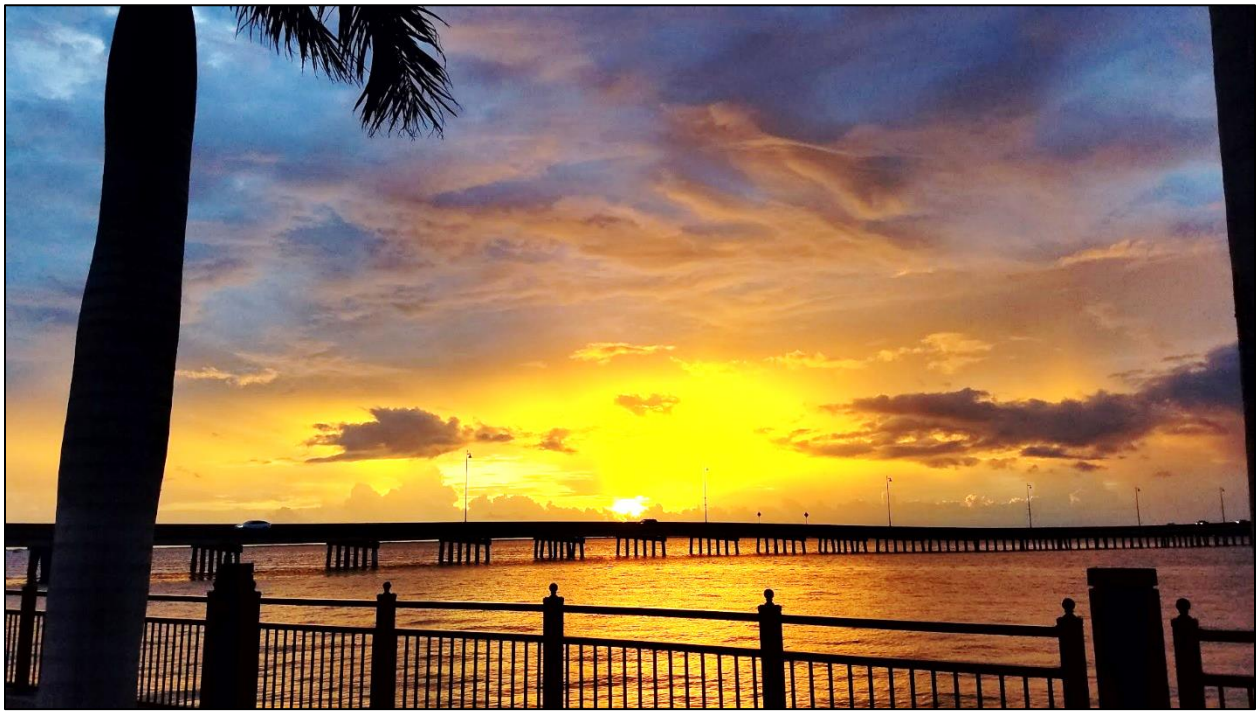
COASTAL & HEARTLAND NATIONAL ESTUARY PARTNERSHIP

FISCAL YEAR 2024 BIPARTISAN INFRASTRUCTURE LAW
WORK PLAN AND LONG-TERM PLAN



Sunset views from the BIL-funded Tiki Point living shoreline project site in Punta Gorda. / Photo credit: Rhonda Paprocki

May 25, 2023

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www.CHNEP.org

The Coastal & Heartland National Estuary Partnership (CHNEP) is comprised of citizens, elected officials, resource managers and commercial and recreational resource users working to improve water quality and ecological integrity of other natural resources in its boundaries. A cooperative decision-making process is used to address diverse resource management concerns in its 5,416-square-mile area. Many of these partners also financially support the Partnership. The governmental entities in the CHNEP and its service area include:

U.S. Environmental Protection Agency

U.S. Fish & Wildlife Service

U.S. Army Corps of Engineers

U.S. Geological Survey

U.S. Department of Agriculture

National Oceanic & Atmospheric Administration

Florida Department of Environmental Protection

Florida Fish & Wildlife Conservation Commission

Florida Department of Economic Opportunity

Florida Department of Agriculture

Central Florida Regional Planning Council

Southwest Florida Regional Planning Council

Southwest Florida Water Management District

South Florida Water Management District

West Coast Inland Navigation District

Peace River/Manasota Regional Water Supply Authority

Florida Gulf Coast University

University of South Florida

University of Florida

Polk, Sarasota, Manatee, Lee, Charlotte, DeSoto, Hardee, Hendry, Highlands, and Glades Counties

and the incorporated Cities and Towns of Dundee, Haines City, Auburndale, Lake Alfred, Lake Wales, Lake Hamilton, Lakeland, Winter Haven, Eagle Lake, Bartow, Fort Meade, Bowling Green, Wauchula, Zolfo Springs, Arcadia, Venice, North Port, Punta Gorda, Fort Myers, Fort Myers Beach, Cape Coral, Sanibel, Estero, LaBelle, Moore Haven, and Clewiston.

