

**OFFICE OF THE CITY COUNCIL**

**RESEARCH DIVISION**

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**SPECIAL COMMITTTEE ON RESILIENCY MEETING MINUTES**

**Virtual meeting – no physical location**

**September 25, 2020**

**2:00 p.m.**

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

**In attendance:** Council Members Randy DeFoor (Chair), Michael Boylan, Joyce Morgan, Matt Carlucci, Garrett Dennis

**Also**: Susan Grandin and Kealey West – Office of General Counsel; Jeff Clements and Yvonne Mitchell – Council Research Division; Steve Cassada, Melanie Wilkes and Eric Grantham - Council Support Services; Cheryl Brown – Council Secretary/ Director; Melissa Long – Neighborhoods Department Kristen Reed, Helena Parola, Susan Kelly – Planning and Development Department; Beth Payne and Sean Lahav – Northeast Florida Regional Council; Sandra Homrighouse– Ethics Office; Nick Primrose and Susan Stewart – Jaxport; Tommy Carter – Council Auditor’s Office; Kurtis Wilson – JEA; Subcommittee subject matter experts Sandra Fradd, Nikole Ward, Amanda Polematidis, Guillermo Simon, Shannon Blankinship, John Sapora, Nancy Powell, Angela DeMonbreun, Sarah Boren, J. Logan Cross, Steve Swann, Bruce Fouraker, Mark Middlebrook, Joshua Gellers, Adam Hoyles, Jim Seaton, Nick O’Halloran, Joshua Rosenberg, Barbara Gubbin, Joe Loretta, Barbara Ketchum, Quint White, Lisa King, Todd Sack

**Meeting Convened**: 2:00 p.m.

Council Member DeFoor called the meeting to order and the attendees were introduced for the record.

Sean Lahav of the Northeast Florida Regional Council gave an introduction for the meeting which will focus on green infrastructure and nature-based resiliency solutions. Green infrastructure is typically an implementation strategy after a community planning process has taken place, and community buy-in and identification of funding strategies are vital for successful implementation. Municipal actions can either encourage or discourage green infrastructure initiatives, and maintenance of built projects is crucial. An audit of local codes and policies is helpful in identifying barriers to implementation of nature-based solutions. The Northeast Florida Regional Council is in the process of identifying opportunities for short-term immediate successes to begin building momentum. The benefits and co-benefits expected from green infrastructure will help drive the City’s funding/financing process, and fee discounts, tax credits, permitting assistance, and the like can help incentivize private developers and property owners to utilize nature-based solutions. Stakeholder engagement, especially connecting with those stakeholders’ interests, helps them to understand the benefits and builds support. Universities across Florida are interested in the subject of green infrastructure and can offer student assistance in exploring possibilities for studies and projects.

The Economic Value & Benefits of Nature-Based Solutions - Rod Braun, The Nature Conservancy

Mr. Braun said that Florida is uniquely vulnerable to climate changes, sea level rise and storm conditions because of its long shoreline and low-lying topography. He drew distinctions between natural infrastructure and “grey” infrastructure (seawalls, levies, groins, etc.). The state is suffering from substantial losses of coral reefs, oyster reefs, mangroves and saltwater marsh, and that leads to expensive flood-related losses. There is a strong business case to be made for green infrastructure producing tremendous cost savings from storm damage. Several studies have shown that nature-based solutions and coastal adaptation are very effective, better than hard structures in many cases. Nature-based solutions are not a “silver bullet”, but have a big role to play in a layered protection plan. The Nature Conservancy is working with Chubb Insurance (one of the world’s largest property and liability insurers) on optimizing shoreline restoration projects for the best resiliency outcomes and the largest cost/benefit ratios. The Conservancy is also working on a public/private project to purchase insurance on a coral reef in Mexico that protects a beach resort, and is looking for similar opportunities in Florida. Hybrid green/grey approaches are possible and may be especially useful in areas where seawalls already exist and space is limited.

Joe Loretta asked how much building elevation is going on in Florida and what mechanism is used. Mr. Braun said the Army Corps of Engineers is looking at that but the Nature Conservancy hasn’t yet. It’s a very expensive remedy. Mr. Lahav said Roderick Scott, a national expert on the subject, lives in Jacksonville and could be consulted. Nick Primrose asked what type of material works best for raising shorelines and whether Jaxport’s dredge spoil could be used for that purpose. Mr. Braun said it would depend on the engineering details of the spoil material, which would have to have the right characteristics to hold its shape and grow vegetation to be useful. Laura D’Alisera asked about the life expectancy for green infrastructure projects. Mr. Braun said it depends on sea level rise projections, but they are usually looking for at least 30-50 years for a project lifespan. They like to design projects that can be expandable over time, starting with a plan for the short term and then adding on later as conditions continue to change.

Council Member Morgan asked if mangroves can be planted for resiliency or if they have to occur naturally. Mr. Braun said that if the right shoreline conditions are developed, mangroves will self-recruit and grow very well by themselves. In response to a question from Bruce Fouraker about other plants beside mangroves that work well for shoreline stabilization in Northeast Florida, Mr. Braun cited marsh grass (Spartina) and oyster reefs. Adam Hoyles said that black mangroves are self-establishing in Northeast Florida but we’re at the northern limit of their cold tolerance and they could die back in a hard freeze. We do have several marsh grass species that work well. In response to a question from Council Member DeFoor about whether any research has been done on resilience on the St. Johns River, Mr. Braun said he didn’t know North Florida well but thinks there could be big opportunities based on demonstrations of water storage capabilities in other places. Mr. Lahav asked if the City of Jacksonville could get involved with the Nature Conservancy on studies and pilot programs. Mr. Braun said they would be happy to explore opportunities for cooperation. The Conservancy would like to do some modeling for current conditions in this part of the state if they can get grant funding.

