CHNEP Technical Advisory Committee Meeting Minutes
Thursday, December 4th, 2025, 9:30 am – 2:00 pm
Large Multi-Purpose Room – Centennial Park
1120 Centennial Boulevard, Port Charlotte, FL 33953

Draft Technical Advisory Committee Meeting Minutes
December 4, 2025

Members Present:

Arielle Taylor-Manges	Florida Department of Environmental Protection (FDEP)
Vanessa Bauzo	Florida Department of Agriculture & Consumer Services (FDACS)
Jeff Devine	West Coast Inland Navigation District (WCIND)
Thomas Behlmer	South Florida Water Management District (SFWMD)
James Douglass	Florida Gulf Coast University (FGCU)
Eric Milbrandt	Sanibel Captiva Conservation Foundation (SCCF)
Brandon Moody (alt.)	Charlotte County
Rick Armstrong	Lee County
Ernesto Lasso de la Vega	Lee County Hyacinth/Mosquito Control District
Greg Blanchard	Manatee County
Emily Clancey	City of Cape Coral
Stefan Kalev	City of North Port
Daniela Carrasquillo	City of Punta Gorda
Dana Dettmar	City of Sanibel
Christina Rimes	City of Venice
Steve Suau	Carbon Life, LLC.
David Ceilley	Aquatic Ecologist
Michelle Tickles	Mosaic Company

Members Present via Teams:

Kevin Kalasz	U.S. Fish & Wildlife Service (USFWS)
Kate Rose	Florida Sea Grant
Devon Moore	City of Winter Haven
Chadd Chustz	Town of Fort Myers Beach
James Guida (alt.)	Peace River Manasota Regional Water Supply Authority (PRMRWSA)

Others Present:

Jennifer Hecker	Coastal & Heartland National Estuary Partnership (CHNEP)
Nicole Iadevaia	Coastal & Heartland National Estuary Partnership (CHNEP)
Sarina Barnard	Coastal & Heartland National Estuary Partnership (CHNEP)
Michelle McGill	Coastal & Heartland National Estuary Partnership (CHNEP)
Keara Abel	Coastal & Heartland National Estuary Partnership (CHNEP)
Logan Davis	Florida Department of Environmental Protection (FDEP)
Adrianna Gehrke	City of Punta Gorda
Olivia Husick	City of Winter Haven
Kelly Chase	Florida Fish & Wildlife Conservation Commission (FWC)
Chris Anastasiou	Southwest Florida Water Management District
Hannah Oswalt	Lee County Hyacinth/Mosquito Control District
Rachel Rotz, PhD.	Florida Gulf Coast University (FGCU)
S. Carter Oleckna	Charlotte County and University of Florida

Agenda Item #1 – Call to Order and Introductions — Arielle Taylor-Manges, Co-Chair

Co-Chair Arielle Taylor-Manges called the meeting to order at 9:30 am. Introductions were then made.

Agenda Item #2 – Agenda Additions or Deletions — Arielle Taylor-Manges, Co-Chair

RICK ARMSTRONG MOVED, SECONDED BY JAMES DOUGLASS, TO APPROVE THE AGENDA AS PRESENTED. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.

Agenda Item #3 – Public Comments on Agenda Items — Arielle Taylor-Manges, Co-Chair

No public comments on agenda items were made.

Agenda Item #4 – Technical Advisory Committee August 7th, 2025 Meeting Minutes — Arielle Taylor-Manges, Co-Chair

There was one edit to the August 7th, 2025 Technical Advisory Committee Meeting Minutes. Arielle Taylor-Manges offered that in her update, "MSC7 Air" should be changed to "SCCF."

RICK ARMSTRONG MOVED, SECONDED BY STEFAN KALEV, TO APPROVE THE MINUTES WITH THE UPDATED EDIT. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.

Agenda Item #5 – CHNEP Update — Jennifer Hecker, CHNEP

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

CHNEP planned and executed the Fall Committee meetings. New members from various organizations, including the EPA and local municipalities, were onboarded, ensuring that diverse perspectives are incorporated into CHNEP's decision-making processes. This structured approach supports a well-informed and engaged committee that can address regional environmental challenges. In addition to the meetings, CHNEP received a Final Program Evaluation Letter affirming its proficiency and ongoing eligibility for federal funding. This achievement underscores the program's effectiveness and credibility in managing environmental resources. The 2026 Amended Master Work Plan and Budget was drafted and approved, along with legislative priorities for the upcoming year. CHNEP onboarded a new team member - Conservation Specialist Michelle McGill, completed annual staff interviews and evaluations, and conducted follow-up actions from the 2025 Resiliency Summit, including the sharing of resources on YouTube.

