



## DRAFT SEPTEMBER 23, 2021 POLICY COMMITTEE MEETING MINUTES

### **Members Present:**

John Iglehart	Florida Department of Environmental Protection South District
Mike Miller	City of Sanibel
Brian Smith	US Environmental Protection Agency
Jack Bispham	Southwest Florida Water Management District
Debby Carey	City of Punta Gorda
Laura Carr	City of Bonita Springs
Ron Cutsinger	Sarasota County
Katy Errington	Village of Estero
Don McCormick	Southwest Florida Regional Planning Council
Allie McCue	Florida Fish and Wildlife Conservation Commission
Alice White	City of North Port
Claire Jubb	Charlotte County ( <i>alternate</i> )
Dawn Ritter	Highlands County ( <i>alternate</i> )
Gaye Sharpe	Polk County ( <i>alternate</i> )

### **Others Present:**

Jennifer Hecker	Coastal & Heartland National Estuary Partnership
Nicole Iadevaia	Coastal & Heartland National Estuary Partnership
Andrew Webb	Coastal & Heartland National Estuary Partnership
Sarina Weiss	Coastal & Heartland National Estuary Partnership
Sophia Brown	Coastal & Heartland National Estuary Partnership
Corey Anderson	Management Committee Co-Chair
Dave Kramer	Southwest Florida Water Management District
Borja Crane-Amores	Florida Department of Environmental Protection
Omar Abdul-Aziz	West Virginia University
Christopher Roog	West Palm Beach Community Redevelopment Agency
Phil Flood	South Florida Water Management District
Randy Smith	Southwest Florida Water Management District
Kali Spurgin	Florida Fish and Wildlife Conservation Commission

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

Co-Chair Brian Smith called the meeting to order at 9:02 am. Introductions were then made.

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

No additions or deletions were made to the agenda.

**JOHN IGLEHART MOVED, SECONDED BY PHIL FLOOD TO APPROVE THE AGENDA AS PRESENTED 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 – Policy Committee May 27, 2021 Meeting Minutes — Brian Smith, Co-Chair**

No edits were suggested for the Policy Committee May 27, 2021 Meeting Minutes.

**JOHN IGLEHART MOVED, SECONDED BY MIKE MILLER, TO APPROVE THE POLICY COMMITTEE MAY 27, 2021 MEETING MINUTES. THE MOTION WAS UNANIMOUSLY APPROVED WITH NO FURTHER DISCUSSION.**

### **Agenda Item #5 – Management Committee Report — Corey Anderson, Management Committee Co-Chair**

Corey Anderson, Management Committee Co-Chair, provided a briefing on the last Management Committee Meeting on September 10, 2021. Highlights are as follows:

The Management Committee heard a briefing from the CHNEP Technical Advisory Committee (TAC) Co-Chair on their discussion of 2020 Seagrass Mapping Results for the Charlotte Harbor Estuaries, the Mesocosm and Field Studies of Tape Grass Capacity to Sequester Nutrients and Suppress Algae Growth in the Caloosahatchee River, Recommended Minimum Flows for Lower Shell Creek, 2021 Red Tide Event in Charlotte Harbor Discussion, and Enhancing Coastal Resilience through Nature-based Risk Reduction at their August 12, 2021 meeting. They also heard a briefing from the CHNEP Citizens Advisory Committee (CAC) Meeting Co-Chair on their discussion relating to agenda items on at their August 25, 2021 meeting, including discussions on the Annual CHNEP Calendar Photo Contest, a Roundtable Discussion on Environmental Outreach, new CHNEP Conservation Grant Applications, as well as the 2021 Red Tide Event in Charlotte Harbor and Enhancing Coastal Resilience discussions. There were no agenda items that came before the Management Committee this cycle for the TAC or CAC to directly advise on.

The Management Committee agenda then went on to include many of the same presentations being brought before the Policy Committee this cycle, including presentations on the FY 2021 Amended Work Plan & Budget and the FY2022 Amended Work Plan & Budget, Updating Stormwater Standards for New Development State-wide, Climate and Land Use Change Impacts on Stormwater Runoff in Coastal Florida, and Resiliency and Stormwater Enhancements in the Public Realm. Overall, Management Committee members noted that inadequate stormwater management standards translate into more water quality retrofitting costs being incurred by local governments, and that standards needed to be updated not only to provide adequate retention and nutrient removal based on current climatic conditions, but also to address projected future climatic conditions.

The only action items on the Management Committee meeting agenda related to the Policy Committee was the amended FY21 & FY22 CHNEP Work Plans & Budgets, to which the Management Committee reviewed in depth and unanimously recommended that Policy approve both.

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

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

Financial support continues to be a priority. CHNEP staff prepared customized 2021 invoice letters to all 10 counties and 25 cities in the CHNEP area. These packets included the FY21 invoice, CHNEP CCMP Summary, 2021 Legislative Priorities, and project fact sheets. Since the last cycle, CHNEP has received all budgeted FY21 annual contributions. The 2022 Invoice letters and budget will be sent out at the beginning of FY22 in October 2021. Additionally, CHNEP received \$787.00 in private donations and have received three (3) grant applications, completed four (4) grant process reports, submitted one (1) grant application, received two (2) project proposals, and wrote one (1) letters of support for partnership grants.

CHNEP program administration highlights include a finalized formal Interlocal Agreement with the University of Florida to work with UF's Center for Coastal Solutions in the CHNEP program area to enhance the CHNEP Water Atlas, as well as formally joining Growing Climate Solutions to build climate awareness in Southwest Florida. The CHNEP also hired Research Specialist, Sarina Weiss, and Public Outreach Specialist, Sophia Brown.