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Policy Committee

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US Environmental Protection Agency, Region 4

Ms. Jennifer Carpenter, Co-Chair
Florida Department of Environmental Protection

Hon. Sandy Meeks
Hardee County

Hon. Emory Howard
Hendry County

Hon. Scott Kirouac
Highlands County

Hon. Ray Sandelli
Lee County

Hon. James Satcher
Manatee County

Hon. Bill Braswell
Polk County

Hon. Mark Smith
Sarasota County

Hon. Ken Doherty
Charlotte County

Hon. Steve Hickox
Desoto County

Hon. Tony Whidden
Glades County

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Hon. Steve Githens
City of Bartow

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City of Cape Coral

Hon. Fred Burson
City of Fort Myers

Hon. Bill Veach
Town of Fort Myers Beach

Hon. Bill Read
City of Lakeland

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Hon. Donna Peterman
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Hon. Joan Farrell
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Mr. M. J. Carnevale
City of Winter Haven

Hon. Lori Fayhee
Village of Estero

Hon. Barbara Arnold
City of Fort Meade

Ms. Allie McCue
Florida Fish & Wildlife Conservation Commission

Mr. Chauncey Goss
South Florida Water Management District

Mr. John Hall
Southwest Florida Water Management District

Mr. Don McCormick
Southwest Florida Regional Planning Council

Ms. Jennifer Codo-Salisbury
Central Florida Regional Planning Council

Management Committee Co-Chairs	**Ms. Claire Jubb & Mr. David Hutchinson**
Technical Advisory Committee Co-Chairs	**Mr. Ernesto Lasso de La Vega & Mr. Mark Walton**
Citizens Advisory Committee Co-Chairs	**Mr. Harry Phillips & Ms. Debi Osborne**
CHNEP Executive Director	**Ms. Jennifer Hecker**

BIPARTISAN INFRASTRUCTURE FUNDING FOR THE CHNEP

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law (P.L. 117-58), also known as the "Infrastructure Investment and Jobs Act of 2021" (IIJA) or "BIL." The law's investment in water is nothing short of transformational. It includes $50 billion to the U.S. Environmental Protection Agency (EPA) for water infrastructure, the single largest investment in water that the federal government has ever made. The BIL provides $132 million in funding for the 28 longstanding National Estuary Programs (NEPs) for fiscal years 2022 through 2026. This funding is being evenly distributed to the NEPs, annually providing each with approximately $909,800 in BIL funds. Importantly, NEP BIL funds are available until expended.

On July 26th, EPA issued a NEP BIL Funding Implementation Memorandum (memorandum), which applies to funding provided under the BIL and provides guidance on uses of funds, timeframes, how to award the funds, and tracking and reporting requirements. The memorandum describes the process for FY 2022 – FY 2026 BIL funds and may be supplemented by additional implementation memoranda as needed. Unless otherwise noted in this document, the FY 2021 – FY 2024 Clean Water Act §320 National Estuary Program Funding Guidance also applies to BIL funding. It outlines the core goals of BIL funding are to:

1) "Tackle the Climate Crisis" by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts; and
2) "Take Decisive Action to Advance Environmental Justice and Civil Rights" by promoting EJ and protecting civil rights at the federal, state, and local levels.

As such, it states that NEP projects funded through BIL should seek to: (1) Accelerate and more extensively implement CCMPs, (2) Ensure that benefits reach disadvantaged communities – including that at least 40% of the BIL funding goes to projects benefitting such communities in FY24-26, and (3) Build the adaptive capacity of ecosystems and communities – including addressing climate change and using green and nature-based solutions to enhance resiliency.

It goes on to state that where possible and aligned with the priorities identified in their Comprehensive Conservation and Management Plans (CCMPs), NEPs should engage and educate the public and private sectors on key climate-related vulnerabilities and solutions and provide technical and financial assistance to accelerate progress in response to a changing climate. NEPs should elevate climate efforts through BIL implementation including, but not limited to:

- Assessment and planning projects that involve climate change vulnerability assessments, community resilience and adaptation plans, or hazard mitigation plans
- Restoration, water infrastructure, green infrastructure, stormwater management, and nonpoint source projects that prioritize innovative climate adaptation, hazard mitigation, and resilience solutions
- Projects focused on climate-related research, including those that measure, monitor, and increase carbon sequestration
- Projects focused on climate-related outreach and education

As with annual appropriations distributed to NEPs to implement CWA §320, the funds distributed under the BIL must implement the management conference and EPA-approved CCMP and Work Plan. Therefore, the CHNEP is required to put forth a BIL Work Plan and Budget for each year. Due to the long-term nature of BIL funding, each NEP is also required to develop a BIL Long-Term Plan, which CHNEP submitted as a FY24-FY26 BIL Work Plan on June 1, 2023.

Accordingly, CHNEP has drafted this BIL FY24 to outline how it plans to expend the FY24 Bipartisan Infrastructure Law funding to further resiliency in the CHNEP area, including addressing climate-related factors that affect improving water quality, restoring hydrology, protecting fish, wildlife and their habitat and increasing public engagement as outlined in the four action plans in the 2019 CHNEP CCMP.

CCMP FOCUS IN FY 2024

The Fiscal Year 2024 BIL Work Plan and Budget reflects the approved 2019 CCMP, which outlines the 5-year organizational strategic plan and has the following visions, goals, objectives, and strategies:

WATER QUALITY

VISION: Waters that meet their designated human uses for drinking, shellfish harvesting, or swimming and fishing, while supporting appropriate and healthy aquatic life.

GOAL: Water Quality Improvement.

OBJECTIVE: Meet or exceed water quality standards for designated uses of natural waterbodies and waterways with no degradation of Outstanding Florida Waters.

STRATEGY: Support comprehensive and coordinated water quality monitoring programs and projects and programs that reduce pollutants entering waterways.