With regards to finance and grants, CHNEP updated the funding opportunities fact sheet and notified CHNEP Committees about significant state and federal funding options; submitted annual end-of-year reports for EPA grants and finalized the FDEP final report, securing $75,000 in funding; completed edits to the Amended FY2026 CHNEP Work Plan & Budget, which received approval from the CHNEP Policy Committee; received and partially executed the FY26 Agreement for programmatic support from SWFWMD, pending full execution; processed invoices related to the CHNEP Water Atlas and other water quality monitoring projects for Q4 deliverables; drafted and submitted a report detailing significant accomplishments for specific EPA grants; and finalized the FY2026 Agreement for programmatic support from the FDEP, moving toward board approval. CHNEP staff also provided letters of acknowledgment and support for various grant opportunities and initiatives, including projects from local conservation organizations and universities.

CHNEP staff attended numerous partnership meetings (as outlined in meeting agenda packet). CHNEP staff presented on the CHNEP Water Atlas to the Suncoast Reef Rovers, highlighting ongoing environmental initiatives; at the CERF Conference, discussions focused on enhancing water quality and ecosystem management through innovative partnerships and tools; CHNEP hosted the 2025 Southwest Florida Resiliency Summit, emphasizing comprehensive vulnerability assessments to

safeguard vital community assets; and to the Punta Gorda City Council, demonstrating collaboration on co-funded projects to address local environmental challenges.

For publications and outreach, CHNEP staff distributed monthly emails through Constant Contact to inform subscribers about upcoming public engagement events in the CHNEP region; developed a speaker request form to facilitate presentations using preferred software by hosts; collaborated with volunteers at the Wildcat Tailgate Festival to educate over 80 families using outreach materials; conducted a Photo Contest Voting Meeting with the Citizens Advisory Committee (CAC) to finalize selections for the 2026 Calenda; organized a CAC workshop to gather feedback on the committee's role, outreach resources, and proposed bylaw updates; hosted the 2025 Southwest Florida Resiliency Summit with approximately 150 attendees, featuring interactive sessions and continuing education credits for professionals; engaged in National Estuaries Week via social media, partnering with various environmental organizations to promote awareness; developed new educational activities related to microplastics for outreach, provided educational materials to Gasparilla Island State Park; and finalized the 2026 Nature Calendar design while updating project factsheets to reflect new information.

CHNEP has 18 new Facebook followers, 5,809 subscribers for the educational mailings, 2,569 unique visitors and 3,560 page visits to the CHNEP website, 17,209 YouTube views with 107 subscribers and 351 videos, and 636 total Instagram followers.

One member gave accolades on the CHNEP Nature Calendar, commenting that it's a great resource for partners in Southwest Florida for outreach and legislative visits.

Agenda Item #6 – Coastal Charlotte Harbor Monitoring Network (CCHMN) SOP and QAPP Updates – Nicole Iadevaia, CHNEP

CHNEP's Director of Research & Restoration, Nicole Iadevaia, presented on CCHMN SOP and QAPP updates. Highlights are as follows:

The Coastal Charlotte Harbor Monitoring Network (CCHMN) is a regional partnership of agencies initiated in 2001 that collects monthly water quality data using consistent, technically sound sampling design. Long-term random sampling of strategically located stations allows scientific assessment of status and trends. CCHMN field and laboratory partners collect and analyze water samples from 60 randomly selected field sites throughout 10 waterbodies each month, including Lemon Bay, Cape Haze/Gasparilla Sound, Charlotte Harbor, Pine Island Sound, Matlacha Pass, San Carlos Bay, Estero Bay and the Tidal Myakka, Peace, and Caloosahatchee Rivers. Water quality parameters are measured and analyzed using consistent field and laboratory methods. The data is uploaded by partners to WIN (Watershed Information Network), a public database maintained by the Florida Department of Environmental Protection (FDEP). CCHMN supplements other ongoing water quality monitoring programs implemented by partners, including ongoing fixed station monitoring by counties, cities, agencies, and citizen scientists. The water quality data provided by the CCHMN is an essential component of many water quality assessments and resource management decisions throughout the CHNEP estuarine and tidal waters.

Key updates have recently been made to the CCHMN Standard Operating Procedures (SOP) and Quality Assurance Project Plan (QAPP), reflecting changes in network structure and operations. These adjustments address evolving strategies, new sampling techniques, and enhanced quality assurance measures. Collaboratively developed by CCHMN partners and discussed in detail at the August annual meeting, these revisions ensure that the monitoring network remains effective and relevant in its mission. The CCHMN plays a significant role in the management and assessment of water quality in the region, and the recent updates to its operational guidelines underscore its commitment to maintaining high standards in environmental monitoring. Continuous collaboration among various stakeholders enhances the program's effectiveness and supports informed decision-making regarding water resource management in the Charlotte Harbor ecosystem.

