

MINUTES  
TECHNICAL ADVISORY COMMITTEE  
TO THE WATER ADVISORY BOARD

February 19, 2021

A meeting of the Technical Advisory Committee (TAC) to the Broward County Water Advisory Board was held on February 19, 2021, commencing at 9:30 am on WebEx. (The TAC meeting minutes were summarized by Gregory Mount. Copies of the presentations are filed with the supplemental papers of the meeting.)

**I. Roll Call**

**Members Present:**

Albert Carbon  
Susan Bodmann for Alan Garcia  
Brett Butler  
Doug Bell  
Harold Aiken  
Isabel Cosio Carballo  
Jose Lopez  
Kevin Hart  
Leny Huaman  
Cindy Griffen for Lisa Milenkovic  
Mark Collins  
Mike Bailey  
Adolfo Gonzalez for Mike Crowley  
Patrick Davis  
Pete Kwiatkowski  
Rafael Frias  
Randolph Brown  
Mart Reczko for Renuka Bajnath  
Sara Forelle  
Stephanie Pearson  
Steve Holmes  
Steve Urich

**Members Absent:**

Jennifer Jurado  
Talal Abi-Karam

**Others Present:**

Alec Bogdanoff, Carolina Maran, Anthony Caggiano, Ashok Raichoudhury, Bingjie Zhao, Christine Evans, Christina Miskis, Cindy Griffin, Darby Delsalle, Dianys Arocho, Dylan Larson, Gregory Mount, Guillermo Regalado, J. Martin. Cala, Jack McCluskey, Jason Liechty, Jay Ameno, Jeremy Decker, J. Wietgreffe, Katie Lelis, K. Carter, Kim Mayo, Lorraine Mayers, Larry Teich, Lynette Cardoch, Michael Laas, Michael Zygnerski, Monique Davis, Marta Reczko, Rajendra Sishodia, Tim Welch.

**II. Statement of Meeting Objectives**

A meeting of the Technical Advisory Committee to the Broward County Water Advisory Board was held on February 19, 2021, commencing at 9:30 am on WebEx.

**III. Public Comments**

None Provided.

**IV. TAC Approval of Minutes of December 18, 2020**

Motion: mark Collins, Second: Sara Forelle, Vote: Unanimous

**V. TAC Chair and Vice Chair Vote**

Chair Nomination: Pat O'Quinn nominated Kevin Hart. Seconded by Susan Bodmann. Vote: Kevin Hart unanimous for Chair. Will serve for 4/2021-4/2023.

Vice Chair Nomination: Pat O'Quinn nominated Randy Brown. Seconded by Rafael Frias. Vote: Randy Brown unanimous for Vice-Chair. Will serve for 4/2021-4/2023.

**VI. Presentation (Out of Order)**

Albert Carbon: Presentation of Plaque of Appreciation for Pat O'Quinn.

**VII. TAC Vote on two vacancies: Independent Local Water Control District and Environmental Representative Categories**

Independent Local Water Control District nomination: Pat O'Quinn nominated Brett Butler. Vote held via email by Greg Mount, vote was unanimous for Brett Butler.

Chair Carbon asked for a motion to table the vote for the second vacancy (Motion Kevin Hart, Second: Pat O'Quinn, Vote: Unanimous) and directed staff to readvertise for vacancy for Environmental Representative in consideration of the categorical representation and the knowledge that the position has historically been filled by the environmental not-for-profit community.

**VIII. C-51 Update**

Albert Carbon provided a brief update. Members should have received an email from County staff about groundbreaking.

**IX. Presentations**

A. ***Presentation of Plaque of Appreciation (5p)***

***Albert Carbon, Chair, Technical Advisory Committee***

Presentation was conducted out of order and appears as VI. In the minutes.

B. ***Update on Model Development for the Evaluation of Drainage Infrastructure Capacity in Broward County, FL (20p, 10d)***

***Dr. Jeremy Decker, USGS Hydrologist***

Dr. Decker updated membership on the ongoing project with the USGS and County Staff to evaluate drainage infrastructure capacity and the potential for inundation of the urbanized areas of Broward County. For this presentation he presented the steady state and some of the transient results and will provide more transient results in the future due to the amount of time it takes to run the results (days).

Dr. Decker discussed the use of sea level rise curves in the analysis of coastal structures. He showed that at 6 inches of rise, the S-13 structure is the most vulnerable and will not be able to gravity drain. At 2 feet and more additional structures are compromised but does not consider surge, just SLR. He went on to discuss the change in groundwater levels due to SLR and provided a series of maps to show the limits of the influence due to the control structures. He further went on to show the changes in groundwater levels and the effects of increased rainfall with a 15% increase in recharge. The main driver for groundwater levels as shown in the models will be sea level rise.

