



Draft Citizens Advisory Committee Meeting Minutes April 23, 2025

Members Present via Teams:

Tonya Bramlage **Charlotte County** Phyl Wojcik **Charlotte County** Linda Waters DeSoto County Kayton Nedza **Hardee County Church Roberts Hendry County** Lee County Nicole Johnson **Harry Phillips** Lee County Tom Palmer Polk County Cheryl Cook Sarasota 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)

Madeline Aadnes Lee County Hyacinth Control District Dr. Ernesto Lass de la Vega Lee County Hyacinth Control District

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

No additions or deletions were made to the agenda.

HARRY PHILLIPS MOVED, SECONDED BY CHERYL COOK TO APPROVE THE CONSENT AGENDA ITEMS AS PRESENTED. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.

Agenda Item #3 - Public Comments on Agenda Items — Harry Phillips, Co-Chair

No public comments on agenda items were made.

<u>Agenda Item #4 – Citizens Advisory Committee (CAC) December 18th 2024 Meeting Minutes — Harry Phillips, CAC Co-Chair</u>

No changes were made to the Citizens Advisory Committee (CAC) December 18th, 2024 meeting minutes.

HARRY PHILLIPS MOVED, SECONDED BY CHERYL COOK TO APPROVE THE MINUTES AS PRESENTED. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.

<u>Agenda Item #5 – Citizens Advisory Committee (CAC) Co-Chair Election — Harry Phillips, CAC Co-Chair</u>

CAC Co-Chairs are elected on an alternating basis annually each Spring for 2-year terms. By staggering the terms, there is assurance that a new Co-Chair will be paired with an experienced Co-Chair. Duties include alternate chairing of the CAC meetings and attending all CAC meetings in person as well as attending alternate Management Committee meetings (at which he/she will have voting privileges) to brief them on the CAC meeting that he/she chaired. Nominations were requested ahead of the meeting. The Co-Chair, Harry Phillips, announced that there was one nomination received prior to the meeting - himself. The floor was then opened for nominations. No other nominations were put forth. Cheryl Cook reiterated Harry Phillip's nomination, which was seconded by Nicole Johnson. Mr. Phillips accepted the nomination and was appointed as the returning Co-Chair after a unanimous vote.

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 has submitted the CHNEP 2025 Program Evaluation, which may be found on its website, and planned the May site visits. The evaluation team will be EPA staff and NEP Directors who will be visiting sites of partner projects in the CHNEP area and learning about the work being done in the region. They will also attend the May Policy Committee meeting. CHNEP planned and executed the Winter Committee meetings; sent Committee member packets to newly appointed members on Committees; welcomed three new Citizens Advisory Committee members — Brooke Langston representing Manatee County, Cheryl Cook representing Sarasota County, and Zachary Franco representing Highlands County — approved at the January Policy Committee Meeting; updated all federal, state, county and city contact lists to reflect current elected leaders in CHNEP area, as well as their relevant staff; and began to contact federal legislative offices to obtain Programmatic Appropriations Forms to submit those available for FY26 federal funding. CHNEP co-hosted and facilitated the Southwest Florida Federal Interagency Resource Exchange (FIRE) and Economic Recovery Workshop listening session with the Southwest Florida Regional Planning Council, participated in Federal Interagency Resource Exchange (FIRE) and Economic Recovery Workshop listening session with the Central Florida Regional Planning Council, and hosted 2024 hurricane season listening sessions at January Management and Policy Committee meetings where they discussed partner responses, problems, and lessons learned during Hurricanes Helene and Milton recovery. CHNEP compiled member feedback on resources and questions which were sent to the Post-Storm Interagency Recovery Coordination (IRC) team in February for response, welcomed new CHNEP member organization LeHigh Acres Municipal Services Improvement District (LA-MSID), drafted and sent a Letter of Support for Federal Designation of the Myakka Wild and Scenic River to the US National Park Service and Congressmen Buchanan and Steube's office following approval at the January Policy Committee Meeting, and sent out Spring budget reminder letters to all CHNEP partners (counties and cities) to ensure consideration of respective dues in their respective FY26 budgets. As for the Comprehensive Conservation Management Plan (CCMP) update, CHNEP held a meeting with the consultant regarding the layout and design of the 2025 version, received the initial CCMP layout for review, completed the final review for copy edits, and edited it to include the preferred terminology as well as added reference to the 2024 storm season impacts where appropriate in text and figure captions.

For finance and grants, CHNEP processed annual contribution checks that have been received thus far and ensured donation files are up-to-date and sent out acknowledgement letters for donors' tax records, worked with the County finance team to set up CHNEP accounts and codes for tracking expenses in new financial software, held FY24 Close Out Finance Meeting with County grants staff, finalized FY24 and FY25 Match Documentation for EPA 320 grants to keep on file, drafted alternate FY25 work plans

and budgets to address potential IIJA funding changes and held meetings with County fiscal and grants staff to discuss federal funding pause and planning, and successfully obtained commitment for \$5,000 sponsorship of upcoming CHNEP 2025 SW FL Resiliency Summit from the Volo Foundation. In response to an EPA request, CHNEP worked with administrative host to provide additional documentation for the EPA IIJA FY25 application, and approval of materials and EPA notice of EPA IIJA FY25 grant award was received. CHNEP also received reimbursement from Southwest Florida Water Management District for staff support and field contractor expenses for Upper CCHMN surface water monitoring project incurred in FY24 and submitted annual dues for continued membership in the Association of National Estuary Programs. CHNEP updated the funding opportunities fact sheet and sent out historic funding opportunities notification to all CHNEP Committees; sponsored the Annual Southwest Florida Water Resources Conference and the Cape Coral Burrowing Owl Festival; received FY25 grant agreements with Florida Department of Environmental Protection and Southwest Florida Water Management District, which were approved by Charlotte County and fully executed; received the executed change order for purchase order for additional work associated with updating interactive map layers; submitted FY25 Quarter 1 report and deliverables for the Upper CCHMN water quality monitoring project to the Southwest Florida Water Management District; assisted in filling out a State Legislative Appropriations Request together with the other Gulf National Estuary Programs, which was filed (#2880) in both the House and Senate; drafted and received three Letters of Support for the cities of Arcadia and Sanibel, as well as Strickland Ranch; sent out email with information about it to the CHNEP Policy Committee and City/County Lists, as well as emails to each CHNEP legislator on key committees where the request will be heard; and presented the request at the Charlotte County Legislative Delegation meeting.

