



**Draft Citizen's Advisory Committee Meeting Minutes
August 21, 2024**

Members Virtually Present:

Tonya Bramlage	Charlotte County
Phyl Wojcik	Charlotte County
Kayton Nedza	Hardee County
Church Roberts	Hendry County
Nicole Johnson	Lee County
Harry Phillips	Lee County
Debi Osborne	Manatee County
Tom Palmer	Polk County
Aaron Zimmermann	Sarasota County

Others Present:

Jennifer Hecker	Coastal & Heartland National Estuary Partnership (CHNEP)
Nicole Iadevaia	Coastal & Heartland National Estuary Partnership (CHNEP)
Sarina Weiss	Coastal & Heartland National Estuary Partnership (CHNEP)
Andrea Vale	Coastal & Heartland National Estuary Partnership (CHNEP)
Keara Abel	Coastal & Heartland National Estuary Partnership (CHNEP)
Tom Palmer	Public
Jennifer Shafer	Shafer Consulting
Linda Waters	Public – CAC Applicant

Agenda Item #1 – Call to Order and Introductions — Harry Phillips, CAC Co-Chair

Harry Phillips called the meeting to order at 9:01AM. Introductions were then made by existing members.

Agenda Item #2 – Agenda Additions or Deletions — Harry Phillips, CAC Co-Chair

No additions or deletions were made to the agenda.

DEBI OSBORNE MOVED, SECONDED BY AARON ZIMMERMANN TO APPROVE THE CONSENT AGENDA ITEMS AS PRESENTED. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION. PHYL WOJCIK MENTIONED THAT SHE WAS NOT AT THE PREVIOUS MEETING.

Agenda Item #3 – Public Comments on Agenda Items

No public comments on agenda items were made.

Agenda Item #4 – Citizen's Advisory Committee (CAC) April 24th, 2024 Meeting Minutes — Harry Phillips, CAC Co-Chair

No changes were made to the Citizen's Advisory Committee (CAC) April 24th, 2024 meeting minutes.

DEBI OSBORNE MOVED, SECONDED BY NICOLE JOHNSON TO APPROVE THE MINUTES AS PRESENTED. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.

Agenda Item #5 – Introduction of New Applicants — Harry Phillips, CAC Co-Chair

A brief description was given by Harry Phillips, CAC Co-Chair, on CAC membership duties and there was encouragement to the present CAC committee to seek out eager and motivated members for application. Linda Waters, an applicant and prospective member from DeSoto County, gave a brief introduction of herself. Ms. Waters is a DeSoto County librarian who has long been interested in nature. She has previously been in the DeSoto County school system where she was involved in master naturalist education. She enjoys being out in the public and informing people about the preservation and protection of our natural resources.

The next step in the process is to bring Ms. Waters' application to the upcoming Policy Committee meeting (9/20) for committee approval.

Agenda Item #6 – CHNEP Update — Jennifer Hecker, CHNEP

CHNEP's Executive Director, Ms. Jennifer Hecker, presented on programmatic activity occurring since the last Citizen's Advisory Committee meeting. Highlights are as follows:

CHNEP planned and executed the Spring Committee meetings; for the CCMP update planning, the 2019 CHNEP CCMP was reviewed, and it was determined that a 5-year update would be needed and held facilitated discussions during Spring Management Conference meetings to record and synthesize comments from the Committees. Consensus comments were provided to a contractor to begin the CHNEP CCMP update over the spring and summer; the draft FY25 EPA 320 Master Work Plan and FY25 EPA BIL Work Plan and budget tables were reviewed and approved at the Policy meeting. CHNEP participated along with staff from Florida's other 3 National Estuary Programs in a day-long workshop focused on sharing updates, opportunities for collaboration, and lessons learned; reviewed and provided content for the U.S. EPA NEP FY23 Accomplishments Report, including information on Post-Hurricane Ian Remediation Efforts; reviewed and sent a technical comment letter on the SFWMD Draft Sea Level Rise and Flood Resiliency Plan; CHNEP partnered on a letter of interest for 3 NOAA RESTORE Proposals, of which 2 were invited to submit full proposals. CHNEP provided Letters of Support for partner projects: Bond Farm Hydrologic Enhancement projects included in the Florida TIG "Draft Restoration Plan 3 & Environmental Assessment: Water Quality" on the project list for upcoming Deepwater Horizon Natural Resource Damage Assessment Funding; Conservation Foundation of the Gulf Coast proposal to Florida Department of Environmental Protection for the addition of 35.4-acres of natural lands on Sandpiper Key in Lemon Bay to the Florida Forever list for state purchase; the Wildlands Conservation proposal to the Florida Department of Environmental Protection for the addition of natural lands in the Peace River floodplain to the Florida Forever list for state purchase; and the Florida Water (Flow) Center Proposal from UF and other state universities for the Florida Council of 100 Request for Proposals to create the FL Center for Integrative Water Resource Management.

