

MINUTES
TECHNICAL ADVISORY COMMITTEE
TO THE WATER ADVISORY BOARD
August 16, 2019

MEMBERS PRESENT

Albert Carbon (Chair), Kevin Hart (Co-Chair), Talal Abi-Karam, Harold Aiken, Doug Bell, Randy Brown, Mark Collins, Janeen Weitgrefe for Patrick Davis, Sara Forelle, Rafael Frias, Kevin Carter for Alan Garcia, Barry Heimlich, Steve Holmes, Jennifer Jurado, Pete Kwiatkowski, Jose Lopez, Cindy Griffin for Lisa Milenkovic, Renuka Mohammed, Pat O'Quinn, Stephanie Pearson, Sean Dineen for Tim Welch

MEMBERS ABSENT

Chad Brcka, Shana Coombs, John Crouse, Stanley David, Francois Domond, Chuck Drake, Norma Ellison (Recording Secretary), Pedro Gonzalez, Glenn Humphrey, Jinsheng Huo, Neil Johnson, Susan Juncosa, George Krawczyk, Jack McCluskey, Scott Prinos, Isabella Slayle, Michael Sukop, Tiffany Troxler, Steve Urich, Rob Taylor, Steve Weinsier

(A sign-in sheet reflecting those present is filed with the supplemental papers of the meeting, as well as copies of the presentations.)

CALL TO ORDER

A meeting of the Technical Advisory Committee to the Water Advisory Board was held on August 16, 2019; commencing at 9:36 am in the Hearing Room of the Broward County Governmental Center West in Plantation, FL. A quorum was present.

APPROVAL OF MINUTES

The minutes of the June 28, 2019 meeting were motioned and approved.

TAC MEMBERSHIP VOTE

The Chair informed there is a vacancy open to replace Ron Eyma, Utility Director representative, that needs to be voted on at this meeting.

He relayed that 2 resumes were submitted;

- George Krawczyk, P.E., CFM, Public Works/Utilities Director, City of North Lauderdale
- Steven A. Urich, Interim Director of Utilities/Assistant Director, City of Plantation

The Chair invited the candidates to speak on their own behalf as to their backgrounds and qualifications. Ballots were distributed to the members. The Chair requested the members to cast their ballots. The votes were then collected, tallied, and recorded on the voting ballots.

PRESENTATIONS

Potential Implications of Sea Level Rise and Changing Rainfall for Communities in Florida

Tiffany G. Troxler, Ph.D., Director of Science & Mike Sukop, Ph.D., P.G., C.Hg., Professor Sea Solutions Center, Florida International University

Dr. Sukop explained that the project uses Miami-Dade County as its case study, and is funded thru the Florida Department of Business and Professional Regulation. He acknowledged the project team members.

He outlined the 3 task objectives of the project, as follows:

- Task 1 – Updating existing rainfall maps and future rainfall map projections
- Task 2 – Develop average May-October groundwater level maps thru groundwater modeling under future sea level rise scenarios
- Task 3 – Evaluate FBC-related requirements

Dr. Sukop discussed the details of Task 1 with evaluating the current and future recent rainfall data and studies to develop 100-year 1-hour to 3-day rainfall totals, produce spatial maps, and determine design rainfall magnitudes for 100-year return period for various durations. He referred to numerous graphs and maps reflecting the various rainfall totals for different rainfall stations in Miami-Dade County, and comparisons to existing rainfall maps from NOAA and SFWMD. Referring to numerous schematics, he discussed the details of Task 2 with developing average wet-season groundwater level maps under future sea level rise scenarios.

He then discussed the details of Task 3 for evaluating Florida Building Code-related requirements to recommend how results can be incorporated, how water table maps and revised rainfall maps should be used, and providing recommendations for modifications to Florida Building Code for incorporation of updated information.

In summary, Dr. Sukop explained the various key recommendations and recommended areas of priority research for flood loads. He acknowledged the support of the Florida Building Commission Structural Technical Advisory Committee. Carolina Maran mentioned the County is in the middle of creating our future conditions 100-year map which also includes a panel of experts formulating future 100-year storm IDF curves. This Broward County Future Rainfall Workshop is scheduled for September 17th. The Chair thanked Dr. Sukop and Ms. Troxler.

Groundwater Trend Analysis, Water Level and Salinity Analysis Mapper

Scott Prinos, Hydrologist, USGS & Dianne Lopez-Trujillo, PE, IT Specialist

Scott Prinos provided background information. The first USGS graphical and map-based groundwater conditions website was developed in 2001. Since then, an abundance of national websites have been created to provide hydrologic data. He explained that a prototype website has been developed which USGS is in the process of adding functionalities. Referring to his hand-out, he illustrated the various statistical tools available for data analysis and trend calculation. In addition, he showcased the new map's interface and referred to several examples of groundwater level and salinity analyses. In summary, he described the key ongoing developments that will be added in the future. A question and answer session followed. The Chair thanked Mr. Prinos and Ms. Trujillo.