Additionally, the CHNEP has been working on other finance and administrative items which include:

- Working with SFWMD to receive funding for additional tasks for the South Lee County Watershed Initiative as well as to request recurrent annual funding for the South Lee County and Lower Charlotte Harbor Flatwoods Initiatives
- Amended FY21 and FY21 budgets which were approved by Policy Committee
- Submitted EPA FY22 grant funding application
- Submitted FY22 budget narratives and performance measures to the City of Punta Gorda
- Worked with Charlotte County staff for the passage of a resolution to support CHNEP request to SFWMD for recurrent dedicated funding support to implement hydrological restorations
- Submitted letters to the SWFWMD to define the TBD projects that are outlined in the FY19 & FY21 agreements
- Completed NEPORT leveraging for US EPA and Congress, outlining how funds have been leveraged to advance research and restoration projects in the CHNEP area.

CHNEP hosted the 2021 Southwest Florida Climate Summit and co-hosted the Florida Macroalgae 3-Day Workshop, as well as participated in several partnership meetings to provide comments and technical support. These include the Barrier Island Parks Society Red Tide Forum, Estero Bay Agency for Bay Management Meeting, FDEP Blue Green Algae Task Force Meeting, Florida NEP/CZMP Coordination, GOMA Workshop: Climate Change Adaptation, GOMA: Building Partnerships for a Healthier Gulf, Gulf of Mexico Ecosystem Service Logic Models and Socio-Economic Indicators (GEMS), Myakka River Management Coordinating Council Meeting, Science and Environment Council Meeting, SOCAN (Coastal Acidification Network) Group Meeting, 2020 Charlotte Harbor & Lemon Bay Seagrass Map Results Meeting with SWFWMD, Charlotte Co. & Sea Grant (3), Southwest Florida Seagrass Working Group Meeting, South Florida Ecosystem Restoration Task Force Working Group Meeting, Chaired

the Southwest Florida Water Management District Environmental Advisory Committee Meeting, Congressman Greg Steube and staff, Congressman Scott Franklin's staff, and Senator Marco Rubio's staff, Charlotte County Water Quality Manager, and the SFWMD Executive Director.

CHNEP staff presented on a variety of topics for the Macroalgae Workshop, the Greater Everglades Ecosystem Restoration Science Conference (GEER), the U.S. EPA 2021 NEP Workshop, the 2021 Southwest Florida Climate Summit, the Florida Snook Symposium, the Environmental Discussion Group of Manatee County, the Charlotte County Board of County Commission, and the Lower Charlotte Harbor Flatwoods Initiative Working Group. These partner meetings and presentations have also garnered media.

In regards to public outreach, CHNEP has co-authored a scientific journal article “Developing a Water Quality Assessment Framework for Southwest Florida Tidal Creeks” which was published in the July 2021 Estuaries and Coasts. CHNEP customized CHNEP Update videos that were sent to all State Senators in the CHNEP area, staff reached out to CHNEP Congressional offices including Congressmen Steube, Soto, and Buchanan who signed onto the Congressional NEP Appropriations sign-on letter. Additionally, postcards were mailed to update the Constant Contact database. CHNEP also attended external outreach events including the Frostproof Earth Day Festival in Polk County and the Wauchula Wildcat Tailgate in Hardee County.

In addition, CHNEP has been hosting monthly volunteer events including the Earth Day Trash Cleanup in April with Keep Charlotte Beautiful, a Florida Native Plantings seminar with the Charlotte Harbor Environmental Center and Florida Master Gardeners, a citizen science training for the ‘Eyes on Seagrass’ program with Florida SeaGrant, and a FL Horseshoe Crab Watch Training with FWC. Following the Earth Echo Water Challenge virtual presentation hosted by the CHNEP in March, participants received water testing kits for World Water Day to contribute to a global effort in water monitoring reporting. Other notable outreach accomplishments were the release of the Harbor Happenings Spring/Summer 2021 issue, planned and hosted the 2021 Southwest Florida Climate Summit, created Seagrass Fact Sheets with 2020 data, conducted the 2022 Nature Calendar Photo Contest and held a special CAC Calendar Photo Evaluation Meeting, made regular Facebook posts on variety of events including CHNEP volunteer events, World Ocean’s Day and National Pollinator Week.

Policy Committee Members asked if funding for the American Rescue Act create any opportunities for the CHNEP. Ms. Hecker responded that funding was not directed to the CHNEP but could be available to municipalities in the Partnership, adding that CHNEP city and county partners provide annual contributions that are used as match to obtain additional state and federal funds.

#### **Agenda Item #7 – CHNEP ED Annual Evaluation — Brian Smith, Co-Chair**

The US EPA and the City of Punta Gorda’s Human Resource Division require an annual evaluation to be conducted of the CHNEP Executive Director. An evaluation form was sent out twice to all Policy Committee members at the beginning of July, with responses requested by the end of August. Five responses were received, which were compiled into a Draft CHNEP Executive Director Evaluation. Below is a synopsis of scores and summary of comments received (the first 7 being City of Punta Gorda’s performance measures and the second 4 being additional CHNEP performance measures):

	LEADERSHIP	SERVICE	OTHERS	ORGAN.	JUDGEMENT	COMM.	INTEGRITY	SUPPORT	WEBSITE	ADMIN	REP.
VEACH	5	5	5	5	5	5	BLANK	5	5	5	5
ERRING.	5	5	5	5	5	5	5	5	5	5	5
CAREY	5	5	5	5	5	5	5	5	5	5	5
INGLESIAS	5	5	5	5	5	5	5	5	5	5	5
GOSS	5	5	5	5	5	5	5	4	4	5	5
AVERAGE	5	5	5	5	5	5	5	4.8	4.8	5	5

CHNEP Policy Committee members discussed the draft evaluation (including associated commensurate City of Punta Gorda annual increase based on the six responses received), which was based on 5 responses with scores and 1 only with a narrative comment. Some members noted that the standard City measures were difficult to assess as geared towards supervisors with daily interaction with the evaluated employee. CHNEP staff and Policy Committee Co-Chair explained that as part of the CHNEP’s arrangement with the City of Punta Gorda as CHNEP’s host entity, CHNEP must use its standard HR form and evaluation metrics. However, there are four added CHNEP-specific metrics that can be customized and expanded upon. Committee members asked and were told that they did not have to answer all scores, just as many as they were comfortable assessing. Policy members were amenable to the scores based on the average of written responses received and did not wish to add or revise any of the CHNEP specific metrics for the coming year. Jon Iglehart will review and sign the final evaluation on behalf of the CHNEP Policy Committee.

