

**Climate Change Task Force Meeting  
Thursday, February 16, 2017, 1:00 PM – 4:00 PM**

**Broward County Government Center  
115 S. Andrews Avenue, Room 302  
Fort Lauderdale, FL 33301**

**SUMMARY MINUTES - DRAFT**

Members Present

Adornato, John  
Barmoha, Guy  
Braun, Rod  
Cavros, George  
Carballo, Isabel Cosio  
Faske, Barry  
Fleischer, Randy  
Gottlieb, Lee  
Heimlich, Barry  
Hutka, Tom  
Kaltman, Adrienne  
Kornahrens, Rob  
Larson, Dylan  
Pisula, John  
Rich, Senator Nan  
Samaro, Hector  
Sniezek, Henry  
Welch, Sandra  
Young, Doug

County Staff

Danchuk, Samantha  
Kashar, Carrie  
Jurado, Jennifer  
Lee, Albert  
Horwitz, Jill  
Zygnerski, Michael

Members Absent

Bush, Lois  
Lambert, Julie  
Perrin, Scott  
Sifuentes, Dorothy

**I. Call to Order**

Senator Nan Rich, Chair, called the meeting to order at 1:12 PM.

**II. Welcome**

Senator Nan Rich welcomed Task Force members and guests and expressed her gratitude for being able to chair the Climate Change Task Force. Senator Rich introduced herself and provided a short description of her background. Senator Rich was elected to the Broward County Board of County Commissioners in November 2016 and formerly served for twelve years in the Florida legislature, four years in the House and eight years in the Senate. During that time, Senator Rich served on the Environmental Preservation Committee. Senator Rich asked Task Force members to briefly introduce themselves.

**III. Roll Call**

Roll was taken as Task Force members introduced themselves. Fifteen (15) members were present and eight (8) were absent during the roll call. A quorum was present. Four (4) members arrived shortly after roll call.

**IV. Approval of Minutes of November 17, 2016\***

Senator Rich asked members if any changes to the minutes were needed, then asked for a motion to approve.

Barry Faske motioned to approve the minutes of the November 17, 2016 meeting as published, and Hector Samario seconded the motion. The motion passed unanimously.

**V. Public Comment from Guest**

Senator Rich allowed time for a guest to comment on the Task Force's need to discuss mitigating local flooding problems in areas where adaptation in addition to raising seawalls would be necessary to address seepage issues.

**VI. Presentations and Discussion****a. Research Update from the Florida Climate Institute**

Thomas Ruppert, Coastal Planning Specialist at Florida Sea Grant, presented an overview of the Florida Climate Institute (FCI) and an update on their current research activities. FCI is a consortium of universities and colleges in Florida that collaborate on climate change and sea level rise issues to develop information and resources useful to local governments.

Sea level rise (SLR) presents numerous technical challenges, such as the

rate and amount of SLR, GIS mapping and data, and infrastructure design and construction. However, SLR is ultimately a “people” problem that presents serious social challenges that communities will have to confront. Historically, Florida Sea Grant has focused primarily on ecological issues, but has now expanded its work into coastal planning and associated legal issues.

Mr. Ruppert presented examples of the “takings” clause in the Fifth Amendment of the U.S. Constitution, related to SLR issues:

- Old A1A roadway in St. Johns County – Residents claimed St. Johns County had a duty to maintain the old A1A roadway to provide public access to their property, despite severe erosion, otherwise, St. Johns County was liable for “taking” their property. The 5<sup>th</sup> District Court of Appeals decided St. Johns County had discretion, but must provide reasonable maintenance resulting in meaningful access to property. Ultimately, reality and fiscal constraints must be faced when dealing with natural forces.
- Drainage systems – Local governments have no duty to provide drainage. However, if drainage is provided, then local governments have a duty to “maintain” the system, but no duty to “upgrade” the system. Therefore, a critical legal distinction arises between drainage system maintenance and system upgrading (i.e. improving). Someone can possibly argue that “maintaining” a drainage system means preserving the function or purpose of the drainage system, not only the physical infrastructure of the existing system. An additional consideration is the sovereign immunity of local governments to certain liabilities and their ability to make local decisions.