Committee members discussed the CCHMN updates and came to a consensus regarding additional updates. The updates suggested by committee members included to ensure the City of Sanibel links are

up to date, to add a reference to Sanibel Communities for Clean Water, and to finalize the SWFWMD, Lee County, and Sarasota County data crosswalk tables. Additionally, after "Light attenuation…(suspended 2023)" members commented to add the following sentence: "This light attenuation data collection was suspended in 2023, understanding partners would focus on other measures that capture water clarity including chlorophyll-A, color, turbidity, and Secchi depth."

ERIC MILBRANDT MOVED, SECONDED BY RICK ARMSTRONG, TO APPROVE THE 2025 UPDATED CCHMN SOP AND EPA QAPP WITH THE ADDITIONAL COMMITTEE MEMBER EDITS. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.

Agenda Item #7 – CHNEP Monitoring Strategy Updates – Sarina Barnard, CHNEP

CHNEP's Research & GIS Coordinator, Sarina Barnard, presented on the updates to the CHNEP Monitoring Strategy Sections based on the 2025 update to the Comprehensive Conservation Management Plan (CCMP) and gathered additional comments or consensus on the edits made. Highlights are as follows:

Throughout 2023-2024, the CHNEP Management Conference Committees, including the Technical Advisory Committee (TAC), reviewed and provided input on the latest scientific findings and partner initiatives for the 2025 CCMP Update. This collaborative effort culminated in an update that was approved by the EPA and officially adopted by the Policy Committee in September 2024, serving as the foundational guide for CHNEP's conservation efforts. Following approval of the 2025 CCMP Update, CHNEP staff carried edits made in the CCMP into the CHNEP Monitoring Strategy. This strategy now incorporates revised technical guidelines for monitoring, data collection, and analysis, ensuring that partners can effectively track progress and adapt management strategies based on data-driven insights. Each section of the Monitoring Strategy aligns with the 'Action Plans' outlined in the CCMP, thereby providing a structured approach to addressing the goals set forth in the CCMP update. The ongoing collaboration among stakeholders, including feedback from the TAC, will continue to refine these strategies, ensuring that implementation remains adaptable to new scientific knowledge and partner contributions. This iterative process fosters a robust framework for managing and protecting the region's natural resources effectively.

Committee members discussed the updates to the CHNEP Monitoring Strategy and came to a consensus regarding additional updates. Further edits suggested by committee members included to: add language that CCHMN supports the Clean Water Act and 303(d) impaired waters listing process; add Hydrological Biological Monitoring Program (HBMP) under Responsible Entities in Table 1; edit Charlotte Harbor Aquatic Preserve by adding an "s" to Preserves on pages 7 and 22, and anywhere else applicable; add Matlacha Pass and San Carlos Bay to the quarterly seagrass monitoring conducted by FDEP-DEAR on page 17; change "oysters" to "oysters and additional shellfish"; change "DBHYDRO" to "DBHYDRO Insights"; and add the City of Cape Coral to Responsible Entities under "…algal blooms" on page 6.

DANA DETTMAR MOVED, SECONDED BY JAMES DOUGLASS, TO APPROVE THE 2025 CHNEP MONITORING STRATEGY UPDATES WITH THE ADDITIONAL COMMITTEE MEMBER EDITS. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.

Agenda Item #8 – Loss of Seagrass in Matlacha Pass and the Distribution and Abundance of Macroalgae – Eric Milbrandt, PhD., Sanibel-Captiva Conservation Foundation (SCCF)

Dr. Eric Milbrandt from the Sanibel-Captiva Conservation Foundation (SCCF) presented on a project that they engaged in to enhance monitoring and prediction work for Harmful Algal Bloom events in the Pine Island Sound and Caloosahatchee estuaries. Highlights are as follows:

SCCF has initiated a project aimed at improving the monitoring and prediction of Harmful Algal Bloom (HAB) events in the lower Pine Island Sound and Caloosahatchee estuaries. Beginning in 2024-2025,

the project involves sampling macroalgae and seagrass across Matlacha Pass, Pine Island Sound, and San Carlos Bay. Dr. Milbrandt shared the results of this study with the committee, particularly the initial biomass analysis, nutrient concentrations following rainfall, and stable isotope analysis to inform future efforts. Key objectives of this project align with CHNEP Water Quality Improvement goals. Specifically, the project seeks to support HAB research and monitoring, aiming to mitigate the drivers of these blooms by addressing anthropogenic nutrient pollution. Additionally, it focuses on developing early identification methods for HABs, utilizing innovative technologies and best practices to lessen their detrimental environmental, social, and economic impacts. By gathering and analyzing data on macroalgae and seagrass, SCCF contributes to a broader effort to enhance water quality and reduce the harmful effects of algal blooms, ultimately benefiting both the environment and local communities.

