

RESILIENCE!

SPRING 2022

BROWARD COUNTY TO LAUNCH RISK ASSESSMENT AND RESILIENCE PLAN

PLUS THE LATEST ON OUR
BEACH RENOURISHMENT
PROGRAM

NEWSLETTER OF THE
BROWARD COUNTY
RESILIENT ENVIRONMENT
DEPARTMENT



RESILIENT
ENVIRONMENT



03 BEACH RENOURISHMENT PROGRAMS COMPLETED

Two extensive beach renourishment projects are approaching completion.

05 RESILIENCE PLAN IS APPROVED

We will be preparing a detailed two-year plan to focus on climate change impacts over the next 50 years.

06 NEW STATE FUNDING FOR BROWARD'S INFRASTRUCTURE PROJECTS

Broward County agencies will jointly receive nearly \$30 million to advance flood mitigation,

08 NEW SOLAR PROJECTS COMPLETED

The County currently has 12 solar installations online. Here are the two latest installations.

09 CLIMATE CHANGE LEADERSHIP SUMMIT

Save the date - we're hosting the region's 14th Annual Climate Compact Summit.

10 UNITED NATIONS IPCC CLIMATE REPORT EXPLAINED

A new 3,600-page report provides one of the most comprehensive views of a warmer global future.

NOAA 2022 Sea Level Rise Report

An interagency task force released the **2022 Sea Level Rise Technical Report** in February, with updated sea level rise information for the U.S. The Report reinforces the region's critical focus on sea level rise adaptation planning and projects both near-term and long-term. At least 10-14 inches of sea level rise is predicted along the east coast in the next 30 years, and more than 2.5 feet by 2070. These predictions are in line with our models and expectations.

As a region we employ regional sea level rise scenarios developed in conjunction with agency partners. The current regional projection accommodates 3.3 feet of sea level rise by 2070, with potentially less than 2 feet of rise under improved emissions scenarios.

Broward County is committed to furthering the resilience of our community with proactive planning and investments to account for climate impacts and the influence on our communities and infrastructure. Staying current on scientific advancements is critical to informing these efforts and any updates to regional projections and planning scenarios.

oceanservice.noaa.gov/hazards/sealevelrise/



Broward County has actively managed its beaches for more than 50-years.

To celebrate our successes and our ongoing beach and marine programs we have opened a new web portal to serve as a welcome for all things beachy!

VISIT OUR NEW
BEACHES WEB
PORTAL



RENOURISHING OUR BEACHES

Construction of the Segment II Shore Protection Project (beach nourishment) is nearly complete!

Restored beaches are a vital element in our shoreline resilience efforts, providing storm protection for properties and infrastructure and habitat for sea turtles, shorebirds, and other marine life.

SEGMENT II - Hillsboro Inlet south to Port Everglades: Conducted by the US Army Corps of Engineers (USACE) with 100% Federal funding, sand placement began in during April 2021, resumed in November 2021 and continued through April 2022. Nourishment activities typically cease during May through October due to sea turtle nesting along the beaches.

Beginning in April 2021 the beach was nourished from approximately NE 7th Pl. (3,500 feet north of the Pompano Pier) to about SE 6th St. (3,000 feet south of the pier). Beginning in November 2021, sand was placed from SE 6th St. in Pompano Beach down to Terramar St. in Ft. Lauderdale. Sand is currently being placed from the Hillsboro Inlet down to approximately NE 7th Pl.

CONTINUED...



SEGMENT II - Port Everglades to the County Line in Hallandale Beach:

Construction of this segment is ongoing. Conducted by the US Army Corps of Engineers (USACE) with 100% Federal funding, sand placement began in November 2021, will continue through April 2022, then resume in November 2022 through April 2023. Nourishment activities typically cease during May through October due to sea turtle nesting along the beaches.

The USACE awarded the construction contract to Continental Heavy Corporation, for placement of approximately 850,000 cubic yards of sand along the shoreline, 500,000 in Mizell-Johnson State Park and 350,000 along the beaches in Dania Beach, Hollywood, and Hallandale Beach. Work is ongoing in the State Park during this construction season and is expected to commence in November 2022 along the municipal shorelines. Additionally, dunes will be constructed at various locations along Segment III to aid in shoreline protection during large weather events such as tropical cyclones.



RISK ASSESSMENT AND RESILIENCE PLAN

UNDER WAY

A TWO-YEAR PLAN TO FOCUS ON CLIMATE CHANGE IMPACTS FOR THE NEXT 50 YEARS -

The County's Resilient Environment Department is proud to announce a two-year countywide planning effort focused on building community resilience to the impacts of climate change predicted over the next half-century, with a primary focus on flood and heat mitigation.