**JOHN IGLEHART MOVED, SECONDED BY PHIL FLOOD, TO APPROVE THE EVALUATION AS WRITTEN. THE MOTION WAS UNANIMOUSLY APPROVED WITH NO FURTHER DISCUSSION.**

**Agenda Item #8a – Consent Agenda — Brian Smith, Co-Chair**

**a. Amended FY2021 and 2022 Work Plans and Budgets**

The Amended FY21 and FY22 Work Plans and Budgets were presented with the following changes:

**FY21 Table 5**

- The title of TBD Project under the FY2020 funding section has been changed to Cyanobacteria Rapid Response project in the amount of \$66,061. This will be a project with FGCU to test the use of a new technology in the mitigation of cyanobacteria blooms in the Caloosahatchee River.
- The UF Water Atlas Heat Map Development in the amount of \$12,000 under the FY20 Section has been changed to TBD Project.

**FY22 Table 5**

- Inserted a row for the FY19 agreement with SWFWMD for the Myakka Headwaters Project in the amount of \$25,000.
- Inserted a row for the \$12,000 TBD funds from FY20 that was previously for the UF Water Atlas Heat Maps. This project was anticipated to begin and conclude in FY21 but due to time constraints with UF was unable to be agreed upon.

- The TBD EPA project for FY20 in the amount of \$66,061 has been changed to the Cyanobacteria Rapid Response Project.

**JOHN IGLEHART MOVED, SECONDED BY MIKE MILLER, TO APPROVE THE AMENDED FY21 AND FY22 ON THE CONSENT AGENDA AS PRESENTED. THE MOTION WAS CARRIED UNANIMOUSLY WITH NO FURTHER DISCUSSION.**

**Agenda Item #8b – CHNEP 2022 State Legislative Priorities — Jennifer Hecker, CHNEP**

John Iglehart requested the CHNEP 2022 State Legislative Priorities be moved out of the consent agenda and presented as a separate item.

The 2022 State Legislative Priorities are unchanged from the 2021 State Legislative Priorities and are as follows:

- Continue and expand annual funding for the Coastal & Heartland National Estuary Program, including recurrent dedicated funding.
- Create or strengthen nutrient and pollution reduction policies to reduce loads from wastewater, septic, stormwater, fertilizer and internal “legacy loads” – including updating stormwater standards statewide.
- Expand funding for innovative technology pilot projects, including technologies to address harmful algae blooms.
- Establish a statewide, long-term funding program through the Florida Department of Environmental Protection with sufficient funds for competitive, local cost-share projects for estuary restoration.
- Support FL Forever funding, and Rural and Family lands as both have water quality and quantity impact implications.
- Support of local ordinances (eg. no state preemption on local environmental ordinances).
- Support Agricultural BMPs and reclaimed water to list for nutrient load reduction policies.
- Support natural systems solutions in addressing harmful algae bloom mitigation.
- Support resiliency projects and planning.

Policy committee members commented that these are the same priority items that were voted on last year.

**ALICE WHITE MOVED, SECONDED BY DEBBY CAREY, TO ADOPT THE CHNEP 2022 STATE LEGISLATIVE PRIORITIES AS PRESENTED. JOHN IGLEHART ABSTAINED. THE MOTION CARRIED BY MAJORITY VOTE.**

**Agenda Item #9 – Updating Stormwater Standards for New Development State-wide — Dave Kramer, Southwest Florida Water Management District & Borja Crane-Amores, Florida Department of Environmental Protection**

Mr. Borja Crane-Amores, Florida Department of Environmental Protection, and Mr. Dave Kramer, Southwest Florida Water Management District, provided a briefing on the latest updates to the Stormwater Rulemaking effort as well as how this state rulemaking effort supports local

governments working to reduce nutrient pollution and to better manage stormwater. Highlights are as follows:

During the 2020 session, the Florida Legislature approved the Clean Waterways Act, which is better known as Senate Bill 712, which was signed by Governor DeSantis on June 30<sup>th</sup>, 2020. The bill was adopted as Chapter 2020-150, Laws of Florida. This legislation had many directions for improving water quality. The Environmental Resource Permitting (ERP) program is focusing on the stormwater rulemaking portion of this legislation. In response, the Stormwater TAC was formed, and in the establishment of the Stormwater TAC, outreach and presentations were requested for public input in July and again in August of 2020. The Stormwater TAC was officially established on November 12<sup>th</sup>, 2020. A total of 11 meetings have been held to date, with one additional meeting that is planned for October 19<sup>th</sup>.