One member asked if Dr. Milbrandt looked at ammonia levels in addition to total nitrogen and if anything interesting came from looking at the ammonia levels. Dr. Milbrandt said that most of their ammonia values are detection limit and that he doesn't believe that there was much of a pattern. The member offered that as they have looked at ammonia at some locations along the East Wall of Charlotte Harbor, over the years, there did appear to be a steady rise in ammonia concentrations, which could be an indication of some flux of ammonia from the sediment pore water driven by the abundance of that Caulerpa. Dr. Milbrandt said that they have temperature loggers on the bottom measuring temperature because the Caulerpa seems to be quite sensitive to extremely warm temperatures. As the summer went on, they were able to re-sample some of the sites and they had less Caulerpa then when they sampled in May. He explained that this could be rain, salinity or temperature related. Dr. Milbrandt said that he would go back and look at the ten-year ammonium data to see if there are any interesting results there. Another member mentioned that their team will be looking into this this winter because there are a couple of spots where the ammonia in surface waters are jumping off to 2 to 3 milligrams per liter. The member asked Dr. Milbrandt if it looked like the Matlacha Pass Bridge is serving as a boundary point in terms of the abundance of macroalgae that he's seeing, and if he saw a drop off to any extent this year versus last year. Dr. Milbrandt said that the Matlacha Pass Bridge does seem to be an important geographic point, and there seems to be more diverse species around than the Caulerpa.

Agenda Item #9 – Understanding Nutrient Loading in a Hydrologically Sensitive Coastal Watershed: The Peace River Watershed, Florida, USA – Rachel Rotz, PhD., Florida Gulf Coast University (FGCU)

Dr. Rachel Rotz from Florida Gulf Coast University (FGCU) shared results from a recent study focused on nutrient loading in the Peace River Watershed. Highlights are as follows:

The presentation highlights the impact of nutrient pollution from human activities on freshwater and estuarine ecosystems. Nutrient pollution contributes to harmful algal blooms in Charlotte Harbor. Using the Watershed Assessment Model, the study analyzed annual discharges of total nitrogen and phosphorus and identified point sources of pollution. The findings aim to inform effective strategies for reducing nutrient levels in hotspot regions of the watershed and similar coastal environments.

One member asked what information Dr. Rotz has received regarding the region having any TMDLs established and has there been any information from FDEP on the management implications that could come from this work and how they view her work in terms of next steps. Dr. Rotz said that the project was given to FGCU by the Florida Legislature and the Peace River Basin was the spot they were given. She explained that the legislature asked FGCU for this work because they said the work wasn't getting done fast enough at the state and that this was an opportunity to help. They had conversations with FDEP on how they could conduct the study so that it would result in useful information. FDEP provided the requirements, such has having QAPPs for the model. The hope was that FDEP will be able to take this information about the watershed and be able to make some decisions and have all that information right there so that they can move forward. Dr. Rotz said that on the legislature side, they just invested all this money in this project and now Dr. Rotz was handing it over to FDEP to use the information that came out of the study to make some decisions. The member also asked how members can take the work that she's doing and push FDEP to further consolidate their data sources. Dr. Rotz answered that,