These examples bring up difficult social issues of fairness and equity. Legally and morally, should people be provided the right information so they are aware of the risks? Should we require disclosure of risks to buyers before they purchase property in the coastal zone? Almost 87% of buyers subject to the current Florida disclosure law do not recall receiving a risk disclosure, since the law only requires a generic description of risk, without penalty for non-compliance. In some cases, the risks seem to be obvious, but development continues in these areas. Several important questions include:

- When there is a loss, who should pay? Why?
- What areas are most important to protect? Why and at what cost?
- Can you avoid creating more exposure as you seek to stay in place? For example, will adaptation to prevent tidal flooding increase risk and exposure to extreme storms or other severe weather events?

The answers depend in part on the public perception and understanding of

the concept of “property”, which is influenced by ever changing social and economic norms and structures. Historically, ideas of protecting property were tied to ideas of protecting quiet enjoyment of property and rooted in nuisance law, but evolved into protecting legally permitted land uses, which is a completely different goal. Discussion ensued.

- Should local governments have the responsibility to prevent development in vulnerable areas that are known to be at high risk? Currently, there is no legal liability. However, laws are not static and could change, allowing liabilities to shift onto local governments.
- Raising seawalls are not the only remedy to coastal flooding. Flooding can be caused by multiple factors, such as drainage infrastructure and ground seepage, and is dependent on the location. However, it is not only a technical problem. Social issues of affordability, responsibility, and equity will ultimately need to be addressed. Until a clear source of funding is defined for adaptation measures (e.g. Miami Beach), talk of possible adaptation strategies is moot.
- Public funding is not adequate to provide all adaptation measures. Private and public property owners must both provide funding for adaptation. For example, the recently passed seawall ordinance in Fort Lauderdale generally places responsibility of adapting infrastructure on the property/seawall owner that is causing local flooding.

#### **b. Port Everglades Emissions Inventory**

Erik Neugaard, Environmental Program Manager at Port Everglades, presented a summary of results from a landmark air emissions inventory, done in collaboration with the U.S. Environmental Protection Agency. The inventory is part of an ongoing effort toward a greener Port Everglades and was the first air emissions inventory of a major port in Florida. The geographic domain of the Port includes land-side facilities and marine-side jurisdiction extending three (3) miles offshore.

The inventory included five emission source categories:

1. Ocean Going Vessels – auto transport, bulk goods, containerhips, cruise ships, general cargo, roll on-roll off, and tankers
2. Harbor Craft – assist tugboats, articulated tug barges (ATBs), pilot boats, towboats, and yachts
3. Cargo Handling Equipment – forklifts, yard tractors, top loaders, scissor lifts, cranes, sweepers, reach stackers, other equipment
4. On-Road Vehicles – heavy-duty trucks, transport vehicles for cruise passengers, port-owned fleet vehicles

## 5. Locomotives – Florida East Coast Railway and Intermodal Container Transfer Facility

Mr. Neugaard presented various recommendations to reduce emissions in each category, generally covering operational changes and equipment upgrades. This included reducing vessel speeds and hoteling, and repowering/upgrading vessels and equipment to newer diesel engines or electric power.

Baseline results show that ocean-going vessels are the primary source of air emissions at Port Everglades, producing between 62% and 99% of the Port's major air emissions (nitrogen oxides, sulfur dioxide, diesel particulate matter, and carbon dioxide). Cargo handling equipment are the second largest source of air emissions, while harbor crafts and on-road vehicles each produce less than 10% of total Port Everglades air emissions, and locomotive emissions are negligible. Compared to total Broward County air emissions, Port Everglades produces less than 7% of Countywide air emissions.

Past and future trends show ever increasing sizes of cargo vessels, tankers, and cruise ships, which require larger cargo berths, passenger terminals, and ship yards. Port Everglades has pursued the air emissions inventory as a baseline to measure the success of current and future environmental initiatives, in its continued focus on sustainability. Discussion ensued.

- The ability for cruise ships to plug directly into FPL grid electricity is being considered. However, the required infrastructure is cost prohibitive at this time. Some ports in California have implemented these systems, but are in a different situation because of regulatory air quality mandates.
- Is there a target date for implementing sea turtle compliant lighting? Not yet. There are safety and security compliance issues with OSHA. However, the Port is currently reviewing a new lighting type with Broward County, FWC, and FWS that has been approved in Hawaii. Measuring baseline noise levels that affect wildlife has not been considered yet, but it is a good idea worth consideration.
- Additional data on Port Everglades CO<sub>2</sub> emissions is available in the full emissions inventory report, which is available online.
- The Port emissions inventory was voluntary and initiated as a pilot project by U.S. EPA as a possible model for other ports in the U.S.
- Recommendations to reduce emissions from harbor craft and other operations are not mandatory, but the Port has positive relationships and support from the Port community on environmental issues.

