Draft Technical Advisory Committee Meeting Minutes

August 7, 2025

Members Present:

Kevin Kalasz	U.S. Fish & Wildlife Service (USFWS)
Arielle Taylor-Manges	Florida Department of environmental Protection (FDEP)
Dave Blewett	Florida Fish & Wildlife Conservation Commission (FWC)
Mark Walton	Southwest Florida Water Management District (SWFWMD)
Kris Ramon	Peace River Manasota Regional Water Supply Authority (PRMRWSA)
Eric Milbrandt (alt.)	Sanibel-Captiva Conservation Foundation (SCCF)
Jeff Devine	West Coast Inland Navigation District (WCIND)
James Douglass	Florida Gulf Coast University (FGCU)
Ernesto Lasso de la Vega	Lee County Hyacinth/Mosquito Control District
Mollie Holland	Charlotte County
Rick Armstrong	Lee County
Greg Blanchard	Manatee County
Kelly McLauchlin (alt.)	Sarasota County
Stefan Kalev	City of North Port
Dana Dettmar	City of Sanibel

Members Present via Teams:

Vanessa Bauzo	Florida Department of Agriculture & Consumer Services (FDACS)
Lindsay French (alt.)	South Florida Water Management District (SFWMD)
Kraig Hankins	City of Cape Coral
Devon Moore	City of Winter Haven

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)
Keara Abel	Coastal & Heartland National Estuary Partnership (CHNEP)
Melynda Brown	Florida Department of environmental Protection (FDEP)
Andrea Murray	Florida Fish & Wildlife Conservation Commission (FWC)
Elizabeth Eastes	Charlotte County
Ian Anderson	Sarasota County
Brooke Langston	Big Waters Land Trust
Sarah Cabodo	Johnson Engineering
Gabby Santucci	Johnson Engineering
Jordan Varble	Johnson Engineering

Agenda Item #1 – Call to Order and Introductions — Mark Walton, Co-Chair

Co-Chair Mark Walton called the meeting to order at 9:32 am. Introductions were then made.

Agenda Item #2 – Agenda Additions or Deletions — Mark Walton, Co-Chair

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

Agenda Item #3 – Public Comments on Agenda Items — Mark Walton, Co-Chair

No public comments on agenda items were made.

Agenda Item #4 – Technical Advisory Committee April 10th, 2025 Meeting Minutes — Mark Walton, Co-Chair

No edits were made to the April 10th, 2025 Technical Advisory Committee Meeting Minutes.

RICK ARMSTRONG MOVED, SECONDED BY ARIELLE TAYLOR-MANGES, TO APPROVE THE MINUTES AS PRESENTED. 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 welcomed two new EPA Region 4 representatives – Craig Hesterlee, new Policy Committee member and co-chair, and Felicia Burks, new Management Committee member. CHNEP planned and executed the Spring Committee meetings and sent Committee member packets to newly appointed members. CHNEP welcomed three new Policy Committee members, Commissioner Barbara Langdon, representing the City of North Port, Councilmember Lloyd Weed, representing the City of Venice, and Councilmember Jeff Hunt, representing the Village of Estero, as well as completed available Programmatic Appropriations Forms for FY26 federal funding and remitted them for consideration.

CHNEP submitted the 2025 Program Evaluation Report and supporting documents, conducted the 2020-2024 CHNEP Program Evaluation May site visits, coordinating with local partners as well as EPA evaluation team members who traveled to meet with CHNEP staff and members and to see the wide range of projects completed together in the last five years. This included presentations from partners discussing how federal funding was leveraged with state and local dollars to reach goals. Ultimately, CHNEP received a "proficient rating" (highest possible rating) on its evaluation from EPA. To showcase work around the EPA pillars of Strong Communities and Clean Waters, CHNEP, EPA, and National Estuary Program staff met with representatives from around the region who presented on their work to improve water quality and flows. Presenters included the City of Arcadia and Central Florida Regional Planning Council on resiliency in the Heartland, Charlotte County and CHNEP on water quality monitoring in Charlotte Harbor, and the South Florida Water Management District and the Florida Fish & Wildlife Conservation Commission on hydrologic restoration in the Charlotte Harbor Flatwoods area and Babcock Webb WMA. To showcase work around the EPA pillar of Healthy Ecosystems, the team visited important project sites in the watershed and spoke with local partners who presented on restoration challenges and successes. This included trips to the Myakka Headwaters Preserve to speak with Big Waters Land Trust and the Southwest Florida Water Management District, and Blackbeard's Ranch to hear from Florida Conservation Group, Florida Cattlemen's Association, and Florida Wildlife Corridor Foundation representatives. The team also met with the City of North

Port and Florida Fish & Wildlife Conservation Commission to see the Warm Mineral Springs Creek restoration site.

With regards to finance and grants, CHNEP submitted FY25 FDEP Grant SD016 Q2 and Q3 reports and attachments (approved and closed out grant); submitted EPA CE-02D41623-3 Section 320 as well as EPA 4T-02D4123-2 IIJA Midyear Progress Report and attachments; submitted Upper CCHMN Q2 report and field data deliverables to Southwest Florida Water Management District; compiled all approved habitat projects submitted to NEPORT in FY24 to produce the FY24 Annual GPRA NEPORT Report and provided to FDEP in grant reports; and FY26 EPA 320 and IIJA Grant Applications were processed for County Approvals and then entered into Grants.gov.

CHNEP staff attended numerous partnership meetings (as outlined in meeting agenda packet). CHNEP presented on *the CHNEP Water Atlas 2.0* at the CAC meeting; presented *The Health of Our Waters* at the Barrier Island Parks Society Marine Pollution Forum; presented on the *Lower Charlotte Harbor Flatwoods Initiative and Coastal Charlotte Harbor Monitoring Network Programs* during the EPA Program Evaluation site visit; and presented *A Regional Approach to Restore and Manage Water* to talk about alignment between the work of the NEPs on natural resources and flood management in the built environment at the Annual Florida Floodplain Managers Association Meeting. CHNEP provided *CHNEP Water Atlas Training* to the Calusa Waterkeeper Rangers in-person and online. The training session included an in-depth overview of the data and analyses available on waterbody pages and interactive maps, as well as step-by-step instructions on how to download data from the Atlas. Four tutorial videos were recorded on how to use the CHNEP Water Atlas which focused on topics including the home page and how to find a waterbody, waterbody pages, maps and data, and how to download data. Videos can now be accessed on the CHNEP YouTube channel under the CHNEP Water Atlas Tutorials Playlist.

With regards to outreach, CHNEP shared the updated 2025 Comprehensive Conservation & Management Plan (CCMP) on the website and social media. CHNEP staff attended the Englewood Earth Day Festival, discussing how to protect natural resources, distributing CHNEP publications and making native wildflower seed bombs with over 170 visitors, and attended the Ding Darling Conservation Carnival in Ft. Myers where staff shared resources and did wildlife trivia with over 200 guests. CHNEP staff sent out monthly Constant Contact emails to subscribers about relevant upcoming public engagement events in the region. CHNEP social media posts highlighted National Wildlife Week, showcasing SWFL wildlife through local photography, as well as the new 2025 CCMP on the CHNEP website, and partner projects visited under the themes of the three EPA Pillars: Strong Communities, Clean Waters, and Healthy Ecosystems. CHNEP also posted on World Oceans Day, sharing information about how CHNEP works to protect Southwest Florida's waters and wildlife, as well as Pollinator Week, sharing resources from partners and sharing about work the CHNEP does. CHNEP launched the 2026 Annual Nature Calendar Photo Contest and held a photo selection meeting with members of the CAC. The design is now underway for the 2026 CHNEP Nature Calendar. CHNEP created an NEP informational handout highlighting national assets that the National Estuary Program helps to protect for federal policymaker education. Staff also created the CHNEP 30th Anniversary video, including associated maps and other relevant statistics. In the media and press, CHNEP contributed to articles including *Sprinkle list: $10M flows from Senate to Caloosahatchee basin*; *Alligator Alley trail at Circle B reopens after 8-month closure from Hurricane Milton damage*; *GAMIFY LEARNING: Carnival fun teaches conservation at Lakes Park Earth Day event*; *Commissioners support NOAA tidal gauge project*; and *Sarasota Bay's sea grass population soars; setting benchmark for other marine reclamation efforts* – WGCU PBS & NPR for Southwest Florida.

