount of juvenile snook and tarpon, and they are growing much faster than they were before restoration!

CHNEP also funded the assembly of a directional antenna that is showing tagged fish leaving the canals to move on to the next life stage. These are indicators that the once degraded habitat is functioning more like a natural habitat. Once we collect more data, we will be able to tell which designs (deep hole, etc.) are the most important for tarpon and snook nursery habitat and we will use that information and pass it on to others when designing future habitat restorations.

Projects like these are the future of fisheries management because without healthy habitats, we will not have healthy fisheries. With this project, BTT and CHNEP are showing that we can effectively use habitat restoration as a solution to habitat decline and to improve our fisheries.



JoEllen Wilson

GET INVOLVED



CHNEP continues to host virtual and socially distant monthly public events to allow for safe volunteer participation in light of on-going Covid-19 conditions.

We hosted our first ever virtual CHNEP Kid's Fishing Clinic online in November, with the help of the Bonefish & Tarpon Trust and Florida Fish & Wildlife Conservation Commission. Participants followed along with video lessons on knot tying, casting, safe fish handling and regulations, and how to help protect fish habitat. Each participant earned a free fishing rod and tackle box supplied to CHNEP by a Fish Florida grant.

In December, we offered an online educational birding presentation and training for citizens to be able to participate in the national Audubon

Christmas bird count. In January, we hosted a Vertical Oyster Garden Workshop, where we partnered with a local Punta Gorda restaurant and the Boy Scouts to use drilled recycled oyster shells to build hanging oyster gardens for participants to take home (pictured above). These provide habitat for young oysters to attach and grow on; improving water quality.

In the next few months, CHNEP will be offering events that highlight our water and wildlife. CHNEP volunteers will be participating in the Great Backyard Bird Count in February, water sampling for World Water Day in March, and helping out with horseshoe crab and seagrass surveys in April. We'd love to have you join us.

More information about how to participate in our free upcoming CHNEP events can be found at www.chnep.org/monthly-volunteer-events.

 <p>STEWARDSHIP 4:01</p>	 <p>CASTING 1:25</p>	 <p>HABITAT 6:26</p>	 <p>REGULATIONS 6:20</p>	 <p>KNOT TYING 5:32</p>
Kid's Fishing Clinic: Stewardship	Kid's Fishing Clinic: Casting	Kid's Fishing Clinic: Habitat	Kid's Fishing Clinic: Regulations	Kid's Fishing Clinic: Knot Tying



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2020 CHNEP Wildlife and Habitat Numbers

**300,258 OYSTERS
GROWING ON CREATED
OYSTER REEFS IN THE
PEACE RIVER**



**51,051 ACRES OF NATIVE
HABITAT ACQUIRED OR
RESTORED BY OUR
PARTNERSHIP**



**16,000 NEWLY
PROTECTED ACRES IN
THE MYAKKA ISLAND
CONSERVATION
CORRIDOR**



**25,900,000 DOLLARS IN
ECONOMIC IMPACT OF
COMMERCIAL FISHING IN
OUR PROGRAM AREA**



**23,908 DOLLARS
AWARDED THROUGH
CHNEP CONSERVATION
GRANTS**