- Water quality is monitored through the Broward County Environmental Monitoring Laboratory. Marine/coastal water quality monitoring is not as comprehensive as the freshwater monitoring, and Broward County is pursuing additional funding as part of a regional marine/coastal water monitoring effort to improve water quality data.

### c. Southeast Florida Regional Climate Change Compact Update

Dr. Jennifer Jurado presented a summary of Compact updates. Staff held a planning retreat in January to discuss plans to update the Regional Climate Action Plan (RCAP). In addition, staff meet with the Florida Climate Institute (FCI) to better focus work on the planning, communications, and research needs of the South Florida region in a more collaborative and engaging manner with students and researchers at local colleges and universities.

Dr. Jurado summarized and strongly recommended Task Force members view the Regional Compact webinar on [Effective Sea Level Rise Communication Strategies for Local Governments](#), produced by Sightful Communications and the Miami Foundation, which focused on five groups:

- Business Leaders – real estate, hospitality
- Frontline Communities – geographically impacted
- Economically Vulnerable – community organizers
- Political Influencers – platform for influence
- Millennials – 20 to 34 years of age

The top five (5) takeaways were:

1. We still have an awareness issue
2. We need “the opposite of panic”
3. Skepticism inhibits action
4. Seeing this as an opportunity is motivating
5. Water is the problem and the solution

The top five (5) communications recommendations were:

1. Less doom and gloom
2. Have frequent and genuine conversations
3. Clear leadership and accountability
4. Engage artists, activists, youth, and elders
5. Need for a clear vision and plan of action

The community engagement meetings resulted in a “communications prompt” infographic for each focus group that listed motivating positive messages that sparked conversation, topics and barriers that inhibited conversation, and the core values of each group.

The RCAP 2.0 update will streamline the seven existing focal areas of the

original RCAP 1.0, add three new focal areas (social justice and equity, public health, and regional economics), and expand topics on building codes and fisheries. The goal is to present the final RCAP 2.0 report at the 9<sup>th</sup> Annual Compact Summit in December 2017. Dr. Jurado recommended Task Force members attend upcoming events on Community Resilience for Buildings and Infrastructure Systems and the Southeast Regional Engagement Workshop for the 4<sup>th</sup> National Climate Assessment. The Compact is actively participating in the upcoming National Adaptation Forum in St. Paul, MN.

Broward County, in collaboration with Deltares and the South Florida Water Management District, hosted a workshop on Critical Infrastructure and Future Flood Risk to identify vulnerability gaps and possible cascading impacts of flooding on local infrastructure and services. Deltares used its Circle tool to visually model the relationships and impacts of a peak flood scenario of two feet sea level rise and a 14-inch rainfall event.

Work continues on the Broward County and U.S. Army Corps of Engineers (USACE) Resilience Project to develop seawall height recommendations. Recent activity includes collaboration with City of Fort Lauderdale and Florida Department of Transportation to provide high-resolution LiDAR data, USACE seawall top elevation and tide station datum surveys, and contracts for economic analysis and ADCIRC hydrodynamic modeling.

Save the date for the Regional Climate Summit on December 14-15, 2017. Substantial discussions of mitigation and energy are planned, as well as a focus on recommendations for implementing actions through partnerships and clear commitments on joint initiatives. Discussion ensued.

- Broward County should have ready messages to communicate climate actions to the public, such as sea level rise and water conservation, when significant events unfold, such as king tides and droughts affecting Lake Okeechobee.
- Due to the requirements of the Sunshine Law, the best way for the public to communicate information and concerns to the Task Force is to contact support staff, who will share the information with the Task Force. If further discussion is desired, staff will place it on the agenda as a discussion item, with the approval of the Task Force Chair.

#### **d. Go SOLAR Florida and Solar Co-op Group Purchasing Initiatives**

Kay Sommers, Project Manager for GO Solar Florida, presented details on the Go SOLAR Florida Grant, solar photovoltaic (PV) group purchase co-op program, and Go SOLAR Day event. The goal of the grant, ending April 30, 2017, was to reduce soft costs with PV installation (i.e. non-equipment related costs). Grant accomplishments include: education and outreach events, enhanced solar financing, model zoning ordinance, uniform solar permitting across partners, and a solar plans design system, which is an online system

for licensed solar contractors to verify their installation is code compliant.