CHNEP had 17 new Facebook followers with 7 new "likes" (1,700 total likes), 5,809 subscribers for the educational mailings, 2,079 unique visitors and 2,869 page visits to the CHNEP website, 15,241 YouTube views with 99 subscribers and 336 videos, and 632 total Instagram followers.

One member asked about the FY26 outlook for the NEP programs and Ms. Hecker responded that there was a reduction in funding to the whole National Estuary Program and not sure how that will translate to CHNEP. For CHNEP, each year's federal funding is based on prior federal year's approved budget. CHNEP expects FY26 320 funds but it is unknown what may happen with the FY26 IIJA funds – both have already been applied for through Grants.gov and are in the review process. CHNEP is coordinating with many new contacts at EPA, and they too are uncertain as to what the funding may eventually look like. The funding is generally awarded in the Fall to Winter timeframe. Ms. Hecker hopes that the National Estuary Program will continue to have strong bipartisan support. With the uncertainty of the funding, CHNEP has had to act more fiscally conservatively in operations and procurement due to the inherent increase in liability and risk for CHNEP and its host (Charlotte County). CHNEP is looking to issue contracts going forward as task-order based so that if funding is interrupted, CHNEP can suspend work quickly and easily. Moving forward, we have been notified that our new grants with EPA will have a clause that they can rescind the funds at any time if it is determined that those funds are no longer in the interest or in line with federal administration's priorities. One member commented that they would reach out to their representatives to speak to the benefits of the estuary programs. Ms. Hecker responded that members reaching out and conveying their support of CHNEP is appreciated.

Agenda Item #6 – Charlotte Harbor Algae Working Group Update — Arielle Taylor-Manges, Florida Department of Environmental Protection – Aquatic Preserves

Ms. Arielle Taylor-Manges from the Florida Department of Environmental Protection Aquatic Preserves provided updates on the progress and priorities that have been developed by the Charlotte Harbor Algae Working Group (CHAWG) since the August 2024 TAC discussions. Highlights are as follows:

In 2024, a collaborative working group comprising universities, municipalities, agencies, and NGOs was established in response to ongoing cyanobacteria and macroalgae blooms affecting southwest Florida estuaries. The group convened three times to evaluate research needs, assess existing data, identify gaps, and outline steps for research, management, and outreach. Their objectives were categorized into immediate, medium-term, and long-term goals, focusing on data assessment, community structure analysis, and understanding nutrient impacts on bloom events. Key immediate actions included assessing data availability and expanding monitoring parameters to ensure a comprehensive analysis. Medium-term goals aim to investigate the ecological drivers of blooms, particularly nutrient sources and water dynamics. Long-term objectives focus on characterizing physical and chemical influences on bloom occurrences while evaluating the associated environmental and public health risks. Management strategies include identifying effective nutrient mitigation approaches and developing policies for addressing bloom impacts and their aftermath. The Working Group has made encouraging progress, with expanded monitoring efforts and data collection on the East Wall. Recent updates indicate a reduction in *Caulerpa* and much better conditions than previous years. Regarding future monitoring, there will be micronutrient sampling in Upper Harbor sites and ongoing initiatives like the Eyes on Seagrass program have expanded into Lee County. A SharePoint platform has been established for members to share research and data, highlighting the need for further collaboration, particularly in underrepresented areas like Matlacha Pass and San Carlos Bay. The group continues to seek engagement from researchers and managers to enhance their collective efforts in mitigating these ecological challenges.

One member commented that the Calusa Waterkeeper is doing the Eyes on Seagrass monitoring in Lee County now and their new Director Joe Cavanaugh is bringing a lot of knowledge and expertise from his past work in this area. Another member asked if the CHAWG has looked at historical data to see if there are any nutrient hotspots that are showing up because those could be areas to focus on or maybe take a more in-depth look at. They also asked if the group was looking at groundwater, because on Sanibel, there have been some investigations looking at hotspots and it was discovered that on the east end of Sanibel, there is groundwater that is contributing to the nutrients in the coastal waters. Ms. Taylor-Manges said that there has not been any "deep dive" into historic data for nutrient hotspots, but in terms of where they are seeing the algae overgrowth issues, they know where those hotspots are from general observation and mapping that has been done over time. The groundwater has been a topic of conversation that has come up a few times and Brandon Moody is going to be moving forward with investigating that issue, however that will be in Charlotte County, so there is still a gap south in Lee County. Another member offered that there have been a couple of papers published on water quality for Charlotte Harbor which could be really helpful because it included a lot of historical data including all of the water monitoring that has been going on in the harbor for years. Now, Charlotte County has stations that are further upstream and those just started like a year or two ago so there is data to look at there.

Another member offered that Brandon has also brought up the concept of the Caloosahatchee River affecting the algal blooms in the Harbor because of the currents, so he is also doing a study to see how the river discharges during the wet season are affecting the Harbor, and it will be very important to connect that. Ms. Taylor-Manges said that that will potentially involve a flow meter at that continuous station on the East Wall or wherever he sees fit. The Aquatic Preserves analyzed long term seagrass data with water quality data in the area to look at seagrass trends with water quality, but it also focused on the algae observations as well. Ms. Taylor-Manges said that she would like to look at the Sanibel study as well and the member said that she would help her and that SCCF helped with that study as well. Another member mentioned that, in terms of groundwater, Professor Puspa Adikari at FGCU is really interested in tracking groundwater discharge and nutrients forces and uses a variety of isotope approaches for that in the area, from around the Caloosahatchee Basin out onto the continental shelf. This member said that he would make sure that Professor Adikari is aware of the project because he might be able to share some helpful data or insights into those processes. Members commented that this might make for an interesting presentation at a future TAC meeting. Ms. Iadevaia mentioned that this group is coordinating with other Southwest Florida NEPs as well who are doing the work in their own regions, and some of them attended the Charlotte Harbor Algae Working Group. Around 2021, there was a joint macroalgae conference working with Sea Grant and this is a continuation of that idea. Another member asked if there were any mitigation projects that the group is thinking about such as what was done in Crystal River where there was a lot of removal of macronutrients and algae and whether that would be feasible in this area. Ms. Taylor-Manges mentioned that there has been discussion on what could possibly be done but that nothing has been done so far.

Agenda Item #7 – Southwest Florida Estuarine Restoration Team (SWERT) — Kevin Kalasz, U.S. Fish & Wildlife Service

Mr. Kevin Kalasz from the U. S. Fish & Wildlife Service provided a summary of the most recent SWERT meeting and presentations including partner priorities for restoration efforts, as well as other oyster and seagrass restoration projects that are currently underway. Highlights are as follows:

The Southwest Florida Estuarine Restoration Team (SWERT) is a collaborative initiative formed in 2018, aimed at restoring and enhancing estuarine habitats across Southwest Florida, from Sarasota to Collier County. With over 100 members, including researchers, practitioners, and agencies, SWERT

serves as a community of practice focused on coordinating restoration projects and securing funding. The group meets regularly to evaluate ongoing restoration efforts, share experiences, prioritize initiatives for funding, and facilitate implementation. SWERT aligns its objectives with the CHNEP Habitat Restoration Needs Plan, emphasizing the importance of coastal marshes, mangroves, oyster reefs, and seagrass in its restoration efforts. Recent meetings have highlighted the importance of practical learning through site visits, such as the tour of Robinson Preserve. This area has undergone significant transformation from a farm field to a thriving wetland ecosystem over the past two decades. The restoration efforts there have provided valuable insights into effective practices and the potential unintended consequences of certain interventions, such as the introduction of predatory fish impacting juvenile fish populations. Presentations during these meetings have also covered various restoration projects, focusing on mangroves, seagrass, and oysters, demonstrating how these initiatives can complement broader habitat restoration goals. The discussions have underscored the need for collaborative research, particularly on the co-restoration of seagrass and clams, which promises to provide vital information for future restoration efforts. SWERT aims to streamline its approach by identifying specific projects to prioritize over the upcoming year, leveraging a comprehensive portfolio of well-prepared initiatives that are aligned with funding opportunities from FEMA and NOAA. However, the current funding environment poses challenges, as there are constraints related to the permitting process and the reduced capacity of regulatory agencies, which can delay project implementation. The implications of these challenges are significant, as prolonged permitting times can hinder the operational timelines of restoration projects, often leading to requests for extensions that further complicate the process. To address these issues, SWERT is considering the formation of a dedicated work group focused on permitting. This group would aim to improve communication and understanding between SWERT and regulatory agencies, fostering the development of best management practices to expedite the permitting process. SWERT is committed to enhancing estuarine habitats in Southwest Florida through collaboration and effective project management. The group recognizes the necessity of addressing permitting challenges to ensure timely project execution, which is crucial for maximizing the impact of restoration efforts. By actively engaging its members in the regulatory permitting task force, SWERT hopes not only to streamline its own processes, but also to foster broader benefits for the entire region, ultimately contributing to healthier ecosystems in Southwest Florida.

One member offered to be part of the regulatory task force as he has been involved in the permitting process over the years and understands the issues. Another member asked for clarification on the relationship between SWERT and CHNEP for those in attendance so that they may understand the distinction as to who handles what. Mr. Kalasz answered that SWERT is non-decisional, non-regulatory, voluntary organization of interested people such as researchers and practitioners that just want to come together to learn from each other, collaborate on projects, and share information. SWERT encompasses a larger geographic area and is specific to the estuarine environment. Ms. Hecker offered that CHNEP participates in SWERT, though SWERT covers a broader geographic area than CHNEP's service area - so while CHNEP's stays plugged in, CHNEP is constrained to focus on projects that are within its overlapping area. A member stated that obviously with the estuarine focus, it is going to wrap higher up into the watershed as well; there is certainly overlap, and there are things where SWERT is better suited for moving some of these restoration projects forward. Mr. Kalasz offered that there are products coming out of CHNEP that the team uses all the time, and the utility of the restoration team is that it identifies those overlapping priorities from all the different agencies and groups and researchers. U.S Fish & Wildlife Service may not have expertise in education and outreach or something similar that is needed for a particular grant funding opportunity. This is when the contacts on the team with their individual expertise can be pulled be to help. The team supports each other on those funding opportunities and projects and initiatives, and they really try to learn from each other and

increase their own capacities because they are all at the bare minimum with what they have, and the need is huge. Ms. Iadevaia thanked Mr. Kalasz and other SWERT members in attendance for bringing the update because CHNEP wants to ensure that other NEPs and the participants are tuned into what's going on. She explained that with the previous CHAWG update and the SWERT update, CHNEP wants to hear any feedback so that it can be brought back to those groups. There is plenty of work to be done and there are projects happening within the region, and this is a venue for that information to be shared.

Agenda Item #8 – Big Waters Land Trust Strategic Conservation Plan — Brooke Langston, Big Waters Land Trust

Ms. Brooke Langston, the Director of Land Protection for Big Waters Land Trust, presented on the updated Conservation Plan for Big Waters Land Trust in Southwest Florida which prioritizes the protection of critical natural lands with a focus on water quality and flow. Highlights are as follows:

Big Waters Land Trust (BWLT) is an accredited nonprofit organization dedicated to the conservation of land and water resources in Southwest Florida. Established to benefit both people and nature, BWLT operates across multiple counties, including Manatee, Sarasota, Charlotte, Lee, and Collier, as well as parts of other nearby counties. Over the past 21 years, it has successfully conserved more than 20,000 acres across 63 properties. The organization employs 17 staff members and owns 1,000 acres outright, which provides a crucial foundation for its conservation efforts. BWLT's recent strategic plan outlines specific conservation targets, such as ensuring clean water, protecting wildlife habitats, promoting coastal resilience, and enhancing community access to open spaces. The strategic plan highlights the importance of clean water as a central conservation goal. BWLT aims to protect drinking water sources and enhance the quality of watersheds through various metrics, including the number of acres conserved and enhanced. Utilizing data from 34 sources, BWLT conducted a focus area analysis using a hydrologic unit code (HUC12) framework, which allows for a detailed examination of local watersheds. This data-driven approach identifies key areas to prioritize for conservation based on factors like natural land cover, existing headwater streams, and drinking water supplies. The analysis revealed nine ranked focus areas, such as Cape Coral and the Lower Myakka River, which align with BWLT's conservation values. In addition to the prioritized focus areas, BWLT considers the broader implications of its conservation efforts on local ecosystems and community resilience. For example, the organization recognizes the economic benefits associated with shaded areas, which tend to attract more visitors and support greater access to natural spaces. Data layers from the Trust for Public Land assist in understanding public access to parks and open spaces, further guiding BWLT’s initiatives. The chosen focus areas will enable targeted conservation actions that support biodiversity, sustainable agriculture, and carbon sequestration, ultimately enhancing the region's resilience to natural disasters and climate change. Moreover, BWLT's collaborative approach with various stakeholders, including local counties and conservation groups, underscores its commitment to effective land management. The organization is actively engaging with entities like the Florida Conservation Group and the Florida Wildlife Corridor to ensure a coordinated effort in land acquisition and protection. This strategic collaboration is essential in minimizing overlapping outreach to landowners, thereby streamlining conservation initiatives and fostering trust within the community. BWLT’s strategic focus on clean water, wildlife habitats, and community access is supported by collaborative efforts with local partners. As BWLT moves forward with its initiatives, the potential for enhancing environmental health and community resilience remains promising, contributing to a sustainable future for both people and nature in the region.

One member asked for an example of carbon sequestration. Ms. Langston answered that the best things in this service area as well as all others that are going to sequester carbon are large old trees, cypress swamps, and muck soils. There are not a lot of carbon sequestration resources that hold carbon the way

that the Everglades and muck soil does. The member asked about mangroves as a resource and Ms. Langston said that mangroves do sequester carbon but not to the extent that a 100–500-year-old cypress tree can. Ms. Hecker mentioned that CHNEP had written a Letter of Support for Trust for Public Lands (TPL) for a property that they are pursuing – the Peace River Long Leaf Pineland's Project, which is southwest of Arcadia. It's a big private property that they have put up for Florida Forever. Ms. Hecker inquired if BWLT was engaged with TPL on this project. Ms. Langston replied that TPL is very active in some of the areas that BWLT has chosen to focus on, and that she works with Erica Hernandez from TPL and they will call each other about properties that come up for sale, as well as Julie Morris who works very heavily in the Peace River-Arcadia area. Ms. Hecker mentioned that they are looking for Letters of Support and Ms. Langston said she would contact them. Another member asked about the other focus areas in Glades County and Highlands County that were displayed on the map on the slide, and Ms. Langston said that those were Jack's Branch and Long Island Marsh, and it is not one of the primary focus areas. The other area he asked about was Horse Creek, and Ms. Langston said that BWLT is looking at imperiled species and sustainable agriculture out there east of the Myakka River area.

One member commented that he appreciated the total just value of conserving the focus areas (over $2 billion) and that it's just 2% of the state budget. He explained that when he came up with a $1.4 billion dollar number for restoration, it seemed large but not that big in the grand scheme things, and that's a societal value. He also said that he believes probably 90% of the public wants clean water and healthy lands but that economics is a competing objective and is something that's used in decision analysis, and he wondered how that could be overcome. He said that CHNEP does a good job with outreach and education but it's hard to put the script on those values so that people understand that this is attainable. Ms. Langston responded that the public here continuously says they support it, such as the referendums – Conserve Collier, Lee County Conservation 20/20, and the ELMAC funds for example get renewed every single time they come on the ballot. Ms. Langston said that she is meeting the county commissioners and city councils, sharing a similar yet tailor-made presentation depending on the geographic area she's in. She has experienced different levels of engagement, interest, and success.