For finance and grants, CHNEP EPA 320 Novated Grant award was received by CHNEP and accepted by CHNEP's host; CHNEP EPA FY24 BIL Grant award was accepted by CHNEP's host on June 11th; sent mid-year report for EPA 320 and EPA BIL FY24 cooperative funding agreements; prepared and finalized EPA FY24 match documentation based on South Florida Water Management District for CERP Caloosahatchee (C-43) West Basin Storage Reservoir Project; the CHNEP EPA 320 and EPA BIL FY25 grant applications with their approved Work Plans and Budgets were prepared and submitted to the U.S. EPA; sent Q2 and Q3 reports for FDEP FY24 cooperative funding agreement. Prepared and submitted final invoice for FY24 funding from FDEP and the grant was closed out; received and processed the final reimbursement from SFWMD for the Myakka Headwaters Project; the fully

executed SWFWMD Agreement for FY24 was received by CHNEP and accepted by CHNEP host; a revised version of the Memorandum of Understanding (MOU) between the County and CHNEP was approved at the May Board meeting; fully executed Interlocal agreements with Highlands County, City of Punta Gorda, and Lehigh Acres Municipal Services Improvement District (LAMSID); updated the conservation grant application and conducted review of previous grants for CCMP and planning for outreach. Sent award email to Conservation Grant Applicant for spring 2024 cycle which was accepted; received Q2 and Q3 quarterly reports for both Upper and Lower CCHMN project, reviewed deliverables and report and processed invoices; and received Q2 and Q3 reports FY24 Water Atlas project and processed invoice. Received revised final report for FY23 Water Atlas project and processed final invoice.

CHNEP staff attended several partnership meetings since last cycle including:

- CHNEP Water Atlas Monthly Management Meetings
- CHNEP/USGS Stream Stats in Florida Discussion (4/5)
- Southwest Florida RAMP Meeting (4/9)
- Charlotte County Board Meeting (4/9)
- Industries of the Future: Expanding Florida's Aquaculture Insights and Innovations (4/10)
- CHNEP Technical Advisory Committee (TAC) Meeting (4/11)
- Desoto County Vulnerability Assessment Steering Committee Meeting (4/18)
- Hardee County Vulnerability Assessment Steering Committee Meeting (4/19)
- CHNEP/Charlotte County Comprehensive Vulnerability Assessment Meeting (4/22)
- ANEP Communications – Media Relations Meeting (4/23)
- CHNEP Citizens Advisory Committee (CAC) Meeting (4/24)
- South Florida Everglades Restoration Task Force (SFERTF) Meeting (4/25)
- Science and Environment Council (SEC) Meeting (4/25)
- NOAA Restore Grant Gulf of Mexico Meeting with UF (4/25)
- Collaboration Meeting with Calusa Waterkeeper (4/26)
- Polk County Vulnerability Assessment Steering Committee Meeting (4/26)
- Resilient Florida, Adaptation Planning Guidebook Stakeholder Workshop (4/30)
- EPA/ANEP Meetings from April 29-30, including with the offices of Congressman Franklin, Senator Rubio, Congressman Steube, and Congressman Soto. (cont. 5/1)
- FDEP Quarterly Resilience Forum (5/1)
- CHNEP/Conservation Foundation of the Gulf Coast GIS Data Support Meeting (5/1)
- Charlotte County Vulnerability Assessment Project Procurement Meeting (5/7) and (5/20)
- Water Quality Playbook Update (5/7)
- Management Committee Meeting (5/10)
- ANEP External Affairs Meeting (5/15)
- CHNEP Water Atlas Biennial Assessment Master List Set Up Meeting (5/16)
- Hardee Vulnerability Assessment Project Meeting (5/17)
- Policy Committee Meeting (5/23)
- CCHMN Electronic Field Form Development (5/22) and (5/24)
- Naples Conservancy of Southwest Florida Meeting (5/23)
- Resiliency Coordination Forum Meeting (5/29)
- GOMA/Waters to the Sea Webinar (5/29)
- CCHMN Data and FDEP Assessment Database Upload (5/29) and (5/31)
- Florida Water and Climate Alliance Webinar: Statewide Drought Response and Coordination (5/30)
- CHNEP CCMP Update Kick-Off Meeting (5/30)
- NOAA RESTORE project meeting Tarpon Coastal Ponds (6/3)
- Pine Island Flatwoods Preserve Restoration Project Meeting (6/5)
- FDEP Acquisition and Restoration Council Meeting (6/7)

