



Policy Committee Meeting
January 26, 2023
9:00 AM – 1:00 PM
Punta Gorda Charlotte Library

Policy Committee Meeting Minutes

Members Present:

Brian Smith	US Environmental Protection Agency (EPA) Region 4
Jennifer Carpenter	Florida Department of Environmental Protection (FDEP)
Don McCormick	Southwest Florida Regional Planning Council (SWFRPC)
Jennifer Codo-Salisbury	Central Florida Regional Planning Council (CFRPC)
Jack Bispham	Southwest Florida Water Management District (SWFWMD)
Ken Doherty	Charlotte County
Steve Hickox	DeSoto County
Emory Howard	Hendry County
Scott Kirouac	Highlands County
Alice White	City of North Port
Donna Peterman	City of Punta Gorda
Mike Miller	City of Sanibel
Katy Errington	Village of Estero
Allie McCue	Florida Fish and Wildlife Conservation Commission (FWC)
Roland Ottolini	Lee County (alternate for Ray Sandelli)
Kelly O'Mally	Manatee County (alternate for James Satcher)
Maya Robert	City of Cape Coral (alternate for Jessica Cosden)
Gaye Sharpe	Polk County (alternate for Bill Braswell)
Chadd Chutz	Town of Fort Myers Beach (alternate for Bill Veach)
Mike Moran	Sarasota County (alternate for Mike Smith)
David Hutchinson	Sarasota-Manatee MPO (Management Co-Chair)

Others Present:

Jennifer Hecker	Coastal & Heartland National Estuary Partnership
Nicole Iadevaia	Coastal & Heartland National Estuary Partnership
Lisa Pedigo	Coastal & Heartland National Estuary Partnership
Sarina Weiss	Coastal & Heartland National Estuary Partnership
Megan Sosbe	Coastal & Heartland National Estuary Partnership
Randy Smith	Southwest Florida Water Management District
Steve Johnson	Town of Fort Myers Beach
Miles Medina	UF Center for Coastal Solutions
Michael Wehner	Lawrence Berkeley National Laboratory

IRC Members:

Leda Khoury	Deputy Federal Disaster Recovery Coordinator
Laura Curvey	Community Assistance, Federal Emergency Police Agency
Milton Cochran	Economic Recovery, Economic Development Administration
James Gooch	Health and Social Services, HHS
Dave Apple	Infrastructure, U.S. Army Corps of Engineers
Daniel McGoldrick	Natural and Cultural Resources, Department of Interior

Joe Woody	Rural Development Advisor, U.S. Department of Agriculture
Nancy Young	Small Business Advisor, Small Business Administration
Rick Durbrow	Sustainability Advisor, Environmental Protection Agency
Tonia Pence	Federal Emergency Management Agency
Collin Kenline	Florida Department of Emergency
Emily Galloway	EPA
Pam Swingle	Department of Interior
Beth Waltemath	Public Assistance, FEMA
Brandon Porinchak	Housing, Housing and Urban Development
Cherry Jochum	Philanthropic Advisor, Federal Emergency Policy Agency
Douglas Roberts	Deputy Bureau Chief of Recovery, Florida Division of Emergency Management
Deevah Melendez	Community Assistance, FEMA
Suzanne Everson	Health and Human Services
Ellen Baez	FEMA, PA Liaison

Agenda Item #1 – Call to Order and Introductions — Brian Smith, Co-Chair

Policy Committee Co-Chair Brian Smith called the meeting to order at 9:05. Introductions were then made.

Agenda Item #2 – Agenda Additions or Deletions — Brian Smith, Co-Chair

No additions or deletions were made to the agenda.

KEN DOUGHERTY MOVED, SECONDED BY SCOTT KIROUAC TO APPROVE AGENDA WITHOUT ANY ADDITIONS OR DELETIONS. THE MOTION WAS UNANIMOUSLY APPROVED WITH NO FURTHER DISCUSSION.

Agenda Item #3 – Public Comments on Agenda Items

No public comments on agenda items were made.

Agenda Item #4 – Management Committee Report

David Hutchinson, Management Committee Co-Chair, provided the Management Committee Report. The Management Committee heard the CHNEP Technical Advisory Committee (TAC) report on highlights of the December meeting, many important technical presentations and discussions were held. Presentation topics included the Charlotte County Water Quality Plan, Coastal Acidification Research and Education Efforts, Hurricane Ian response and recovery as well as the CHNEP website landing page, and updates to the Coastal Charlotte Harbor Monitoring Network (CCHMN) Standard Operating Procedures and Quality Assurance Project Plan.

The Management Committee also heard the CHNEP Citizens Advisory Committee (CAC) report on the highlights of the December meeting, which included community outreach discussions and presentations: new format for Conservation Grant Applications, Coastal Acidification Stakeholder Outreach Efforts, and outreach related to the CHNEP Hurricane Ian landing page. There was also presentation and discussion on the planning of the upcoming 2023 Southwest Florida Climate

Summit and Watershed Summit Planning and how Committee members can participate in building these important environmental education and outreach events.

Following the committee reports, the Management Committee held Co-Chair elections - electing two new Co-Chairs, Claire Jubb from Charlotte County, and David Hutchinson for the Sarasota-Manatee Metropolitan Planning Organization (MPO). The Management Committee was then briefed on the Amended FY23 Work Plan & Budget, an item coming before the Policy Committee for approval. Management Committee members inquired about the changes in fringe benefits and expressed an understanding for the proposed changes needing to be made in response to the host change. Overall, the Management Committee unanimously recommended that Policy Committee approve the Amended FY23 Work Plan & Budget as proposed.