One member said that one of the criticisms of buying public land from a lot of elected officials, especially in her county, is that it comes off the tax bill and so they have lost that revenue, and secondly, it may become a burden depending on who is granted the easement to maintain it. She asked if there was specific information that can be conveyed to elected officials to say that it provides economic value for recreation and that several jobs may be created for the enhancement and conservation of these lands. She also said that there's a heightened interest in the protection of land as floodplains, and she wants to know if there's a way that the economic services provided by the land could be emphasized. Ms. Langston said that is something she has talked about, particularly with Sarasota, Manatee, and Hardee County commissioners as well as North Port City Council, and they didn't get it, but if those values had been voted on three months later, maybe in October or November of last year, all that flood protection would have been highlighted more overtly. The Lee County Conservation 20/20 Committee and the Conservancy of Southwest Florida each did studies when they were passing their ad valorem referendums and demonstrated that property values around protected lands go up, so the tax base in lands neighboring newly protected lands also go up, increasing the tax revenue and this is one of the arguments that BWLT uses. The other thing is just reminding people that the reason there are taxes here and the reason that people are here is because the environment is beautiful, the water is clean, the beaches are nice, the woods are beautiful, etc.

A member asked about economic natural resource valuation for each county and Ms. Hecker responded that CHNEP commissioned an economic valuation study by county and by basin. CHNEP used real world revenue data and had a team of economists spend several years gathering that information and crunching the numbers to quantify the amount of economic activity, real estate, tourism, commercial

fishing, and recreational fishing. The economic valuation full report and fact sheets by basin and by county are available on CHNEP's website and can be printed off and used as a resource. Ms. Hecker added that CHNEP has run several different land protection-related initiatives up through the Policy Committee and there's an overall generally positive attitude around preserving environmentally sensitive lands. Ms. Hecker explained that the issue that was brought up, especially in the heartland counties, was tax revenue loss. In turn, CHNEP looked at the state and federal payment in lieu of tax programs which are supposed to offset any loss of tax revenue when land is put into public ownership, and found that they're typically underfunded. Ms. Hecker said that, as CHNEP and its partners are advocating for the preservation of these lands, we also need to be advocating for payment in lieu of tax programs to be fully funded, so that these rural counties and cities are made whole and they're not further disadvantaged. Ms. Langston said the coast could somehow be paying inland counties for ecosystem services. There is now talk about water quality transfer mitigation credits and other things like that, but that's a double-edged sword because that's allowing more development in areas that are already heavily developed and then trying to transfer that to inland communities. Sometimes the pollution and stormwater hot spots are in the coastal areas, so we don't want to just develop out and lose those opportunities to retrofit or improve in the coastal communities.

Another member offered that the Florida Parks and Recreation Association has a calculator for economic value of adjacent properties based on distance and type of recreational access (passive, active, etc.). They have it broken down that proximity to a park improves home values by 20% for homes adjacent to the park, 10% for less than 500 feet, 5% for less than 2,000 feet, and then in addition, 10% for active parks, 33% for active and passive recreation areas, and up to 70% for passive recreation within the park.

Agenda Item #9 – City of Sanibel Surface Water Management Plan Update — Jordan Varble & Gabby Santucci, Johnson Engineering

Johnson Engineering's Jordan Varble, along with intern Gabby Santucci, shared how the City of Sanibel is updating its Surface Water Management Master Plan to reflect the current condition of the stormwater management system following Hurricane Ian. Highlights are as follows:

The presentation, with initial remarks by TAC member Dana Dettmar, highlighted the ongoing challenges Sanibel faces with its stormwater management, amid increasing storm events and rising sea levels. This update marks the latest iteration of the city's stormwater management plan, following an earlier version that was never officially adopted due to the disruptions caused by Hurricane Irma in 2017. Sanibel, a low-lying barrier island with an average elevation of just 4 feet above sea level, is uniquely vulnerable to flooding and saltwater intrusion, making the preservation of its vital freshwater wetlands a top priority in water management efforts. The updated plan focuses on addressing the impacts of extreme weather events and the necessity of retaining rainwater to sustain the island's freshwater ecosystems. Hurricane Ian severely damaged infrastructure and exacerbated this vulnerability, burying critical culverts and drainage systems that are essential for managing surface water. In response, the city has added over 4,800 culverts and other drainage features to its mapping efforts, with ongoing cleaning and maintenance supported by a $10 million grant from the Florida Department of Environmental Protection. Public education initiatives have also been launched to help residents understand the different types of flooding and the factors affecting their homes, emphasizing the difference between riverine flooding, which the city can manage, and storm surge flooding, which poses a more severe risk. In terms of ecological monitoring, the city has made strides in understanding the health of its vegetation through the use of satellite imagery and vegetation indices. Notably, the analysis revealed a significant decline in plant health post-Hurricane Ian, largely attributed to increased salinity and stress from the storm. Data collected indicated a recovery trend in vegetation health

following subsequent hurricanes, suggesting resilience among the wetlands. However, the NDVI (Normalized Difference Vegetation Index) values indicated that interior wetlands suffered greater impacts than coastal mangroves, highlighting the need for targeted restoration efforts to maintain ecosystem balance. The implications of rising sea levels and extreme weather events are profound for Sanibel. With 95% of the island's roads below 6 feet NAVD88, the risk of flooding increases as sea levels continue to rise. Comparisons with other barrier islands show that while Sanibel's road elevations are higher than some, they remain vulnerable compared to mainland areas. Projections suggest that up to 20% of roadways could be at risk by 2080 under intermediate-low sea level rise scenarios. The city is exploring strategies such as raising roadway elevations and potentially altering weir gate policies to better manage stormwater and protect the freshwater wetlands. Sanibel's stormwater management plan represents a critical effort to address the challenges posed by climate change and extreme weather. By integrating ecological monitoring, public education, and infrastructure improvements, the city aims to enhance its resilience to flooding and protect its unique ecosystems. As the impacts of sea level rise and storms intensify, proactive measures and community engagement will be crucial in safeguarding the island's environmental and infrastructural integrity for future generations.

One member said that sea level rise is pushing groundwater levels higher over time, and she wondered whether storm surge did the same thing. Mr. Varble said that they found that, in general, the groundwater didn't change through the storms, probably because it's so manipulated by the weir. The weir's gates are huge (~5 ft by 6 ft for two or more of them), so when those open it drains the whole city in about 12 hours. He added that, in April and May, the groundwater didn't quite get down as far as in the past few years, but in general they did not see a lot of changes. Another member asked if they could review some of the important differences they found between the water loss/evaporation rates from open water versus lawns versus typical Sanibel wetlands and what order those were in. Ms. Santucci said that it's sort of hard to tell but open water is higher than lawn, and lawn would probably be at least lower than a Sanibel wetland. She added that, in theory, Sanibel wetlands should have a higher evapotranspiration rate than open water, but for the same plant you may get different results if different people measured them, so it's hard to say. The member said that he thought that one of the implications of this study that TAC should think about is what sort of rates of removal of water from the land to control flooding are we getting from things like dry retention areas that are managed as turf versus natural vegetation or wet detention ponds; if there is concern about freshwater flooding, what modes of managing stormwater areas would put the water back in the sky the fastest. That's something that we need to get a handle on. Ms. Dettmar offered that Sanibel is discharging from the weirs to manage and manipulate stormwater on the island, so that might be why a strong correlation between the NDVI and water levels is not being seen. The NDVI was being looked at without any manipulation, but we are manipulating the weirs. The member then commented that it may be beneficial to look at the literature reviews that were presented on the slide for estimating what kind of rates can be attained from different land covers. Another member wanted to verify that the data showing how storm surge will affect the roadways throughout the island is based on a 2-year storm surge event, and asked if they have considered any other scenarios, especially considering storm intensification in the future. Mr. Varble answered that during larger events, the whole island is inundated. This study was prepared for the city council so that they can use it as a guide for planning. In an every-other-year storm event, the roads don't generally get inundated, but it depends on which projection is looked at, the intermediate high shows that 95% of roads go under every other year just for a couple days.