Chair opens floor to comments and questions:

1. Rafael Frias: How is this being coordinating with the modelling work done at the county by others? USGS coordinates with County Staff on a regular basis on the status of models. Rafael restates the importance of continued coordination.
2. Pete Kwiatkowski: There is a mounding happening in the parkland area. What is this steady state analysis telling us? In area A, the water level may still be under the elevation where steady state conditions would exist at the structure and pumps may not be activated, compared to surrounding areas, it really isn't much higher- but there is an increase. Due to Sea level rise, are we not going to be able to drain this area? In the report, areas A, B, and C, show increased GW levels, and this drainage area will be able to handle the change. The increase in levels is not yet high enough to trigger the use of the pumps in a non-flood event. Could temporary forward pumps be used similar to Miami Dade? Yes, the pumps can be used to lower the peaks of the flows, but it won't affect average levels.
3. Chair asks when the project will wrap? Response was that the final presentation to county staff will be in June for project wrap up.

C. ***Inundata Flood Sensor Network Findings for the City of Miami. (20p, 10d)***  
***Michael Laas, Founder, Inundata***

Michael Laas begins with the challenges for communities that are near the coast, the public perception of the risk of coastal flooding and the risk to properties. Being able to quantify the impact that this will have is often difficult. The rise of smart cities international outpaces the US, while resilience spending continues to grow.

The City of Miami and Bloomberg Philanthropies/Mayors Challenge joined together to identify and create a flood data platform and what type of data would be useful. The grant was never realized, but the need was demonstrated. The speaker company has developed Floodtrack in response to this demonstrated need. The sensors are connected to the cloud and the user can see real time and analytics. The city of Miami proof of concept was conducted with stakeholders and resulted in the deployment of 6 sensors for 12 months. The project had a 25,000 cost and was used to support a storm water modeling effort with CDM Smith. The data was used to build a preliminary data set.

The presenter introduced some of the data collected over the 12-month monitoring project and showed the relationship between tide, groundwater saturation and flooding. He went on to further say that the sensors could be used to automate the timing of pumps, rather than send field staff out. He wrapped up with the discussion of future developments and the wider integration of this technology with other decision-making software.

The chair opened the floor to questions:

1. Steve Holmes: Asked about the City of Miami's next step> A phase 2 was suggested and some changes to the software was suggested. The project was not associated with the University of Miami.
2. There was a question about cost of sensors in the chat. Response was a few hundred dollars per sensor.
3. Sara Forelle: Is this data being shared with the public? No, not at this point. The sharing of data is challenging due to the lack of standardized formats.

D. ***Exploring Crowdsourced Flood Data Collected During Tropical Storm Eta (15p, 10d)***  
***Katie Lelis, Senior GIS Analyst, Environmental Planning and Community Resilience Division (EPCRD), Broward County***

Katie Lelis presented the results of the crowdsourced flood pictures and data and the application that was created for sharing and visualizing the data. Katie discussed the types of data submitted and their relative accuracy.

Katie Lelis also shared the location of flooding in comparison to flood map and models. In other areas, flooding corresponded well with predicted flooding.

The presentation made comparisons of before and after new construction in a low-lying neighborhood where finished floor elevations were raised due to past flooding conditions and the threat of future flooding. Katie also showed another house where a renovation was being completed but no flood mitigation was included.

The chair opened the floor to questions:

1. Sara Forelle: This is a great way to see an otherwise complicated presentation.

E. ***Legislative Update (10p, 5d)***  
***Jason Liechty, Senior Environmental Project Coordinator, EPCRD***

Jason Liechty presented the 2021 Legislation and Policy Update. He detailed the next session dates and the composition of the house and senate, both of which are controlled by republicans. Appropriations bill is coming for the first session of the year. Resilient Florida- 1 billion dollars over 4 years via the issuance of debt and doc stamp revenue. This will create a grant program or state and local government entities to adapt regionally significant assets to sea level rise. In addition, the FY appropriations for the past 3 and current years was presented.

Jason Liechty then gave a status update for a series of state and federal level bills that are related to the scope of the TAC and the general interest of the membership.

Chair opens the floor to questions: No questions asked.

- X. New Business and Open Discussion
  - a. Voting results. Presented by Greg Mount. Unanimous support for Brett Butler.
- XI. Next scheduled TAC Meeting: April 16, 2021, 9:30 am, anticipated virtual.
- XII. Next scheduled Joint WAB/TAC Meeting: March 12, 2021, 10:00 am, anticipated virtual.
- XIII. Adjourn at 11:49am.