

# RESILIENCE!

FALL 2022

# THE COLORS OF BROWARD

Paul Krashefski's vision of our County's wildest areas

NEWSLETTER OF THE  
BROWARD COUNTY  
RESILIENT  
ENVIRONMENT  
DEPARTMENT



RESILIENT  
ENVIRONMENT

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## : Impact of Hurricane Ian

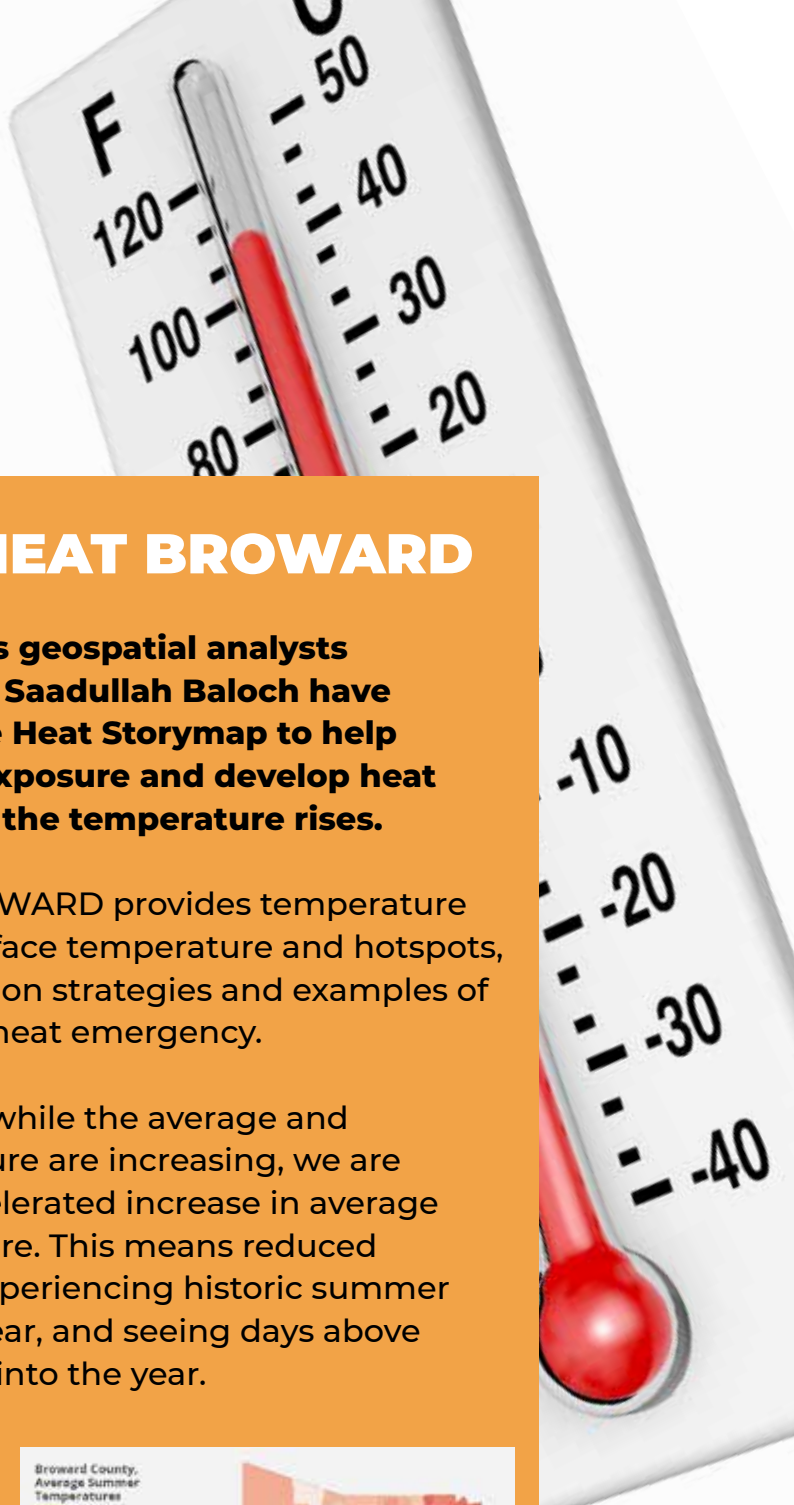
: Here in Broward County we are building a Resilience Adaptation Plan which will provide actionable county-wide flood adaptation and heat mitigation strategies focused on water management, green infrastructure and redevelopment strategies.