CHNEP staff attended several partnership meetings since last cycle including:

- ANEP External Affairs Meetings (multiple)
- Hardee County CHNEP Coordination Meeting (multiple)
- DeSoto County-CHNEP Coordination Meeting (multiple)
- Highlands County CHNEP Coordination Meeting (multiple)
- Polk County-CHNEP Coordination Meeting (multiple)
- Charlotte County Vulnerability Assessment Monthly Meetings (multiple)
- Charlotte County Vulnerability Assessment Stakeholder Meetings (multiple)
- Southwest Florida Federal IRC Listening Session Meetings (multiple)
- CHNEP Water Atlas Monthly Meetings (multiple)
- Nutrients & Red Tide Symposium Committee Meetings (multiple)
- Florida Water & Climate Alliance Workshops (multiple)
- GOAA and Gulf Estuaries Collaboration Meetings (multiple)
- CHNEP Quarterly Business Meetings (multiple)
- One Water One Commission Monthly Meetings (multiple)
- Southwest Florida Regional Ambient Monitoring Program (RAMP) Meetings (multiple)
- Charlotte Harbor Flatwoods Initiative Quarterly Meetings (multiple)
- CHNEP Technical Advisory Committee Meeting (12/5)
- GOAA Data & Monitoring Quarterly Meeting (12/9)
- Tampa Bay Estuary Program Open Science Subcommittee Meeting (12/10)
- Myakka River Management Coordinating Council Meeting (12/13)
- University of Florida Water Quality Post Hurricane Report Meeting (12/16)
- Lemon Bay Nutrient Management Planning (12/17)
- CHNEP Citizen's Advisory Committee Meeting (12/18)
- SWERT-NOAA Transformational Meeting (12/19)
- CHNEP Water Atlas Header Redesign Working Group (1/7)

- Tiki Point Meeting (1/7)
- CHNEP & Sarasota County Resiliency Project Meeting (1/7)
- DeSoto County Underserved Community Meeting (1/7)
- Florida Economic RSF with Economic Recovery Partners Meeting (1/8)
- Hardee County Workshop AAAs & Underserved Communities Meeting (1/9)
- CHNEP Management Committee Meeting (1/10)
- Peace River Study Planning Meeting (1/13)
- SWFWMD Environmental Advisory Committee Meeting (1/14)
- CHNEP & Lee County Vulnerability Assessment Meeting (1/14)
- Vulnerability Assessment Risk/Sensitivity Methodology Meeting (1/14)
- Charlotte County Resiliency Working Group Kick Off Meeting (1/15)
- CCHMN Survey & Database Project Meeting (1/17)
- Heal Our Harbor Ambassadors Training (1/22)
- CHNEP Policy Committee Meeting (1/23)
- CHNEP Water Atlas Automation of Master List Discussion Meeting (1/24)
- 34th Annual Southwest Florida Water Resources Conference (1/24)
- ANEP Communications Working Group Meeting (1/28)
- Lee County Parks Volunteer Association (1/29)
- Central Florida Federal Interagency Resource Exchange (FIRE) and Economic Recovery Workshop (1/30)
- Red Tide Mitigation & Technology Development Initiative Workshop (1/30-31)
- Everglades Coalition Conference (1/30-31)
- SEC Meeting (2/5)
- FY24 Close Out Finance Meeting (2/11)
- Central Florida Regional Planning Council Meeting (2/12)
- CHNEP CCMP Contractor Layout Meeting (2/13)
- CHNEP & Suncoast Waterkeeper: Water Atlas Meeting (2/14)
- Southwest Florida RPC Meeting (2/20)
- NOAA RESTORE Coastal Sportfish Ponds Team Meeting and Site Visit (2/24-2/25)
- Charlotte Board of County Commissioners Meeting (2/25)
- CHNEP Water Atlas Header Redesign Discussion Meeting (2/26)
- CHNEP Water Atlas Partners Meeting (2/27)
- Water Quality Database Design Meeting (2/27)
- Resilient Manatee Community Workshop Meeting (2/27)
- Charlotte County Legislative Delegation Meeting (2/28)
- Charlotte Harbor & Lemon Bay Seagrass Mapping Results Discussion Meeting (3/6)
- Sarasota County Charlotte County CHNEP ILA Documents Meeting (3/7)
- SWERT Check-In Meeting (3/7)
- GAM Presentation Meeting (3/11)
- City of Punta Gorda Council Workshop Meeting (3/11)
- Southwest Florida Eco-Alliance Steering Team Meeting (3/12)
- Hardee County Vulnerability Assessment Steering Committee Meeting (3/13)
- Water Quality Playbook Update Meeting (3/14)
- Highlands County Vulnerability Assessment Steering Committee Meeting (3/21)
- Charlotte Harbor Algae Working Group Meeting (3/25)
- 2025 EPA NEP Workshop Meeting (3/26)

Southwest Florida Seagrass Working Group Meeting (3/26)