Then CHNEP Director of Research and Restoration, Nicole Iadevaia, touched on Hurricane Ian impacts, lessons learned, and partner recovery efforts and a preview of the CHNEP Hurricane Ian landing page. Discussion related to this topic was focused on the need for better coordination between emergency managers and water quality scientists and resource managers to include environmental water quality monitoring in the response and recovery plans as it also has human health impacts for those out in the environment following a storm event. Committee members also discussed the importance and difficulty of educating the public about what was in the water.

Additionally, the Committee heard an overview of the post Hurricane Ian water quality dashboard tool and key insights derived from it, which was presented by Dr. Miles Medina with the UF Center for Coastal Solutions. They discussed further developing the dashboard in the future to map scheduled sampling trips to facilitate coordination with partners and identify monitoring gaps.

Next, Committee members shared the challenges they are facing with Hurricane Ian recovery and heard from the federal government Interagency Recovery Coordination (IRC) team about what the federal government can be doing to further assist them in filling community identified gaps to recovery. Discussion was focused on the challenges and lack of funding for debris removal projects. Committee members also discussed opportunities for beach renourishment and large-scale restoration projects, as well as the need to streamline the federal permitting process for restoration and recovery-related projects.

Finally, the Committee heard a presentation by Dr. Michael Wehner, Senior Scientist at Lawrence Berkeley National Laboratory, on the effect of climate change on Hurricane Ian. They discussed the importance of understanding that climate factors are causing storms and rainfall to become more extreme and how this information should be used to inform stormwater management planning.

Concluding the meeting, the Management Committee heard the CHNEP Program and Technical Project update presentations that are also coming before the Policy Committee today and shared updates with each other on their respective natural resource related activities and projects.

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

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

The CHNEP staff and partners continue recovery efforts from Hurricane Ian, which made landfall in Southwest Florida on 9/28 as a Category 4 hurricane. Multiple estuaries and watersheds within CHNEP area were severely impacted. CHNEP spent time at the end of

September and beginning of October putting together an emergency Water Quality task force for event sampling to aid public safety efforts and information gathering and dissemination- creating a spreadsheet to coordinate where data was being collected and where data gaps existed (Note: many partners had damage to offices and equipment and were without power for up to a month afterward.) CHNEP staff also participated in sampling efforts to as an additional service to our partners. CHNEP participated in interviews post-storm for Business Insider, Sanibel Captiva Insider, and the Washington Post (2x).

The CHNEP transferred to a new fiscal host Charlotte County on October 1. Despite these difficulties, CHNEP, City, and County staff are continuing to push forward host transfer tasks; creating the operational frameworks needed including creating new account and project codes, inputting EPA 320 and BIL grants through County grant approval process and submitting them on Grants.gov, getting all personnel set up as County employees in County systems, etc. At the September meeting, the CHNEP Policy Committee Meeting approved new CHNEP host Charlotte County Memorandum of Understanding (MOU) as well as approved the amended work plan and budget for FY22 and FY23 work plans and budgets. Two CHNEP abstracts for the 2022 Florida Resiliency Conference were accepted. Finished gathering partner data for 2022 NEPORT Congressional Reporting Survey to report on their annual conservation, management, and restoration accomplishments. This was uploaded into the EPA portal by CHNEP staff in September and included over 75 habitat entries. The CHNEP received and reviewed 6 Conservation Grant Applications for the FY23 program and presented all 6 to the CAC presentation on 8/24 with a recommendation to grant a total of \$10,200 for 4 of the projects. Final reports and deliverables were reviewed for Conservation Grants due to be completed on or before September 30, 2022 and submitted requests for payment from the City for a total of \$12,690 in reimbursements. CHNEP staff recorded a presentation on moving water to restore rivers and wetlands for the Florida Climate Week 2022 virtual conference. Staff also prepared two poster presentations on both the Habitat Restoration Needs Project as well as CHNEP Hydrological Restoration Planning Projects for the upcoming Restore America's Estuary Conference.

The CHNEP 2023 Nature Calendar design was completed and went to printer, though unfortunately delayed several weeks due to Hurricane Ian affecting print company located in Fort Myers, FL (30,000 copies will be sent out to all individual subscribers, as well as shipments and deliveries to numerous counties). The educational Harbor Happenings insert in this year's calendar features information about the blue carbon and the important role those natural systems such as seagrass meadows, mangroves, and salt marsh play. Staff has been working on the project since April to gather and vet volunteer photos and to design, print, and mail this annual centerpiece of CHNEP outreach.

CHNEP staff members attended the Restoration Aquaculture Workshop hosted by UF/IFAS at Tampa Bay Watch in St. Petersburg. During this workshop, CHNEP staff met with stakeholders throughout Florida to discuss restoration aquaculture and its growing role in Florida as a tool to improve water quality focusing on existing data gaps, as well as legal challenges around the expansion of restoration aquaculture, including permitting and policy. The CHNEP hosted an educational Microplastics Event for thirty registered participants to educate on what microplastics are, their impact on the environment, and how to reduce them. The event featured a hands-on activity where participants created a plastic wrap alternative with bee's wax for home use, as well as a Coastal Clean Up in Punta Gorda at the Ponce de Leon Park. Four new outreach

banners on Mangroves, Seagrasses, Birds of Florida, and Florida Friendly Landscaping were created for outreach events and the Spring/Summer edition of the Harbor Happenings magazine with printing and distribution to 6,000 direct households via the subscription list as well as drop shipments to the ten libraries in each county CHNEP services. The PDF version was placed online. Brian Smith complimented CHNEP for their efforts to move forward with an ambitious workload despite circumstances of the recent Hurricane.