FDEP Coastal Resiliency Study – City of Marathon

Jose L. Lopez, P.E., PMP, Director of Environmental Engineering, Bermello Ajamil and Partners

Jose Lopez provided background information. Former Governor Rick Scott signed the “peril of flood” statute into law in May 2015 requiring local governments to consider future flood risk from storm surge and sea level rise in the coastal element of their comprehensive plans.

On February 5, 2019, the City of Marathon received an FDEP Coastal Resilient Grant to complete 4 tasks:

- Data collection, mapping and modeling
- Outreach and public input
- Review and update the City’s Comprehensive Plan and ordinances
- Engineering report and revised Code Ordinance

Mr. Lopez discussed the details of Task 1 of field data collection and modeling results utilizing UAV, unmanned aerial vehicles or drones, and LIDAR techniques for determining elevations. He referred to sea level rise projections charts and model scenarios from IPCC and USACE for 2030 and 2060.

He discussed the details of Task 2 of identifying adaptation strategies for resilience, protection, policy, outreach, and accommodation, retreat, and avoidance. He emphasized the questions to ask when developing policy and the suggestions for compliant provisions. Task 4 involves outreach. A resilience survey was conducted on July 18th that ranked the various environmental, financial, and social criteria.

In summary, Mr. Lopez discussed the key recommendations and next steps which involve identifying the impact of sea level rise in the city infrastructure using GIS, recruit businesses focused on resiliency, and raise public awareness on the impacts of sea level rise. The Chair thanked Mr. Lopez.

Broward County Water Supply Facility Workplan

Carolina Maran, Ph.D., P.E., Water Resources Manager, Broward County EPCRD

Kevin Carter, Assistant to the Director, Broward County Water & Wastewater Service

Carolina Maran provided background information. She explained that Florida Statutes require local governments to prepare and adopt work plans into their comprehensive plans within 18 months after the SFWMD approves a regional water supply plan. The SFWMD approved the 2018 Lower East Coast Water Supply Update in 2018. The County integrated its comprehensive plan’s water resources elements and this new version is included in the work plan.

She explained the goal of the Broward County Water Supply Facilities Work Plan is to address traditional and alternative water supply source development strategies to meet existing and projected water use demands. The areas covered are Broward County’s Water and Wastewater Services (BCWWS) service areas and Broward County Municipal Services Districts (BCMSD) that serve 240,000 people. The population is expected to increase to 275,000 by 2040. She referred to maps and charts depicting draft analyses for BCWWS District 1, District 2, District 3, and the south regional wellfield.

Dr. Maran explained the individual water supply projects are the C-51 Reservoir for alternative water supply, the Water Reuse Partnership for alternative water supply, water treatment and plant upgrades, and water conservation projects. She mentioned the IWRP Countywide Water Conservation Goal is a 10-gallon per day per capita reduction by 2028. She informed the work plan is expected to be adopted

in March/April of 2020. She acknowledged the help of Kevin Carter, Robert Rudolph, Susan Bodman, Sara Forelle, and Heather Cunniff. She also introduced John McGee, the new Water Conservation Manager for Broward County, to the audience. The Chair thanked Dr. Maran.

Septic Tank Ordinance – Best Practices White Paper – Final Document

Albert Carbon, P.E., Public Works Director, City of Oakland Park, TAC Chair

Randy Brown, Utilities Director, City of Pompano Beach

The Chair thanked the committee members for their comments to be incorporated in the final presentation to the Water Advisory Board on September 13th. He acknowledged the help of Randy Brown, Kevin Carter, and Carolina Maran on this paper. He informed that this document is now ready to submit along with the County Attorney Ordinance. This document will be referenced in the back-up for the agenda item as a working document rather than the ordinance itself. He added that any further concerns or questions be directed to Jennifer Jurado. Kevin Carter, Vice Chair, FWEA Water Resources, Reuse & Resilience Committee, informed that Terri Lowery, Senior Vice President of Jones Edmunds, will be presenting the TAC Report and recommendations to the Water Advisory Board on September 13th.

** The votes were now all collected, tallied, and recorded on the vacancy voting records. The Chair announced the results of the voting, declaring and congratulating Steve Urich the winner to fill the Utility Director vacancy,

NEW BUSINESS

Dr. Jurado made several announcements. Advance registration is now open for the 11th Annual Southeast Florida Regional Climate Leadership Summit to be held at the Casa Marina Resort in Key West from December 3-5th, advising to reserve early. A Broward Leaders Resilience Roundtable for elected officials is scheduled for October 4th at Tree Tops Park in Davie. An FDEP grant for \$75,000 has been secured from Urban Lands Institute to help fund a multiple agency project, Business Case for Resilience in Southeast Florida. The Planning Council has proposed a change to land use regarding seawalls for adoption at end of the year. The Resilience Strategy Study contract RFP will be advanced next year. Funds have finally been received for contracting on the TY Park Reuse Project.

NEXT SCHEDULED JOINT WAB/TAC MEETING: September 13, 2019

NEXT SCHEDULED TAC MEETING: October 18, 2019

ADJOURNMENT

There being no further business to discuss, the meeting adjourned at 11:43 am.