WQ-1: Support a comprehensive and coordinated water quality monitoring and assessment strategy

- CHNEP will continue working with partners to collect water quality monitoring data and uploading it to the CHNEP Water Atlas for access by interested parties and the public.
- CHNEP will work with our partners to develop new information pages on the Water Atlas as needed.
- CHNEP will continue to fund and support the Coastal Charlotte Harbor Monitoring Network (CCHMN).

WQ-2: Develop water quality standards, pollutant limits, and clean-up plans

- CHNEP will continue to support, providing technical comment as appropriate, the development and implementation of water quality standards, pollutant limits and clean-up plans.

WQ-3: Reduce urban stormwater and agricultural runoff pollution

- CHNEP will continue to provide public presentations and information on urban stormwater and agricultural runoff pollution.
- CHNEP will continue to support partners in the implementation of stormwater and agricultural runoff reduction projects.

WQ-4: Reduce wastewater pollution

- CHNEP will continue to support partners in the implementation of wastewater discharge reduction and reuse projects, as well as septic to sewer conversion projects.

WQ-5: Reduce harmful algae blooms

- CHNEP will continue to provide public presentations and information on harmful algae blooms and nutrient pollution, as well as research algae bloom remediation techniques.

HYDROLOGICAL RESTORATION

VISION: Natural freshwater flow across the landscape to the estuaries.

GOAL: Enhanced and improved waterbodies with more natural hydrologic conditions.

OBJECTIVE: Adequate aquifer recharge and freshwater volume and timing of flow to support healthy natural systems.

STRATEGY: Support data-driven watershed planning and hydrological restoration projects to preserve or restore natural flow regimes and provide sufficient fresh surface and groundwater to natural systems.

HR-1: Conduct data collection, modeling, and analyses to support hydrologic restoration

- CHNEP will continue to actively participate in gathering data and supporting modeling and analyses as well as fund integrated ground and surface water models to improve decision-making with regards to hydrological restoration projects. Currently, these include the South Lee County Watershed Initiative and the Charlotte Harbor Flatwoods Initiative projects.

HR-2: Increase fresh surface water and groundwater availability to support healthy natural systems

- CHNEP will continue to promote water conservation and sufficient flows and levels of freshwater to support natural systems.

HR-3: Preserve and restore natural flow regimes

- CHNEP will work with partners to identify funding sources to facilitate capital programs that coordinate water storage, flood control, water quality and disaster planning.
- CHNEP will continue participating and providing technical assistance in Everglades' restoration through project review, meeting participation and technical comment.

FISH, WILDLIFE & HABITAT PROTECTION

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

GOAL: Natural habitat protection and restoration.

OBJECTIVE: Permanently acquire, connect, protect, manage, and restore natural terrestrial and aquatic habitats.

STRATEGY: Promote and facilitate permanent acquisition and effective protection and management of critical natural habitats including wildlife dispersal areas, movement and habitat migration corridors, wetlands, flowways, and environmentally sensitive lands and estuarine habitats.

FW-1: Protect, restore, and monitor estuarine habitats

- CHNEP will continue to work with Southwest Florida Estuarine Restoration Team (SWERT) partners on designing, permitting, and constructing seagrass, oyster, and other estuarine restoration projects in CHNEP area.

FW-2: Protect, restore, and monitor environmentally sensitive lands and waterways including critical habitat areas

- CHNEP will continue to share the Habitat Restoration Needs report and maps to support the conservation, management and enhancement of environmentally sensitive lands and critical habitat areas necessary for habitat resilience and migration.
- CHNEP will continue to offer grants to assist engaged citizens that promote the protection and management of public environmental lands and waterways.
- CHNEP will continue to directly engage in funding and project managing habitat restoration projects.

FW-3: Assess and promote the benefits of land, waterway, and estuary protection and habitat restoration

- CHNEP will continue to use its comprehensive regional Economic Valuation study to promote the economic return on investment from land, water and estuarine protection and restoration investments.

PUBLIC ENGAGEMENT

VISION: An informed, engaged public making choices and taking actions that increase protection and restoration of estuaries and watersheds.

GOAL: Public education and engagement.

OBJECTIVE: Increase the proportion of the population that supports and participates in actions to protect and restore estuaries and watersheds.

STRATEGY: Promote environmental awareness, understanding, and stewardship to the general public, new target audiences, and policymakers; and strengthen non-profit partner collaboration in education and engagement programs.

PE-1: Promote environmental literacy, awareness, and stewardship through expanded education and engagement opportunities for the general public

- CHNEP will continue to host routine volunteer events, as well as routinely host and participate in community events to provide environmental education and public engagement opportunities.
- CHNEP will continue to produce free educational materials and distribute them throughout the CHNEP area.
- CHNEP will continue to disseminate information about public engagement opportunities through Constant Contact, on social media, and on the www.chnep.org website.

PE-2: Expand reach of education and engagement opportunities to new target audiences

- CHNEP will continue to conduct educational workshops and events, including in underserved communities, as a way to introduce natural resource protection information to new target audiences in that area.

PE-3: Strengthen non-profit partner collaboration in education and engagement programs

- CHNEP will continue to administer a Conservation Grant program to foster community natural resource protection projects and initiatives that support CCMP implementation, including with non-profit partners.
- CHNEP will continue to seek and work with non-profit organizations on collaborative initiatives.
- CHNEP will continue to sponsor events that foster non-profit partner collaboration to educate and engage the public on issues relating to CCMP implementation.