Agenda Item #6 – Consent Agenda

Jennifer Hecker presented the Consent agenda which included review of the past policy meeting minutes, new Citizen’s Advisory Committee member application from Ms. Wojcik, and amended FY23 Work Plan & Budget. An opportunity was given by Brian Smith, Policy Committee Chairman, for Committee members to remove items for further discussion. No items were removed prior to a motion, second, and final voting on the Consent Agenda.

KEN DOUGHTERY MOVED, SECONDED BY MIKE MILLER TO APPROVE CONSENT AGENDA. THE MOTION WAS UNANIMOUSLY APPROVED WITH NO FURTHER DISCUSSION.

Agenda Item #7 – Hurricane Ian CHNEP and Partner Response Overview

Nicole Iadevaia, CHNEP Director of Research and Restoration, gave a presentation overviewing Hurricane Ian CHNEP and Partner Response. The region continues recovery efforts from Hurricane Ian, which made landfall in Southwest Florida on 9/28 as a Category 4 (nearly a 5) hurricane. Multiple estuaries and watersheds within CHNEP area were severely impacted. Partnership members at local and state governments and agencies continue clean-up and rebuilding, which may last months or years. All the partners of the CHNEP were impacted in one way or another by Hurricane Ian. During the last meeting cycle, collective input was gathered from both the Technical and Citizen’s Advisory committees through a discussion regarding initial experiences, data collection, and early observations following the storm. Comments from both meetings were shared with the Management committee and further input was provided from both management members and members of the Interagency Recovery Coordination (IRC) team. The results from all these information gathering efforts were shared with the Policy Committee to potentially be used in collaborating and building tools to make the Partnership and the region more resilient in our responsiveness to storms and other ‘environmental disaster’ events for the future.

One committee member complimented the excellent presentation and shared that after every storm we learn more to make ourselves and our efforts better for next time. The member also stressed that environmental health is just as important as human health and that the folks that have the capacity to go out and sample is critical along with having a plan for access to the water. Having discussions is critical to prepare for next time. The member concluded by emphasizing that partnerships and connections and already existing partnerships lead to the success of our recovery.

An EPA representative noted that Florida’s capacity as a state is tremendous. There was a request for the EPA to send 2 mobile labs for drinking water testing, but there were limitations due to the conversation between the state and government for environmental testing. The mobile labs did have additional capacity and in the future that capacity may be increased for environmental testing. The EPA usually comes in by the request of FEMA, and the representative thinks that there is a takeaway that can be added to the justification of including the environmental component. If there

are other water quality parameters that are needed, that needs to be part of the conversation too, as well as lab analysis.

Ms. Hecker shared that there was difficulty finding logistical, supply, and personnel resources during a time of need. Ms. Hecker complimented the Conservancy of South Florida, SCCF, UF, who all helped with storing samples, finding boats, and contributing manpower. The storm was an unprecedented scale and affected all of the partners differently. Ms. Hecker noted that bacteria were important to sample for, but it was difficult due to the short processing transport times of the samples. Each partnership was in their own emergency. Ms. Hecker noted that CHNEP and its partners will plug into and connect with the EPA mobile lab for future emergencies and will include EPA contacts in disaster recovery plans for the future. Ms. Iadevaia echoes the fact that the partnerships did an amazing job, especially when called on for help with sampling, they were on it and ready to go despite the circumstances.

One committee member questioned if any samples were found that were not safe for swimming in. Ms. Hecker answered that there were some samples with immediate issues containing bacteria that were too numerous to count. Ms. Hecker recounted that CHNEP posted a picture and message on Instagram to advise people to avoid contaminated water if possible and to wash with soap and water if they did contact it. The image went viral because people were so interested in getting such information.

A member commented that this was helpful information; information that is key for decision making. They also related to the problem of scarce resources, noting that coordination is key so that we are not all trying to use the same resources in times of need. The member also brought to the attention at the meeting that if any communities are going to use private contractors for sampling, they should be aware that FEMA reimbursement must be acquired in a certain way. Another member questions if there were any local or mobile labs that were “ready to roll” immediately after the storm. He also made note that nutrient sampling and herbicides are slowly being tested for as they cost extra to be analyzed and there was little to no money in the budget allocated to emergency sampling like this. Ms. Iadevaia informed the committee that labs in Charlotte and surrounding counties were largely at capacity. Mr. Smith also informed the committee and its members that it can provide support in sampling for chemicals and to please reach out to the EPA for more information.

Agenda Item #8 – Post-Ian Water Quality Dashboard Presentation

Dr. Miles Medina of the UF Center for Coastal Solutions presented on the development of the Post-Ian Water Quality Dashboard. Within days after Hurricane Ian made landfall, CHNEP staff reached out to the University of Florida’s Center for Coastal Solutions (CCS) to request assistance mobilizing personnel, resources, and equipment for post-event water quality sampling. CHNEP and its members and partners coordinated sampling efforts, and CCS led weekly coordination calls to share information across groups. To facilitate coordination, Charlotte County’s Water Quality Manager, Brandon Moody, and CCS research scientist Dr. Miles Medina collaborated to organize water quality data collected by various partners and quickly deployed a centralized web-based visualization dashboard to share water quality data in near-real time. This presentation describes the dashboard tool and key insights derived from it.