as far as the data is concerned, they have SOPs and other guidelines that they must follow for data collection. Another member commented that he believed this model has great potential. He mentioned that he didn't notice in the paper or references that reclaimed water disposal was considered. He said that in much of Florida, and in this area, very few of the wastewater plants are AWT. So, a lot (~80-90%) of the nitrogen being put out in the watershed is in the form of nitrate. So reclaimed water disposal is another important source of nitrogen and nitrate in the system. He also said that there was a lot of discussion about septic tanks and that the paper does a good job distinguishing between the hydrogeology, even in the Peace River Watershed, between flatwoods and brown water moving through soils quickly. Hopefully the model can similarly make that distinction. The age of the septic tank, the proximity to water of the septic tank is important, but the hydrogeology of where the septic tank is located is also important. He also commented that, while he understands it's expensive to collect data and using models is cost-effective tool, there were only 3 or 4 or water quality monitoring stations used and there are over 90 in this watershed. All of them may not be applicable but a lot of them are. The same goes for flow monitoring stations, only 7 were used and there are about 2 dozen USGS gauge stations. He said that Joshua Creek and Horse Creek are good examples because if you look at that data over the long term, it is going to show that there is an abnormally high percentage of the nitrogen in the form of nitrate or dissolved inorganic nitrogen, about 55% of the nitrogen in the water. It's probably legacy citrus. He noted that in the paper, that agriculture has just one category and wondered if subcategories were considered as well. Dr. Rotz said that they did consider subcategories in the study as well, but for the report they kept it in the general category. The member explained that he thinks the subcategories would show the higher nitrogen levels in the citrus row crops areas. The member concluded that if we are going to be investing public money, we need to make sure that the investments are pinpointing the right solutions. Dr. Rotz said that she would be happy to share the final report with the TAC, and she would check with the modeling team as to the septic question that the member asked and whether an assumption is being made on the average depth of the septic. Ms. Hecker offered that as someone who spent many years as a lobbyist in policy, the next step of where this report is headed is forming recommendations. This is very critical. The science is great but the way the science is messaged is equally important, making sure that the right takeaways are gathered from the audience the information is being conveyed to. Ms. Hecker also said that on the cost benefit analysis, it is intriguing that constructed wetlands in some cases might be more cost effective than septic to sewer, but when you see the map of Port Charlotte as one of the hot spots, there are exceptions where there aren't always opportunities for constructed wetlands, and so the investments that Charlotte County is making are very important, and wouldn't want your work to show that investing in septic to sewer conversion is not important. Ms. Hecker concluded by inviting Dr. Rotz to come back to present the recommendations from this study to the TAC and gain useful input from TAC members.

Agenda Item #10 – Tracking Nutrient Dynamics and Habitat Change: The Role of Participatory Science in Florida's Seagrass Meadows – S. Carter Oleckna, Charlotte County and the University of Florida

S. Carter Oleckna, on behalf of Charlotte County and the University of Florida, presented on the findings from a working group that collaborated on tracking nutrient dynamics and habitat change as well as the role of participatory science in Florida seagrass meadows. Highlights are as follows:

In 2024, a collaborative working group comprising universities, municipalities, agencies, and NGOs convened to address the ongoing issue of marine cyanobacteria and macroalgae blooms in Southwest Florida estuaries. They assessed research needs and identified data gaps to improve management and outreach efforts. As an initial step to better understand the macroalgae biomass in upper Charlotte Harbor, Charlotte County and the University of Florida Sea Grant program funded a project to quantify and analyze algae samples collected through the Eyes on Seagrass (EOS) community science initiative from 2019-2023. Overall, the project revealed that Eyes on Seagrass has been effective in providing long-term monitoring data, contributing to the field of knowledge for Charlotte Harbor, engaging the community, and information practitioners on where to put their attention. This approach leverages local

involvement to enhance ecological monitoring and conservation efforts, emphasizing its importance for managing estuarine environments amid environmental changes.

One member asked if there was a specific species of algae that he was collecting the nutrients on was it just whatever species was at that middle station. Mr. Oleckna said that he and his team are currently working on identifying the algae species, but when they did the carbon and nitrogen stable isotope analysis, it was based on whatever species that the volunteers grabbed (green, reds and browns). Another member commented that it was interesting that there were both similarities and differences in the CHAP monitoring data versus the EOS monitoring data. While Mr. Oleckna mentioned during his presentation that samples were taken at different times of year and that might be part of the reason for the differences, this member offered that in Lee County's recent expansion of the EOS program, sampling was done at the same time as the FDEP transect station sampling. He said that there might be an opportunity to see if, when they're done at the same time, there's better agreement between them or if it's still kind of a training identification thing that needs to be worked on. Another member said that it was all part of the same effort; some of that Lee County data from the Calusa Waterkeepers was in this analysis as well. This member said that they did it within the same time in Charlotte County and explained that there's about a 2 week delay, it's not at the exact same time, but within a month or so. The other member concluded that the differences are more likely due to people than timing then. One member said that she thought it was telling that the *Halodule wrightii* was the species that there was the most difference in, especially depending on where you were in the Upper Harbor area. There was a significant amount of seagrass lost in this area. The member also said that volunteers are going to different areas and might just be capturing things that don't appear in a specific CHAP transect. FDEP transect sampling is asking a different question than EOS. FDEP looks at deep edge and the extent of the bed. Another member explained that FDEP provided a middle point for the transect which covered an entire seagrass bed, and what the EOS program tried to do was get the volunteers as close as possible to that middle point to determine if the data was mostly the same. Ms. Iadevaia offered that the partners appreciate this as an additional source of data that's supplemental to ongoing data collection efforts. CHNEP will be pulling the Eyes on Seagrass data and related algae information on to the Water Atlas when it's ready so it can be available to partners when doing future analyses on the area.