: The question has been raised as to whether Resilience Plan model scenarios will address an event of the magnitude of Hurricane Ian. It is important to recognize that impacts of the scale of Hurricane Ian are more consistent with a 1:1,000 year event here in Broward County. While the County's planning efforts do account for future conditions, infrastructure planning remains focused on shorter-duration and higher frequency events, such as 50-, 100- and 500-year scenarios.

: Ian does reinforce the importance of considering compound flooding in our planning efforts, including surge, rainfall and high tide, in addition to sea level rise.

: Visit [broward.org/resilience/plan](https://broward.org/resilience/plan) to follow our progress.





“One of the major findings was that the hottest communities are also the communities with the highest socioeconomic vulnerability.”

ADRIENNE AITKEN  
BROWARD COUNTY GIS SPECIALIST, RESILIENCE UNIT



## BROWARD COUNTY CLIMATE ACTION PLAN

### Policy Objective #26:

Enhance the urban tree canopy to protect walkers, transit riders and bicyclists from heat and pollution.

Using GIS mapping and other tools, evaluate shade and cooling available at pedestrian, transit (train and bus) and bicycle facilities, and assess whether the urban tree canopy is sufficient to protect people from heat and pollution. Work with community and governmental partners to identify needs and involve community members in the policy and planning process.

Establish support for tree maintenance to encourage long-term canopy growth and tree retention. Enhance the tree canopy equitably countywide.

## BEAT THE HEAT BROWARD

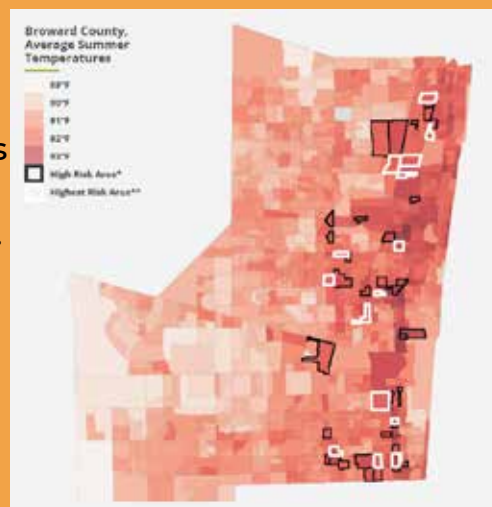
**The Resilience Unit’s geospatial analysts Adrienne Aiken and Saadullah Baloch have built a new Beat the Heat Storymap to help communicate risk exposure and develop heat mitigation needs as the temperature rises.**

BEAT THE HEAT BROWARD provides temperature trends, including surface temperature and hotspots, mitigation & adaptation strategies and examples of what we can do in a heat emergency.

Analyses reveal that while the average and maximum temperature are increasing, we are seeing the most accelerated increase in average minimum temperature. This means reduced periods of cooling, experiencing historic summer highs earlier in the year, and seeing days above 90°F extending later into the year.

Land surface temperature maps are a great tool to visualize communities with relatively higher surface temperatures. Check out the interactive maps to visualize the spatial distribution of heat in Broward County.

**Go to [Broward.org/Climate](https://www.broward.org/Climate) and choose ‘Beat The Heat’.**



A map to illustrate the areas with the highest average summer temperatures and the communities most vulnerable to that heat. source: Earth Economics, 2020

# TEN YEARS RESILIENT!

**JASON LIECHTY WILL BE LEAVING HIS POSITION AT RESILIENT ENVIRONMENT IN DECEMBER. WE ASKED HIM WHAT HE HAD LEARNED IN HIS TEN YEARS AT BROWARD COUNTY**

**Jason Liechty is well known within Broward County's Resilient Environment Department, where he manages environmental policy and legislative issues and contributes to many of the County's climate and energy initiatives.**



*What have you learned during your decade with the County?*

So much that I'm not sure where to begin! The power of personal connections, for one. I couldn't imagine when I started working here how close I would become with colleagues from the Compact, often working more closely with staff from other counties, cities, and organizations than with my own County colleagues. Nor could I imagine how important those social connections would be for advancing climate resilience across the region. We trust one another and know each

other's strengths and the strengths of each other's organizations, and that speeds up coordination and progress immensely.

I've also learned better how to balance idealism and pragmatism. Half a loaf is better than no loaf, and progress usually happens incrementally, sometimes in steps so small they barely seem worth it. At other moments, bigger changes occur. Climate issues can feel overwhelming—they are overwhelming. And I recognize that there is no single policy or technological advancement that will solve the problem in one fell swoop. At the same time, I have to stay optimistic. What's the alternative? Giving up? I refuse to do that. We can always bend the curves in a more positive direction.