Public input is an important and valued part of all Florida rule development activities. The formation of a TAC provides the department and WMDs a way to seek and receive public input and recommendations during the rule development process. The TAC is focused on the stormwater rulemaking criteria found in the statewide environmental resource permitting (ERP) rules in Chapter 62-330, F.A.C. There are currently thirteen TAC members that include stakeholders from academia, local governments, environmental interest groups, agriculture and urban development, and other organizations. The mission of the Stormwater TAC is to provide a forum for identifying and constructively outlining recommendations for strengthening the stormwater design and operation regulations implemented under Part IV, Chapter 373, F.S. based on the most recent scientific information available and the additional directions provided by section 5, Chapter 2020-150, Laws of Florida. The goal of the TAC is to develop provide consensus stormwater rulemaking recommendations through public discussion and constructive deliberation. TAC Charges include options for identifying stormwater design criteria and Best Management Practices to increase nutrient removal from stormwater discharges, measures for consistent application of the performance standard to ensure significant reductions of any pollutant loadings to an impaired waterbody, and recommended changes to existing stormwater operation regulations to ensure water resources are protected. The Florida Department of Environmental Protection (DEP) has been working with the TAC to develop a Summary Report and they are considering all the TAC recommendations and discussions provided thus far, including from an interagency group and with the TAC. The current draft is under review and is anticipated that work will be finalized in October or November of 2021.

Mr. David Kramer, SWFWMD, followed with a brief overview of the recent recommendations in the Stormwater Rulemaking process. Discussed recommendations include to requiring more robust Operation and Maintenance (O&M) guidelines as part of environmental resource permit with consistent guidelines that can be applied statewide in order to ensure that all of the O&M entities, especially future owners/homeowner associations (HOAs), would be bound by that O&M plan and are aware and educated on these plans. In addition, it was recommended to consider more frequent inspections. Additionally there has been discussion about considering mitigation “banks” for stormwater credits. In certain cases, mitigation banks or regional stormwater quality treatment systems can be very effective at pollutant removal and maintenance. This potential recommendation also addresses the inability of certain sites to achieve certain load reductions that are being proposed and focuses on the entities that have the financial means to do this. This recommendation not intended to supersede or replace the need

to dispersed stormwater treatment, but would rather be an addition to current solutions and BMPs in place.

Additionally, the use of reuse water has been a focus for the TAC. They have discussed that the nutrient content of reuse should be evaluated and applied on an “as needed” basis. Consideration of AWT standards when reuse water is near waterbodies is also important. The idea of presumptive criteria and monitoring has been a key topic of discussion for the TAC. There has been some consideration that there should be a level of monitoring for projects to understand if it is meeting the guides or goals outlined in the permit. Definitions of predevelopment, redevelopment, and net improvement have been discussed by the TAC. Pre-development is very important because the concentrations of pollutants that a project is credited, for example in the existing condition, has a significant impact on how much stormwater one would have to treat or retain or detain, in the post-development condition. Lastly, the TAC has considered the formalizing the BMP library that would serve as a compilation of BMPs that would be applicable to applicants for their designs. Requiring third party and field testing, collecting fees, as well as contractual reviews of BMPs are being considered.

The rule development process has included the WMDs, all of the DEP district service offices, the DEP Division of Water Resource Management (DWRM), the DEP Division of Environmental Assessment and Restoration (DEAR), the Chief Science Officer, as well as several delegated local governments. This is a highly collaborative effort between agencies. The FDEP will send out a draft prior to first rule development workshop that will provide the opportunity for the public and organizations to review and provide comments.

Currently, the FDEP TAC is seeking public comments in the rule development process. Public input and comments are being accepted throughout the stormwater rulemaking process ([Stormwater2020@FloridaDEP.gov](mailto:Stormwater2020@FloridaDEP.gov) or to Stormwater 2020 Rule Development, Florida Department of Environmental Protection, 2600 Blair Stone Rd., MS 3595, Tallahassee, FL 32399).

Policy Committee members commented that they appreciated holding HOAs more accountable in regards to the plan put in place at the time of development. A committee member commented that some HOAs continue to use copper sulfate to treat algae in ponds and asked if there is a recommendation to address a more probiotic approach to treating algae in retention ponds. Mr. Kramer responded that the specifics of herbicide and chemical applications have not been discussed in detail, but if there are specific recommendations a member would like to make to email them to [stormwater2020@FloridaDEP.gov](mailto:stormwater2020@FloridaDEP.gov). The committee member then asked if there has been any movements to push for new developments, when they are coming online, for a reduction in grass lawns and instead use more Florida Friendly landscaping plants. The member explained that there has been substantial new development in Gasparilla and there are thousands of grass lawns. Mr. Kramer responded that that falls out of the scope and responsibilities of the Environmental Resource Permitting department and would be more of a local government ordinance. The committee member asked if it could not be part of the approval process for a new development to have, for example, a 10% reduction in grass areas or encourage Florida friendly landscaping. They then explained that it seems like one step forward and two steps back when citizens do not realize the impact fertilizer they put on their lawns has on waterbodies. Mr. Kramer responded that the developmental rules being described generally fall out of the scope of their program. The issuance of an ERP could on occasion consider the difference in landscaping,

low impact development, and developmental and construction practices to what a post development site would look like and apply a credit to that. The Stormwater TAC has not considered that, but there has been discussion on how to best recognize the best type of development to reduce stormwater runoff including by reducing impervious surfaces and directly connected impervious surfaces. There are not direct rules regarding lawns and fertilizer use. The committee member responded that it is a major component that has been missing, even though the city has a fertilizer ordinance in place, it is not enforced and citizens do not realize they are part of the problem. The city has a positive drainage ordinance so there is no chance for anything to percolate, which means everything is being carried away and becoming part of the nutrient problem in the waterbodies. The committee member then thank Mr. Kramer and Mr. Crane-Amores for their presentation.