Agenda Item #11 – CHNEP Technical Projects Updates — 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:

For the CHNEP Water Atlas, a comprehensive analysis of water quality trends for 17 parameters has been completed for 2025. The Suncoast Waterkeeper's enterococci data has been incorporated into the Coastal Conditions Map. Waterbody pages now feature an updated water quality chart design that includes the 6-month moving average, annual mean, and established thresholds for each parameter. As for the CCHMN, the Q4 data collection for FY25 was completed and the Q1 data collection for FY26 has been initiated. Annual audits were conducted, and the annual meeting took place in August to review the program's progress. A fact sheet and infographics were developed to present findings from a trend analysis published in the Estuaries and Coast journal, focusing on water quality and eutrophication in the Greater Charlotte Harbor System using CCHMN data. All data and related documents from the CCHMN will be accessible online through the CHNEP Water Atlas and SEACAR online platforms.

For the Charlotte County Vulnerability Assessment, Charlotte County is collaborating to finalize a baseline Vulnerability Assessment (VA) by mapping critical assets and standardizing metadata according to FDEP requirements. They have modeled flood exposure and conducted risk analyses for these assets across various flood scenarios. County departments are currently reviewing this flood exposure data. The next steps include identifying key areas for adaptation planning and presenting the final report and recommendations at the upcoming Public Meeting #2 and to the Charlotte Board of County Commissioners for approval, followed by submitting the final data and report to FDEP. For the Polk County Vulnerability Assessment, the Central Florida Regional Planning Council (CFRPC) and

Polk County are collaborating to model various rainfall flood scenarios using the HEC-RAS model, which includes assessments for 200-year, 500-year, and compounded flooding events. This effort led to the development of additional chapters and recommendations specifically for Polk County, aimed at identifying priority areas for flood risk. Visual representations of the flooding events were created for community outreach and shared with the Polk Stormwater Advisory Committee (STAC). The next steps involve presenting the final report and recommendations to the Polk BCC for approval and submitting the completed data and report to the FDEP. For Highlands, Hardee, and DeSoto County Vulnerability Assessments, CFRPC and local counties are collaborating to identify Adaptation Action Areas (AAAs) based on completed baseline vulnerability assessments. They are drafting plans that include engineering designs and cost estimates for the top three AAAs in each county. A methodology for prioritizing critical assets has been established and approved, with flood exposure analyses for a 100-year rainfall event completed; results for 200- and 500-year events are expected in January. The next phase involves creating appendix reports for each county's Vulnerability Assessment, detailing the top three AAAs along with associated projects, designs, and costs.

CHNEP has updated its seagrass maps and charts, which are accessible on the CHNEP Water Atlas website. Additionally, new fact sheets are available on the CHNEP website, covering topics like basin water quality, seagrass health, and funding opportunities for research and restoration projects.

Agenda Item #12 – TAC Membership Updates — Facilitated by Arielle Taylor-Manges, Co-Chair

Ernesto Lasso de la Vega (Lee County Hyacinth/Mosquito Control District): I would like to introduce Hannah Oswalt, also from the Lee County Hyacinth/Mosquito Control District, who will be my successor on the TAC.

Brandon Moody (Charlotte County): The One Charlotte One Water plan, which is our water quality/quantity/strategy plan, edits are underway. Once we got through all the comments, 99% of them were regarding cost, who's paying for what, etc. We are working through our messaging to try and find an offset to that cost, as well as working with CHNEP on the vulnerability assessment. I want to thank James Douglass who is helping us to identify where we could begin eelgrass pilot planting projects. We wanted to be able to show to our Public Works Department how we can convert our stormwater canals and drainage systems into more natural systems and move to nature-based solutions as a function of our stormwater system. We started a pilot planting project in August and so far, we have seen very little die-off. It's also recruiting some macroalgae but at least we've got a pretty healthy seagrass bed there. We have a water quality monitoring site so that we can see what impact, if any, the eelgrass has on water quality. We're seeing that fish are coming back. Like Lee County, we have added water elevation monitors. We currently have 7 tide gauge locations set up around the county – Punta Gorda, Pirate Harbor, 2 in Lemon Bay, Tidal Myakka River, and the northern part of the Harbor. We will be adding one to Stump Pass (on the Gulf side) next week. That data is probably available, and we are going to have a dashboard set up online soon.

Michelle Tickles (Mosaic): We will be starting our first mitigation project next month and the first step is a 600-acre conservation easement at Pioneer Park which is a Peace River stretch. Eventually, there will be denitrification trenches added along the west-side for incoming agricultural activities that discharge into that area.

Thomas Behlmer (SFWMD): We just wrapped up our seagrass monitoring that is done quarterly at transects throughout the Caloosahatchee. They are at Old Bridge Road, Peppertree Point, and Key. We recently discovered some cages for *Vallisneria* restoration right on top of our transect at Old Bridge Road. Our poles were knocked out by some boaters, and we replaced a few after that. It's muddy and salty so it's not necessarily impacting what's happening there.