CHNEP wrote Letters of Support for: conserving the Myakka Corridor Addition and B Squared Ranch in Manatee County by adding it to the Florida Forever list for state purchase; the National Science Foundation (NSF) funding proposal: "RAPID: Impact of Back-to-Back Major Hurricanes on Antibiotic Resistance Gene Transfer to Autochthonous Bacteria in Estuarine and Coastal Water Systems" for University of Florida; the NOAA funding proposal: "Transformational application of the on-line geospatial decision support tool Future Shorelines to inform ongoing restoration efforts designed to sustain productive fisheries" for Florida International University; and for the NEP Coastal Watersheds Grant proposal: "Ecological Restoration and Coastal Resilience" for Hermitage Artist Retreat. For presentations, CHNEP presented "Resiliency Lessons" at the Nature-Based Solutions Symposium hosted by the Conservancy of Southwest Florida, presented on CHNEP and Landscape Scale Planning and Restoration to Heal Our Harbor as a part of their annual Ambassador Training Program, participated in a panelist presentation in the *Hurricane Recovery* session of the 34th Annual Southwest Florida Water Resources Conference, and resented on CHNEP to Central Florida Regional Planning CHNEP gave opening remarks and facilitated session on Fisheries & Agriculture at Southwest Florida Federal Interagency Resource Exchange (FIRE) and Economic Recovery Workshop listening session; presented on Nitrogen Contributions to Red Tide to the County Coalition for Responsible Management of Lake Okeechobee, the St. Lucie and Caloosahatchee Estuaries, and Lake Worth Lagoon; presented An Evaluation of the Relationships between the Duration of Red Tide Blooms and Watershed Nitrogen Loads in Southwest Florida to South Florida Ecosystem Restoration Task Force Working Group / Science Coordination Group meeting; presented on Water Quality Indicators of Southwest Florida Estuaries at the Barrier Island Parks Society "Marine Pollution Forum;" provided an update on Watershed Restoration Projects and Habitat to the Peace River Audubon Society, and presented on CHNEP and Habitat Protection & Restoration to Lee County Friends of Manatee Park volunteer association. For outreach events, CHNEP attended the Water, Wings, and Wild Things Kids Festival at Circle B Bar Reserve in Polk County, where -oover 160 second graders visited the CHNEP booth; provided calendars, brochures, and Kids Activity Books to LA-MSID for the annual Wings Over Water Festival; displayed and distributed informational materials at the SWFL Federal IRC Listening Session for the 2024 Hurricane Season co-hosted by CHNEP; attended the Burrowing Owl Festival in Cape Coral, where CHNEP manned a booth to share information with 478 visitors; attended the annual Chalo Nitka Festival in Moore Haven to host activities for visitors and distribute free resources; and attended the Citizen Summit in Punta Gorda to speak with attendees about CHNEP's work and share free resources.

For social media and publications, CHNEP sent out monthly Constant Contact emails to subscribers about relevant upcoming public engagement events in the CHNEP area, awarded two Conservation Grants for the FY25 winter cycle for the Myakka River Management Coordinating Council Website and the Lee County Hyacinth Control District Pond Watch Survey Tool, completed deliveries and shipments of the 2025 Nature Calendar, and continued making functional improvements to the CHNEP website including: including streamlining document uploading processes, adding to staff guidance document, and integrating an ArcGIS home page map in both mobile and desktop view, created and published creating a new Resources & Publications page that is more intuitively organized for visitors and easier for staff to keep updated, creatinged an updated Legislative Priorities page for partners and citizens to access, and updatinged the Community Resiliency page to include details on CHNEP-funded components of Comprehensive Vulnerability Assessments in each of the ten service counties with relevant fact sheets., erea CHNEP createdted ana NEP informational handout highlighting national assets that the National Estuary Program helps to protect, for federal policymaker education, continued continued to foster engagement through social media campaigns and the sharing of events (ex: I Heart Estuaries Week, the Great Backyard Bird Count, World Seagrass Day and World Water Day), and shared collective 2024 achievements from Florida's Gulf Coast NEP organizations on social media in a series of graphics. As for media and press, CHNEP contributed to the Daily Sun – Hurricane impacts reach beyond humans, to the Cape Coral Breeze – Burrowing Owl Fest provides fun, advocacy, to The Invading Sea – *Nature-based solutions help address Florida's climate challenges*, to the Coastal Breeze News – *Five reasons for Southwest Florida to consider nature-based solutions*, and to the Daily Sun – *Hurricane threats: Is there a plan to keep the region safer?* CHNEP has 22 new Facebook followers for a total of 2,018 with 7 new "likes" (1,700 total likes), 5,845 subscribers for the educational mailings, 2,:048 unique visitors and 2,727 page visits to the CHNEP website, 13,266 YouTube views with 88 subscribers and 325 videos, and 618 total Instagram followers.

<u>Agenda Item #7 – Community Science Application: Citizen's Pond Survey — Madeline Aadnes and Dr. Ernesto Lasso de la Vega, Lee County Hyacinth Control District</u>

Ms. Madeline Aadnes and Dr. Ernesto de la Vega, from Lee County Hyacinth Control District, provided the CAC with an update on the Citizen's Pond Survey Tool, which may be useful for citizen groups in other areas, and <u>explained</u> how it connects <u>through to public engagement</u>. Highlights are as follows:

The purpose of the Pond Watch program is to educate the community about the conditions of the pond, to understand the different dynamics of the pond throughout the year, and to help the residents with management practices that benefit the overall pond conditions based on the results that are gathered month to month. Pond Watch also works with the CHNEP Water Atlas and the yearly data collections are sent in to uploaded onto the site. The program has been around for about 30 years. The Citizen's Pond Survey is a tool to collect data from storm ponds. It uses the volunteer's phone to fill out the survey and the data is stored on Google Drive. It provides opportunities forto have Pond Watch to communicate with the community, it monitors changes, damage, and/or improvements in the pond, and it keeps historical records of the pond. It will keep historical records of the pond through pictures which can provide actual percentages of littoral zone coverage, algae coverage, and erosion levels. This tool can also be adapted to other counties, programs, and projects. The survey tool asks volunteers about the littoral zone and to provide photos and about the erosion levels as well as to provide photos. When the survey tool was presented at the annual symposium in 2025, it generated excitement and the attendees asked many questions after the presentation. The form on the survey asks for the volunteer's name, the designated pond ID (which each pond has been designated one), the datey, and the time. The location address is important and, if you are using an iPhone, you can copy the latitude and longitude directly into the survey. This allows the information to be connected to a map. Water level is asked for at At the time of collection, water level, the color of the water, and the type of algae — filamentous, platonic, blue green-algae, or no algae present (which is most desired) – is asked for. -There is anthe option to upload a photo. The survey also asks about the aeration — whether they have a fountain or a bubbler or no aeration at all. Regarding the littoraateral zone, the survey is specifically asksing about vegetation and whether the volunteer can determine the species, -which may also be identified through the photos. Shoreline erosion is also taken onto consideration — not the grade, but the percent of the actual shoreline that is eroded. At the very end of the survey, there is an option for the participants to send their information back to themselves so that they can also keep their own records, which many pond watchers tend to do that. They also keep their own Excel sheets of their annual data. -The volunteers consist of many retired scientists in the community who bring added information and expertise. A QR code has also been created for the survey. After the surveys have been filled out, it produces the name upon ID, and everything is saved tofrom our Google Fform and Google sheathSheets. With the images collected along with the latitude and longitude that were provided, the The images along withned the latitude and longitude can be connected to a Google map that is also going to provide a more congregated way of showing the data. The goal is, for those who do upload photos, if they could to take them in the same spots so that an actual progression can be followed throughout the year at the same angle for the erosion as well as, wet versus dry season. A sheet that has a detailed list of how to ereate fill out the Google Form and how to upload photos to it is also included. There are also photos depicting what areas on the Google Form ereation experience are most important.

Ms. Hecker congratulated Ms. Aadnes and Dr. Lasso de la Vega on the tremendous job and asked what the ongoing maintenance of aggregating is then and analyzing the data once it is once gathered and

while it is individuals that capture the data-whether the Lee County Hyacinth Control District is also utilizing it along with individuals. Ms. Aadnes commented that the data will be in their Google Drive then and it will be kept as a record. If they do see some changes from year to year, they can go back again and see how bad it was and then how it improved or vice versa. One member commented that this is really exciting and that when she was on the Policy Committee for the Estuary Program, there was a lot of discussion about filtration systems and she is curious as to whether there is any data or the possibility of collecting data of the difference when some of these ponds have grasses that help filtrate out some of the toxins can be compared to water-only ponds. Ms. Aadnes said that is a possibility in the future because they would also like to start collecting and doing some data analysis where the littorals have been protected and versus ponds ants that have no littorals and do that comparison just to validate the effectiveness of these littorals littoral zones. This could then be used as a proof for a lot of homeowners who are against littorals. Another member commented that he has been an environmental educator for about 50 years, and he is glad to see young people coming along to take his place. He also thanked Dr. Lasso de la Vega, who has always done a great job, but that this is even a-better than the normal great job he does. Dr. Lasso de la Vega thanked him for his kind words. Another member commented that he has coordinated the Cape Coral Canalwatch Volunteer Program which has been around for 30 years and that he has had volunteers say because we have a paper data, data, a sheet that they fill out whenever they grab a sample, they would be interested in an app that would simplify the process. Unfortunately, the city internet system and IT Department cannot accommodate such an app because they didn't don't want Google Forms being submitted but and the app process needs to be vetted some more. He asked whether Ms. Aadnes faced any challenges with the district with regarding things like that. Ms. Aadnes said that when they were initially starting the survey, she was using—a sheets of paper that are handed to the volunteers to fill out as a reference. The water gauge, the pond ID, and all of all those initial questions were all on the physical forms. She said that having a tool like this would be beneficial for the data collection because right now, whenever the volunteers fill out that form, the only thing that the form is used for is to give them their data back. She said that it is more beneficial having an online version where it'sthat's easier to look at rather than having 130 pages that you have to evaluate. Ms. Hecker added that this was part the idea of fuinding this project from CHNEP's perspective is that not only was this helping the lead pond watch Pond Watch, but the idea was to createit also created a template that could be replicated in other counties and other cities. Ms. Hecker also said that these things help you to realize how important they are, and they figure out ways to make them secure. Ms. Hecker also said that this is a wonderful template, and if anybody in the Committee can use this for their organizations, please do so.

Agenda Item #8 - CHNEP Water Atlas 2.0 Primer — Sarina Weiss, CHNEP

Ms. Sarina Weiss, CHNEP Research & GIS Coordinator, provided the Ceommittee with a brief overview and live demonstration on the CHNEP Water Atlas 2.0. Highlights are as follows:

The CHNEP Water Atlas was launched in 2011 with the goal of becoming a one-stop shop for all data collected within CHNEP's watersheds and as well as information about the historical and current conditions of the ecosystems. The ultimate goal is to translate the water quality and habitat data into actions aimed at protection and restoration. The Water Atlas also serves to support the volunteer monitoring programs such as the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network (CHEVWQMN) as well as the pond watch and canal watch programs. The data collected from these volunteer programs is all housed on the Water Atlas and is downloadable from there. It also includes a large library of documents and resources as well as recent news and events. The vision is to have an informed, engaged public making choices and taking actions that increase protection and restoration of estuaries and watersheds. To meet this goal, CHNEP is translating that water quality data collected by local programs into actions aimed at protection in restoration through the Water Atlas. The Water Atlas touches on all four of our CHNEP's priority actions for water quality improvement; hydrological restoration; fish, wildlife, and habitat protection; and public outreachengagement. Recently, a big overhaul was completed of the Water Atlas to make the site more accurate and user-