Additionally, a committee member commented that the FDEP South district that process almost half of all permit applications for dredge and fill. The committee member explained that the idea of stormwater monitoring is to document the load that comes off the site before development and post development and there should not be a change in load. For example, a developer that wants to build homes on a lot has to provide the current loads and loads post development, and under ERP they operate under reasonable assurance. In order to permit the development, they have to be reasonably assured that the load will not exceed initial load. The monitoring phase in this rule shows that if people use fertilizer that was not part of the initial development plan and the load increases, it will be on the original developer to make improvements. Even though the permit can be issued under reasonable assurances, the monitoring aspect can pick it up later, this would be an improvement to what we have now. Additionally, the monitoring and O & M plans will kick in a requirement for more support of compliance from the agencies. Another committee member thanked the member for reiterating the O & M recommendation and commented at that point there would be the opportunity to promote more Florida-friendly landscaping. Additionally, there is a lack of information for homeowners in regards to their landscaping choices.

CHNEP staff commented that CHNEP has been tracking this rule development and provided technical comments regarding science supporting the need to regulate both nitrogen and phosphorus throughout the entire watershed. Even though it is traditionally thought that systems are either phosphorus or nitrogen limited, there is science that demonstrates algae can opportunistically take advantage of both types of nutrients. Additionally, even though phosphorus limited systems upstream may not be as affected by nitrogen, that nitrogen is generated and transported downstream to nitrogen limited estuaries and coastal waters which highlights the need for a holistic approach to ensure both types of pollution are dealt with properly. CHNEP staff also commented that pre development is sometimes existing land use that can be high pollutant generating, and it is important to not 'grandfather' the pollution loading by allowing the next developer to load the same amount. There is some FAC about 80% pollution removal which had been interpreted as Total Suspended Solids, but could be interpreted as 80% removal of nitrogen and phosphorus. Predevelopment could also be interpreted as natural loading rate. Lastly, wetlands right now in the predevelopment analysis can have a higher pollution rate assigned. Even though pollution can come through wetlands and load by releasing nutrients, they generally uptake more than they produce and are considered the kidneys of natural systems by lowering nutrient levels. By having a positive loading rate in the analysis, it could show removing wetlands would improve water quality but it does not. One of the recommendations made by the CHNEP is removing wetlands from the loading rate pre development or keeping it neutral. Ms. Hecker had served on the Stormwater TAC in the past and that there is a lot of

information about what was considered last time in the 2010 Stormwater Handbook. Low impact development design and other best management practices were considered to be incorporated in the rule for crediting. Some BMPs had quantified nutrient removal rates which allowed for crediting to meet stormwater requirements. CHNEP staff highlighted the importance of submitting comments now for it to be considered. A committee member thanked CHNEP staff for bringing this topic to the committee.

**Agenda Item #11 – Climate and Land Use Change Impacts on Stormwater Runoff in Coastal Florida — Omar Abdul-Aziz, West Virginia University**

Omar Abdul-Aziz, West Virginia University, presented findings of recent research looking at climate change, land cover, and sea level change impacts on stormwater runoff in Southeast Florida. Highlights are as follows:

A hydrologic model was developed for the coastal-urban basin of Southeast Florida which spans 7,117 square kilometers using the EPA Stormwater Management Model (SWMM 5.1). The model included four compartments: Atmosphere, Land Surface, Groundwater, and Transportation. Dr. Abdul-Aziz hypothesized that climatic and land cover changes would substantially increase stormwater runoff in tropical/sub-tropical coastal urban-natural environments.

The model was calibrated and validated for 6 stations for each basin and plotted against historical daily streamflow for the Southeast Coasts Basins. Four sets of future stormwater runoff scenarios were developed for changes in climate, changes in land cover, and the combined changes in climate and land cover. Under climate changes, spatial mean runoff increases ranged from 142-267 mm, and spatial mean rainfall increases ranged from 174-407 mm. Higher spatial mean runoff increases of 241-437 mm were noted at and around urban centers in the basin. The changing land cover scenario indicate that land cover change also increases runoff, but not to the same extent that climate change does. Lastly, the combined changing climate and land cover showed the spatial mean runoff increases ranged from 244-367 mm. The combined change scenarios indicate that urban centers from the North-Central to South-Central region would experience higher spatial mean runoff increases of 323-499 mm, and that the greater Miami area would experience the highest increases in runoff under all four scenarios.

Overall, stormwater runoff could double by the 2050s to 2080s. The relative basin runoff increases in the 2050s and 2080s under concurrent climate and land cover changes are higher than the superposed runoff increases under standalone changes in climate and land cover. In the climate change scenario, runoff increases by 50-80%, whereas under only land cover changes, runoff is expected to increase by around 20-25%. However, under the concurrent climate and land cover change scenario, runoff is expected to increase by 100 to 125%. The most critical future runoff scenario for infrastructure design, construction, and maintenance in South Florida is the 2050s-RCP 4.5 in the near term (30 years) and 2080s-RCP 4.5 in the longer term (50 years).

The quantification of potential storm runoff increases can be beneficial for planning, design, and management of drainage infrastructures to mitigate pluvial flooding risks. Climate change predominantly drives increases in stormwater runoff, except for areas adjacent to the coastline. Sea level rise is a minor contributor of increases in stormwater runoff, expect for areas adjacent to coastline. To keep the area livable, the drainage system must be upsized accordingly. This

should involve a combination of solutions, including adding more wetlands, upgrading the existing sewers and canals, and building new structures. Regarding best management practices, given the close proximity of the groundwater table, infiltration-based green technology would only play a small part in the solution.

Dr. Abdul-Aziz concluded by acknowledging the National Science Foundation (NSF) for funding his research on change impacts to stormwater runoff through the CRISP 2.0 Grant, as well as the Florida Public Hurricane Loss Model Enhancements Project for funding the model development. Finally, Dr. Abdul-Aziz thanked his graduate student, Erfanul Huq, who worked on this project and graduated in fall 2020 with a Ph.D. under his supervision.