David Ceilley (Aquatic Ecologist): Regarding SFWMD, Dr. Douglass and I have some control sites there that were also impacted by the cages. I'm not monitoring that site, but I can provide the contact

information for Sea & Shoreline. The salinity was 10.65 parts per thousand at Beautiful Island, so it is steadily going up. I suspect it's quite a bit higher at Old Bridge Road.

Rick Armstrong (Lee County): We are still waiting on FDEP approval to begin operating the Old Bridge filter marsh which is at the end of Old Bridge Rd. We have already begun monitoring the inflow water but haven't got to the outflow water yet. We just received the hundred percent architectural plans for a new lab that we're building. With approval, the completion and move-in to the new state-of-the-art lab is anticipated in 2027.

Greg Blanchard (Manatee County): Our ambient water quality monitoring program is ready to foray into automated English monitoring techniques. There are six sites that are currently under construction, two are operating now, an automated stormwater system, and there are efforts by our Public Works Department to try and evaluate their relative effectiveness. Our staff is expanding by three workers. I'm in the process of hiring right now.

Daniela Carrasquillo (Punta Gorda): The City is moving forward with the Tiki Point grant procurement. We will have a Resiliency Workshop in January to educate the council on the situations within the City related to infrastructure and flooding issues.

James Douglass (FGCU): We have heard some very relevant watershed monitoring work that we are doing further into the marine environment. We are looking at seagrass and bivalves as indicators of water quality and trying to restore them in various ways. We received some funding from Florida Sea Grant for some co-restoration studies with the hard clams and seagrasses in Estero Bay and Rookery Bay. We are going to try a couple of different sizes of plans to see what's optimal for restoration. In collaboration with the Estero Bay Aquatic Preserve, we received funding for nine of many permitted buoys marking specially protected areas for seagrasses to try to reduce pop scarring. We are going to have some buoys in the water, and we will monitor those with pre- and post- grown photography to see if they are effective. We are also coordinating between SFWMD and Newbury (contractor), for acquiring the next round of SFWMD aerial photography mapping for seagrass. The flight window is between now and February. If you are aware of water that is clear in your area, let me know and we will direct the contractor to put the airplanes up and take the pictures in those areas. We will make sure not to confound seagrass with algae and make sure that everyone that wants those maps and data gets access to them soon. As for *Vallisneria*, we are monitoring this restoration project in the upper Caloosahatchee there, and the *Vallisneria* has increased since we started monitoring it. We are not sure if it's due to the plantings and or how much is due to the conditions having been okay, but we are really worried about the salinity getting high and burning it out - reversing our progress. We appreciate the efforts of SCCF and Sanibel and as well as others that are lobbying for increasing the minimum flows to keep that stuff alive. As for flat tree oysters, it is an oyster species that's very common in the Florida Keys and has started appearing here. We are trying to track it as an indicator of tropicalization and climate change causing species range expansion. We are looking for volunteers, so if that is an interesting topic to you and you have eyes on coastal areas like oyster reefs and mangroves, we have a kit to help us monitor for flat tree oysters.

Stefan Kalev (North Port): We are finalizing the procurements for tree replanting efforts of a public area as part of an FDACS grant. We are also working on enhancing the area around Warm Mineral Springs as it's an important landmark for our City.

Emily Clancey (Cape Coral): We are wrapping up a stormwater hydrology analysis. There may be a follow-up filter marsh project near an abandoned golf course. We are hoping to be able to put both the marshes in there and kind of create a natural area in the center. We are starting to think about doing some hydrology studies related to Yucca Pens and Gator Slough Canal. In our freshwater canal system, we have native spatterdock and *Vallisneria* and they often have excess nutrients that cause them to overgrow. The residents complain about this. Lee County Hyacinth Control comes and sprays for it. We've been doing pilot studies looking at water plant harvesting instead of killing them. We do have the boats go in and they chop the *Vallisneria* and spatterdock down to a certain depth for regulator harvesting. We're hoping that alternative will help suck additional nutrients out of the water. We keep

managing the length so that boaters and residents can get through. The frequency of the harvesting depends on the waterway and the popularity of the waterway as well. We have targeted some of our work areas, and some of the lakes we have built within our canal systems. Lake Kennedy is an example of a high frequency one that we've noticed that we must manage and harvest often. Some of them are a little better, but we are still trying to develop that schedule for the contractor to harvest.