Another member asked if it even feasible to raise all the roadways in Sanibel, or if people need to get different vehicles or something. Mr. Varble said that it's a challenge as some roads are easier to raise than others. Some just need to go up a couple inches, so it could be just another layer of asphalt. The city could take care of that. There are a few roads that may need to go up about a foot and there are

different challenges in that. He said that they must make sure that they don't increase the shoulder width and impact the wetlands adjacent or impact somebody's driveway slope up to their garage. Some of the roads they looked at would be rather simple to raise. The member said that he is thinking about people's driveways and how you can raise the road up, but you can't necessarily raise people's driveways up. Ms. Dettmar said that is the chief complaint they get about flooding and that people say that if their driveway is flooded then they are flooded when, according to FEMA, in all actuality their first floor living space or flood elevation would have to be breached for it to be considered flooding. There are difficult conversations taking place with Sanibel residents that will become the norm moving forward. When the road base is saturated, more potholes are created. If the aggregate underneath the asphalt is raised, then there are lower maintenance costs long term.

Ms. Hecker commented that Dr. John Stamm of USGS has done some work crunching the ET data that they collect, and they have come up this term stomata resistance, which is this idea that the plants are adapting and constricting their stomata, and so are slowing the ET rate which is expected to rise with temperature rise. She explained that the ET rate is not rising with temperature as expected because the plants are adapting to try to hold the moisture longer and USGS is measuring that. This may be one of the contributing factors to why the ET rates are not increasing at the rate you would have expected. Mr. Varble said that it's true that when a plant goes into stress, it shuts down to sleep again. Another member commented that trees store water and he wondered if more was known about the vegetative composition and the sizes of the interior wetlands rather than just and the index, as that may offer more insight into the rate changes. Mr. Varble said that Sanibel is a big island and there are several thousand acres of different types of plants, so there's a lot of variability. In the second half of 2023 when everything was getting healthier, many of the plants were not only transpiring, but they were filling back up. One member said that it seems that most of the dying off of plants happened initially, just as soon as the surge hit, and there wasn't any kind of persistent effect by the groundwater lenses changing and becoming saltier. He wondered if they saw that the plants died off quickly but quickly recovered. Mr. Varble said that happened a little bit because after Ian, there was a quiet period and then it rained, so then a lot of plants started to come back. But then Hurricanes Debbie, Helene, and Milton and maybe a couple of others in 2024 really just like knocked a lot out. There was a die-off of freshwater plants because they were exposed to saltwater from surge that remained in parts of the interior island for too long. Ms. Dettmar offered that Ian was a dramatic hit. The wind event from Ian had a dramatic effect whereas Milton and Helene were surge events but very minor wind events. Another member asked that as sea level rises and habitats are lost, if that impacts how the ground level or the water is retained, and whether this is something that is considered for models that as you lose the habitat the water gets higher. Mr. Varble said that once the sea rises enough and then it's permanently saltwater interior, the weirs are pointless at that point. Then, the whole interior and the whole ecosystem have to change from freshwater plants to saltwater plants. Ms. Santucci said that the whole system would change too and it would fluctuate probably more due to not having the weirs holding water.

Agenda Item #10 – Storm Season Follow-Up Discussion — Facilitated by Mark Walton, Co-Chair

TAC Co-Chair Mark Walton updated the Committee on new storm response resources and facilitated the continued discussion on next steps to increase responsiveness and resilience to storms and other environmental disaster events for the future. Highlights are as follows:

The discussions at the 2022 and 2024 TAC Meetings primarily revolved around enhancing water quality data collection and coordination efforts among the Partnership in the wake of natural disasters, particularly hurricanes. Successful post-storm coordination will require building partnerships within the region so that those who have capacity can support hard hit areas and partners. The discussions

underscored the importance of creating a communication network that outlines the capacities, responsibilities, and contacts of the involved partners, which can streamline the response during critical periods. To facilitate effective monitoring, the committee discussed standardizing protocols for water quality data collection and establishing a platform for post-storm data storage and retrieval. This framework includes pre-selected monitoring sites and parameters, as well as timelines for response actions. Following Hurricane Ian, it became clear that many partners were unprepared for the surge in demand for monitoring, underscoring the need for proactive measures. This year, there is a concerted effort to set up resources in advance, allowing for improved coordination and a quicker response after storms. CHNEP has taken concrete steps to develop resources for coordination among partners. This includes creating an accessible GIS map featuring pre-selected sampling stations, contact information for labs, and logistical details such as boat ramp availability. With this map, partners can quickly identify where to collect data and process samples, which is crucial when traditional resources may be unavailable. CHNEP also created a Google Drive Folder to share resources with the committee and asked members to upload their own emergency response plans so that capabilities, limitations, and expenses can quickly be determined once emergency response is over and water quality monitoring can be safely conducted. The goal is to ensure that water quality monitoring can continue seamlessly, even amidst the chaos following a storm, and to facilitate the sharing of responsibilities among multiple organizations. This could lead to more resilient environmental monitoring frameworks that can adapt to the challenges posed by climate change and increased storm frequency.

One member commented that there are still outstanding issues as far as hold times and bacteriological and red tide sampling. Ms. Iadevaia responded that coordination is key to figuring out these issues and suggested that a possible solution for bacteria samples is working with contract labs or requesting EPA to deploy their mobile labs to the area. Another member commented that one of their existing challenges in routine monitoring is how far inland their lab is and getting samples there in time. Ms. Hecker responded that sometimes a conversation is needed with the lab to say that these samples are not going to be used for regulatory purposes and just do the best you can do in terms of hold times. The member also commented that Manatee County obtained generators so that their lab could be self-sufficient, and he feels confident that they will have capacity there post-storm. Ms. Hecker commented that another issue is having the policy support to recognize post-storm water quality sampling as an essential need so that staff and lab capacity are available. She explained that authorizations also need to be in place and emergency response plans could have a natural resources element added so that staff are authorized to collect and process water quality samples. Another member commented that it might be helpful to have Memorandums of Understanding (MOUs) set up with other county or contract labs ahead of time. Ms. Iadevaia commented that CHNEP does already have working agreements with most of our counties and offered that CHNEP conservation grants are another pathway to fund additional sampling or lab processing. A member commented that the Lee County Hyacinth Control District lab is also on a generator and is an additional resource for processing samples post-storm. Another member asked what role the Florida Department of Health (FDOH) has in terms of bacteriological sampling? Ms. Iadevaia responded that FDOH does conduct bacteria sampling, and those data are pulled onto the CHNEP Coastal Conditions Map, but they sample when they sample on their own timeline.

In conclusion, the ongoing discussions and developments at the TAC Meetings highlight the critical need for a coordinated approach to water quality monitoring in disaster-prone areas. By leveraging the strengths of various partners and establishing clear protocols and communication channels, the CHNEP network aims to enhance its response capabilities and ensure the sustainability of water quality monitoring efforts.

CHNEP also coordinated with SFWMD to create a public Flooding Observations and High-Water Mark Survey for the entire CHNEP area that is connected to SFWMD's Flood Information Resource

Application. The survey gathers time-sensitive flood information, and the data will be used by SFWMD to deploy high-water marks and inform future flood forecasting. The survey data is also displayed on the CHNEP Natural Disaster Event Response page, and CHNEP also has pages for each hurricane which display all relevant data, analyses, and resources. The CHNEP Coastal Conditions Map shows fixed stations where adverse water quality conditions have recently been reported, including red tide/HABs, bacteria, or pollution, and could act as a place to consolidate and display post-event data.

