

**OFFICE OF THE CITY COUNCIL**

**RESEARCH DIVISION**

117 WEST DUVAL STREET, SUITE 425

4TH FLOOR, CITY HALL

JACKSONVILLE, FLORIDA 32202

904-255-5137

**CITY COUNCIL SPECIAL COMMITTEE ON RESILIENCY**

**SUBCOMMITTEE ON ENVIRONMENTAL PLANNING**

**Virtual meeting via Zoom – no physical location**

**September 24, 2020**

**4:00 p.m.**

**Location:** Virtual meeting via Zoom – no physical location

**In attendance:** Subcommittee member Matt Carlucci; Subject matter experts Brooks Andrews Adam Hoyles, Shannon Blankinship, Sarah Boren, J. Logan Cross, Bruce Fouraker, Paul Krechowski, Mark Middlebrook, Joshua Rosenberg, Adam Rosenblatt, Dr. Todd Sack, Jim Schwarz, Guillermo Simon, Steve Swann, Quinton White

**Also**: Council Member Joyce Morgan; Citizen subject matter expert Ashantae Green, Jim Seaton, Nikole Ward; Jeff Clements, Yvonne Mitchell – Council Research Division; Steve Cassada, Eric Grantham and Melanie Wilkes – Council Support Services; Kealey West – Office of General Counsel; Nick Primrose – Jaxport; Sean Lahav – North East Florida Regional Council; Susan Kelly and Helena Parola – Planning and Development Department; Melissa Long– Environmental Quality Division

**Meeting Convened**: 4:04 p.m.

Council Member Matt Carlucci convened the meeting, welcomed the attendees and thanked everyone for their hard work to date.

Assistant General Counsel Kealey West gave an update on the role of the citizen expert participants in relation to the Special Committee members and the delegation of tasks. She cautioned that citizen expert members can volunteer to gather and present information, but cannot be formally delegated tasks to complete by the official subcommittee members lest they then become subject to the conditions of the Government in the Sunshine Law requirements for holding noticed public meetings. The citizen experts can be fact-finders and information gatherers but cannot evaluate, rate, or make recommendations on the facts they find. They can make observations and suggestions as individuals but cannot make joint decisions or sift the information they have gathered to present some and withhold some. In response to a question from Adam Hoyles, Ms. West clarified how the citizen experts can report back information to the subcommittees for the voting members to do the actual decision-making. Brooks Adams said that he has spoken with Chairman Carlucci and Susan Grandin of the General Counsel’s Office about presenting all information collected without filtering or prioritizing.

Mr. Adams introduced Kevin O’Halloran to discuss his master’s degree research on the impact of flood risk on the taxable value of properties. Mr. O’Halloran overlaid 100 year and 500 year flood plain maps over a city parcel map to determine how property values might be affected by various flooding scenarios. FEMA floodplain maps provide a conservative baseline. He found that just over 33,000 parcels fall within one of the flood plains in the city and that $6.9 billion in taxable property value is at risk, representing approximately 10% of the city’s total taxable value. The City is already in the process of buying out several neighborhoods to demolish the houses because of repeated instances of flooding so the tax base loss is beginning to become real. FEMA flood maps are not perfect and several different types of maps show increased levels of flood risk from different types of flooding. The privately-developed Flood Factor map estimates 56,000 parcels (15% of the city total) will be flood-affected by 2035 and 64,000 parcels (18% of the total) will be affected by 2050, representing $11.7 billion and $13.4 billion of value in danger in those time periods. Guillermo Simon asked if depth of flooding was considered in the analysis. Mr. O’Halloran said that he did not eliminate any parcels because of greater or lesser depth of flooding for his work, but the data is available to do that analysis. Shannon Blankinship said it would be very useful to do this property value analysis on the Adaptation Action Area’s suggested new high hazard boundary, which might be very illuminating.

Adam Hoyles asked about the City’s rationale for choosing the neighborhoods that have been chosen to date for the property buyouts – probably those that experience repeated flooding. Mr. Andrews said that is a good topic for the subcommittee to explore. Council Member Carlucci volunteered to ask about the methodology. Sarah Boren asked if data is available to do a similar analysis based on fire and drought effects. Mr. O’Halloran said that he knows data is available for mapping heat islands, but he is unfamiliar with any data on fire effects. Bruce Fouraker said he has a friend living in the Southshores area of Jacksonville, one of the targeted buy-out areas, who had a pending sale to the City take several years, after which she gave up and sold the property to another private owner. Sean Lahav said properties are placed on a FEMA repetitive lost list which is confidential and not public. He urged caution in using Flood Factor and said its widespread use on realty sites may begin to affect property values. Mr. Simon said FEMA is validating its methodology for evaluating flood risk because its maps are used for regulatory purposes; Flood Factor does not and is not an appropriate tool for regulatory uses. Kealey West confirmed the earlier discussion about the use of the repetitive lost list to target properties for acquisition and demolition. Steve Swann cautioned that FEMA flood maps reflect current conditions, not projections of future sea level rise.