PE-4: Increase outreach to policymakers to enhance understanding and support for CCMP implementation

- CHNEP will continue to meet and send information to local, state, and federal policymakers, explaining CHNEP's role in supporting CCMP implementation.

FISCAL YEAR 2024 ANNUAL BUDGET

Table 1: Fiscal Year 2024 BIL Budget Overview

Revenue		
Federal (EPA FY24 Bipartisan Infrastructure Law (BIL) Funding)	$	909,800
Total Revenue	**$**	**909,800**
Expenditures		
Desoto County Comprehensive Vulnerability Assessment	$	200,000
Hardee County Comprehensive Vulnerability Assessment	$	200,000
CHNEP Water Atlas Maintenance & Improvements	$	85,000
Travel	$	10,000
Restoration Project(s) TBD	$	87,320
Yucca Pens Hydrological Restoration Project Phase I	$	327,480
Total Expenditures		**$909,800**

Table 2: Fiscal Year 2024 Travel Budget

Date	Purpose	# Staff	Location	Length of Stay	Travel Mode	Reg. Fee	Estimated Cost
October 2023	RAE Living Shorelines Tech Workshop	1	Galveston, TX	3	Air	$ 150	$ 950
Nov. 2023	Coastal Estuarine Research Federation Meeting	2	Portland, OR	5	Air	$ 1,590	$ 3,700
Jan. 2024	Everglades Coalition	1	Coral Springs, FL	4	Auto	$ 0	$ 1,300
Feb. 2024	American Water Resources	4	Fort Myers, FL	N/A	Auto	$ 300	$ 200
Feb. 2024	Gulf of Mexico Conference	4	Tampa, FL	4	Auto	$ 1,800	$ 4,000
Mar. 2024	NEP/EPA Spring Mtg.	1	Washington, DC	4	Air	$ 300	$ 2,000
April 2024	League of Environmental Educators in Florida	1	Ocala, FL	2	Auto	$ 150	$ 600
Sept. 2024	Resiliency Florida	1	Fort Lauderdale, FL	3	Auto	$ 500	$ 200
Oct. 2023 - Sept. 2024	Local Meetings/ Mileage	6	Various FL Locations	N/A	Auto	$ 800	$ 6,460
Subtotal						$ 5,590	$ 19,410
Total							$ 25,000

Note: $10,000 from EPA BIL and $15,000 from EPA 320 for a total of $25,000 in travel for FY24.

CHNEP BIL FUNDED WORK PLAN TASKS

The CHNEP projects are organized according to task. There are five tasks, as follows:

Task 1: Management Conference
1.1 Materials and Supplies

Task 2: Public Engagement
2.1 Conservation Grants
2.2 2025 Calendar and 2024 Harbor Happenings Magazines
2.3 Public Engagement Events
2.4 Sponsorships

Task 3: Research Coordination
3.1 Water Quality and Seagrass Monitoring and Mapping Programs
3.2 CHNEP Water Atlas
3.3 Charlotte County Comprehensive Vulnerability Assessment
3.4 Polk County Comprehensive Vulnerability Assessment
3.5 Highlands County Comprehensive Vulnerability Assessment
3.6 Lee County Comprehensive Vulnerability Assessment
3.7 DeSoto County Comprehensive Vulnerability Assessment
3.8 Hardee County Comprehensive Vulnerability Assessment
3.9 Manatee County Comprehensive Vulnerability Assessment
3.10 Sarasota County Comprehensive Vulnerability Assessment
3.11 Glades County Comprehensive Vulnerability Assessment
3.12 Hendry County Comprehensive Vulnerability Assessment

Task 4: Watershed Coordination
4.1 Submerged Aquatic Vegetation Restoration
4.2 Pine Island Flatwoods Preserve Wetland Habitat Enhancement
4.3 Tiki Point Harborwalk Living Shoreline Pilot Project
4.4 Yucca Pens Hydrological Restoration Project Phase I
4.5 Restoration/Research Project(s) TBD

Task 5: Policymaker Education
5.1 Comprehensive Conservation & Management Plan Updating and Reprinting

*Note that only those tasks and projects **bolded** above are funded with FY24 Bipartisan Infrastructure Law funding.*

Task 1 Management Conference: Administration, Finance, Operations

Objective: Provide committee structure that supports the implementation of the CCMP; support administration of CHNEP; ensure compliance with grant and agreement requirements as awardee and awarder; and seek additional funding support for identified projects.

Description: The CHNEP office provides staff support to the Management Conference, furnishes operations and finance support, ensures compliance with Host Agency procedures, secures funding from partners, and assists partners seeking grants and contracts to implement the CCMP.

CCMP Elements Implemented: All

Outputs/Deliverables

- Management Conference committee meetings for 4 committees, 3x/yr.
- Management Conference adoption of Annual Work Plan before June 1, 2023
- GPRA Reporting through EPA's NEPORT, by September 14, 2023

Milestones

- Administration of Program Office operations and finances, ongoing
- Collaborate with partners on CCMP implementation, ongoing
- Compliance with Host Agency finance and procurement requirements, ongoing
- Compliance with Funders' grant reporting requirements, ongoing

FY 24 Budget

EPA 320 Funds (FY24):	
Personnel (Salaries & Benefits)	$538,810
Staff Travel	$ 15,000
Overhead Host Administrative Fees	$184,869
Communications Software and Fees	$ 9,000
EPA BIL (FY24):	
Staff Travel	**$ 10,000**
SWFWMD (FY24)	
Personnel (Salaries & Benefits)	$ 56,000
FDEP (FY24)	
Personnel (Salaries & Benefits)	$ 75,000
Note: Total personnel costs are $669,810	
Local:	
Meeting Support	$ 7,000
Task 1 Total Budget	$ 895,679

Note: $10,000 of Staff Travel funded through BIL FY24 out of total $25,000 for FY24 Staff Travel.