friendly. That is why it is being called Water Atlas 2.0. –This involved reorganizing the water body segments to align with FDEP WBIDs (water body IDs). _-The data is now grouped by the WBID, and they are even organized by basin and watershed pages as well. There are four colored boxes on the pages and those are interactive mappers for water quality, hydrology, wildlife habitat, and resiliency. Those are displayed to give a comprehensive overview of conditions. sections of the water body page The impairment status is displayed on each water body page, and this too was part of the realigning. Now the FDEP impairment status is displayed directly on the page and, lower down on the page, there is a water quality snapshot. It has these five dials for dissolved oxygen, chlorophyll, a, total nitrogen, total phosphorus, and bacteria and this is looking at the most recent data point within that water body. It is showing it in relation to its regulatory standard. If it's green, it is doing well and if it is red, it has surpassed that standard. It is really giving you both the annual impairment status as well as a snapshot of what is happening in real time. There are live pages for over 600 water bodies in the CHNEP area. On the bottom half of the page, there are expandable headers for the associated water quality and habitat data as well as recreation opportunities, photos and related information. Users could see data for red tide, nutrient chemistry, bacteria as well as several other indicators. There are maps of seagrass as well as a time series of seagrass coverage. Users can flip through the years to see the changes and soon users there will be a water body button where users will be able to can download data. All of All the stations within that water body will already be pre-selected and users can then choose the a parameter from a list of different parameters that there is data on. A specific date range for data can be selected and downloaded. There is also a graphing tool built in so that users can download or grasp the data and that will be coming soon. All of All the water bodies within a basin get rolled up into these basin pages. CHNEP has eight basins, and these basins align with how management plans from other agencies and partners aggregate their data. For example, the Southwest Florida Water Management District uses the same basin in watershed boundaries as well as FDEP Aquatic Preserves for their seagrass segment surveys. Basin pages include a list of all of all the water bodies within that basin and those there are clickable links to those water body pages. They also include several water quality snapshots for each of the water bodies within that basin. Each basin page is presented with displays the seam for interactive mappers to allow users and partners to look at the bigger picture of what's going on at a regional scale within the whole basin. Basin pages present geography and land use information, – including yearly population totals, land acquisition and protected land information, and land use of land cover data which is presented on an embedded web map as well as in a pie chart form. Basin pages also include recreation links, photos, and related information. Also coming soon, there will be even more information on these basin pages, including annual rainfall totals, and minimum flows and levels information, and more. These get even further rolled up into watershed pages. For example, the Charlotte Harbor Watershed includes the Myakka River Basin, Peace River Basin and Charlotte Harbor Basin and all that information is rolled up into this Charlotte Harbor watershed page Basin. They are presented with the The four interactive maps are presented with all of the same data-and as well as links to the water body and basin pages within that watershed, with including recreation links, photos and related information. As for the interactive mappers, when you open up the interactive map which are housed in separate boxes, users can view resiliency data and quality data. As for For a water quality map, the idea is to combine all publicly available mapping data that captures the current status as well as long term trends in water quality. The little green and red circles are active sampling locations-and, the red and or in shaded areas represent impaired water bodies, and the yellow areas represent water bodies that are meeting standards. The little red and green arrows are the water quality trends which are part of an annual analysis that that is done through the Water Atlas. The users are getting the current water quality data as well as the long-term trends and water quality all on the same map. On the interactive hydrology map, this combines all publicly available spatial data that captures the current hydrology is combined. The colored grids represent annual rainfall totals, and the darker colors are representing more rainfall. The small little circles represent water level stations, and users can click on the live stream gauges to get the current water level and rate of flow. The map also includes layers for minimum flows and levels and more other features. The Interactive Wildlife Habitatinteractive wildlife habitat map probably has the most data available on it. It combines all publicly available data that captures large--scale changes in the habitat as well as a smaller--scale species shifts gathered by onthe-ground monitoring. The little diamonds are showing artificial reefs and the different shades of green within the estuary are showing the seagrass. There are also some oyster restoration site rankings along with plenty of other data. The interactive resiliency map combines all publicly available climate resiliencyclimate, resiliency, and weather data. This includes sea level rise projections, predicted community flooding maps, predicted vegetation shifts, temperature changes, etc., and hopefully Hopefully in the future, and it will include saltwater intrusion information. The Water Atlas has a whole seagrass pages on the and an and interactive maps. Those are displaying These display maps of seagrass presence and loss as well as propeller scar studies. There's a lot of different seagrass information available and, on the actual pages themselves, there are graphs for seagrass acreage, species composition and abundance, deep edge algae, and epiphyte density. The 2024 seagrass data from the Southwest Florida Water Management District should be publicly available very soon so those pages will be updated in the next couple of months. For oysters and clams, there are two different pages – —the Oyster Habitat Restoration page and the CHNEP Clam Habitat Suitability page. They include maps of restoration projects as well as restoration suitability and ranked priority restoration sites. These were analyses done a couple of years ago and all of all this information is available on the Water Atlas. These pages were created as an outcome and with the data from the Southwest Florida Oyster Working Group as well as SCCF, FWC, and FDEP Aquatic Preserves. All of All this data, including the restoration projects and suitability, are available on the interactive maps, as well as other shellfish--related layers. Another page and tool that the Water Atlas has is the new Lake Okeechobee page. This page includes a tracker, and there is an interactive graph that shows the recent Lake Okeechobee elevation levels and the corresponding flow rate into the Caloosahatchee River. The page was recently updated with the newest Lake Management Zones and Ecological Health Minimum and Maximum. On the interactive graph, the information is right up to the current day and at what stage it is along with what the flow rate is. There is also a coastal conditions map. This is showing maps of water quality information related to red tide, blue green algae, fecal bacteria, and wastewater spills. CHNEP is working with USF and Mote to eventually pull in the Mote beach conditions reporting data in the future. All these layers are also available on water body pages and interactive maps. Another important tool in the Water Atlas is the data download tool. It allows the user to download any type of data, and you can filter by data source, by station, or by water body. The real time data map presents near real time data for rainfall, surface and groundwater levels, flow, water quality, and weather. A user can click on a data point to view the station details. It is a little different than the other data and maps and pages because this is real time data. It's continuous. It is coming in at about every 15 minutes and, as such, it is not all able to be stored. This map works a little bit differently. The Habitat Restoration Needs pages include maps and information from the Habitat Restoration Needs Plan that was developed by CHNEP stakeholders to guide habitat preservation and restoration throughout the area. The plan identifies and maps potential conservation opportunities as well as management enhancement and restoration targets. It also includes recommendations for coastal wetlands and habitat change analysis and habitat migration model results. These pages can be used if one is looking at a potential land acquisition. It can be found on the map and can be identified as one of the restoration targets or preservation targets. CHNEP can then be contacted to write an letter of support for that acquisition. The Habitat Evolution Model was developed as part of the Habitat Restoration Needs Plan, and this has its own story map on the Water Atlas. The evolution model was developed to predict changes and to vegetative communities caused by climate change in climate. The analysis was done for the years 2016, 2040, 2017, and 2120. It is presented in a story map, and it includes interactive maps and charts with time sliders as well as an interpretation of the results. This data and the Habitat Restoration Needs map data are also available on water body pages and interactive maps. The Water Atlas is only as useful as all of all the partners want it to be.