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 technical project progress since the previous TAC meeting. Highlights are as follows:

The CHNEP Water Atlas has new basin pages presented with associated Minimum Flows and Levels (MFL), HRN and habitat evolution model results, annual rainfall totals, land/use land cover maps, economic valuation reports, and relevant project information. The SCCF River, Estuary, and Coastal Observing Network (RECON) water quality data is now presented on the Real-Time Data Mapper. A "Download Data for this Waterbody" button has been added to waterbody pages. The CHNEP Water Atlas tutorial videos are available at the CHNEP Water Atlas Video Library, on the CHNEP YouTube channel, and at the CHNEP website.

As for the Coastal Charlotte Harbor Monitoring Network (CCHMN), the Quarter 3 data was collected and submitted and the Quarter 4 data collection in underway. The CCHMN annual audits and meeting are scheduled for August. A fact sheet and infographics to share results have been created from the CCHMN trend analysis 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.*

There are 5 vulnerability assessments underway in the CHNEP area with a few more about to begin. Highlands, Hardee and DeSoto County Vulnerability Assessments are projects in partnership with CHNEP and the Central Florida Regional Planning Council (CFRPC) which will identify Adaptation Action Areas for each county based on data gathered for vulnerability assessments. The final critical assets list and exposure and sensitivity analyses will also be used to identify and prioritize Adaptation Action Areas. The methodology for prioritizing critical assets and flood exposure has been developed and approved by the counties. The final product will be lists of projects, designs and costs for the 3 adaptation action areas for each county. CHNEP created project pages for county vulnerability assessments on the CHNEP website that include interactive maps created by the CFRPC. CHNEP is also working with CFRPC to conduct additional rainfall flood modeling for Polk County's Vulnerability Assessment. This includes 200/500-year events and compound flooding events, and creates a visual interpretation of the flooding events for community outreach. The HEC-RAS model was used for these additional flood scenarios (the preferred model by FEMA, USACE, and other regulatory agencies for flood hazard mapping and mitigation planning). The model results were used to select priority areas in the county to create a visual interpretation of model results. CHNEP is also working with Charlotte County on a project to conduct their baseline Vulnerability Assessment. The first public meeting was held in the spring, and the second will be held this August. Critically significant asset data was aggregated and mapped, and the metadata has been standardized to meet state requirements. An 'Existing Data/Model Tools Sufficiency Analysis' was conducted to identify data needs for this project and future projects. Modeling of Exposure & Sensitivity/Risk analysis for critical assets under different flood scenarios was conducted, and adaptation focus areas were identified.

Regarding seagrass in CHNEP's estuaries, CHNEP created updated charts and maps with 2024 seagrass data. The updated charts and maps will be available on the CHNEP Water Atlas Seagrass pages in the near future. The Seagrass pages will feature updated abundance charts from FDEP Aquatic Preserve

transect data and Sarasota County abundance data for Dona & Roberts Bays. They will also include updated seagrass acreage charts and interactive maps of seagrass coverage from aerial SWFWMD surveys. Ms. Iadevaia provided an overview of the state of seagrass in each of the CHNEP basins based on the recent 2024 data. The target seagrass acreage in Dona & Roberts Bays is 112 acres. There was a loss of 71 acres between 2018-2024 and seagrass coverage reached an all-time historic low in 2022 with only 34 acres. There was a gain of 15 acres between 2022 and 2024, but it was not a full recovery for Dona & Roberts Bays. In Upper Lemon Bay, the target acreage is 1,009 acres. There was a loss of 229 acres between 2018-2024 and seagrass coverage reached all time historic low in 2022. The target seagrass acreage in Lower Lemon Bay is 2,882 acres. There was a loss of 523 acres between 2018-2024, with a loss of 94 acres between 2022-2024. The overall abundance appears to be recovering but seagrass beds have not been able to grow as deep in Lower Lemon Bay since 2018. In the Tidal Myakka River, the target acreage is 456 acres. There was a loss of 187 acres between 2018-2024, and 20 acres were gained between 2022-2024, though it was not a full recovery. Widgeon grass has not been found at monitoring sites there since 2018 and there was a large increase in drift algae abundance starting in 2020. The target seagrass acreage in the Tidal Peace River is 975 acres. There was a loss of 441 acres between 2018-2024 and coverage reached all-time low in 2024. Abundance has been declining with seagrass beds having not been able to grow as deep since 2012. There was also a large increase in drift algae abundance in the Tidal Peace River starting in 2020. In Charlotte Harbor, the target acreage is 16,344 acres. There was a loss of 4,657 acres between 2018-2024, and coverage reached an all-time historic low in 2024. The target seagrass acreage in the West Wall of Charlotte Harbor is 2,106 acres. There were 322 acres lost between 2018-2024, with the majority of these acres lost between 2018-2020. Thalassia and overall seagrass abundance experienced large decline in 2024, with the losses in both deep and shallow ends of seagrass beds, indicating that these losses may be related to temperature.

In the East Wall of Charlotte Harbor, the target acreage is 3,898 acres. There was a loss of 2,171 acres between 2018-2024, and coverage reached an all-time historic low in 2024. The declines in seagrass abundance and subsequent increase in drift algae abundance started back in 2018. The target seagrass acreage for Gasparilla Sound-Cape Haze is 6,998 acres. There was a loss of 1,234 acres between 2018-2024 and coverage reached an all-time historic low in 2024. Substantial declines in overall seagrass abundance occurred in 2023 and 2024 and seagrass beds have not been able to grow as deep since 2014. In Lower Charlotte Harbor, the target acreage is 3,342 acres. There was a loss of 907 acres between 2018-2024. The target seagrass acreage in Pine Island Sound is 26,837 acres. There was a gain of 1,373 acres of seagrass between 2014-2021. Although seagrass experienced declines starting as far back as 2016, abundance is relatively stable. Shoal grass abundance declined in 2023, likely due to impacts from Hurricane Ian. In Matlacha Pass, the target acreage is 9,315 acres. There was a loss of 3,664 acres between 2014-2021 and overall seagrass abundance reached an all-time record low in 2024. There were large increases in drift algae abundance starting in 2021. The target seagrass acreage in San Carlos Bay is 4,372 acres. There was a loss of 1,064 acres between 2014-2021. There were declines in Manatee grass and overall seagrass abundance in 2023 and 2024, and seagrass beds have not been able to grow as deep in Matlacha Pass since 2015. In the Tidal Caloosahatchee River, the target acreage is 93 acres. There was a loss of 333 acres between 2014-2021. Significant declines in Shoal grass and overall seagrass abundance occurred in 2023 and 2024, and seagrass beds have not been able to grow as deep there since 2015. The target seagrass acreage in Estero Bay is 3,662 acres. There was a loss of 840 acres between 2014-2021. There have been declines in Shoal grass abundance since 2019, however, Shoal grass and overall seagrass abundance increased in 2024. There was also a subsequent increase in drift algae abundance in 2024. CHNEP continues to produce and update fact sheets on basin water quality, basin seagrass health, and state and federal research and restoration funding opportunities.

NEPs are contributing to Gulf of America Alliance (GOAA) on 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.

One member asked if there were instructions on how to pull these seagrass graphs out of the Water Atlas, and Ms. Iadevaia said that there are seagrass pages on the Water Atlas that will display all of these graphs, and there are fact sheets with this information available on the CHNEP.org website. Ms. Barnard responded that users can save the graphs as PNG images directly from the seagrass pages, can download the seagrass GIS data from the seagrass interactive mapper, or can download a summary spreadsheet of seagrass coverage data from basin pages. Ms. Iadevaia said that CHNEP staff would let Committee members know when those graphs are live on the Water Atlas. Ms. Barnard said that Water Atlas trainings had recently been done with the Calusa Waterkeepers as well. Ms. Barnard also said that members could email her regarding Water Atlas and/or GIS information. One member asked if the FDEP transect data was available to download from the CHNEP Water Atlas and Ms. Taylor-Manges offered that while it is not, members may reach out to her directly for that information.