Funding & Finance Opportunities - Janan Reilly, Mitigation Specialist for the Community Infrastructure Resilience Branch, Federal Emergency Management Agency

Ms. Reilly said that FEMA is getting more involved in nature-based solutions as their effectiveness is demonstrated and they become more popular. Examples include: restoration of grasslands, rivers, floodplains, wetlands, dune and reefs; living shorelines; soil stabilization; and bio-retention systems. Resilience features can be built at different scales and in different locations depending on what’s needed and what space is available. FEMA has 4 different hazard risk reduction programs: Public Assistance (406) Mitigation; Hazard Mitigation (404) Grant; Flood Mitigation Assistance; and Building Resilient Infrastructure Communities (BRIC). The 404 and 406 grants are made post-disaster, while the Flood Mitigation and BRIC programs are hazard pre-mitigation and prevention programs. FEMA’s Hazard Mitigation Action Portfolio is a collection of successful projects from around the country that provides ideas for what might work in various areas. Ms. Reilly said that FEMA is the largest mitigation and recovery funding agency in the country. She briefly reviewed the program requirements – eligibility, technical feasibility, cost effectiveness, and compliance with laws and regulations. The cost/benefit calculation includes FEMA-determined values for various types of land uses for “ecosystem services”. Several types of nature-based systems have been evaluated by FEMA and are approved for federal funding in appropriate locations. A nature-based solutions guide was just published by FEMA within the last few weeks and has a wide variety of ideas and suggestions. Ms. Reilly mentioned several funding options outside of FEMA, including business improvement districts, voter-approved flood control bonds, state departments of transportation, and public/private partnerships.

In response to a question from Council Member DeFoor about whether riparian grants can be used to dredge tributaries, Ms. Reilly said that what’s important is increasing stormwater storage capacity, so dredging can be part of that, along with ponds, dual purpose storage areas in parks, etc. Bruce Fouraker asked if BRIC grants could be used for utility hardening. Ms. Reilly said it depends on the scope of the project; it’s a new program so she doesn’t know all the details yet. Details will be released next week. The goal is to look at protecting large-scale infrastructure, so that likely would be eligible. Sean Lahav said that Beaches Energy is doing a utility undergrounding project in south Jacksonville Beach and tried to get federal funding assistance; their insight could be helpful. Lisa King reported that the Florida Department of Emergency Management is asking that benefit/cost analyses (BCAs) be done before grant applications can be submitted, and that’s harder than doing standard projects with known BCAs, which could be a disincentive to being creative and using nature-based systems. Ms. Reilly said FEMA has technical assistance grants available, so those could be used to do the BCA study to then apply for BRIC funding the following year.

Sarah Boren noted that some green infrastructure is very innovative and wondered if that could be an obstacle if those methods are not recognized in local development codes. She asked if FEMA funds could be used to build back better after a disaster rather than just replace what was damaged. Ms. Reilly said rebuilding projects have to follow whatever existing codes and regulations are applicable, but FEMA doesn’t need for the techniques to be specifically authorized in code, especially if they’re innovative. Mitigation grants encourage building back better to prevent future damage, while public assistance funds just pay to build back what was damaged to its previous condition. Laura D’Alisera asked if FEMA requires that projects it funds be coordinated with the Local Mitigation Strategy. Ms. Reilly said that is the expectation - that a jurisdiction will put county mitigation plans into action and coordinate with other local plans. Ms. D’Alisera said Jacksonville needs to get in on the front end of the BRIC process and apply for funding for some project – it’s often easier to get funded on a new grant availability than later once a grant gets established and lots of jurisdictions are applying.

Subcommittee Progress Updates

Infrastructure and Continued Operations Subcommittee: Council Member Dennis that yesterday the group started reviewing the AAA Comprehensive Plan amendment proposals and will spend the next 2 meetings going through those in detail to present a recommendation to the Special Committee for legislation to amend the Comp Plan.

Council Member DeFoor wondered if there should there be a permanent Chief Resilience Officer position established in the Ordinance Code whose appointment is confirmed by the City Council. Council Member Carlucci said he will schedule a noticed meeting with Ms. DeFoor to talk about how to move the CRO hiring process along.

Environmental Planning Subcommittee: Mr. Carlucci said the group heard at yesterdays meeting about the impact of flooding potential on property values and property tax revenue and about living shorelines. The subcommittee is interested in hearing a speaker on the subject of environmental justice to help inform its work.

Education and Community Outreach Subcommittee: Council Member Morgan said the group heard at yesterday’s meeting about a Riverside Avondale Preservation interactive flood map, the City Council’s appropriation of $60,000 for AAA community outreach workshops, and discussion of the Special Committee newsletter being produced by the Northeast Florida Regional Council.

**Meeting adjourned:** 3:51 p.m.

Minutes: Jeff Clements, Council Research Division

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