The solar PV co-op program strives to reduce PV system costs (10-20%), provide group support, and to connect other solar enthusiasts in the growing solar movement. Broward County hired [FL SUN](#) to administer the solar co-op program and is approximately an eight (8) month process from joining the co-op to completing the solar PV installation. The co-op receives bids from solar installers, and members then select the installer based on various criteria, such as price, quality, experience, warranty, local ownership, etc.

Go SOLAR Day is a free event scheduled for March 30, 2017 from 1pm to 8pm at Plantation Volunteer Park. Afternoon workshops focus on solar contractors, building officials, and professionals involved in photovoltaic sales, installation, and permitting, along with a hands-on demonstration of the Solar Plans Design System. Evening workshops focus on residents and visitors, explaining the benefits of solar energy and electric cars, the FL SUN co-ops, PACE solar financing, and community-based solar energy.

#### **e. Climate Change Action Plan Progress Report**

Carrie Kashar updated the Task Force on implementation of the Broward County Climate Change Action Plan (CCAP). As a reminder, the CCAP January 2016 baseline implementation of 51% was carried over from the previous report. As of February 2017, Broward County has fully addressed six (6) CCAP actions, partially addressed 58 actions, and not addressed 32 actions. CCAP actions not addressed are defined as actions that have not started at least two implementation steps. In comparison to May 2016, when tracking first started, fully addressed actions increased from 0 to 6%, partially addressed actions increased from 52 to 61%, and not addressed actions decreased from 48 to 33%.

Fully addressed CCAP actions are:

- Maintaining the Climate, Energy & Sustainability Program
- Continuation of the Climate Change Task Force
- Acquiring a tidal monitoring station
- Assisting municipalities with climate initiatives
- Supporting 3<sup>rd</sup> party power purchase agreements (e.g. through resolutions and Regional Compact activities)
- Encouraging regional private financing options (i.e. PACE)

Recent and ongoing program implementation includes:

- Conversation with businesses about the Better Building Challenge
- Creating a future conditions map series
- FDOT collaboration on coastal LiDAR
- Partners in Places grant application for Junior Climate Ambassadors



- Meeting to introduce nature-based programs at the Broward Addiction Recovery Center
- Grant application to Electrify America for Countywide EV infrastructure
- Development of the Deltares Critical Infrastructure Relationships Tool
- Completion of the Segment II beach nourishment

#### **f. Climate, Energy & Sustainability Program Updates**

Carrie Kashar updated the Task Force on recent activities of the Climate, Energy & Sustainability Program (CESP). The first quarterly report of 2017 for the Property Assessed Clean Energy (PACE) program reported 805 completed projects, resulting in approximately 1.3 million kWh of energy savings and an annual reduction of 932 metric tons of CO<sub>2</sub>. The Seal of Sustainability program certified the Port Everglades Upland Mangrove Enhancement Project on December 20, 2016. Broward County started recording live tide gauge data from locations at Port Everglades, Pompano, and Hallandale Beach starting with the king tides in October. Several student collaborations are ongoing with the Massachusetts Institute of Technology, who are designing virtual reality renderings of sea level rise, and with the University of Pennsylvania Design Studio, focusing on urban resilience.

Dr. Danchuk presented the Broward County Community Energy Strategic Plan in a NACO energy efficiency webinar, where Sonoma County introduced an innovative program to finance its own solar and EV infrastructure through PACE. CESP staff participated in the annual Florida Sustainability Directors Network meeting in Orlando, where members presented innovative programs on electric vehicles (e.g. Drive Electric Orlando), carpool incentives, and employee sustainability engagement. In addition, Carrie participated in the USDN Peer Learning Exchange event on sustainable hospitality in Tallahassee.

CESP staff attended the inaugural [Companies vs. Climate Change](#) conference in Fort Lauderdale and launched the Corporate Sustainability Network with a workshop attended by about 60 representatives from business, non-profits, and community leaders, to share case studies and ideas for collaboration in three areas: food recovery, recycling, and energy efficiency. Carrie advised Task Force members to promote and attend the upcoming Broward County Water Matters Day, Go SOLAR Day, and Earth Day events.

### **VII. Announcements**

Barry Faske commented on the need for local governments to connect water usage to rainfall amounts and announced several upcoming climate-related events in Hollywood. Barry Heimlich and Adrienne Kaltman announced the upcoming March for Science and People's Climate March in Washington DC and locally.

**VIII. Adjournment\***

**Next meeting: Thursday, May 18, 2017**

Senator Rich asked for a motion to adjourn. Randy Fleischer motioned to adjourn and was seconded by Barry Faske. Motion passed unanimously.

Meeting adjourned 3:40 PM.