Agenda Item #12 – TAC Membership Updates — Facilitated by Mark Walton, Co-Chair

Lindsay French (SFWMD): SFWMD is actively working on a contract to update their aerial seagrass mapping of the Caloosahatchee River estuary. The last ones were from about 2019, and we are working to update those aerial seagrass maps, which hopefully will go along nicely with SWFWMD's updated maps as well.

Jeff Devine (WCIND): The Navigation District recently acquired multibeam bathometry equipment. It came in earlier this month, so we are planning on having the sales crew come out at the end of the month to install it and get us trained, so we should be able to start doing our own surveying later this year. I will be participating in the NRLI classes through UF over the next 8 months. The District is in a process of doing a bunch of property sales, some to the adjacent residential owners, just small slivers. We sold a piece of property to Sarasota County and then we have a 10-acre property on Venice Island that will be going up for sale at some point. We have reached out to the City of Venice and Sarasota County and they both declined. I sent it over to Brooke Langston, so she's looking at it to see if it's something that fits for them. I don't know if it will, but it is one of the largest undeveloped properties on Venice Island. If we can transfer it to somebody who will keep the open space, that is obviously the best course of action. We're going to be selling it if that doesn't happen. Our board meeting is this Friday, and we have a work order that will be approved for some core borings at the Venice jetties so that we can continue work with the Corps to get that fixed. Derelict vessel removals are in process. We've been working with the state parks to try to get two boats off the beach, one in Don Pedro Island State Park and one on Cayo Costa. The Cayo Costa one is probably going to cost close to $100,000, so we're taking that to our board for approval to spend that money because that will not be reimbursable through the State's Derelict Vessels program because it's not touching the water. It's high and dry, and whether or not we pay for it or tell the state parks that they have to incur the cost will be a board decision. We're working with Lee County and Sarasota County on a couple different smaller dredge projects - Hendry Canal, Phillippi Creek - and a couple other projects as well. As for the property on Venice Island, we have contacted James Clinch at the City of Venice and there was a conversation about trying to maybe partition a part of it off because the Waterway Trail cuts through that property. If it were to sell to a private individual, there's no guarantee that that trail connection would remain in place. That is something we are working on. We started with the city and the county. Our initial offering will be to the three adjacent property owners - Marine Max to the south, the car dealership to the west, and then the HOA to the north. If none of those three are interested, then we will acquire a broker and list the property. It's 10-acres, and I think it appraised at $6.7 million.

Ernesto Lasso de la Vega (Lee County Hyacinth/Mosquito Control District): The Lee County Hyacinth Control District is going to be attending the Florida Lake Management Society at the end of the month. There's a meeting in the Keys, and we will be presenting the project that we did with the Volunteer Citizen Assessment for ponds and stormwater ponds. Regarding Sarasota Baywatch, we're going to be conducting a scallop search on the 23rd of August in Sarasota, and we don't do that anymore in the Lee County or Charlotte County. Scallops are indicators of healthy ecosystems, and it has not been done for many years, but we are going to be doing that with Sarasota Baywatch in Sarasota.

Arielle Taylor-Manges (FDEP): The Charlotte Harbor Aquatic Preserves Office did mangrove planting in partnership with the Coastal Conservation Association (CCA) on two islands on the East Wall of Charlotte Harbor. CCA was able to acquire the mangroves from Duke Energy and then this was pushed forward by citizens in the Pirate Harbor community. There were over 600 mangroves planted on these two islands including red and black mangroves and three white mangroves randomly enough. We did monitor at one month, at six months, and then we will do like a one year, two or three years just to kind of track it overtime. If anyone has mangrove restoration monitoring plans or ideas or things we should look at, please send them my way. In addition to that, in partnership with the Pirate Harbor community and CCA, CCA donated 10 tons of oyster shells, and we had volunteers come out and Liz and her crew came out to help shovel the shells into buckets. We transported those buckets out to a permitted site that MSC7 Air put in a permit for at Cormorant Key. That was all last week, and we will go out and start monitoring that site as well. We will do a one-month assessment and six months, one year, two years, etc. We had shell out there initially and it was about three years ago that that project occurred. We've been going out there annually. After Helene and Milton, we noticed that a lot of the shell had just scattered. We had seen it flatten and from what I've heard, that's normal. However, with the storm surge, it completely scattered the shells. We're going to try again with a different method, and we will keep you posted. We have an anticipated vacancy for an OPS Environmental Specialist 2 at our office. One of our crew is leaving the state, so we're specifically looking for someone with a rookery monitoring background. If you have any recent graduate friends or anyone who might be interested, send them our way because the position will close in a couple of weeks. We're partnering with a UF researcher, collecting samples for their lab. They're specifically looking at Vibrio bacteria. They're working on developing a model with satellite imagery and water quality data, so we're partnering with them and collecting from our continuous water quality sites where we do our other grab samples and shipping it to them. They're looking for Vibrio and hopefully trying to develop a model for predictions on when the Vibrio is higher. That will be going until October when their funding runs out. If there are any hurricanes, we will have to do special collections for them. That was also part of the agreement. In June, we celebrated the 50th anniversary of the Aquatic Preserve rule. On December 3rd, at the new MOTE facility there will be a SEACAR community science public seminar, and then the organizers of that event were kind enough to host an evening with a celebration for a few hours after that.

Dave Blewett (FWC): For our Charlotte Harbor field lab with FWC Fisheries Independent Monitoring Program, we're a good barometer of algae because it affects us more than anybody because we're pulling nets across the Harbor. 2018-2019 is when we started seeing Caulerpa. Caulerpa has been a consistent and novel species throughout the upper estuary. Dapis algae species started to flourish up in the Upper Harbor around 2020, and we continue to see increases of Dapis in the Upper Harbor area like the West Wall, Punta Gorda, Upper Eastern Harbor, escalating in 2021, 2022, and 2023 was bad. Then in 2024, Dapis was off the charts. We have pictures of Dapis that could horrify you. There was literally Dapis at the surface on shorelines that was thick. It's causing low DO throughout the Harbor. We have pictures showing all the sulfur that it created. This year, I haven't had any complaints from staff. We've driven a good portion of the Eastern Harbor last week and it's like night and day. It's the biggest turn around you could ever see, and the only thing I can think of is that we had two storm surges

in August/September. What we saw in 2024 with that big Dapis event, is that the Dapis pretty much smothered the Caulerpa. So, as Dapis was dying, it was killing the Caulerpa. There was this compound decomposition which was really eating up the oxygen. It was bad for the Harbor, but at the same time, it seems to have loosened up the hold that the Caulerpa had, and then these two storm surges seemed to really have flushed a lot of the stuff out. I don't know how long it will last for, but it's been a nice reprieve. We're seeing a big shift along the Eastern Harbor. I haven't been over to the West side but there have been no complaints or photos.

Kevin Kalasz (USFWS): From an agency perspective, we're going through a major transition that we're dealing with. Probably about 25% loss of staff, our refuges are particularly hard hit by that, so please be patient with refuges if you work with them. There is either loss and/or general uncertainty of current and future funding, being able to do projects and move things forward.

Mark Walton (SWFWMD): From the District, our 2026 mapping cycle starts up in December. It would be very interesting to see if we see any recovery following a good summer. The flight window starts in December and goes through March. The District is taking over the collection of the water monitoring network for the Upper Harbor. We're going to make sure that we keep those protocols as they've been done by FWC as far as the collection frequency and the number of samples and the sample methodology. We want to make sure that we keep that consistency of data. We begin that collection in October. Thank you to CHNEP and FWC for the work that's been done to date on that over a couple of decades. We appreciate it and will endeavor to continue that good work. As for other projects, I'm running the site assessment project on our old restoration sites, either District sites or cooperatively funded projects. I presented on that a year or so ago. We're doing another batch of those starting again around October, based on the southern areas. We'll be looking at sites such as the Alligator Creek projects in Charlotte Harbor State Park, Amberjack Slough, and the Cape Haze trail. We have some projects in Sarasota County, including Red Bug Slough and Curry Creek, and we'll be going through to see what condition they're in. We'll collect those results, making sure that the investment is still doing what we think it's doing. If you have any insights to those sites that you'd like to share or you'd like to come along with us when we do it, reach out to me and I'm happy to facilitate that. We're currently working on the Cape Haze Restoration Project, which is third in a series of projects included in the Coal Creek projects. That's getting ready for procurement. We've had some issues with gopher tortoises and having to hire people to get them removed and monitored for those. We've got procurement in place for going out for engineer record and CI, and then the actual construction. Procurement will come soon enough. I might try and present on that at a future TAC meeting.