*What does the term "resilience" recall for you?*

I usually first think of one of the most common definitions, "bouncing back after a shock." But many times, bouncing back to the exact same situation would be unwise—for example, building in areas vulnerable to storm surge after the area was destroyed by a hurricane. We have to do better when we bounce back. How do we do that? By taking a cold, hard look at the problems we have today, and how we can improve on them incrementally, but also in the wake of a serious systemic shock, which we have to expect will happen from time to time. So we have to be prepared. Building connections and community among people are

also incredibly important—having trusted relationships in place may be the most valuable asset following a shock.

### *What are you proudest of?*

Standing up for the County and our residents on energy issues, especially pushing utilities to have meaningful goals for energy conservation, promote solar energy, and adopt fair rate increases. We weren't always successful - that's the nature of the game - but we tried our best.

Also, I'm extremely proud that I helped ignite the County's transition to electric vehicles. By taking advantage of our application to join the Under2 Coalition, a global alliance of subnational governments devoted to tackling climate change, I found a lever for change and used it.

We needed to sign up for a "challenge" as part of our application, and I had a hunch signing up for a goal to purchase only zero-emissions vehicles after 2030 would be the kick we needed to really launch our electric vehicle transition. It was.

### *What will you miss the most? The least?*

The most—my colleagues, both in Broward County Government and in the wider community, especially the folks I've worked with so closely on Compact issues. It's a cliché, but it's true—work colleagues are like family.



*At the White House, July 2014  
Opposite: Halloween 2022*

The least—state politics. The real issues facing Florida are often ignored or postponed, and local governments left to deal with the consequences—made difficult when preemptions limit the power of counties and cities to handle certain issues! It's madness. Also, I will not miss hurricane season, August humidity, or Florida drivers one bit.

### *Any advice for your successor?*

Make friends with your colleagues. You're spending a quarter of your waking hours at work—do your best to enjoy it. And don't be shy about asking for help. Most people are happy to share their knowledge and skills.

Don't burn out: use your vacation days! I kept a spreadsheet so I could plan ahead and enjoy time off multiple times a year.

Become the office baker—it'll be great for your popularity. (Worked for me!) And most importantly, stock up on sweaters and jackets—it's freezing in here!

*Jason will be joining the Chicago-based Midwest Energy Efficiency Alliance in December as its policy director.*



# THE COLOR OF THE COUNTY

AT THE REQUEST OF OUR COUNTY ADMINISTRATOR MONICA CEPERO, BROWARD CULTURAL DIVISION SELECTED 28 IMAGES BY NATURAL RESOURCES SPECIALIST **PAUL KRASHEFSKI** TO ADORN THE ADMINISTRATION OFFICE WALLS



Beach and Marine, Naturescape, Land Preservation, Sustainability and Resilience; these are some of the varied topics I get to interpret with cameras in pursuit of providing imagery supporting the County's Environmental efforts.

That has gotten me on manatee survey flights, offshore reef deployments, beach resilience projects, natural area conservation and land management sites, in

locations for king tide impacts and subsequent mitigation measures, out before and after storm impacts and documenting our adaptation to a changing environment.

This collection of images was selected to show glimpses into Broward's natural world throughout the varied parts of the County from ground and sky, ocean to everglades.



“Paul has been taking wonderful photographs of Broward County’s natural resources for many years – I’m so happy that we are able to showcase his beautiful work here in our administration offices!”

**MONICA CEPERO**

**Broward County Administrator**



*Clockwise from top left: Horse trail at Long Key Nature Center; An Everglades sunset; Osprey at Hillsboro Pineland Natural Area, Coconut Creek; Passing airboats at Water Conservation Area 2A (Parkland)*







Arriving upon a scene, light, color, shape, and form become the variables of every composition. Sometimes one of these elements takes the lead and sometimes they are in balance. Being aware and open to what is visually presented is where it begins and when it all works successfully, there is a harmony that resonates within the image.

Having your camera gear close by gives you a chance at creating something memorable and

adding a drone to the equation provides many opportunities that would otherwise be missed. It can provide a different and unique perspective to the places we have grown to accept as ordinary or familiar.

I hope this collection portrays the efforts made to find balance between the natural and man-made world we are creating, highlighting our dedication to preserve a welcoming place for those who will come after.