- Charlotte Harbor Flatwoods Initiative Quarterly Meeting (6/12)
- CCHMN Data Upload Meeting (6/14)
- Florida NEP Meeting (6/18)
- Highlands County Comprehensive Vulnerability Assessment Meeting (6/19)
- Heartland Counties Comprehensive Vulnerability Assessment(s) Meeting with CFRPC (6/19)
- Tiki Point Living Shoreline Project Meeting (6/20)
- Redfish Annual Review meeting: Charlotte Harbor Region (6/21)
- Lee County Comprehensive Vulnerability Assessment Meeting (6/24)
- Macroalgae Working Group Meeting (6/25)
- Corkscrew Watershed Initiative Public Meeting (6/26)
- US EPA Quality Program Virtual Event 2024 “QA: Transforming Challenges into Opportunities” (6/25-26)
- NOAA RESTORE Proposal Meeting (6/28)
- CCHMN Field Form Development Meeting (6/28)
- 2025 CHNEP Nature Calendar Photo Selection Meeting (7/8)

For presentations, CHNEP participated in expert panel discussion on case studies and scenarios and Q&A for environmental communication at the Science and Environment Council Meeting; collaborated with EPA to share a keynote presentation by the Miccosukee Tribe of Indians of Florida from 2024 Southwest Florida Climate Summit at National Estuary Program meetings; and accepted abstracts for the upcoming Restore America's Estuaries 2024 Coastal & Estuarine Summit. For outreach, CHNEP sent out invitations to new CAC applicants; hosted a booth at Wild About Nature Fest in Osprey where over 200 visitors made native wildflower seed bombs; attended Ding Darling Conservation Carnival at Lakes Park where over 240 guests stopped by to play a game, compete in trivia, and receive native wildflower seeds; were involved in partner events shared across platforms and Kids Activity Books were shared at partner events as well; presented a K-8 program for over 20 kids at the Summer Success Institute in Wellen Park and provided Kids Activity Books; completed edits for the Spanish Kids Activity Book text with support from Management Committee member, Dr. Ernesto Lasso de la Vega; and attended the Wildcat Tailgate Party in Wauchula where over 150 visitors participated in Crane Trivia and learned about CHNEP. CHNEP also added new features to the CHNEP website including an accessibility toolbar and accessibility statement (this toolbar allows users to modify text and screen display for easier viewing). CHNEP was featured in Waterline for “The language of science,” and CHNEP has 50 new Facebook followers for a total of 1,952 with 7 new “likes” (1,700 total likes), 5,897 subscribers for the educational mailings, 4,298 unique visitors and 6,604 page visits to the CHNEP website, 9,660 YouTube views with 64 subscribers and 297 videos, and 63 new Instagram followers for a total of 596 total followers.

Agenda Item #7 – Update on Recently Completed Conservation Grants & New Applications — Nicole Iadevaia, CHNEP

CHNEP’s goal for Public Engagement is to increase the proportion of the population that supports and participates in actions to restore and protect estuaries and watersheds. Since 2001, CHNEP has offered grants to help establish and maintain environmental education efforts and further partnerships to help implement the CCMP. It is designed to stimulate grassroots community natural resource protection and restoration as well as non-profit partnerships. The CAC role as related to this program is to seek out groups within their respective communities to make them aware of the CHNEP Conservation Grant program and how it can be beneficial to their projects and programs. Preference will be given to partners and to projects in communities that have, historically, been underserved. Conservation grants are now given in the \$500 to \$9,999 range (and are reimbursement-based). Ineligible projects or

activities are events or services with an admission fee or charge (though will consider need-based scholarships); restoration or improvements on private property; projects that personally financially benefit the applicant; political action or legislative advocacy; fundraising activities; projects completed prior to the award of the grant; items that will be sold by the grant recipient; reprinting of existing material unless part of a larger educational program; and capital improvement or endowment funds or usual operating costs. Ms. Iadevaia briefed the CAC on recently completed conservation grants as well as new grant applications.

The first completed grant was the Myakka River Management Coordinating Council (MRMCC) Website Support. This grant was used to “support the continuation of the Myakka River Management Coordinating Council website to provide citizens, as well as the Council members, with meeting minutes, Council archives, current Council member list, and other important watershed updates.” The outcomes of this website include increased public awareness regarding the Myakka Wild and Scenic River and better communication amongst MRMCC members as well as reduced paper usage at meetings. The second completed grant was the Estero Community Park Shoreline Improvement. This involved having 14 volunteers plant over 250 trees, bushes, and grasses with 100 Bald Cypress trees planted along the water’s edge and a project sign that was created and posted near the pond. Middle school-aged summer campers came out and planted 40 native wildflowers and learned about water quality and the role of riparian planting.