Policy members thanked Dr. Abdul-Aziz for his presentation. A committee member commented that there is constant flooding every time it rains even in places that did not flood in the past. Additionally, the flooding is exacerbated by impervious surface.

CHNEP staff thanked Dr. Abdul-Aziz for his presentation and commented that this is one of the only studies of this kind in Florida. The CHNEP is interested in this type of study and asked if Dr. Abdul-Aziz could comment on what he is doing to look at Southwest Florida next. Additionally, CHNEP staff commented that the previous presentation and discussion about pre and post development is a 'holding the line' strategy, whereas this type of research emphasized that need to also look forward at the near future where stormwater runoff is expected to increase - highlighting the importance of going above and beyond today's conditions, or otherwise there will have to be retrofitting on communities built today in 30 years. A committee member commented that the way this data was presented is highly valuable for understanding the quantity of water and highlights the water quality issues. Dr. Abdul-Aziz responded that he is looking to do a replication of his research for the Southwest Florida. Dr. Abdul-Aziz added that the State of Florida recently discontinued the Inland Flooding component and that he will be looking for resources to continue that work. The model development is almost complete and will be followed by analysis. CHNEP staff asked the partnership members if this project would be something of value to them if the CHNEP would try to pursue funding – to which several committee members indicated that this would be of value to them in their municipal stormwater management efforts. Additionally, a committee member asked what would be considered Southwest Florida. Dr. Abdul-Aziz responded that it includes the entire Southwest Florida Water Management District from Tampa to Naples. The committee member commented that Polk County would definitely be interested. CHNEP staff commented that if the CHNEP funded, would seek to have project cover the entire CHNEP service area.

Lastly, a committee member asked if rainfall doubles in the next 30 years in the entire region and amount of nutrients applied to landscapes are fixed, will we hear that solution of pollution is dilution since we have doubled rainfall and limited nutrients. Additionally the member asked if there can be a better net reduction in nutrients because of increased water in the system. Dr. Abdul-Aziz responded that it depends on the level of development. If there is not as much development, then increased rainfall to cause flooding it could result in dilution.

**Agenda Item #12 – Resiliency and Stormwater Enhancement in the Public Realm — Christopher Roog, West Palm Beach Community Redevelopment Agency**

Mr. Christopher Roog, West Palm Beach Community Redevelopment Agency, provided information on the recent FDEO Currie Park project, funded with Community Development Block Grant – Mitigation (CDBG-MIT) funds to improve stormwater management as well as mitigate risks to the protected Community Lifelines of Safety & Security, Food, Water and Shelter, Energy, Communications, and Transportation. Highlights are as follows:

The Currie Park Project is located in West Palm Beach which is approximately 57 square miles of both urban and conservation lands. Currie Park is approximately 7 acres. Historically, this area was a seaplane port, and today includes both affluent and low income communities. This project aims for the park to be a resource to both of those neighborhoods. The Currie Park Project is organized into two phases (Phase I & Phase II). Phase I, which is complete, involved information gathering, robust public engagement, visioning and planning. Phase I also included research on on-going funding strategies that could help preserve and maintain this park once it's built, long-term operations and maintenance, and governance strategies. The Marina Market Study was used to see how the park could be used as a revenue generator that can put money back into sustainability.

Phase II of the Currie Park Project involves design, permitting, and construction administration. The project has six goals: 1) Activate the park based upon community generated programming to affect a wide variety of users, 2) Create a strong connection between the businesses in Northwood Village and Currie Park, a connection to nearby neighborhoods, and the region through the Sun Trail, 3) Celebrate and maximize a visitor's experience of the Lake Worth Lagoon in a variety of experiences, 4) Encourage ongoing community engagement through a calendar of events including education, performance, and recreation, 5) Integrate sustainable systems and design for a resilient park, and 6) Utilize public and private management to fund, program, and maintain the park. This project received a grant from the FDEO because creating resiliency and celebrating the ecology of the area are at the core of this project. The resiliency aspects of the project includes a living shoreline, native planting, addressing impervious surfaces, and stormwater projects.

The Florida Department of Economic Opportunity (FDEO) CDBG-MIT grant will fund \$16.7 million strictly to address shoreline infrastructure. Shoreline infrastructure includes community outreach, resilient seawalls and floodwalls, living shorelines with mangroves, high marsh buffer, native landscaping, pervious parking, and improving stormwater quality. All other above ground recreational items will be funded by the City including a beach element, kayak launch, amphitheater, playground, and tennis and fitness aspects. In 2020, the City of West Palm Beach adopted a Parks Bond through a popular voter referendum to dedicate \$30 million to system-wide park improvements. The West Palm Beach Community Redevelopment Agency (WPB CRA) received \$8 million from this Bond, which they are using to leverage for additional grants. The WPB CRA is funded by County and City taxes, and has dedicated \$3.9 million to the Currie Park Project so far. Mr. Roog concluded by thanking his team, specifically Chen Moore, for going above and beyond to secure funding and support.

CHNEP staff commented that there is a unique opportunity with the FDEO to access the CDBG MIT funds and on the CHNEP website there is a fact sheet with more information. In 2022,

Cycle 3 applications will be open and there is over \$150 million to be awarded to local municipalities for projects like this. This presentation showed a prototype of how a resiliency stormwater enhancement project is being built that qualified for almost \$17 million in funding to stimulate any ideas committee members have to further resiliency and stormwater management in their communities. The CHNEP has been in contact with the FDEO and are happy to help any member in pursuing these funds.