Ms. Hecker offered that the vision for this was really to become a living report card, essentially that as new data was being collected, that CHNEP could get conduct constant analysis of that data to understand what does the water quality look like in a certain area — and what are the conditions and

what is happening in that area with regards to biological indicators like seagrasses and macroalgae. She also said that it is a one-stop shop in that CHNEP tries to pull all that data and theto create a sum is greater than the individual parts. When you look at the data together, you get a more holistic and accurate portrayal of what the actual conditions of these different water bodies are. The objective has been to have these dashboard features that are customized to each water body so that, for example, one can instantly look at what is the bacteria in this creek. The Water Atlas is evolving every single month with additions and enhancements. For instance, the vulnerability assessments that CHNEP is currently funding in the five counties, as they generate GIS information on critical assets, the exposure and sensitivity to flooding of those critical assets, and then even to identifying adaptation action areas and projects—and whatnot, all of that is getting pulled into the resiliency map. CHNEP meets with the contractor monthly and is constantly adding new features and new data onto this site.

One member asked if sea level rise is shown on the buildup map. Ms. Weiss answered that the Water Atlas does have some layers for that this, such as the NOAA 1-foot sea level rise layer, and that the Water Atlas may be adding some more in the future. Another member asked if the map goes back to 2011 because back then, Governor Scott removed regulation from septic tanks and she was wondering how crucial that decision may have been to endangering the waters. Sehe believes that if we can get some of the regulations back based on real science, it might help what we're trying to accomplish here regarding habitats because she is sure there was some leakage in the habitats because offrom the deregulation. Ms. Weiss responded by saying that it was an interesting question and good thought and what comes to mind for her is that we do know that there is a layer out there of all of the different septic and tanks and sewer and all of that, and that CHNEP could definitely try to bring that into these maps in the future. Currently, it does not have that analysis built in. It's just a map of locations and what kind of water facility it is. Ms. Weiss then asked that if anyone knows of anyone that is doing that kind of analysis, to please let CHNEP know, and they would try to incorporate that information onto the Water Atlas. Another member said that during the presentation, he saw a screenshot of one of the multi water quality trends and he wondered if there is a layer that can show the water quality trends and the seagrass annual changes side by side. Ms. Weiss said that it can show changes side by side. The member then responded that it offered a great perspective to see the information presented that way. Ms. Hecker concluded by letting members know that there is lot more to explore on their own. CHNEP has tried to make it more user-friendly for both the lay person and the technical audience. However, it can still be a little tech-heavy so CHNEP is taking the information from the Water Atlas and routinely updating the fact sheets on water quality and sea grass. The data is then synthesized and incorporated into more simplified materials that pull this Aatlas data and distill it down and simplify it for general audiences.

Agenda Item #9 - CHNEP Technical Projects and New Tools — Nicole Iadevaia, CHNEP

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

For the Coastal Charlotte Harbor Monitoring Network (CCHMN), the Q1-Q2 data was collected and submitted. Upper Charlotte Harbor partners working on data management/optimization have created an electronic field entry form to streamline field data entry. Final field trials were completed in November and work continues building the support database. A fact sheet and infographics have been created to share results from a CCHMN trend analysis which were published in an article in Estuaries and Coast scientific journal (ESCO), Water Quality Trends and Eutrophication Indicators in a Large Subtropical Estuary: A Case Study of the Greater Charlotte Harbor System in Southwest Florida. For Upper Lemon Bay, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is above the threshold, seagrass is declining and on a downward trend, and there has been relatively no change with macroalgae. For Lower Lemon Bay, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a