Dr. Medina went on to explain that there were delays and issues with bumping up against lab capacity, but this presentation attempted to create a picture in as close to real time as possible. The

interactive components of the dashboard are showing data at different time frames and there are still some bugs that need working out, but it was developed quickly and served its purpose at the time and possibly the framework for the future. Dr. Medina concluded that there is a need to create a more efficient and quicker pipeline from data collection to dissemination to publication and communication. There is an argument to be made to routinely use these methods so that they are ready to be deployed in emergency situations. This is not technically challenging, but people must be interested enough to fund and maintain these programs and keep up operational costs. A suggestion was made that the dashboard could have separate area where organizations could upload their sampling schedule with sampling maps so that others know what and where is being sampled.

One member asked about currently swimming conditions in which Dr. Medina noted that the dashboard has not been updated since December; to which Ms. Hecker added that there is a lag time associated with getting test results, so it is difficult to get live time data fast. She mentioned that CHNEP does have public webpage that gathers all public water quality data and displays it for the public to see and they can determine whether or not it is safe. CHNEP is hoping to get it on the CHNEP Water Atlas, where people can readily access that data near real-time in the future.

Agenda Item #9 – Hurricane Recovery Discussion with the Federal Interagency Recovery Coordination Team (IRC)

Brian Smith, Chairman, together with federal IRC Team Members led a discussion of challenges the Policy Committee members and the communities/agencies they represented are facing with Hurricane Ian recovery, as well as what the federal government can be doing to further assist them in filling community identified gaps to recovery that could include providing additional resources, technical assistance, services, etc. The IRC supports state, local, tribal, and territorial government in the development and pursuit of their resilient outcomes by identifying long-term recovery needs and facilitating whole community solutions. Members of the IRC included representatives from Community Assistance (FEMA), Economic Recovery (Department of Commerce), Health and Social Services (HHS), Housing (Dept Housing and Urban Development, Infrastructure systems (US Army Corps), and Natural and Cultural Resources (Dept of Interior). The IRC team first provided a brief presentation highlighting federal resources to support community resiliency and then each Policy Committee member had the opportunity to share brief comments on their community needs and/or significant recovery effort issues. Once all Policy Committee members had an opportunity to share comments, IRC members provided responses given time available and following the meeting, a formal comment response document was prepared with additional IRC input to send back out to Policy Committee members.

Comments from members and their respective counties are highlighted below:

Emory Howard, Hendry County:

Hendry County was extremely blessed that Hendry County was able to go out and support neighboring counties after the storm. Contractors were already set up prior to storm and the county was able to be self-sufficient. Upon spot checking wells and water quality, the county seemed to fair well. One of Hendry's top priority issues is the immense flooding resulting in the creeks that flow into the Caloosahatchee becoming restricted, which is contributing to more flooding. Coordination efforts in the past have not been successful and Hendry County is hoping to restore the flow from the restricted creeks.

Ken Doherty, Charlotte County:

Complimented the great local team and the partners that have helped the county recovery in such a timely manner. The most immediate issue was debris removal which presently equates to 4.6 million cubic yards or 90,000 loads (compared to Hurricane Charley which had about 1.8 cubic yards). The EOC and contractors were well organized and coordinated well together. There are currently only about 7 zones left for debris removal, but the canals and waterways are still in need of attention, but the FDEM is currently helping. The navigable canals and waterways used for stormwater management are a mess with a lot of debris. Recovery is going to take some time, a couple years at least before we can get back to normal. Of the best things for the County has been hiring our Water Quality Manager, Brandon Moody, as he has been a blessing during this event. Housing has also been a top priority and large stress factor as ~500 people lost their homes. There has been a temporary change of codes (2 year duration) to allow people to have travel trailers and RVs in their driveways and on their properties which is working out pretty well. A resolution was just approved with FEMA to allow for some temporary group housing on site as well that will accommodate ~100 units. Another priority is to see if the state can help with the insurance companies, as many people are having a horrible time with insurance companies.

Jack Bispham, SWFWMD:

There was tremendous coordination with water quality and sampling after the storm. One thing that the Water Management District did was offer up assistance for water quality sampling in coordination with the Sarasota Bay Estuary Program. Brandon Moody from Charlotte County was very instrumental with the coordination of that and with the EOC operations afterwards with providing resources. The Water Management district is still providing assistance with debris removal and a lot of the attentions is going to be focused on capturing the environmental impact and working with partners to monitor the recovery as it progresses. Seagrass is just one example of environmental impacts that is going to be prevalent for years to come. There is a lot of staff working with local partners to analyze all the data collection and the results. The Water Management Districts is always available to help out, feel free to reach out with any resources that they can provide to help out the local governments.

Jennifer Codo-Salisbury, Central Florida Regional Planning Council:

The CFRPC is working in coordination with the Economic Development Administration and FEMA; holding listening sessions of the agencies in their region on February 6th in Arcadia to hear from the Chamber of Commerce on what assistance is needed. They also had the opportunity to deploy some staff from Polk County to DeSoto and Hardee to assist with GIS mapping of damage assessments.

Don McCormick, Southwest Florida Regional Planning Council:

There are currently only 4 employees at the moment, therefore ability and capacity to help directly with recovery efforts is limited. There is a need for assessment of the rail capacity in the area; although the Seminole Gulf Railroad does not carry passengers, it does carry freight which cannot span the Caloosahatchee at this time.

Steve Hickox, DeSoto:

DeSoto County was hit with record flooding that surpassed anything he has ever seen living there his whole life. Feeder creeks and the Peace River have changed immensely. The Peace River is still pretty dangerous due to all of the unknown debris and structures that inhabit it. The sandbars and banks have also eroded and changed which is extremely dangerous for boaters. The most

frequently asked question is when citizens can resume fishing and swimming. Due to the extensive amounts of pollution and damage to numerous septic systems, the answer is still unknown but Hickox is anxious to hear the results of the water quality sampling and testing.