Outcomes

- Fully informed and engaged CHNEP Management Conference
- Other federal, state, and non-profit grants obtained to funding CCMP implementation
- Increased participation, understanding and support of NEP mission by partners
- Continued commitment from partners to fund CHNEP and CCMP activities
- Funding opportunities and assistance provided to partners to implement initiatives and projects that further CCMP implementation

Estimated Timeline: FY24

Task 3 Research Coordination

Work Plan Objective: To ensure collection, reporting and access to consistent region-wide, technically sound water quality and biological data throughout the CHNEP area. To identify and resolve gaps in scientific data and address emerging research needs through partnerships and innovative research.

Description: CHNEP coordinates some water quality sampling as well as works with partners to identify and resolve gaps in water quality and biological data, specifically through refinements to the Monitoring Strategy. In addition, CHNEP assists partners with compiling, analyzing, mapping, and conveying complex technical information in an understandable manner so it can be used to implement effective resource protection and restoration projects. The resulting data is used to assess resource status and trends, to be incorporated into resource management plans.

CCMP Elements Implemented: WQ-1, WQ-2, HR-1, FW-2, and PE-1.

Partners and Roles: outlined below in the respective subtasks

Outputs/Deliverables, Milestones

- CHNEP Water Atlas: Review and assess uploaded water quality sampling data
- Water Quality Monitoring: Monthly water quality data, quarterly RAMP participation, and CCHMN annual field audits and meetings
- Seagrass Monitoring: Annual seagrass data
- Seagrass Aerial Mapping: Biennial and 6-year seagrass aerial mapping
- Data Management: Biannual up-dates of water quality data
- Data Access: Ongoing access to water quality data, graphing and analyses and response to data requests
- Data Analysis and Use: Annual up-dates of water quality contour maps and, and periodic refinement of Research Needs Inventory and environmental indicators

FY 24 Budget

EPA 320 Funds:	Staff Time
FDEP Funds (Staff Time):	Staff Time
SWFWMD Funds (Staff Time):	Staff Time
Estimated Total Budget:	Staff Time

Outcomes

- Consistent region-wide, technically sound water quality and biological data needed to assess resource status, trends, and complex interactions
- Public access to water quality and seagrass data to partners via CHNEP Water Atlas
- Increased data analyses, maps, and graphs to enhance and evaluate protection and restoration efforts
- Increased collaboration of monitoring, mapping and management among resource managers and agencies from throughout the CHNEP Area
- Expanded used of data by partners to assess resource conditions, manage resources and implement effective and efficient management programs and restoration projects

Estimated Timeline: FY24

Task 3.2 CHNEP Water Atlas

Project Objective: To ensure continuing access to technical information from throughout the CHNEP Study Area to scientists, resource managers and users, elected officials, and the public through a user-friendly web-based tool. The resulting data, maps and graphs are easily accessible for use to evaluate resource conditions, answer site and topic specific questions, and convey scientific information in an understandable manner to support effective management programs and restoration projects.

Project Description: CHNEP maintains and enhances the CHNEP Water Atlas, a web-based, data management and mapping system that provides historical information, scientific data, water resource maps, resource management actions, volunteer opportunities and current events from throughout the CHNEP area. Tools are available to map, analyze and graph data related to specific locations and topics to assists partners with identifying, prioritizing, and implementing projects that address CCMP water quality, habitat, hydrology, and stewardship goals. CHNEP support includes maintenance, improvements, and enhancements of all the CHNEP Water Atlas components, including home page design and database updates. In addition to maintenance, the CHNEP works with USF to make upgrades and improvements on an annual basis. New Water Atlas Features/Improvements planned for 2024 include:

- *Annual Adjustment of WBID Boundaries, NNC Values, and Water Quality Dashboard*: This task will compare the most recent WBID run data from the Florida DEP and adjust the Waterbodies GIS layer and associated data tables. Waterbodies shall be classified to be aligned to WBID boundaries and waterbody classifications used by the Florida Department of Environmental Protection (FDEP). The Water Quality Dials and NNC Calculator tools will be updated to reflect changes to FDEP WBID boundaries, classifications, and NNC/threshold values.
- *Seagrass Analysis:* This task is to update seagrass and algae trend charts, spatial data and calculated acreages on basin pages and interactive map.
- *Analysis of Water Quality Trends*: will run the analyses once during the project period to produce the results of the WQ trends to include the period of January 1, 2023 to December 31, 2023. Quality assurance will be conducted to ensure that the results represent the data being used, which included only data meeting the same FDEP QAQC standards.
- *Adding Non-Assessed Waterbody Pages:* The CHNEP area contains several types of altered/artificial waterbodies that are not assessed by Florida Department of Environmental Protection, since they have no water quality standards and therefore, cannot be impaired or non-impaired. These include stormwater ponds/lakes and other non-assessed altered artificial waterbodies. Because the original waterbody pages have water quality dashboards, impairment status and other features that do not apply to non-assessed waterbodies, but because these waterbodies are displayed in CHNEP Water Atlas because there is data associated with them being collected and conveyed by partners to the CHNEP Water Atlas, these waterbody pages need to be treated differently in order to appropriately share the information that pertains to these non-assessed waterbodies without inappropriate or non-applicable features.