The first new conservation grant application is titled “International Coastal Clean-Up.” The amount requested is \$4,000. The International Coastal Clean-Up is a worldwide effort that Keep Charlotte Beautiful, Inc., organizes and supports throughout Charlotte County. It is a clean-up to remove debris and keep our coastline clean, but it is also an opportunity to become citizen scientists and audit the debris found in the county. The staff recommends to fully fund the project with the following terms: provide event dates, volunteer numbers, and volunteer hours; provide the weight of the collected debris, the area of clean-up, and audits of debris wherever possible; provide photos of the events; and the grant is not to be used toward food. The second new conservation application is titled “Cape Coral Dry Retention Pond Improvements.” The amount requested is \$6,872. The Future Forestry Corporation will be reconfiguring and planting a dry retention pond to collect and filter the runoff from a bridge that is part of the Veteran’s Memorial Parkway. The staff recommendation is to fully fund the project with added terms. These terms are to provide details of any measured improvements (if able to measure such as related to water quality), provide the number of volunteers and the amassed volunteer hours; event information is given ahead of time; provide the number of plants purchased and planted; and provide the number of attendees for any groups that visit for educational purposes.

One member reminded the CAC that the International Coastal Clean-up in coordination with Keep Charlotte Beautiful will take place on September 21st, 2024. There are different related events on dates prior to the 21st which all lead up to this event. He suggested that members visit the Keep Charlotte Beautiful website to see where the money goes and what it’s used for. He also said that if anyone has a Keep America Beautiful group within their county, they should encourage them to reach out to CHNEP for possible funding opportunities. Another asked about the second grant and whether there will be monitoring to see if the plantings survive. Ms. Iadevaia said that although there does not seem to be monitoring mentioned in the application, it is something that CHNEP staff can mention in the comments back to them. “Survival of the vegetation” may be something to add in addition to the other terms. Another member also offered that he has been involved with Future Forestry in the past and while this project is unique in that it involves earthwork, Future Forestry has had high planting success rates in the past. They often return to their plantings every couple of days with a water truck to ensure

survival. While Future Forestry may be a local Lee County organization, CAC members from other counties are encouraged to reach out to them if there may be planting opportunities. A member asked, in the second application, if it is already a functioning dry retention pond or if it is something that needs to be constructed. Another member said that it was constructed sometime in the late 1990s (and it does include exotics that will have to be removed), but Lee County is looking for more functionality based on today's stormwater standards. Another member asked about what will be used to keep the invasives from coming back (herbicides, pesticides, etc.) A member responded that even though the invasives will be removed during the earthwork, it is unknown whether Future Forestry will return for treatments or if Lee County will manage that aspect. Ms. Iadevaia offered that the information sent out after the April CAC meeting regarding the best treatments for invasives would be beneficial to remit back as an email attachment to Future Forestry. After input from CAC members, there was support for the staff recommendations and including the additional information in the follow-up email(s).

Agenda Item #8 – Overview of the Draft CHNEP Comprehensive Conservation Management Update — Jennifer Shafer, PhD, Shafer Consulting

Shafer Consulting was tasked with making the major revisions to the CCMP based on the input from Management Conference committee members from the last meeting cycle as well as with additional input from CHENP staff. Highlights are as follows:

The timeline for the CCMP update includes a draft of the CCMP that was created in June and July of this year; the Management Conference committees will review this draft on August and September; the EPA review and public comment will take place in October and November; the Management Conference will re-review it in December and January; and the design layout and printing will in February and March. The CCMP consists of 4 action plans: water quality improvement; hydrologic restoration; fish and wildlife habitat protection; and public engagement. These 4 action plans have 15 actions and 32 activities. The action plans include vision, goal, and objective. The actions have objective, status, related action, and background. The activities have description, location, responsible parties, timeframe, potential cost and funding sources, benefit, and performance measure. New features to this update are strategic framing, data updates, new science and policy, projects and programs, accomplishments and 5 new activities. From a list of different bullets and highlighted moments of environmental milestones, a design was created that is both informational and eye-catching. There was an additional chart to illustrate highlights over the past 5 years within the CCMP. There is also an updated page related to CHNEP's Water Atlas and data figures are consistently adjusted throughout to reflect current numbers. Tables were also updated with current data sets.

The breakdown for the specific CAC member's/staff contributions is as follows:

Water Quality Action Plan

Intro:

- Revised and expanded contaminants of emerging concern – include PCB and PFAS
- Added section on bioindicators as compliment to chemical/physical parameters

WQ-3 Stormwater:

- Expanded the section on the new state stormwater rule

WQ-4 Wastewater:

- Advanced wastewater treatment (AWT) facility list is not yet available from FDEP

- Septic system section revised with new FDEP oversight and advice on new updated technologies
- Updated Activity 4.1 to reflect caution with non-AWT reuse and revised text

WQ-5 Reduce harmful algal blooms and macroalgae:

- New understandings of nutrients, climate, macroalgae (*Dapis sp.*) and seagrass
- Quantified the link between polluted runoff and red tide (Medina, Beck, Tomasko)

Other highlights from the Water Quality Action Plan:

- Hurricane Ian and CHNEP contributions to disaster response
- New CHNEP Water Atlas 2.0 pages and tools
- Updated SWFWMD SWIM Plan
- Improved farm inspections and reporting by FDACS OAWP
- Updates to some counties in statewide OSTDS inventory (total 300k-plus)
- 2024 projections for 90-plus % reuse and 99% reduction surface water discharge
- New Activity QQ-5.2 – best practices and technologies to reduce or mitigate HAB impacts

Hydrologic Restoration Action Plan

HR-1 Data and modeling:

- Added the City of Winter Haven examples of integrated modeling
- Added hydrologic modeling completed for CHFI and SLCWI Initiative

HR-2 Increase freshwater and groundwater:

- Added Lake Okeechobee System Operating Manual
- Updated Activity 2.2 to support community adoption of LID

HR-3 Protect and restore natural flow:

- Updated progress on C-43 Reservoir
- Added the co-benefits of designing hydrologic engineering projects with water quality components
- Emphasized the importance of climate extremes (not average) when planning
- Added Warm Mineral Springs Creek Restoration to benefit manatee refuge
- Updated Activity 3.1 to support floodplain connectivity, reduced stream channelization and fish passage barriers
- Updated Activity 3.2 to support limited estuary connections to coastal ponds

Other highlights from the Hydrologic Restoration Action Plan:

- 2021 SWUCA Update – all 13 MFLs met for rivers, estuaries, and springs
- New Caloosahatchee River MFL
- New Activity HR-3.3 – implementation of vulnerability assessment recommendations to protect water quality and hydrology

Fish, Wildlife and Habitat Protection Action Plan

Intro:

- New section on bioindicators (also see general intro)

FW-1 Estuaries:

- Revised section on seagrass monitoring, trends, and indicators
- Revised and expanded the section on clam restoration
- Updated to recommend living shorelines as seawall alternative
- Added new tidal creek assessment framework by Wessel (also in WQ-1)
- Added new coastal ponds and tidal creek fisheries work by Blewett and Wilson

FW-2 Land and waterways:

- Updated to encourage urban and suburban restoration opportunities with LID
- Revised recommendations to restoration with results of HRN II
- Added new section on large-scale coordinated land protection programs

FW-3 Assess and promote benefits of protection and restoration

- Updated Activity FW-3.1 performance measure to technical support to advance HRN implementation

Other highlights from the Fish, Wildlife and Habitat Protection Plan:

- The Homosassa shrew has been state-delisted however, the Atlantic sturgeon is now federally endangered
- There has been a loss of 10,000 acres of seagrass since 2014
- Expanded tape-grass restoration in the Caloosahatchee up to 100 acres
- Large-scale coordinated land conservation (e.g., FLWC and EGCA)
- Addition of 87,000 conservation acres since 2019
- \$13.6 billion annually in regional economic benefits from natural resources ~ equal to the projected losses from another serious HAB
- New Activity FW-1.3 – protect, monitor, restore...mangroves and salt marshes...establish biological indicator...track changes SLR and hardening
- New Activity FW-2.3 – implement Habitat Restoration Needs Plan

Public Engagement Action Plan

Intro:

- Updated population growth and opportunities to interact with new audiences

PE-1 Inform and engage the general public:

- Updated Activity 1.2 performance measure to monthly mass communication about volunteer opportunities

PE-2 Expand reach to new audiences:

- Added description of water quality economic study as tool for outreach
- Updated Activity 2.1 performance measure to annual public event with diverse perspective and presenters

PE-3 Strengthen partner collaboration:

- Updated Activity 3.1 responsible parties to clarify Sanibel Sea School/SCCF

PE-4 Expand reach to new audiences:

- Added summary of all the ways CHNEP connects with elected officials
- Updated Activity 4.1 performance measure annual meetings with interested officials

Other highlights from the Public Engagement Action Plan:

- Population tripled last 50 years with Polk anticipated to be the most populous by 2055
- CHNEP web presence has doubled in the last 4 years
- Annual Southwest Florida Climate Summit began in 2021 and is ongoing
- CHNEP leverages \$1 of federal finding to \$55 in restoration thanks to partnerships
- New Activity PE-3.2 – convene and coordinate partners for post-disaster response

AFTER DISCUSSION, THERE WAS CONSENSUS FROM CAC MEMBERS THAT THEIR COMMENTS AND INPUT FROM THE PREVIOUS MEETING CYCLE MEETING HAVE BEEN ADDRESSED AND INCORPORATED INTO THE CCMP UPDATE.