Donna Peterman, City of Punta Gorda:

The City of Punta Gorda was extremely efficient with debris pickup (completed in December) with contractors ready to go. The canals still pose much of a challenge, but FEMA and their financial support has been very helpful. FEMA is also wanting to install riprap, but the project has been halted due to the protection of the Smalltooth Sawfish. There is priority for a permit from Fish and Wildlife, to ensure that FEMA funds granted after Hurricane Irma can be used before expiring. Debris in the canals are still a large issue but local boat owners have been encouraged to go out and identify areas of debris if equipped to do so. The County is also looking for funds from the State to expand their EOC facilities. Punta Gorda EOC was located in their water treatment plant, but that located was completely compromised from the storm. Punta Gorda EOC does not currently have a dedicated space to serve the public. There was not a great response surrounding this but there is still a definite need for it. The top priority is the fish permitting.

Scott Kirouac, Highlands County:

Highlands was impacted with the eye of Ian; despite the northeast corner of a hurricane's eye notoriously being the strongest, the inland communities (including DeSoto) received the most damage from the western eyewall of the storm. Parts of Highlands County received a combined rainfall of more than 30 inches for the month of September. There was also a lot of localized flooding and stormwater issues. Highlands County emergency staff had been preparing for months, which included mock drills, which came in handy as Ian approached. They have collected close to 0.5 million cubic yards of debris and have already received a payment from FEMA for \$6.1 million dollars in January, noting that it took almost 2 years to be reimbursed for Hurricane Irma. There are currently 3 basin studies being conducted focusing on stormwater. They are currently working with state partners to gain water quality funding. Overall, 95% of citizens had power within 3 days of the storm, with some communities never even losing power. Notices a big difference in response time from Hurricane Irma and Hurricane Charlie. Because of the preparedness, Highlands County was able to divert some of their resources to more affected counties.

Chadd Chutz, Town Fort Myers Beach:

Fort Myers Beach was ground zero and in need of help with every facet of recovery. Debris removal is moving along but there are still destroyed houses that have not been tended to. There is complete devastation but the community has a positive attitude and working toward building back better by taking advantage of mitigation to improve in case there is another 15 foot wall of water. As far as kind of debris, 95% was C&D, 4% was sand, and 1% was vegetative.

Mike Miller, City of Sanibel:

Sanibel was also ground zero and is thankful for their federal partners, FEMA, and FDEM for all of their support so far. Over 1.3 million cubic yards of debris have been removed so far, which is a lot for an 18 square mile island, two-thirds of which is conserved. There is major concern about getting the vegetation debris removed by March 29th, which is the 6-month deadline of the FEMA public assistance program. We are requesting some sort of extension for reimbursements for debris removal after that date. Another concern is funding for beach renourishment. The DEP has estimated that Sanibel is going to need about 520,000 cubic yards of sand renourishment which is

going to county around \$27 million. The State has promised 48% of that cost but there is still need for funding for the remaining balance. The funding is also complicated due to the fact that the beaches are not engineered. There is also a need for a plan to restore vegetation on the dunes leading to the beaches, including those privately owned (seeking assistance for what kind of programs are needed to accelerate the restoration of the dunes to ensure that they remain resilient. There is also a need for temporary housing as 75% of multi-family units on the island including condos and resorts, remain without power. A lot of affordable housing locations have had to be demolished, looking to connect with FEMA and the State to cut the red tape and ensure that the residents in need of temporary housing are able to get it. The storm surge impacted Sanibel's sewer system, including electrical power to over 100 lift stations, which will need funding to restore.

Katy Errington, Village of Estero:

Hurricane Ian devastated the West coast of Estero, Estero Bay Properties, and Broadway West. Several hundred homes were lost. The Village was already conducting studies for switching from septic to sewer, which has now created a problem for homes that border the Estero Bay State Park that was under 8ft of water which were the ones destined for the sewer conversion. Following through with the completed study is planned but it has definitely posed a challenge. There are hundreds of people living in RVs, with no FEMA trailers present as of yet. Tons of debris have been hauled off with the most recent 30 acres of debris being cleared as of last week.

Roland Ottolini, Lee County:

Lee County also took a direct hit, with a storm surge of over 122 feet in many areas. Marginal rainfall at about 5in, with flooding mainly due to tidal surge. The focus of needs in Lee County is regarding housing and economic recovery. The county has also implemented a long-term recovery taskforce which is being spearheaded by Commissioner Ruane. Some of the most immediate needs are in debris removal, with nearly 118,00 loads collected so far equating to over 5.8 million cubic yards of material. Another large challenge is the clearing of waterway debris, specifically being able to track where it is and how to coordinate with the State and other organizations (i.e. state contractors handling titled vessels, RVs, and vehicles in waterways. There is concern with the upcoming rainy season that the inventory and assessment of environmental needs and funding will not be complete in time. Lee County is in a holding pattern with receiving FEMA funding until they are issued a denial from NRCS or NRCS funding. Beach renourishment is proceeding, specifically in the areas of Bonita Beach and Lover's Key with DEP funding.

Maya Robert City of Cape Coral:

Status update is comparable with Lee County and Fort Myers Beach, with an estimated 7 years of debris to be processed. Canal and waterway debris removal began in November and must span the 400 miles of canals under restrictive guidelines. One of the biggest concerns for the local government, especially for the future is the coordination of flooding forensics. A collaboration of agencies that are looking at satellite imagery. Flyover recognition, resident reporting, high water marks, and all other information possible to collect data from real-life events rather than modeling to leave communities better prepared and understanding of the upcoming risk of flooding. We know that we are going to have another storm, but without assessment, it is going to be very difficult for Cape Coral to leverage for state or federal funding.