CCMP Elements Implemented: WQ-1, WQ-2, HR-1, FW-1, FW-2, FW-3, PE-1, and PE-3.

Partners and Roles: All entities creating publicly accessible water quality data

Outputs/Deliverables Milestones:

- Post and provide access to water quality data updates every 6 months
- Post and provide access to data analyses, maps and graphs as requested
- Annual Update of WBID Boundaries and NNC Values
- Conducting trend analysis on water quality data annually and providing in user friendly format
- Conducting analysis on seagrass and macroalgae data annually and providing in user friendly format

FY 24 Budget:

EPA BIL Funds:	$85,000
Total Budget:	$85,000 + Staff Time

Outcomes

- Data publicly provided to public and resource managers to assess effectiveness of protection and restoration efforts
- Increased coordination on sampling and monitoring efforts amongst resource managers and agencies in the CHNEP area

CWA Core Program Goals/Objectives Addressed: (2) identifying polluted waters and developing restoration plans, (4) addressing diffuse, nonpoint sources of pollution, (5) protecting wetlands, (6) protecting coastal waters through the National Estuary Program, (7) protecting large aquatic ecosystems, (8) Ensure clean and safe water for all communities, and (9) Protect and restore waterbodies and watersheds of the EPA Strategic Plan

BIL Priorities Supported:

1) Tackle the Climate Crisis" by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts through providing the public all accessible climate change data for the region in one place where they can readily view and utilize.

Estimated Timeline: FY24

Task 3.7 DeSoto County Comprehensive Vulnerability Assessment

Project Objective: To identify local climate change impacts and vulnerabilities and present adaptation responses that can help reduce community vulnerability and/or increase resilience in DeSoto County, FL.

Project Description: This project will use the climate adaptation planning process to conduct public workshops and data analysis to identify pre-existing conditions and climate stressors, including vulnerability modeling to develop recommended Adaptation Action Areas (AAA's) for DeSoto County. The Consultant will gather and update the County's vulnerability assessment utilizing new elevation data, updated sea level rise projections, shoreline information, capital project data, social vulnerability index, and stormwater management data. The updated vulnerability modeling with new elevation data will be used to determine infrastructure and habitat impacts as well as areas of increasing vulnerability for a 2030, 2060, and 2100 sea level rise assumption horizon. Using the best available data, the contractor will also incorporate an analysis of stormwater management and social vulnerability using best practices such as the Center for Disease Control's Social Vulnerability Index or other evaluation strategy (identifying vulnerable populations and potential public health risks).That information and input will be synthesized into a summary of current and projected climate changes for the community. The contractor will then use these vulnerability assessments to develop proposed adaptation strategies. One of the foundational concepts of Fla Stat 380.093 and FEMA's CRS program is to assess the flood risk of a community using best available tools, data, and methodologies. The larger goal of both programs is to capture multiple types of weather-related scenarios to project and model how various flood risks would affect the community. This project will produce a final Climate Change Vulnerability Assessment for DeSoto County that meets all Florida Statutory requirements. This will qualify DeSoto County to access additional state funding sources.

CCMP Elements Implemented: Potentially all CCMP elements

Partners and Roles: CHNEP (Funder), DeSoto County

Outputs/Deliverables Milestones

- Data Collection and Analysis
- Vulnerability Modeling and Analysis (including stormwater, social, etc.)
- Summary of Current and Project Climate Changes
- Summary of Proposed Adaption Strategies and recommended Adaptation Action Areas

FY24 Budget:

EPA FY24 BIL Funds:	**$ 200,000**
Total Budget:	**$ 200,000 + Staff Time**

Outcomes

- Climate Change Vulnerability Assessment for DeSoto County that meets state Statutory requirements

BIL Priorities Supported:

1) "Tackle the Climate Crisis" by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts; in assisting restoration of wetlands that act as carbon sinks and restoration of freshwater hydrological flows that can mitigate saltwater intrusion from sea level rise.

2) "Take Decisive Action to Advance Environmental Justice and Civil Rights" by promoting EJ and protecting civil rights at the federal, state, and local levels to identify and address additional vulnerabilities that may affect disadvantaged communities in selected County.

Estimated Timeline: FY24

Task 3.8 Hardee County Comprehensive Vulnerability Assessment

Project Objective: To identify local climate change impacts and vulnerabilities and present adaptation responses that can help reduce community vulnerability and/or increase resilience in Hardee County, Florida.

Project Description: This project will use the climate adaptation planning process to conduct public workshops and data analysis to identify pre-existing conditions and climate stressors, including vulnerability modeling to develop recommended Adaptation Action Areas (AAA's) for Hardee County. The Consultant will gather and update the County's vulnerability assessment utilizing new elevation data, updated sea level rise projections, shoreline information, capital project data, social vulnerability index, and stormwater management data. The updated vulnerability modeling with new elevation data will be used to determine infrastructure and habitat impacts as well as areas of increasing vulnerability for a 2030, 2060, and 2100 sea level rise assumption horizon. Using the best available data, the contractor will also incorporate an analysis of stormwater management and social vulnerability using best practices such as the Center for Disease Control's Social Vulnerability Index or other evaluation strategy (identifying vulnerable populations and potential public health risks).That information and input will be synthesized into a summary of current and projected climate changes for the community. The contractor will then use these vulnerability assessments to develop proposed adaptation strategies. One of the foundational concepts of Fla Stat 380.093 and FEMA's CRS program is to assess the flood risk of a community using best available tools, data, and methodologies. The larger goal of both programs is to capture multiple types of weather-related scenarios to project and model how various flood risks would affect the community. This project will produce a final Climate Change Vulnerability Assessment for Hardee County that meets all Florida Statutory requirements. This will qualify Hardee County to access additional state funding sources.