Agenda Item #9 – Red Tide Duration and Nitrogen Loads from the Caloosahatchee River Inclusive of Lake Okeechobee Discharges — Jennifer Hecker, CHNEP

This study was co-authored by David Tomasko, PhD, Steve Suau, P.E., Lenny Landau, Miles Medina, PhD, and Jennifer Hecker. Ms. Hecker presented on behalf of all the co-authors. Red tides are a regional phenomenon, and it is not unrealistic to expect a link between watershed loads and red tides. Human do not cause red tide events as they are often initiated far offshore. However, they can cause red tides to be much worse. If a red tide is initiated and if water mass with *Karenia brevis* is transported towards Southwest Florida, then anthropogenic nutrient loads could potentially exacerbate events. *Karenia brevis* can utilize nutrients from human as well as “natural” sources. Nutrient loads to Southwest Florida’s coastal waters are 2 to 4 times high than in pre-development times. Recent studies have shown the links between the intensification of events and nitrogen loads from the Caloosahatchee River. The study area consisted of 40,000 data points. There were 5 river systems in which flow and water quality (specifically total nitrogen) were being measured – the Myakka River, Horse Creek, Peace Creek, Joshua Creek, and the Caloosahatchee River. These areas were crucial in looking at the relationship between flow, nutrient loading, and red tide. The data for *Karenia brevis* used to only be measured after events occurred; Over the past 15 years, the data has become much more detailed as there has been event data as well consistent monitoring data. To determine what a red tide event is, criteria were established for it to be designated a red tide “event.” The first threshold was the maximum daily cell count being greater than 100,000 cells per liter for 30 or more days. The second threshold was a maximum daily cell count greater than 10,000 cells per liter for 30 or more days. There was also a buffer of one week added. For example, if there are 20 days in exceedance, then 5 days of no data (or below the threshold) followed by 20 days of exceedance, this would be considered a single 45-day event and not 2 20-day events separated by 5 days. Over the span of 2007 to 2023, there were 12 specific events that were examined. Of those 12 events, 11 of them passed the first threshold (100,000 cells per liter) and these lasted from 30 to 437 days with a mean of 168 days. All 12 events crossed the second threshold (10,000 cells per liter) and lasted between 31 to 458 days with a mean of 176 days. Also, during these events, there were days with no data averaged 23% of the time, with weekends representing 29% of all days (weekends were sampled less often than weekdays). Monthly hydraulic and total nitrogen loads were looked at over these same years – 2007 to 2022 (load is when you are looking at both volume and concentration). Over the span of those years, there was a prolonged drought in 2007; it was very wet in 2013; 2017 saw Hurricane Irma; 2022 saw Hurricane Ian; total nitrogen

loads were directly proportional to hydraulic loads; and the Caloosahatchee River accounted for 54% of both hydraulic and TN loads over the study period. To determine the relationship between loads and event durations, TN loads and hydraulic loads were both examined (with a potential explanatory variable); they were compared to red tide event durations (with a potential response variable); and TN and hydraulic loads were kept to 30 days before and then after initiation (this prevented spurious correlations if both variables had the same number of days). The hypothesis was that TN loads during the initial phases of bloom are the most important. There were several conclusions reached. First, if red tide events are initiated offshore, and the water mass is then transported towards Southwest Florida, anthropogenic nitrogen loads can increase their longevity. The overall pattern appears to be driven by the Caloosahatchee River (perhaps a smaller scale is needed to understand the role of the Peace and Myakka Rivers). These findings are consistent with those of Medina et al (2020, 2022). Hydraulic loads had almost identical explanatory power. Excessive TN loads reflect excessive hydraulic loads. This cannot be fixed with only the same efforts as are working in Sarasota Bay. The duration of red tide in Southwest Florida is dependent upon the management of Lake Okeechobee and the restoration of the Everglades system. Studies support existing objectives to reduce TN loads from the Caloosahatchee River, inclusive of Lake Okeechobee discharges to the west coast of Florida. Policies that are more protective of Southwest Florida coastal waters and ecosystems from the Lake Okeechobee discharges will help mitigate red tide.

One member asked if one of the graphs showed that the Peace River loads increased in or around 2022. Ms. Hecker referenced that graph and confirmed that the loads in the Peace River did increase around that time as Hurricane Ian took place in 2022 after which the Peace River rose 19 feet higher than ever recorded in history and it is not unprecedented for the Peace River levels to spike.