Mike Moran Sarasota County:

Supporting prior remarks and seeking greater efficiency for private communities and mobile home parks. Sarasota County having difficulty with illegal debris dumping where communities are bringing debris to locations that were not approved for dumping.

Jennifer Carpenter, FDEP:

The percentage of construction and demolition debris is over 50% for debris on Sanibel and around 35% on Sanibel. The difference between the 2 is just a reflection of the unprecedented effects of the storm surge. Trying to manage the land-based debris at the moment and the marine debris is in the beginning stages, but there is a definite need for further coordination. Local DEP staff has tried to be available for contractors trying to handle the marine debris.

Brian Smith, EPA:

There are a lot of challenges with septic systems and septic to sewer. There is a large allocation in the most recent omnibus bill to augment state SRF programs. The exact amount is unsure, but it will be in the amount of hundreds of millions of dollars, especially for Florida for clean water and drinking water SRFs. Florida and Puerto Rico are close to \$1.1 billion so far. All the eligibility of SRF will be including in that for clean water, as well as green infrastructure with the overall intent to build more resilient systems. The focus is on communities that have been impacted.

Alice White, City of North Port:

The City of North Port experienced major flooding, but FEMA was extremely responsive, which was an improvement from past storms. Flooding did pose a challenge in getting FEMA out to some locations, so there is a need for more accessible locations when disasters like this occur (Sumter exit was closed due to water flowing over the bridge). FPL was responsive and food trucks were present around the community however, some food trucks were located in inaccessible locations which made it difficult for some residents to get to.

Doug Roberts, Deputy Bureau Chief of Recovery, Florida Division of Emergency Management:

I just wanted to highlight an existing theme in today's meeting, the power of partnerships. What great relationships existed before the storm to reengage and after to connect with for future planning and recovery.

Leda, Deputy Federal Disaster Recovery Coordinator:

I hope that this is the beginning of greater partnership. Being able to hear the points and issues you have addressed in each of your communities has given us a starting point. Our goal is to understand from the bottom up. It is important going forward to think about long-term recovery. This kind of meeting is the perfect platform to receive input from communities and we are hoping to gather needs to a common plan for future disaster recovery. Some needs are local, and some go beyond local needs and need to form solutions with federal partners. It is crucial to have 1 on 1 conversations to understand where communities stand on different issues and recovery efforts. Are there any questions from communities wanting to know what they would like to see as next steps?

Jennifer Hecker, CHNEP:

CHNEP will be compiling comments and questions from members to the IRC for written comments by IRC with further instruction. The Peace River peaked 19 ft higher than the highest water line, unprecedented conditions and the highest recorded in history. We have been looking closely at this and doing hydrological modeling in partnership with many partners in this room. Models are typically based on historical and existing conditions and looking at future conditions

which are turning out to be more unprecedented than we expected. We are using climate models to calibrate after Ian and be better prepared for future events.

Ken Dougherty, Charlotte County:

During and immediately after the storm there was no way to know when it was going to peak and when it was going to hit. At one point 3 of Charlotte County's primary roads (I-75, U.S. 17, and U.S. 41) were cut off due to the heavy rainfall in the Myakka and Peace River. The hospitals were shutdown and they were forced to airlift people. The managers of the EOC did not have a model to predict peak stages for the local rivers, maybe there is a tool that can be created to foresee floods and road closures.

Steve Hickox, DeSoto County:

As soon as the storm began to cease, we had multiple people on the roads immediately. The water rose so quickly, we had several families who were trapped and could not get supplies. We also had numerous amounts of wildlife, horses, and cattle that were trapped or drowned. If there was some way to judge the roadways and shut them down to avoid washouts and vehicle accidents that would be extremely helpful and save lives. The amount of pollution and debris in the Peace River is substantial and has been flowing up into the woods and creeks. We are looking for an organization out there to help us clean up these areas as we know it is a beautiful fishery and a lot of wildlife lives there.

Milton Cochran, Economic Development Administration:

The goal during this event is to help communities impacted by the storm to return to economic and business activities, including agriculture, to a state of health and develop new opportunities that could make them more resilient in the future. To work towards that goal, we have done a lot of listening sessions with regional planning councils and assessing what we have heard at the sessions and begun to plan Economic Recovery Workshops. These workshops will get more in-depth with each impacted community. We are happy to identify resources and will soon work to implement funding for issues brought up at today's meeting.

Deevah Melendez, Community Assistance:

The main role of Community Assistance is to listen to the feedback provided to us and then evaluate and look at what priorities are at the top of the list for recovery. We will then work with local officials to develop a project scope that identifies and addresses those priorities. We are also here to provide technical assistance and support, as well as help identify resources and explaining eligibility.

Dave Apple, U.S. Army Corps of Engineers:

In terms of septic lift stations and infrastructure, we are focusing on how to build more resilient systems to withstand storm surges without being submerged. We want to meet with each individual county to identify areas of funding gaps and find solutions to make the beaches more resilient (lots of erosion). We are also looking to nature-based solutions to not only increase resiliency but protect our environment, which includes estuaries. Beach renourishment is also a priority on engineered beaches. We are hoping to use visioning tools to develop recreational plans and a agricultural economic markets. The Army Corps does have a lot of hydrological tools for looking at climate change and sea level rise as well.