James Douglass (FGCU): Florida Gulf Coast University continues to have a lot of potential interests for CHNEP. One is that FGCU got permits from FWC and USACE to set up seagrass protection areas in Estero Bay. We're just trying to figure out where we're going to get the money for that. We've got some community fundraising efforts, and also have our eyes open for grants. If anyone sees something that looks like a grant program that might fit the bill, we'll apply for that. We're looking forward to protecting and studying the efficacy of that sort of propscar protection method for Estero Bay. We've started participating in the Eyes on Seagrass monitoring program along with the Calusa Waterkeeper. The Waterkeeper completed the first round of monitoring at all the same sites that the FDEP monitors. The idea is that, at least for round 1, we'll vet this citizen science program against the established monitoring program. We'll see how comparable they are and that will help us decide how we want to restructure the citizen science program later to possibly fill temporal or spatial gaps in FDEP's monitoring program. FGCU was involved in a Tape Grass (*Vallisneria americana*) restoration study in the Upper Caloosahatchee Estuary. It's not going perfectly and so we had some difficult conversations with the contractors about how to get better results and we're learning a lot from that. One of the things we learned is that seagrass doesn't grow in the dark. You must scrub cages and put them in shallow

water. It's a little midstream course adjustment there, but we're optimistic that we'll get some better results by the end of that study. Another marine biology colleague, Dr. Melissa May and I are involved with some clam seagrass co-restoration studies focusing on the hard clam which was abundant in our area prior to over-harvesting. Now it's an important aquaculture species, but it's very rare. We've spent many hours combing to find just one clam underwater so there is certainly a need for restoration. There's reason to hope that trying to double up the restoration of seagrass and clams might benefit both because of the synergistic effects they have on each other. We've got some campus and community stormwater initiatives and that's why I was asking questions of the Johnson Engineering presenters about evapotranspiration. We're working with SFWMD on this new round of aerial photography because for the District to hire the contractor they want to hire, they had to hire us to hire the contractor. We're also going to help with the ground truthing and try to make it worth their while. We also have some other projects such as our artificial reef monitoring. FGCU has a research reef which is on the Lee-Collier County line, 11 kilometers offshore. It's been down there since 2023 and we're comparing it to an older artificial reef, and we also have natural seabed information. We're hoping that the monitoring of these from a Mexico habitat might give us insight into some offshore bioindicators of water quality. There are a lot of hard corals that recruited to the artificial reef. Another benthic organism that we have gotten very interested in this summer is the flat tree oyster (*Isognomon alatus*) because it's appeared seemingly out of nowhere in the last couple of years in Southwest Florida. It's very common in the Keys. If anyone has seen these flat tree oysters in their area, let me know. We're trying to make a map and sort of get a baseline on where they started showing up, when, and refining our hypotheses about what environmental changes might be leading to this sudden increase. They're almost as abundant as the normal Virginia oyster in some of the areas that were monitored in the Estero Bay, for example, and nobody remembers ever seeing them before.

Eric Milbrandt (SCCF): Along with FWC and Jamie Wolanin, we built the largest oyster reef in Charlotte Harbor. It's about 3 acres, 4 million pounds of fossilized shell. We just finished it last week and it's impressive. It's between Tarpon Point Marina and Shell Point, and so in a slow speed area. We're hoping and relying on a lot of experience in the past that it will be very successful. We have around 15 acres permitted, so if you hear about opportunities to restore oyster reefs in Charlotte Harbor, we are certainly all ears. I work with a lot of folks at the Aquatic Preserves office and then with FWC. Related to oysters, we were working with the Water Management District and some other collaborators to come up with a life history model to prioritize regions in the Caloosahatchee, mostly in San Carlos Bay. The model is all of Charlotte Harbor. That's ongoing and I think it's in the first year, but there's a great literature review. If anyone's interested, I could send it to you. The end of the project culminates in a 1-acre restoration effort that we're going to coordinate. We're doing a macroalgae/seagrass project, and I missed the last CHAWG, but I will try to get to it if there's time in the agenda in December. We agree that this year we've gotten a lot more diversity of macroalgae and a lot less Caulerpa. The salinities were much higher this year than they have been in Matlacha Pass and there were more tiny little grazers that specifically eat Caulerpa. So, we think it's a combination of grazing and lack of nutrients that's related to the shift that we've been seeing.

Mollie Holland (Charlotte County): I went to an Oyster Boys talk and they're looking for places for their giant oyster logs. If others are doing oyster restoration, they could take these logs and use them for additional seeding. We're doing some groundwater modeling in the East Wall, and we found some high indicators of ammonia in some of our service water data. We're partnering the utilities department and a very large community over there that has 16 groundwater wells at different depths to determine where the source of ammonia is coming from. I'm not sure it's started yet, but that will be online soon and hopefully we'll have some data for you soon. We have a $2.5 million dollar appropriations grant to do additional flood-related surface water monitoring. When it's all said and done, maybe I have

about 40 stations out there. Earlier this week, we did get funding to install *Vallisneria* in the waterways to try to improve water quality.

Stefan Kalev (North Port): We finally initiated a couple of tree planting projects. The City procurement process took a while, but one of them has already commenced and the other will likely begin in a month. We're also about to present a land acquisition program for the Natural Resources Division of the City where we're going to allocate funds through mitigation and development towards acquiring parcels throughout the City. We conducted an ecological assessment for many of these parcels and prioritized them. We'll be presenting that to our commissioners, and we'll see where that will lead.

Kelly McLauchlin (Sarasota County): Sarasota County started our annual seagrass survey this week. We'll be doing that throughout the summer and our scallop monitoring will be happening in tandem. We also have a groundwater study that's ongoing as well. We're identifying hot spots and there are a few months left of monitoring, but we should have a report in the next month that'll give us the findings for that. We're also in the process of updating our Lemon Bay and Dona and Roberts Bay Watershed Management Plans and so we should be getting additional BMP's out of those plans once finished.

Dana Dettmar (Sanibel): For the city of Sanibel, we're getting ready to update our Stormwater Master Plan. We're expecting City Council to approve that Plan in the coming weeks. We're also getting ready to update our Comprehensive Land Use Plan which is largely based in the preservation of the natural environment and lower impact design for development. Hopefully the City will stay true to its roots and continue that in this plan. Sanibel is also celebrating its 50th anniversary.

Rick Armstrong (Lee County): We started sampling the latest open marsh in Old Bridge Park. We're wrapping up the design phase of our new facility and hoping to start construction by the end of the year.

Andrea Murray (FWC): It was great to be a part of the meeting and I enjoyed the seagrass presentation because the stakeholders I work with are fisherman that rely on healthy seagrass beds. We are ramping up for the Sea Trout Symposium at the end of August and we'll have a series of workshops around the state throughout September. We have a habitat metric as part of our annual review that we talk about with stakeholders, so this information will be helpful to update them.

Agenda Item #13 — Public Comment — Mark Walton, Co-Chair

There was no public comment.

Agenda Item #14 – Future Meeting's Topics, Location and Date — Mark Walton, Co-Chair

The upcoming CHNEP 2025 TAC Meeting date is: 12/4/25. Members were asked that if they have ideas on new research and restoration topics and/or presenters, to please email CHNEP Director of Research & Restoration, Nicole Iadevaia, at niadevaia@chnep.org.

Agenda Item #15 — Adjourn — Mark Walton, Co-Chair

Meeting was adjourned at 2:05 pm.