Agenda Item #10 – CHNEP Technical Projects and New Tools — Nicole Iadevaia, CHNEP

Ms. Nicole Iadevaia, CHNEP Director of Research & Restoration, provided the committee with a brief overview on project progress since the previous TAC meeting. Highlights are as follows:

The CHNEP Water Atlas is a publicly accessible online tool providing regional water resource data and information about the historical and current conditions of our watersheds and ecosystems. Its objective is to translate water quality and other data collected by partners into one place to give a holistic management picture that creates live ‘reports’ of status and trends and it is broken down into 4 categories: water quality, hydrology, wildlife/habitat, and climate stressors. The new waterbody, basin and watershed pages are now live with over 600 waterbodies. The pages are presented with the associated FDEP WBIDs and appropriate impairment criteria. As for other tools and updates, the NNC calculator Water Quality Dashboard updated threshold values and waterbody Class and Type conform with waterbody classifications from the FDEP; the Water Quality Trends page has been updated with data through 2022 (trends for 2023 are in process now); the Non-Assessed Waterbody Pages are complete; and there are new layers for CCMP maps.

As for the Coastal Charlotte Harbor Monitoring Network (CCHMN), it is a regional partnership of agencies, that collects monthly surface water quality data. CHNEP funds the sampling, coordinates the Network, conducts field sampling audits, and uploads data into CHNEP Water Atlas. Q1-3 data has been collected and the Upper Charlotte Harbor Partners are working on Data Management/Optimization to create electronic field entry form to streamline field data entry. There is field and laboratory partner participation in the Southwest FL RAMP quarterly meetings and field/lab method comparison to support data validation. The annual audits have been completed. Also, CHNEP contributed comments to manuscript for trend analysis of CCHMN data. Other upcoming projects

include Comprehensive Vulnerability Assessment in Charlotte County (currently working with a contractor on Task 1 and working with Charlotte County to manage with the project work expected to start late summer. Also, the Yucca Pens Hydrological Restoration Planning Project has been added to the work plan (CHNEP is working with FWC as well as WMDs and U.S. FWS to manage and contractor procurement can begin later in the fall). CHNEP is working with the City of Punta Gorda to manage the Tiki Point Harborwalk Living Shoreline project and contractor procurement should begin later in the fall as well. CHNEP is also working with Lee County to manage the Pine Island Flatwoods Habitat Restoration and contractor procurement can begin once Lee County has additional funds budgeted.

The last call to provide data such as reporting on annual conservation, management, and restoration accomplishments for the 2024 National Estuary Program (NEPORT) has gone out. Also, CHNEP continues to produce and update fact sheets on basin water quality, basin seagrass health, and state and federal research and restoration funding opportunities.

One member said that he is not as familiar with Lake Okeechobee management, but they were woefully low on their nutrient loading estimates and there seems to have been a correlation between manatee deaths and Lake Okeechobee discharges. He asked who is monitoring what is coming out of Lake Okeechobee versus what was modeled. Ms. Iadevaia said that there is a page on the CHNEP Water Atlas that is the “Lake Okeechobee releases and the Caloosahatchee Release Levels Tracker.” The member then asked if the U.S. Army Corps of Engineers is going to rely on certain modeling to get an EIS or an operation of the like approved, it would be helpful to confirm that their modeling is consistent with the results that are being seen. Another member asked what the timeline is for the Tiki Point restoration and Ms. Iadevaia said that this restoration includes planning, design and construction and this restoration is currently in the planning phase so it will be a few years out till the construction phase.

Agenda Item #11 – CAC Updates & Roundtable Discussion on Topics of Interest — Harry Phillips, CAC Co-Chair

Tom Palmer (Polk): The Polk County Commission recently agreed to spend \$20 million dollars from American Rescue Plan to purchase Buck Mann Ranch to help improve the water quality flowing down the Peace Creek Drainage Canal. It is about 1,272 acres in Winter Haven. This will be a long-term restoration project. The Peace Creek Drainage Canal is a World War I-era ditch system, and it drains about 2,200 square miles in central Polk. It runs from Lake Hamilton to join Taylor Creek – south of Hancock, which forms the start of the Peace River. It is a major anti-pollution project, but it will take a few years to get everything lined up. The County has been talking about this restoration since 1991.

Nicole Johnson (Lee): The Conservancy will be hosting a Resilience symposium on October 7th. Jennifer (Hecker) will be one of the presenters. There will be a virtual component. I will send the link if anyone wants to register and participate. The focus is going to be for practitioners around the state, possibly around the country to share how nature-based and hybrid solutions for resilience have been designed and how they have worked successfully. It is a parallel process to the Army Corps of Engineers Coastal Storm Risk Management process which vacillates between walls and gates and sand renourishment on the beach. The Conservancy is looking for a senior water policy advisor and anyone interested may check out the job posting on the Conservancy website. Lastly, the Conservancy along with several other organizations continue to express grave concerns about the Kingston development which is eastern Lee County. While the project itself only impacts roughly 12 acres of wetlands, it is adjacent to CREW (Corkscrew Regional Ecosystem Watershed), and Corkscrew Swamp Sanctuary. We are concerned how it will impact listed species such as the panther, but also how it will forever alter places like CREW and Corkscrew Swamp.