A committee member asked if the Bay Park Project in Sarasota County has asked for any grant money through this opportunity. CHNEP staff responded that CHNEP is not aware of that specific project, but is happy to write letters of support for grants. CHNEP staff noted that the next cycle is coming up in 2021 and this will be the last opportunity to get funding. Mr. Roog commented that the more shovel ready the project is, the better it will be. The committee member responded that it is very shovel ready and similar to the Currie Park project. Another committee member commented that the Currie Park Project looks wonderful and asked if anything was put in for sea level rise like elevated sea walls. Mr. Roog responded that yes there are many aspects in the project that build up the shoreline aspects and in the park there are hill aspects that will allow water to ebb and flow in the event of a storm. Many of those details are being worked on currently and was part of the overall application promised to the FDEO. The Policy Committee members thanked Mr. Roog for his presentation and wished him luck for the project. Mr. Roog thanked the committee for the opportunity to present and commented that he would like to come back in the future with the finer details of the project.

### **Agenda Item #13 – CHNEP Projects Update — Nicole Iadevaia, CHNEP**

CHNEP's Research and Outreach Manager, Nicole Iadevaia, presented on updates to technical projects that are already underway, in-progress, or have been completed since the last cycle. Highlights are as follows:

The CHNEP and FWC have recently received NOAA restore funding for the project titled "Knowledge Co-Production for Place-Based Recreational Fishery Conservation in Charlotte Harbor, Florida." This project is underway and involves identifying challenges to sportfish nursery habitat persistence, developing realistic management strategies for local municipalities and resource managers to protect those areas, and design restorations for fish habitat. The first meeting will kick off in late October, if you have staff that are interested – please contact Nicole or Corey Anderson.

The Gateway to Myakka Park Marsh Restoration project site was acquired by the Conservation Foundation of the Gulf Coast. The site includes 3 acres of floodplain marsh and one mile of riverfront, and was identified as an important piece of the Myakka River Corridor. Native planting work was completed to coincide with the rainy season and plant lists were adjusted based on conditions. The project will be completed by the end of September 2021 and will be followed by presentations to CHNEP committees in December.

The Warm Mineral Springs Restoration is a design project to restore hydrology and improve habitat for the federally threatened Florida manatee by restoring access to warm water refugia, stabilizing areas of eroding shoreline, and removing invasive plant species. The creek has been almost completely inaccessible and sedimented in. This design included stabilizing areas and dredging to allow access. Design plans have been completed and approved by CHNEP and

FWC. The project has been completed and FWC has found funding to complete the restoration of the project which will happen in next few years.

The Charlotte Harbor Flatwoods Hydrological Restoration is a modeling project to create integrated surface/groundwater models for hydrological restoration of the Charlotte Harbor Flatwoods area. The goals of this project include sheet flow enhancement, natural flow enhancement, water quality improvement, groundwater recharge, and flooding reduction. There is a lot of water backing up at the Babcock Webb and Yucca Pens. This project is creating an integrated model to help understand what areas are best to restore. Updates to the Charlotte Harbor Flatwoods Hydrological Restoration Modeling Project include:

- Ecologic field work: Completed 2020 and 2021 – looked at high water levels on trees
- Flow Rating will be completed by end of 2021 wet season
- Quarterly (1-5) data has been downloaded with the last quarter remaining
- Model Existing Conditions: December 2021
- Model Future Scenarios: March 2022
- Draft Report by April 2022, Final Report by July 2022
- Draft model will be ready by November

The South Lee County Watershed Initiative Hydrological Restoration is a modeling project to create integrated surface/groundwater models for hydrological restoration of the South Lee County Watershed. This model uses existing data and models to understand the natural system needs to ensure those wetlands are fully hydrated and there is not unnecessary flooding. This project aims to restore more natural water flows, improve water quality and environmental conditions, increase natural water storage and moderation of flooding events. Current Conditions Modeling has been completed and adjustments to the model are being made based on data from field verification and ecological indicators observed for water depth. Tasks 10-13 scenario analysis, the final report, and LiDAR-based DEM correction will be completed by November 2021. Task 10 Model Future Scenarios is underway and is to be completed by the end of the year. The SLCWI came up with 3 Future Scenarios:

#### SLCWI Future Scenarios

- 1) Full Habitat & Hydrology Restoration Maximized with Limited Addition Development Scenario – all Preservation/Conservation Opportunities are assumed to be fully preserved with full hydrological restoration.
- 2) Development Maximized with Limited Added Habitat & Hydrological Restoration Scenario – all remaining developable land assumed to build out to the maximum allowable limits. Limited additional hydrological restoration.
- 3) Added Habitat & Hydrological Restoration and Added Development Hybrid Scenario – hybrid of Scenario 1 & 2 (both ends of the range) to encompass the entire spectrum of possibilities.

Additionally, the Water Quality Benefits of Submerged Aquatic Vegetation (SAV) project is almost completed. This project was done in partnership with FGCU to assess the nutrient removal capacity of tape grass in the Caloosahatchee River with Mesocosm (in lab) and field experiments. The research showed that nutrient addition had a strong effect in the mesocosm experiments, but water column nutrients and Chl a levels were lower on average in treatments with tape grass. Less epiphytic algae was noted when tape grass was present as well.

Conclusions overall, showed increasing tape grass coverage and density in combination with reducing nutrient loading will create the best results for improving water quality. FGCU will continue with this study with different nutrients. Full results should be done by end of month.

Lastly, Ms. Iadevaia gave an overview of new seagrass monitoring data by the SWFWMD as well as on the ground monitoring data. Lemon Bay lost about 12% of acreage in the last 2 years throughout the entire bay. In Charlotte Harbor, there was a loss of 50% on the North East Wall. Overall there was a 23% loss throughout the entire Harbor. On the ground data confirms a decrease in seagrass and shows an increase in macroalgae abundance. The cause of this decline is complex and involves several likely factors including red tide, increasing nutrient loads, hurricanes, rainfall pattern and others. Priorities for moving forward include putting together all existing data to gather a system-wide perspective, establishing macroalgae monitoring programs and water quality targets to measure seagrass and macroalgae, support for watershed monitoring to investigate nutrient sources and concentration, as well as new work to better understand the connections between nutrients, seagrass, and water quality.