Dan McCormick, Department of Interior:

Nature-based solutions could help with water quality and future erosion, especially since the right ecology can help filter out contaminants and manage flooding. We, along with our sister agencies (USGS, US Fish and Wildlife Service, National Parks Service, and NOAA; have been paying special attention to the mention of flooding on roads and highways. The USGS has a great water quality dashboard that helps with modeling flooding. I would like to bring the USGS in and have them give a presentation on the use of this tool. It would be very helpful for first responders. I will reach out to USFWS to see how they are responding to fish blockage caused by debris blockage in the local streams and waterways. I will also look into the endangered species issue raised by Punta Gorda, no promises but I am going to see what I can do for that. NOAA also has great satellite data that could assist with coordinating flood metrics.

Joe Woody, U.S. Department of Agriculture:

Many communities have mentioned non-navigable waterways and issues with funding their recovery process. There are around 20-30 sponsors statewide and over 135 identified sites to begin the recovery process. There is funding in the Omnibus bill and after speaking to Kentucky and Florida Managers of the Emergency Watershed Protection Program; Kentucky stated that they got all of their backlogged applications funded. I know there are 4 major areas in Charlotte County, with anywhere between 2-15 sites per area, so just know that FEMA PA and FDEM are mapping your area right now. DeSoto and Fort Myers have around 20 eligible sites, DeSoto is in process and Fort Myers is in the funding stage. Omnibus expects funding to get to the state sometime in March.

Nancy Young, Small Business Administration:

The Small Business Administration is performing assessments to identify unmet needs of businesses and properties that are beyond the scope of the SBA program. We have spoken with and gathered information from communities, stakeholders, and private sectors on any recovery issues that would require more funding than what is provided by the SBA Disaster Loan Program. If we can help businesses overcome short-term barriers, we can collaborate and create solutions for the long-term that will support and encourage a more sustainable, resilient, and diverse community in the future.

Tonia Pence, FEMA:

We are in the process of having community-based outreach meetings with local officials. We visited the Town of Fort Myers Beach yesterday and were able to speak with key people about what is keeping them up and what they are still in need of. There is a two-layer approach going forward: 1.) Acquiring notes and letting the team dive in and evaluate and 2.) having sit-down conversations with IRC team members by contacting Laura Curvey if you want to speak 1 on 1. Do not hesitate to schedule time, zoom is also an option.

Colin Keline, Florida Department of Emergency:

The new FDEM Region 6 Regional Recovery Coordinator, Kathryn Thompson, is going to be starting soon or has possibly just begun. You should be hearing from her if you have not already.

Agenda Item #10 – The Effect of Climate Change on Hurricane Ian

Dr. Michael Wehner of Lawrence Berkeley National Laboratory presented on his research on the effect of climate change on Hurricane Ian. Hurricane Ian's rainfall was at least 10% wetter because of climate change while the storm was still impacting Florida, according to a rapid analysis

conducted at Stony Brook University and the Lawrence Berkeley National Laboratory. The analysis used the same methodology as recent peer reviewed studies that examined the influence of climate change on the entire 2020 hurricane season and on other previous individual hurricanes. Noting their result as a "conservative estimate, they found that the physical relationship between air temperature and water vapor alone would suggest that Hurricane Ian's rainfall should have only been around 5% higher due to climate warming. This research and analysis concluded that climate factors are making storms more efficient at precipitating the available moisture, causing the storms to be wetter than they otherwise would be –with more intense and larger volumes of rainfall. Following the presentation, Mr. Wehner allowed for questions.

Ms. Hecker asked for elaboration of the portion of the presentation in which Mr. Wehner mentioned how quickly the rain drops fall affect by temperature. Mr. Wehner explained that results show that short term cloud busts increase at a greater rate, resulting in the storm total precipitation increases but the short-term periods can increase at a greater rate. Frequent in urban areas, where the systems can't handle great body of rate.

One member asked for elaboration on climate change and its affect by humans and fossil fuels, specifically on how agriculture has seen changes in weather patterns due to the implementation of solar fields and "the island effect." Mr. Wehner detailed that there is proof of local weather affects changing due to land use and depending on what the land is being used for. Locally there would be an affect but not regionally. Not aware of it being a large issue but would caution that the climate is a very variable system in time and space don't draw any conclusions based on a small spatial scale. Have looked at 30-40 different storms but results and they all follow similar paths.

Another member asked Mr. Wehner if he has the temperature and rainfall data for Hurricane Michael in which Mr. Wehner believes that it follows the similar effects from climate change from Ian, looking at climate change and its effects on storms should be taken over by governmental agencies like NOAA. A member then asked if atmospheric rivers are related in any way to hurricanes in which Mr. Wehner explains that they are very different but knows a study in which global warming does increase at a higher rate in atmospheric rivers.

Agenda Item #11 – CHNEP Technical Projects Updates and New Tools

CHNEP Director of Research and Restoration, Nicole Iadevaia, presented updates regarding CHNEP recently completed, current, and on-going technical projects. The highlights are as follows: In addition to the items featured earlier on the agenda, several other research and/or restoration projects (or phases of projects) in the program area are currently underway with CHNEP FY19-22 funds. A brief overview was given on projects currently identified in the FY23 Work Plan (Including both EPA and FY22-23 BIL funding). Additionally, the CHNEP Water Atlas is nearing completion on several enhancements from the current year that will be beneficial to multiple users; these pages were previewed during the discussion so that Policy Committee members will be able to dive in and access resources easily. Current or Recently Completed Projects include:

CHNEP Water Atlas /CHNEP Water Atlas Trends Enhancements:

The CHNEP Water Atlas will soon include new waterbody and watershed pages with new interactive mappers including water quality, hydrology, wildlife/habitat, and climate change. Another addition will include Mote's "Healthy Beaches" data on the Coastal Conditions Map,

Freshwater Caloosahatchee River Basin Habitat Restoration Needs (HRN) page, Winter Haven Lake Assessments on lake pages, and algae and epiphyte data on seagrass pages.