Kathleen O’Keife, the GIS Coordinator for the Florida Fish and Wildlife Research Institute, discussed the use of living shorelines in the Tampa Bay area. She discussed the continuum of the living shoreline from deep water to uplands. The living shoreline concept started in Virginia (the Living Shoreline Sustainability Model (LSSM) was developed by the Virginia Institute for Marine Science), where the state required that to be option #1 in doing projects on the shorelines in the Chesapeake Bay unless an applicant could demonstrate why that wouldn’t work. An Environmental Sensitivity Index (ESI) analysis for shorelines, developed by the NOAA Office of Response and Restoration, was completed for Northeast Florida in 2019 by the Gulf of Mexico Alliance Habitat Priority Issue Team. ESI measures how easy or hard it would be to clean the shoreline from something like an oil spill. Ms. O’Keife said that lots of mapping of shorelines has been done by lots of agencies in Florida and there is considerable interest by private parties in Tampa Bay in that data because they are so heavily water-influenced. The LSSM is a multi-step decision tree that produces recommendations for best practices for shoreline protection based on land use types, water depth, bank height, beach width, existing protective measures, etc. It’s important to recognize that living shorelines have to move to continue to be effective, so that affects where they’re appropriate and where they’re not. VIMS has developed a Decision Support Tool that is an interactive guidance system that provides users with recommendations for what type of shoreline protection is appropriate based on answering a number of questions about local conditions.

In response to a question from Guillermo Simon about whether the LSSM is the tool just for tidal areas or if it could be use anywhere, Ms. O’Keife said it could be used anywhere, although it was specifically developed for use in the Chesapeake Bay which is a tidal estuary so may not be ideal for dealing with fresh water impacts. In response to a question from Sarah Boren about how Jacksonville could best proceed in using these tools, Ms. O’Keife suggested taking the 2019 ESI study data and loading it into the VIMS Decision Support Tool to see what portion of the shoreline is totally hardened and what is totally natural, and then determining what is best for the in-between areas. It took her team 6 months to do the whole analysis process for Tampa Bay, and she stressed the need for a really good GIS person to handle the data and make it all work. Then you can use the results of the analysis to start making decisions and evaluating options. Brooks Adams asked how implementation takes place once all the data is analyzed. Ms. O’Keife said that most likely Comprehensive Plan amendments and development permitting process changes are then needed to make the desired changes happen.

Todd Sack asked if any cost/benefit analysis on living shorelines had been done in the Chesapeake Bay or elsewhere; Ms. O’Keife said she will ask her contacts about whether cost/benefit work has been done anywhere. Mr. Sack asked if the models consider sea level rise in making decisions and, if so, what level of rise the models use. Ms. O’Keife said they definitely factor in sea level rise, but she doesn’t know what particular estimate is used. Adam Hoyles said it seemed like use of this sort of model could short-cut a lot of new data collection and analysis and would seem to offer the opportunity to get projects moving faster. He asked what it would take to convince FDEP and the water management districts to take this analysis into account and help people consider living shorelines before they default to bulkheads and hard structures. Ms. O’Keife said she has found that it’s easier to get the state’s regional planning councils and cities and counties to buy in rather than FDEP, which is a massive regulatory bureaucracy and is stuck on doing things as they’ve always been done. In response to a question from Assistant General Counsel Kealey West about what local governments have incorporated living shorelines into their codes, Ms. O’Keife said the City of Clearwater and either Hillsborough County or the City of Tampa had done so.

Working group reports:

Hazard 1/Sea and river level rise – Shannon Blankinship reported that they’re looking at natural flow, slowing water down, infiltration options, etc. to decide where tributary projects are needed. They are also looking at flood plains and potential property acquisitions and wetlands and their buffers. They are considering the on-going technical needs after the Special Committee on Resiliency ends its work and thinking about who will carry the ball from there – perhaps an appointed oversight committee.

Hazard 2/Extreme precipitation events – Adam Hoyles said they’re looking at tree canopy priority areas. Nancy Powell felt the City’s Tree Commission should opine on their draft before the subcommittee reports to the Special Committee, hopefully in the next month.

Hazard 3/Temperature increase and heat waves – Adam Rosenblatt said they are prioritizing tree planting in redlined areas and updating ordinances on applying heat stress factors to the building process. Jacksonville faces a serious heat risk and needs to be proactive in dealing with it. The City also needs to have a greenhouse gas inventory performed. Their group would like to hear a speaker on what environmental justice is and why it’s important. Sarah Boren said they are thinking about the need for a citizen board and an outreach coordinator to involve the public, and City inter-agency coordinating team in support of the Chief Resilience Officer. Ashantae Green noted that the City is budgeting $300,000 for the Chief Resiliency Officer’s work, so there may be enough money for a second position for community outreach.

Brooks Adams said that Council Member Carlucci is very supportive of environmental justice and would like suggestions for who would be good to speak on the subject. He invited suggestions for who to invite.

Reporting timeline:

Mr. Adams said the Council Members Carlucci and DeFoor want to have reports from the subcommittees by the end of the year so the Special Committee can conclude its work in the spring. He showed a proposed chart for how issues are to identified, described, and what is needed to implement the recommendations (i.e. Comprehensive Plan amendment, Ordinance Code amendment, changes in land use development policies, change in methodology or criteria, references/background materials).

Council Member Morgan thanked all of the participants for their great work and sharing their knowledge.

Sean Lahav said that the focus of tomorrow’s Special Committee agenda is nature-based solutions to environmental issues and green infrastructure. Speakers will include the Nature Conservancy and a FEMA mitigation consultant. Ashantae Green announced that WJCT ADAPT, the Northeast Florida Regional Council and Jacksonville’s Environmental Protection Board will be holding a virtual forum on resiliency issues on October 7th.

Next meeting – October 4 at 4:00 p.m., focusing on JEA’s plans and progress for environmental planning and resiliency (stormwater, greenhouse gases, etc.)

**Meeting adjourned:** 5:40 p.m.

Minutes: Jeff Clements, Council Research Division

[jeffc@coj.net](mailto:jeffc@coj.net) 904-255-5137

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