Policy committee members thanked Ms. Iadevaia for the providing an update on the technical projects.

#### **Agenda Item #14 – Policy Committee Member Updates — Brian Smith, Co-Chair**

Policy Committee Members provided updates on items that have been occurring in their area and are as follows:

- Gaye Sharpe on behalf of Bill Braswell, Polk County, updated that they have received SWFWMD funding for prioritization project along a 1 mile buffer on the Peace River to prioritize where to do a stormwater project. Polk County has set aside about \$13 million of their ARP for projects along the Peace River and they are looking forward to reduce nutrients going into the River. A lesson they are learning from ARP is that they like things to be spent quickly and will they be spending that money in acquisition and take dedicated stormwater funding to do construction.
- Jack Bispham, Southwest Florida Water Management District, updated that October 1<sup>st</sup> is when their cooperative funding cycle ends and they will have \$50 million available for projects. Next week they will have a final budget hearing to finalize their budget.
- Claire Jubb, Charlotte County, updated that pending approval of their budget they will allocate \$500,000 towards water quality monitoring in canals.
- Debby Carey, City of Punta Gorda, updated that for about 3 years they have been applying to the State money for a stormwater issue they have on the east side of 41 and they have received a \$1 million grant. They have finished the design and are waiting for two sites to begin. Additionally, the City has received the recommended method on the septic to sewer project in Charlotte Park which is the ‘Vacuum Method’ with preliminary costs of about \$10 million for Phase 1 and a \$25,000 assessment for each property. They will be looking for grants to fund this project. This area was one of the worst spots for pollution into the Harbor. The City does have an initial design in the works with local funding.
- Alice White, City of North Port, updated that the Commission approved a design plan for septic to sewer in the Blue Ridge South area and have put into place a water quality monitoring plan that is targeting specific locations of water as it enters North Port. There

has been a lot of pushback on the conversion of septic to sewer, including a petition. She commented that the City would love to get information about how to address those that are against the conversion. Ms. Hecker responded that the CHNEP helped to do a study with Charlotte County on septic to sewer and it was able to demonstrate the water quality benefits of conversion. Additionally, Charlotte County conducted an aggressive outreach and social media campaign to educate the public.

- Ron Cutsinger, Sarasota County, updated that they recently made a commitment to upgrade all WWTP to AWWT and the Bee Ridge project is underway with two initial design funding being approved. Additionally, they commissioned a study to look at all water quality and stormwater issues that will be back soon. In the South portion of the County there are about 30-40,000 septic systems and they recently commissioned a study to look at what can be done for water quality there.
- Allie McCue, Florida Fish and Wildlife Conservation Commission, updated that a new initiative titled “Landscape Conservation Initiative” will be rolled out that highlights FWC’s approach to identify the right place, amount, conditions, and configuration for conservation. They will be targeting Southwest Florida as a pilot project to identify smaller geographic areas for conservation. Also they had a couple events where the CHNEP played a role including the Snook Symposium and Redfish workshop. There is also an opportunity for a public workshop in Charlotte County about redfish. Ms. Hecker commented that the CHNEP would love to work with the FWC on the conservation initiative and that the CHNEP has already done habitat restoration planning work that may be useful.
- Dawn Ritter, Highlands County, updated that they would appreciate any outreach and educational items especially in regard to septic to sewer.
- John Iglehart, Florida Department of Environmental Protection, updated that he will see many of the committee member at their local legislative delegation meetings. He also thanked Ms. Hecker for putting together a great meeting and Mr. Smith for orchestrating the meeting.
- Mike Miller, City of Sanibel, updated that they are in the final stages of completing the advanced water treatment improvements to their Donax Wastewater Reclamation facility that will significantly increase its capacity of reducing nitrogen and phosphorus by 50 to 70%.
- Phil Flood, South Florida Water Management District, updated that they recently finished the C-43 Caloosahatchee Reservoir Water Quality Component Siting Evaluation that evaluated water treatment technologies to identify effective means to improve water in the reservoir and water being released. After extensive evaluations, they have selected an in-reservoir Alum treatment process with design work currently underway on an injection system. Additionally, as a result of legislative funding over the last few years, they have had several projects being completed around Lake Okeechobee, the Kissimmee River, and the Everglades. They have completed the restoration of more than 40,000 square miles of river floodplain on the Kissimmee River that will allow more water to be stored on the floodplain which will improve water quality going into Lake Okeechobee and the Caloosahatchee River Estuary.
- Brian Smith, Environmental Protection Agency, updated that the infrastructure bill does include specific funding for NEP programs of about \$132 million which would mean about doubling what the EPA has traditionally funded for NEPs. There would be a considerable amount of infrastructure funding that would be eligible for State SRF

programs including wastewater and stormwater improvements which would include septic to sewer conversions. There has been focus on climate change and environmental justice and there will be meaningful opportunities coming soon.

**Agenda Item #15 – Public Comment — Brian Smith, Co-Chair**

No public comments were made.

**Agenda Item #16 – Next Meeting's Topics, Location and Date**

The next CHNEP Policy Committee meeting will be held on January 27, 2022 as both a hybrid and in-person meeting at the Charlotte County East Port Environmental Campus, Training Room A. 25550 Harborview Rd., Port Charlotte, with the Zoom web meeting information being sent closer to the meeting date.

**Agenda Item #17 – Adjourn**

Meeting was adjourned at 12:35 pm.