*Left: Hillsboro Inlet Lighthouse.  
Below Looking south across West Lake Park, Hollywood.*



# CONNECT, COMMIT, ACT

The Climate Leadership Summit is a major annual event hosted by the Southeast Florida Regional Climate Change Compact to share knowledge, showcase climate action, engage leadership across sectors, and mobilize resilience. In December Broward County will host the 2022 event at the Broward County Convention Center.

Here are three of our keynote speakers and guest panelists.

## KEYNOTE SPEAKER

### ALICE C. HILL

**David M. Rubenstein Senior Fellow for Energy and the Environment, Council on Foreign Relations**

Alice C. Hill has an uncommon blend of experience—as a federal prosecutor, judge, special assistant to the president, and senior director for the National Security Council. She currently serves as senior fellow for climate change policy at the Council on Foreign Relations, where she focuses on risks, consequences, and responses associated with climate change.

While at the White House under President Obama, she led the development of national policy to prepare for catastrophic risks, including climate change and biological threats. Hill previously served as a research fellow at Stanford University's Hoover Institution.



*We have arranged a 30% discount with Oxford University Press for Summit Attendees: Keynote Speaker Alice Hill's latest book, *The Fight for Climate after COVID-19*.*

*Ms. Hill will be signing copies of her book on Thursday, December 8, at the Summit. Use discount code AMPROMD9 at the Oxford University Press website for 30% off.*

*To purchase book visit: [bit.ly/AliceB Hill](https://bit.ly/AliceB Hill)*



SESSION MODERATOR  
**DANIEL  
STANDER**

**Special advisor to the United Nations on matters of risk, analytics and finance. He is also Deputy Chair of the Board of the Resilient Cities Network.**

Over the last 20 years, Daniel has worked on every continent, advising public and private entities on a variety of complex risks, including natural hazards, pandemics and cyber attacks. He is a pioneer of #ResilienceFinance, helping capital find responsible investments in the face of climate and other extremes.

For over a decade, Daniel held various leadership positions at Risk Management Solutions (RMS), the world's preeminent catastrophe risk modelling company. Most recently, he was Global Managing Director at RMS, leading among other things the firm's relationships with all levels of government.



SESSION MODERATOR  
**ANGIE  
FYFE**

**Executive Director of ICLEI USA and a member of ICLEI's global senior management team.**

Since 1990, ICLEI has built and served a movement of local governments pursuing deep reductions in carbon emissions and tangible improvements in community sustainability and resilience.

Angie's previous experience includes serving as the Associate Director of the Colorado Governor's Energy Office, where she was part of the team to develop and implement 57 pieces of clean energy legislation under Governor Bill Ritter.

*Unable to attend the 2022 SE FL Climate Leadership Summit? Recordings of the keynote speeches, panel sessions, and other resources will be available online.*

**[broward.org/Climate/Summit2022](https://broward.org/Climate/Summit2022)**

# SOLAR AND SUSTAINABILITY

# ALPHABET SOUP!

Slowing climate change AND saving money?? PACE, SELF, SUN are just a few acronyms we think you should become familiar with, especially if you're thinking of going solar or upgrading your HVAC system.

**Vanessa Balta**, Program Manager at Broward County's Natural Resources Division, spells it all out.

## PACE.

**Property Assessed Clean Energy (PACE) is a financing (not a rebate or grant) program.**

Through the PACE program, the property owner (residential or commercial) agrees to pay back the financed amount on their annual property tax bill. PACE Providers are private companies that administer the program. This program is not operated by Broward County government. Qualifying improvements include rooftop solar panels, solar water heater, energy efficient air conditioning unit, cool roof, impact windows, insulation, and more. Visit [broward.org/NaturalResources/Sustainability](http://broward.org/NaturalResources/Sustainability) and choose PACE for more information.



## SELF.

**The Solar and Energy Loan Fund (SELF) is another financing program available to Broward residents and businesses.**

SELF is an independent, non-profit, community-based lending organization whose mission is to rebuild and empower underserved communities by providing access to affordable and innovative financing for sustainable property improvements, with the primary focus on energy efficiency, renewable energy, and climate resilience in low- and moderate-

income (LMI) neighborhoods. Qualifying improvements include rooftop solar panels, septic to sewer conversion, high-efficiency sprinkler systems, weatherization, insulation, new roofs and repairs, and more.

[solarenergyloanfund.org](http://solarenergyloanfund.org) for more

information. There may be other types of financing available to property owners and Broward County does not guarantee that the PACE or SELF programs are the best financing option. SELF loans are based on your ability to repay, not your credit score.