is below the threshold, seagrass is declining and on a downward trend, and there has been relatively no change with macroalgae. For the Tidal Myakka River, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold on a downward trend, chlorophyll-a is below the threshold, seagrass is declining and on a downward trend, and macroalgae is declining on an upward trend. For Tidal Peace River, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold on a downward trend, chlorophyll-a is below the threshold, seagrass is declining and on a downward trend, and macroalgae is declining on an upward trend. For the West Wall of Charlotte Harbor, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is above the threshold, seagrass is declining and on a downward trend, and macroalgae is declining on an upward trend. For the East Wall of Charlotte Harbor, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is below the threshold on a downward trend, seagrass is declining and on downward trend, and macroalgae is declining on an upward trend. For Cape Haze, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is below the threshold on a downward trend, seagrass is declining and on a downward trend, and macroalgae has relatively no change. For Lower Charlotte Harbor, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is below the threshold on a downward trend, seagrass is declining and on a downward trend, and macroalgae is declining on an upward trend. For Pine Island Sound, for the 5year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is below the threshold on a downward trend, seagrass is improving and on an upward trend, and macroalgae is declining on an upward trend. For Matlacha Pass, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is above the threshold, chlorophyll-a is below the threshold, seagrass is on a declining and downward trend, and macroalgae is declining on an upward trend. For the Tidal Caloosahatchee River, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is above the threshold and on a downward trend, chlorophylla is below the threshold on a downward trend, seagrass is on a declining and downward trend, and macroalgae has relatively no change. For San Carlos Bay, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is below the threshold on a downward trend, seagrass is on a declining and downward trend, and macroalgae has relatively no change. Finally, for Estero Bay, for the 5-year mean concentration relative to regulatory threshold, total nitrogen is above the threshold, total phosphorus is below the threshold, chlorophyll-a is below the threshold on a downward trend, seagrass is on a declining and downward trend, and macroalgae is improving in an upward trend.

CHNEP is also involved in the funding coordinating and managing vulnerability assessments. For Highlands, Hardee and DeSoto Counties, these projects are in partnership with the Central Florida Regional Planning Council (CFRPC) who will help identify Adaptation Action Areas (AAAs) for each county based on data gathered for the vulnerability assessments. County Steering Committee meetings were held to review exposure and sensitivity analysis results and maps from baseline vulnerability assessment projects. These outputs will also be used to identify and prioritize focus areas under current projects. The CFRPC held community meetings to gather public input on vulnerable community assets and created public comment—response memos. Input will be used in prioritization of focus areas for developing AAA plans. The project pages for County vulnerability assessments ereated hosted on the CHNEP website include interactive maps created by the CFRPC. For Polk County, the project, in partnership with CFRPC, is to conduct additional rainfall flood modeling for Polk County's Vulnerability Assessment. This will include 200—and 500-year and compound flooding events. Aand a visual interpretation of the flooding events for community outreach will be created as well. The HEC-RAS model will be selected for additional flood scenarios. CFRPC has engaged a subcontractor for the

upcoming modeling work. HEC-RAS is widely used by FEMA, USACE, and other regulatory agencies for flood hazard mapping and mitigation planning. The development of methodology for the selection of priority areas in the County will be included in the visual interpretation of model results that are underway. Blender was selected as an open-source tool for 3-D visualizations. For Charlotte County, the project is to conduct a baseline Vulnerability Assessment for Charlotte the County. The report on the responses to input and questions from the initial public outreach meeting has been finalized. All critically significant asset data has been aggregated and mapped, and metadata has been standardized to meet state requirements. An 'Existing Data/Model Tools Sufficiency Analysis' was conducted for existing coastal flood modeling and topography data to identify data gaps. A precipitation precipitation flooding model data is currently under review as well. The next steps include modeling, exposure, and sensitivity/risk analysis for critical assets under different flood scenarios.

CHNEP produces and updates fact sheets—son basin water quality, basin seagrass health, and state and federal research and restoration opportunities. The NEPs are contributing to the Gulf of America Alliance on—for their development of an Interactive ESRI-based Estuaries Dashboard which will help answer questions related to seagrass and water quality at a regional scale, using local user input. Following the December TAC Meeting, CHNEP created a landing page for sharing post 'event' resources from partners in the region, including lessons learned and potential next steps (https://www.chnep.org/what-we-do/event-response). Additionally, CHNEP created Hurricanes Helene and Milton webpages to begin aggregating maps, data,—and resources related to those events as they become available in response to partner requests. Also, CHNEP conducted NDVI Change Analysis for Hurricanes Helene and Milton using the HiForm Google Earth Engine (GEE) mapping tool (https://hiform.org/mapping-workflow) and created a publicly available dashboard to display results on ArcGIS Online and linked to the dashboard on the Hurricanes Helene and Milton webpages.

Agenda Item #10 - CAC Updates & Roundtable Discussion on Topics of Interest: Science Communication Engagement — Harry Phillips, Co-Chair

Nicole Johnson (Lee County): On the Conservancy's webpage, we have a new wetland loss story map that details why wetlands are important and shows what wetlands were lost in both Lee and Collier Counties between 1999 and 2023. It has some slide tools of what the land looked like back in the 80s, 90s, and today. It also has a downloadable one-page document called "Liquid Gold." It has some incredible factoids about why wetlands are so important. It is just a wonderful new resource. We also have a panther dashboard and that gives a whole bunch of information and that is updated periodically, if not in real time, about panther habitats, panther habitat needs, hotspots for panther road kills, panther deaths, and some really good information about panthers in general. We also have a "Panther as the Hero The Panther Hero" downloadable one pager, that talks about how when you protect panther habitat, you're also protecting agricultural lands, and you are directing development to places where you can have more consolidated walkable communities. That is another great resource. We are going to be adding a lot of updated resources to our website. In December, at the Conservancy's Nature-Based Solutions Symposium, different presenters shared about nature-based solution projects that they have been part of. Those projects are going to be highlighted in fact sheets that will then be linked to an upcoming climate resilience story map. We also have another great resource called the "Climate Corner" which comes out quarterly and if you're signed up for Conservancy e-news alerts, you'll get those. Those will also be on our Climate Resilience web page. So, I just wanted to let you know about those resources that are online or are coming online.

Tom Palmer (Polk County): Polk County has bought the Mann Ranch property along the Peace Creek in the Dundee-Winter Haven area. That's going to eventually protect the good section of that watershed. Our Environmental Lands Program is serving projects, and the Bowlegs Creek area estuary work just began on a wildlife overpass and the Lakeland area over I-4, something some of our local people have been working on for 30 years or so. Also, this weekend is the City Nature Challenge. There is a lot of really interesting biological data on public conservation lands and many other lands.