CCMP Elements Implemented: Potentially all CCMP elements

Partners and Roles: CHNEP (Funder), Hardee County

Outputs/Deliverables Milestones

- Data Collection and Analysis
- Vulnerability Modeling and Analysis (including stormwater, social, etc.)
- Summary of Current and Project Climate Changes
- Summary of Proposed Adaption Strategies and recommended Adaptation Action Areas

FY24 Budget:

EPA FY24 BIL Funds:	**$ 200,000**
Total Budget:	**$ 200,000 + Staff Time**

Outcomes

- Climate Change Vulnerability Assessment for Hardee County that meets state Statutory requirements

BIL Priorities Supported:

1) "Tackle the Climate Crisis" by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts; in assisting restoration of wetlands that act as carbon sinks and restoration of freshwater hydrological flows that can mitigate saltwater intrusion from sea level rise.

2) "Take Decisive Action to Advance Environmental Justice and Civil Rights" by promoting EJ and protecting civil rights at the federal, state, and local levels to identify and address additional vulnerabilities that may affect disadvantaged communities in selected County.

Estimated Timeline: FY24

Task 4 Watershed Coordination

Work Plan Objective: To coordinate partner efforts around protection and restoration on a watershed scale.

Description: CHNEP to coordinate protection and restoration efforts including mapping, monitoring, reporting (including in the annual development of the Government Performance and Review Act (GPRA) report). Additionally, CHNEP staff will provide technical support in watershed initiatives such as: Southern Water Use Caution Area (SWUCA) Recovery Strategy, Minimum Flows and Levels, Reasonable Assurance Plans, Basin Management Action Plans, Southwest Florida Comprehensive Watershed Management Plan, Charlotte Harbor Flatwoods Initiative, Lehigh Watershed Initiative, South Lee County Watershed Initiative, and Caloosahatchee River Watershed Protection Plan. Southwest Florida Estuarine Restoration Team (SWERT) facilitates region-wide estuarine habitat restoration that addresses endangered smalltooth sawfish critical habitat. CHNEP also participates in state and federal processes to identify landscape scale conservation corridors with public and private partnerships to provide habitat and species migration and climate change adaptation. Additionally, CHNEP participates in Everglades Restoration projects relevant to the CHNEP Study Area; this includes participating on the Science Coordination Group on behalf of Southwest Florida. As opportunities arise, CHNEP also assists partners in conducting restoration activities.

CCMP Elements Implemented: All

Partners: CHNEP, Florida Gulf Coast University, Florida SeaGrant, Coastal Wildlife Club, Lee County Parks and Recreation Department, Lee County Department of Natural Resources, Charlotte Harbor Environmental Center, Sanibel-Captiva Conservation Foundation, Friends of Charlotte Harbor Aquatic Preserves, Lee County Conservation 2020 Program, Calusa Land Trust, City of Fort Myers, Mote Marine Lab, Sarasota Estuary Program, and Tampa Bay Estuary Program.

Outputs/Deliverables Milestones

- GPRA Report
- Technical support for Charlotte Harbor Flatwoods Initiative, Lehigh Watershed Initiative, & South Lee County Watershed Initiative

FY 24 Budget

EPA 320 Funds:	Staff Time
FDEP Funds:	Staff Time
SWFWMD Funds:	Staff Time
Total Budget:	Staff Time

Outcomes

- Improved resource management
- Annual summaries of partners' restoration activities through the GPRA report
- Increased number and effectiveness of Best Management Practices (BMPs), plans and restoration activities

BIL Priorities Supported:

1) "Tackle the Climate Crisis" by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts; in assisting restoration of wetlands that act as carbon sinks and restoration of freshwater hydrological flows that can mitigate saltwater intrusion from sea level rise.

2) "Take Decisive Action to Advance Environmental Justice and Civil Rights" by promoting EJ and protecting civil rights at the federal, state, and local levels to identify and address additional vulnerabilities that may affect disadvantaged communities in selected County.

Estimated Timeline: FY24

Task 4.4 Yucca Pens Hydrological Restoration Project Phase I

Project Objective: This project will be completed in partnership with the South Florida Water Management District, Florida Fish & Wildlife Conservation Commission, and the other members of the Charlotte Harbor Flatwoods Initiative. The primary objectives are to work with a contractor and partners to conduct monitoring and modeling as well as created final design and permitting for a large-scale hydrologic restoration project in the Yucca Pens Unit State Wildlife Management Area (located in the Charlotte Harbor Flatwoods area in Charlotte and Lee Counties). This project is meant to aid the restoration of more natural flow to approximately 8,000 acres of wetlands, which will increase fresh surface water and groundwater availability and substantially improve hydrology as well as water and habitat quality for fish and wildlife species of concern.