Debi Osborne (Manatee): I just want to highlight a partnership of several entities with CHNEP. The City of Cape Coral received a \$900,000 grant from FWC to protect the burrowing owls' habitat. The Conservation Foundation of the Gulf Coast is excited to partner with them and how the grant is going to work is that the funds are for the city to purchase the lots which form the habitat for the owls. FWC required that the conservation easements be put on the property, and they be held by an accredited land trust which is the Conservation Foundation as it is the only accredited land trust in Southwest Florida. Both the City and the Conservation Foundation will be working with local organizations. The City will be partnering with the Friends of Cape Coral Wildlife for the monitoring of the habitat for the owls once the property is acquired. The Conservation Foundation will be working with the local land trust which is a subgroup of the Friends of Cape Coral Wildlife, on the monitoring and enforcement of the conservation easement in perpetuity. These partnerships that are created through the CHNEP create opportunities to protect habitat and restoration.

Phyl Wojcik (Charlotte): As a member of the Board of Heal our Harbor, we received a grant last year from Charlotte County for a Charlotte Harbor Ambassador Training Program. It is for anyone interested in learning about Charlotte Harbor over a free 6-week course – 1 day per week. There are speakers from organizations and agencies, including Charlotte Harbor Environmental Center, Sea Grant, Charlotte Harbor Historian as well as the water quality manager. There were 32 individuals who completed the course and came away from it with a much greater appreciation and understanding and are looking forward to going out and volunteering with different organizations. The grant was awarded this year as well and the process for the ambassador program has again begun. Also, the Citizens Partnership for Clean Canals is collaborating with Heal Our Harbor, Team Punta Gorda, and Charlotte County. The idea is to gather data regarding the degree and nature of the impairment of the canal system in Punta Gorda with the goal of coming up with some solutions.

Aaron Zimmermann (Sarasota): Sarasota County is also participating in the International Coastal Clean-Up Day. The City of North Port has been very active with their summer camp. Many of CHNEP Kid's Activity Books have been distributed. These books are a great resource that have been distributed at farmer's markets, tabling events, and at North Port Newcomer's Day, etc. We are also looking at putting together some fact sheets or information guides to realtors to put forth North Port's goals on achieving tree canopies and wildlife throughout the area. As North Port is growing at such a rapid pace, the aim is to get information to buyers, realtors, and builders on how we can preserve habitats, create new ones, and understanding the impact on our impervious areas. We are also always looking at properties for land acquisition in the North Port area to use our tree fund that would help to protect our list species such as gopher tortoises and scrub jays. As part of the newly formed Natural Resources Division, we are trying to do as much as possible to get our message and our mission out there.

Harry Phillips (Lee): We also distributed CHNEP's Kid's Activity Books to our Rotary Park Eco-Nature camp this summer. This camp incorporates nature concepts and environmental science. The City of Cape Coral recently purchased an old golf course which has been closed since about 2008. The goal is to get city leaders to create another Wildflower Preserve that was constructed under the Lemon Bay Conservancy. A portion is planned to be a stormwater filter marsh since there are lakes already on the property. The hope is to create more green space within the City. The Department of Environmental Protection did grant permits to remove the final lock within the southwest portion of the City – the Chiquita Lock. It contains canals from the Caloosahatchee River and Estuary. It took more than 10 years to convince the state that the water quality is better than the river's is. This removal should happen within the next couple of years. There are some unincorporated areas within Lee County including a 10-acre parcel which will hopefully become a stormwater park. Even though it is currently

overgrown with exotics, it does have value because it is an area that drains Matlacha Pass. It borders City of Cape Coral lands, unincorporated Lee County lands, FDOT lands with State Road 78 and Pine Island Road. We did receive the \$900,000 grant from FWC. This has been an ongoing effort of Friends of Cape Coral Wildlife over the past several years. With their land trust, they have been purchasing vacant properties within the city that have burrowing owls or gopher tortoises with the hopes of preserving them. We are a pre-plotted community without a lot of green space. Many of the burrowing owls have taken to the medians and high-density areas and these land trust purchased properties gives them a chance to manage the owl population for future generations. Every year we do a census with the most recent having occurred in late May, and it was determined that there are more burrowing owls than ever. Despite Hurricane Ian, and all the developments, the population is able to sustain itself and this work will help further that.

Agenda Item #12 – General Public Comment — Harry Phillips, CAC Co-Chair

There was no public comment.

Agenda Item #13 – Future Meetings: Topics, Location and Dates— Harry Phillips, CAC Co-Chair

➤ Upcoming dates for 2024: 12/18/2024. Dates for 2025: 4/23/25, 8/20/25, 12/17/25.

Agenda Item #14 – Adjourn.

The meeting was adjourned at 12:03 PM.