Phyl Wojcik (Charlotte County): I just wanted to let everyone know that Charlotte County has purchased five continuous water level stations. They're going to be able to wirelessly monitor the water levels and they paid for these stations themselves. They're hoping to get additional ones from the state, but we have five now, additionally, besides the NOAA ones and in Punta Gorda, Lemon Bay, and Boca Grande. With the work of Brandon Moody, we were able to do that.

Jennifer Hecker (CHNEP): I just wanted to mention that we also worked with Charlotte County and FGCU to submit a federal appropriations request for a NOAA—gauge tide gauge to be added into Charlotte Harbor. This has been a long-standing issue where the nearest surge gauges are in the Caloosahatchee, which is a different system. With the recent Hurricane Milton, that pushed a huge surge pouring into Port Charlotte and Punta Gorda. I think it really underscores the need of Charlotte Harbor having its own tidal gauge. We went ahead and worked with those entities, and we submitted it on behalf of all the partners to Congressman Donald's office. They are looking for letters of support. So, if anybody is inclined to reach to Congressman Donald's office and submit a letter of support for the show for a Charlotte Harbor tidal gauge, that would be great.

Kayton Nedza (Hardee County): We have a new campground that's opened up at Bowling Green, and they've been having a lot of people who are kayaking and fossil hunting on the river up there. While we're on the river topic, the water is about the lowest I've ever seen it at this time of the year, so we're hoping we'll get some rain soon.

Aaron Zimmermann (Sarasota County): I've got a few highlights and updates since the last time we met. The county has been pretty involved lately with three giveaway programs spanning across Florida - Arbor Day, Earth Day, even some more upcoming for National Arbor Day. It is just about us having a part inof increasing our urban canopy and decreasing our urban heat island effect and just trying to encourage people to continue planting trees to decrease our storm water run-off and improve more water quality benefits. We've also recently participated with the Keep Sarasota County Beautiful program for the Great American Cleanup, which was very successful once again, with around over 900 pounds of trash collected from public spaces county-wide. The Resilient SRQ Hurricane Ian Recovery program is now underway, which is providing funding for long-term disaster recovery that was associated with Hurricane Ian. That was a federally funded program with \$210 million allocated and similarly, the Resilient SRQ recovery for Helene, Milton, and Debbie is in the input phase to direct that community recovery plan. That was funded in the amount of about \$201 million. The City of North Poort has undergone a significant project to remove blockages along Myakkahatchee Creek, which aims to reduce localized flooding through that major water body in the Ceity of North Port. That was a big undertaking. The City of North Port is also continuing to assemble a lot of acquisition programs that utilizes the Ceity's Environmental Protection funds to acquire lots that contain sensitive habitats or wildlife in the city. Lastly, North Pport has applied for a Watershed Management Plan grant through the state, and the objective of that is to provide the community within the watershed with a tool that can be used to make decisions to reduce the increased flooding from development watershed--wide.

Harry Phillips (Lee County): Since we last met in December, we've had a couple of festivals. The first one was our second annual Waterways Festival, which is about water science, the habitats, and the critters that depend on water quality needs and those resources to assist in water quality. About 1,000 people show up at that event. The second event was the Burrowing Owl Festival which was mentioned earlier and of which CHNEP has supported <u>about</u>, about 3,000 people attended that festival <u>in</u>. It was late February. Waterways was in early February. We recently had a native plant sale just this past Saturday which was pretty well attended. Despite the dry conditions, people were still willing to put some plants in the ground. It was also paired up with a rain barrel workshop and which we had about 35 folks attend that. We do these plant sales a couple times of year, and we pair them up with the rain barrel workshop. I think most folks were disappointed that the rain barrels did not contain rain. Hopefully it'll rain soon for those barrels to get filled up. We also recently got a Fish and Wildlife Conservation grant to purchase some contiguous lots that have gopher tortoises and burrowing owls on them. The Wildlife Trusts has been doing this for a number of years now and, with this grant, we will

be able to supplement them as well to give them some more properties. We are having some water supply issues within the city. There are several folks complaining that they're having to drill their wells deeper. The aquifer certainly is not getting resupplied at this time because it's just so dry and there's just too many straws in the ground. We're trying to come up with some solutions. Obviously, we have a big utility expansion program in place, but it has not been reaching those areas for a number of years now. They're just going to have to hold on a little bit longer. We're actually having citizens put up larger cisterns to hopefully collect rainfall when it does come to get them through subsequent dry seasons. We did purchase an old golf course a few years ago that was popular in late 1960s and eventually shut down in 2008. After much cajoling of our council, they purchased it. We're thinking about making it sort of a stormwater park, maybe a botanical gardens. We need more green space here in the city. Right now, it's getting worked over for the removal of all the exotic species there. Once we get it cleaned up-then, we'll go in and design something pretty remarkable—hopefully for the city, since it's a pretty big space.

Agenda Item #11 - General Public Comment — Harry Phillips, Co-Chair

There was no public comment.

Agenda Item #12 – Future Meetings: Topics, Location and Dates— Harry Phillips, Co-Chair

Upcoming dates for 2025: 8/20/25 and 12/17/25. Ms. Hecker added that the next meeting will be a sort of workshop with CAC members attending. The hope is that the attendees can bring something from their region and discuss in a sort of presentation on what's going on. No one would be required to bring a presentation, but CHNEP would like to facilitate in_depth discussion with the members as to determine what the future the Citizens Advisory Committee can be. Questions could be what members find valuable, what they don't, what format members like, etc. Many ideas will be explored to continue to build this committee up and add new members. CHNEP would like to get the input of all ofall the members in guiding how to go forward as a committee. In August, the Committee can get together in_person and network/brainstorm and then during the following meeting in December, there would be the field trip. More details will be shared as that date approaches.

Agenda Item #13 – Adjourn.

The meeting was adjourned at 11:54 AM.