Lower Charlotte Harbor Flatwoods Hydrological Modeling Project:

This is a recently completed modeling project aiming to create integrated surface/groundwater models for the hydrological restoration of the Charlotte Harbor Flatwoods area by restoring the natural flow of water, increasing natural water storage and managing flooding events, and improving water quality.

Coastal Charlotte Harbor Monitoring Network Project:

The Coastal Charlotte Harbor Monitoring Network (CCHMN) is a regional partnership of agencies that agree to collect, analyze, and upload results from water samples to a state assessment database at 60 randomly selected field sites throughout 10 waterbodies monthly. CHNEP directly funds and manages project sampling in Lower Charlotte Harbor, Upper Charlotte Harbor, Cape Haze, Lower Lemon Bay and the Tidal Peace/Myakka Rivers to fill data gaps. CHNEP also hosts the Annual CCHMN partners meeting, conducts field sampling audits, attends RAMP meetings, uploads data into CHNEP Water Atlas as well as funds maintenance and trend analysis features on CHNEP Water Atlas pages on behalf of partners.

Myakka Headwaters Preserve Restoration Project:

In partnership with Southwest Florida Water Management District and Conservation Foundation of the Gulf Coast; this project aims to fund invasive species management and restoration of trees and native plant species along the shoreline of the Myakka River Headwaters (363 acres of conserved land within Flatland Swamp). By the conclusion of the project projected outcomes include enhanced wetland habitats for plants and the animals that depend on them, removal of seed source for invasive species at river source, reduction of erosion, and increased flood protection along shoreline of Myakka River.

One committee member asked if the CHNEP staff or its sampling partners had ever submitted identical samples to different labs as a calibration or check between the various laboratories used to process samples. Ms. Iadevaia shared her experiences from a recent meeting she attended hosted by the Regional Ambient Monitoring Partnership, which focused on gathering contract laboratories from the county and city to essentially audit themselves and share their sample processing practices ensuring that they are consistent across the board. As far as Ms. Iadevaia knows, the RAMP program is only available in the Central and Southwest Florida region.

Ms. Hecker took a moment to commend and recognize the CHNEP staff as the small and mighty team they are and complimented them on their hard work that resulted in all these organizational accomplishments.

Agenda Item #12 – Policy Membership Updates — Brian Smith, Chairman

Each member was given up to 5 minutes to update the Committee on projects currently being completed to protect and restore natural resource in the CHNEP program area. This time also served as an opportunity for members to discuss topics of interest to the Committee members.

Jennifer Carpenter, Florida Department of Environmental Protection (FDEP) South District –

If you are looking at infrastructure programs please create or reconnect with our funding program, note that this region has recovered in an inspiring manner, really appreciate all of our state and federal partners for being here.

Don McCormick, Southwest Florida Regional Planning Council (SWFRPC)-

Highly recommends All Clams on Deck as an interesting presentation on clam mitigation and seagrass emphasizing the importance on leaving some natural vegetation debris post Hurricane Ian.

Jennifer Codo-Salisbury, Central Florida Regional Planning Council (CFRPC)-

Impressed with all that is going on in CHNEP, Heartland Coastal Resiliency Corps formed recently and kicked off the development of the Regional Resiliency Action Plan, currently collecting data from Ian and from other partners to work towards a future.

Jack Bispham, Southwest Florida Water Management District (SWFWMD)-

Looking to fund water quality and development projects, and increasing regional partnerships, there is a seagrass workshop on February 14th, with seagrass maps updated every 2 years for southern estuaries. It is roughly a million-dollar project, keeping a check on our seagrass, increasing knowledge of where to allocate resources.

Ken Doherty, Charlotte County-

There have been a lot of lessons learned and we will get through this. Charlotte County is in the process of converting our wastewater treatment plant.

Steve Hickox, DeSoto County-

Looking forward to seeing more of the research and restoration in the future.

Emory Howard, Hendry County-

Appreciated highlighting of monitoring and thinks there is a need to push those efforts statewide.

Scott Kirouac, Highlands County-

Focusing on stormwater, looking at different models, and vacant land to possibly store stormwater. Has witnessed the changes in the water and seagrass and hoping to see it trend in a more positive way.

Alice White, City of North Port-

People are becoming more aware of where they live; flooding in areas that were not designated a flood zone by FEMA. Citizens are taking action to understand that water is everything and becoming more aware how they can minimize impacts from the water in the future.

Donna Peterman, City of Punta Gorda-

(Hurricane Ian) was a great opportunity to see the scope of work being done and local initiatives. Looks forward to giving a more in-depth report next meeting cycle.

Mike Miller, City of Sanibel-

Beach renourishment issues from storm where they need 517,000 cubic sand. They are working with Captiva to have them join Sanibel's sewer system, but need to ensure that Sanibel's system can handle the addition.

Chadd Chutz, Town of Fort Myers Beach-

Looking at beach renourishment efforts, addressing hurricane impacts with DEP and FEMA money, these partners have also helped with coordinating debris.

Agenda Item #13 – Public Comment — Brian Smith, Chairman

At this time a member of the IRC emphasized that if there were any topics or items that came to mind regarding questions concerning recovery efforts or needs to please let the IRC know.

Agenda Item #14 – Future Meeting Dates and Topics,

Contact jhecker@chnep.org if you would like any topics added to future agendas. The upcoming 2023 Policy Committee meeting dates are May 25, 2023, and September 21, 2023.

Agenda Item #17 – Adjourn

Meeting was adjourned at 12:52