Dana Dettmar (Sanibel): We are close to finalizing our vulnerability assessment. Once that is completed, we can move on to our adaptation planning for resiliency on Sanibel. Our filter marsh on Sanibel has been offline since Hurricane Ian. We are finally beginning the design and engineering to get that back online. To restore it will cost about $1.2 million, which is about $400,000 more than it initially cost to install it. The cost of projects has gone up tremendously. The biggest project we are currently working on is updating Sanibel's Comprehensive Land Use Plan which is a big deal for Sanibel. We built our comprehensive land use plan based on an EPA environmental report of habitat types and their value on Sanibel. Our land use is zoned by Ecozone, so we have Ecozones such as the gulf beach, mangrove forest, upland wetlands, lowland wetlands, etc., depending on where you're developing. It determines the amount of development that can take place on the property. More sensitive ecosystems like a mangrove forest have a much lower percentage of development that can occur on them. We are updating the land use plan in the face of the storms we've been experiencing. SCCF is taking on the Sanibel report 2.0. It may not help us necessarily with this comprehensive land use plan update, but in the future, they're trying to recreate the original 1970s' report to see what today's issues on Sanibel are and what those different habitats are providing to the community out there. This is so that future updates can still be based on the same values and principles that it was originally developed from.

Arielle Taylor-Manges (FDEP-Aquatic Preserves): We have completed our summer seagrass monitoring. The data is currently being entered. We did a six-month monitoring on the two islands that we did mangrove restoration on. We are seeing some growth, but we did notice some die-off. I am open to anyone wanting to discuss mangrove restoration. We are targeting the cleaning of the islands. We're still seeing some debris from the hurricane seasons. Most of the big debris is off these islands. We are working with partners to remove the larger debris that is still out on our state lands. From the broader FDEP perspective, the 2024-2026 biennial assessment for water quality is out. There was a public meeting a few weeks ago, and there is a comment period until January 9th. There are some bodies of water within our NEP watershed that are up for assessment.

Kevin Kalasz (USFWS): Due to the recent government shutdown, staff have been given reassignments, some staff are leaving, others are getting new work, etc. We don't have a budget yet for most of our programs, or even whether some programs will survive into the future. However, if there is any need you have from me to provide some support for applying for grants or helping with grant applications, or any technical assistance I might be able to provide, let me know.

Chris Anastasiou (SWFWMD): We are in the 3rd phase of the Cape Haze Restoration Project in the Coral Creek-Cape Haze area. We finished up the Coral Creek Phases 1 and 2 projects. This 3rd phase involves hydrological restoration through canal fill and grading, wetland creation, and upland and wetland enhancement. We did execute our contract for gopher tortoise consulting services at Cape Haze and we are moving to procurement for the construction of the project in which we anticipate will be moving to procurement in the first quarter of 2026. In the next six months, we are going to start doing our SWIM habitat site assessments. These are assessments on the condition of completed restoration projects. It is using the same framework that was previously presented to the TAC. The focus is going to be on sites like Alligator Creek, Coral Creek projects, and some of the other projects in the area that SWIM was involved in. Our cooperatives are invited to come out and join us during these assessments with Mark Walton heading that effort. We are getting ready to start our seagrass flights. The 2026 mapping is starting, and the flight window officially opens on December 15th.

Vanessa Bauzo (FDACS): FDACS has closed the portal for applications for regional project funding. In November, they had 46 total applications, and they will be deciding on which projects they will be

moving forward with to fund in late December. They received many applications for projects related to dairy farms, Suwannee River projects, and Lake Okeechobee projects which may be of interest to those in this region.

Jeff Devine (WCIND): We now have now side-scan sonar equipment in house. It is installed on our boats, and we are going to start collecting some bathymetry data for some of our own projects in localized areas. We are also open to working with partners to collect additional bathymetry data in areas where that is needed. We may need assistance with processing, and we want to make sure that the information is shared on the CHNEP Water Atlas and on any other platforms that would be useful to partners for research purposes. They are not permitted surveyors, so it wouldn't necessarily be for permit projects, but there is an interest of the understanding of the bathymetry and changes since the storms impacted Charlotte Harbor.

Agenda Item #13 — Adjourn — Arielle Taylor-Manges, Co-Chair

There was no public comment.

Agenda Item #14 – Future Meeting's Topics, Location and Date — Arielle Taylor-Manges, Co-Chair

The upcoming CHNEP 2026 TAC Meeting dates are: 4/9/2026, 8/6/2026, and 12/3/2026. If you have ideas of new research and restoration topics and/or presenters, please email CHNEP Director of Research & Restoration Nicole Iadevaia at niadevaia@chnep.org.

Agenda Item #15 — Adjourn — Arielle Taylor-Manges, Co-Chair

Meeting was adjourned at 1:41 pm.