## SUN.

**Solar United Neighbors (SUN) is a national non-profit that helps residents and businesses better understand what goes into going solar**

SUN also provides an opportunity to leverage bulk-purchasing power by forming regional cooperatives (Co-Ops). SUN provides a direct line to ask specific questions, as well as regular virtual workshops in English and Spanish to learn more about how solar works and how to make the best decision to meet your energy needs. Since 2017, SUN has facilitated solar installations by nearly 140 Broward households with a total installed capacity of 1.4 MW. SUN co-ops are free to join and there is no obligation to buy panels.

Visit [solarunitedneighbors.org](http://solarunitedneighbors.org) for more information.

*Property owners should obtain help from a financial advisor when selecting the option that is most appropriate for their particular financial situation.*

# RESILIENCE PLAN IN THE MAKING

## A TWO-YEAR PLAN IS NOW UNDER WAY, FOCUSING ON CLIMATE CHANGE IMPACTS FOR THE NEXT 50 YEARS -

The County's two-year countywide planning effort focused on building community resilience to the impacts of climate change continues.

The County's base hydrologic model has been updated to incorporate current pervious/impervious cover county-wide and detailed stormwater data, information that will improve model performance and guide adaptation strategies. Local data and insights will continue to be solicited to support model validation and adaptation plan development.

**Stakeholder Coordination:** The County recently held a stakeholder kick-off workshop (Sept 15) for municipalities and the water management community, with nearly 100 attendees. The next several workshops (into January) will include preliminary model results and sub-regional in-person workshops to review model results and identify flood locations and water management issues of local concern.



**Next Steps:** We anticipate moving into the preliminary phases of adaptation planning and evaluation of the economic modelling toward the end of the first quarter of 2023 and will be sharing updates about the platform as it is developed.

Visit [Broward.org/Resilience/Plan](http://Broward.org/Resilience/Plan)

# ACHIEVEMENTS AND UPDATES

## OPPORTUNITIES

Two key positions are currently available at the Broward County Resilient Environment Department.

1. An **Energy Resilience and Sustainability Specialist** to administer the provisions of environmental ordinances as well as managing natural resource enhancement and protection efforts.

2. A **Water Resources Manager** This is a senior-level supervisory position responsible for coordinating the development and implementation of county-wide water resources initiatives The successful candidate is also responsible for advancing county-wide water resource policy, planning, and management programs with a strong focus on effective water resource management under the pressures of climate change.

Visit [governmentjobs.com/careers/broward](https://www.broward.com/careers/broward)



## NACIO AWARDS

Broward County's Resilient Environment Divisions received five Awards of Excellence from National Association of Counties Information Officers (NACIO) in 2022.

These included *Landscaping on the Edge* - a user-friendly reference guide featuring

best practices for planting and information about native plants, emergent plants and agency

programs - produced by the Natural Resources Division, who also won an award for their Instagram account, @browardENV - an account established purely for environmental content to increase community outreach.

Find our more at [broward.org/Awards](https://www.broward.org/Awards)



## BCT'S ELECTRIC!

The Florida Department of Environmental Protection (DEP) has awarded \$7.8 million to Broward County Transit (BCT) toward the purchase of 26 new electric transit buses

through its Electric Transit Bus Project as part of the government's settlement with Volkswagen over claims the company violated the Clean Air Act. For more information about BCT visit [Broward.org/BCT](https://www.Broward.org/BCT).

# MEET THE TEAM

## JACOB RICE



Hello! My name is Jacob Rice, and this past July I started with Broward County as the Beach Program Manager. I'm originally from Gahanna, Ohio (just outside Columbus), and after receiving my master's degree in Ocean Engineering from the University of Miami, I decided to stay in the warm weather of South Florida.

Previously, I worked in the private sector as a Coastal Engineer in engineering consulting firms, where I worked on beach renourishment projects in South Florida. The last year, I was working at the University of Miami assisting in ocean sciences research projects.






I am excited to be here at Broward County and working again with beach projects. My goal is to continue the past successes of the beach program and to promote the importance of the County's beach environment, while also looking ahead to future challenges in maintaining beach conditions. I look forward to working and collaborating with everybody and am willing to help when needed!

Visit [Broward.org/Beaches](https://www.broward.org/Beaches) and choose *Beach Renourishment*

Funding for the Resilience Newsletter is provided in part by the Broward County Board of County Commissioners as recommended by the Resilient Environment Department. An equal opportunity employer and provider of services. 50 copies of this public document were promulgated at a gross cost of \$95.00 and \$1.980 per copy to promote the Broward County Resilient Environment Department.



## STAY IN TOUCH

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