Project Description:

The CHNEP has already created a Lower Charlotte Harbor Flatwoods Strategic Hydrologic Restoration Plan, as well as a preliminary conceptual surface and groundwater hydrologic model that simulates appropriate timing and quantity of water flows required to improve wetland habitat conditions, minimize erosion and offsite flooding, improve groundwater recharge, and reduce the risk of wildfires. This project is a recommendation of that Plan to further plan, engineer, and design water management features on the Yucca Pens Wildlife Management Area (WMA) to restore more natural freshwater retention and sheet flow across the property. Using the existing Plan modeling and recommendations, additional hydraulic and hydrologic local-scale modeling will inform the final design, which will include 1) earthen ditch blocks in smaller ditches that will increase storage and surface water hydrology (a green solution), 2) the re-establishment of connections to several tidal creeks to the west of Yucca Pens Unit will be designed with concrete low water fords installed through existing off-road vehicle ruts and ditches in Yucca Pens (a green-gray solution providing additional stability as well as access for management vehicles and recreational users) and, 3) a groundwater seepage barrier is planned at the southern boundary of Yucca Pens Unit along the Gator Slough Canal (to address the significant effects the canal has on the local water table). The intent is for the project to be ‘shovel-ready’.

Together all proposed solutions will, once implemented, restore flows from the Yucca Pens Unit to Charlotte Harbor at several locations rather than as point source flowing into Charlotte Harbor and Gator Slough Canal. This will improve the hydrology in Yucca Pens which will also improve habitat quality for species of concern. It will also improve the water quality in the Charlotte Harbor estuary due to a return to a more natural hydroperiod and better timing of downstream flows. By holding additional water, the hydrologic restoration will also protect aquifer recharge and reduce the potential for saltwater intrusion with sea level rise further protecting water supply.

CCMP Elements Implemented: WQ-3, HR-1, HR-3, FW-2, and FW-3.

Partners and Roles: FWC is the site owner manager as well as permit applicant, CHNEP is the planning and design project funder and manager. The USFWS as well as the SWFWMD and SFWMD will serve as project consultants.

Outputs/Deliverables Milestones

- Construction Plans
- Cost Estimates and Implementation Phasing Plan
- State, Local and Federal Permits

FY 24 Budget

EPA FY24 BIL Funds	**$327,480**

Prior Funding:

FY22 EPA BIL Funds	$76,350
FY23 EPA BIL Funds	$346,170
Total Budget	$750,000 + Staff Time

Outcomes

- Collect data/conduct modeling needed for final design and permitting for large scale hydrological restoration
- Mitigate flooding as well as water quality and habitat degradation and sea level rise in the Charlotte Harbor Watershed
- Improve resilience and ecosystem functions of important wetlands and tidal creeks, this will also increase aquifer recharge

CWA Core Program Goals/Objectives Addressed: (5) protecting wetlands, (6) protecting coastal waters through the National Estuary Program, and (9) Protect and restore waterbodies and watersheds of the EPA Strategic Plan.

BIL Priorities Supported:

3) "Tackle the Climate Crisis" by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts; in assisting restoration of wetlands that act as carbon sinks and restoration of freshwater hydrological flows that can mitigate saltwater intrusion from sea level rise.

4) "Take Decisive Action to Advance Environmental Justice and Civil Rights" by promoting EJ and protecting civil rights at the federal, state, and local levels to identify and address additional vulnerabilities that may affect disadvantaged communities in selected County.

Estimated Timeline: FY24

Task 4.5 Restoration/Research TBD Projects

Project Objective: To solicit and award funding for a restoration/research project that addresses the CCMP Priority Actions has long-term applicability and serves as a model for addressing habitat restoration and improvement and resource management challenges.

Project Description: CHNEP will fund a restoration/research project(s) that implements CCMP Priority Actions, has long-term applicability, and serves as a model for addressing habitat restoration and resource management challenges. Assurances of long-term conservation use of the area after restoration/research is completed is an essential component of the project, as are monitoring restoration success and informing and educating the public about habitat values and restoration/research methods. Proposed projects should address at least one Priority Problems and implement one Priority Action, be transferable, demonstrate value to the community, and include monitoring and educational components.

CCMP Elements Implemented: Will be determined upon award.

Partners and Roles: Will be determined upon award.

Outputs/Deliverables Milestones

- Habitats will be restored and protected within 2 years of project selection and remain in conservation use long term
- Restoration/research techniques will be transferable to other projects and locations following completion of the project
- Success monitoring methods, results and educational tools will be available to guide design and implementation of additional cost-effective restoration following completion of the project

FY 24 Budget

EPA FY24 BIL Funds:	**$87,320**
EPA 320 Funds:	$49,491
Local Funds:	$ 20,000 for unanticipated project-related expenses
Total Budget:	$156,811 + Staff Time

Outcomes

- Restoration and success monitoring methods will be available to designing and implementing future restoration project
- Collaboration and technical information exchange will be enhanced between partners
- Identified CHNEP restoration needs will be filled

CWA Core Program Goals/Objectives Addressed: (4) addressing diffuse, nonpoint sources of pollution, (5) protecting wetlands, (6) protecting coastal waters through the National Estuary Program, (7) protecting large aquatic ecosystems, and (9) Protect and restore waterbodies and watersheds of the EPA Strategic Plan.

BIL Priorities Supported:

1) "Tackle the Climate Crisis" by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts; in assisting community to undertake restoration projects that enhance their resiliency.

2) "Take Decisive Action to Advance Environmental Justice and Civil Rights" by promoting EJ and protecting civil rights at the federal, state, and local levels to identify and address climate mitigation needed in disadvantaged communities in the CHNEP area.

Estimated Timeline: FY24