This effort is being undertaken with the collective support of municipal and business leaders who meet annually to discuss the resilience needs of the Broward community, with a focus on sea-level rise, more intense rainfall and clean energy initiatives needed to reduce the overall extent of climate change.

The project will be overseen by the County's Chief Resilience Officer and is designed to address flood mitigation needs across the Broward landscape, with a focus on water management infrastructure, transportation systems, critical infrastructure, basin-level redevelopment and land use. Recommendations from experts are expected to include new water management strategies, the impact of rising urban temperatures and alternatives for stormwater runoff management and treatment.

"I am proud of the leadership demonstrated by our Commission in taking this action. This Resilience Plan is about to be one of the most significant investments we can make to provide for the future of our community under conditions of rapid climate change, ensuring livability, affordability and economic opportunity for current and future residents"

**BROWARD COUNTY
MAYOR MICHAEL UDINE**



Plan development will be supported by a steering committee consisting of diverse private sector and community representatives, and sustained engagement of local municipalities, water managers, agency partners coupled with opportunities for public input. Upon completion, the plan is expected to provide the basis for a basin-level multi-decade resilient infrastructure and redevelopment plan to serve all of Broward County. Updates on the planning process and opportunities to participate will be posted on the [Broward.org/Resilience](https://www.broward.org/Resilience) website.



RESILIENT FLORIDA INFRASTRUCTURE GRANTS

BROWARD COUNTY AND LOCAL MUNICIPALITIES WILL RECEIVE A COMBINED \$78 MILLION IN GRANT FUNDS FOR RESILIENT INFRASTRUCTURE IMPROVEMENT PROJECTS.

The Broward County community ranked number two in the state for the total amount of funds awarded through this new program. Funding will be used to complete important projects to address flooding sea level rise and the resilience of critical infrastructure in Broward County.

With the Governor's most recent announcement of round two funding,

Broward County agencies will jointly receive nearly \$30 million to advance flood mitigation, including projects at Fort Lauderdale - Hollywood International Airport and within Broward County Parks as part of a multi-agency effort addressing reaches of State Road A1A in the City of Hollywood.

"Our communities have been actively planning to address sea level rise impacts for more than a decade. This is perhaps the first large-scale distribution of dedicated infrastructure funds to help our communities adapt to our changing climate. These projects will certainly reinforce the importance of early adaptation and the impact we can realize through shared investment." said Broward County Mayor Michael Udine



King tide floods at State Road A1A in North Hollywood Beach.

The Cities of Dania Beach, Hollywood, Lauderdale Lakes, Miramar, North Lauderdale, Oakland Park, Sunrise and Weston in Broward County were also successful and were awarded nearly \$48 Million for critical infrastructure and stormwater upgrades that will play a significant role in the resilience of their respective communities and Broward County.

CASE STUDY

CRITICAL INFRASTRUCTURE AND STORMWATER UPGRADES IN NORTH HOLLYWOOD BEACH PARK

The Florida Department of Environmental Protection has awarded Broward County's Resilient Environment a \$294,317 award from the State's FY 21-22 Water Protection Funds towards the installation of dewatering pumps at SRA1A to maintain access to Hollywood North Beach Park.

As a critical part of a larger FDOT led project, four dewatering pumps will be placed in low-lying coastal Hollywood, where tidal flooding and storm surge are currently impacting arterial roadways and recreational areas, often leading to detours and closures. Additional improvements funded by FDOT and the City of Hollywood will address tidal flooding impacting residential neighborhoods and businesses. This demonstrates a collaboration of multiple jurisdictions, combining resources to cost-share improvements addressing livability, economics, transportation, and recreation.

This resilient infrastructure investment enhances the flood resilience of the area by providing critical infrastructure and stormwater upgrades designed to protect against current and future flood conditions exacerbated by sea level rise.

"We are delighted to see our community was well-positioned for this funding opportunity. This funding will support a diversity of critical resilience projects and help ensure a more climate resilient environment for our residents."

DR. JENNIFER JURADO, BROWARD'S CHIEF RESILIENCE OFFICER

TRANSIT CENTER BUILT FOR RESILIENCE

The newly opened Lauderhill Transit Center is a state-of-the-art \$10.2 million project managed by Broward County Public Works' Construction Management Division in conjunction with Broward County Transit.



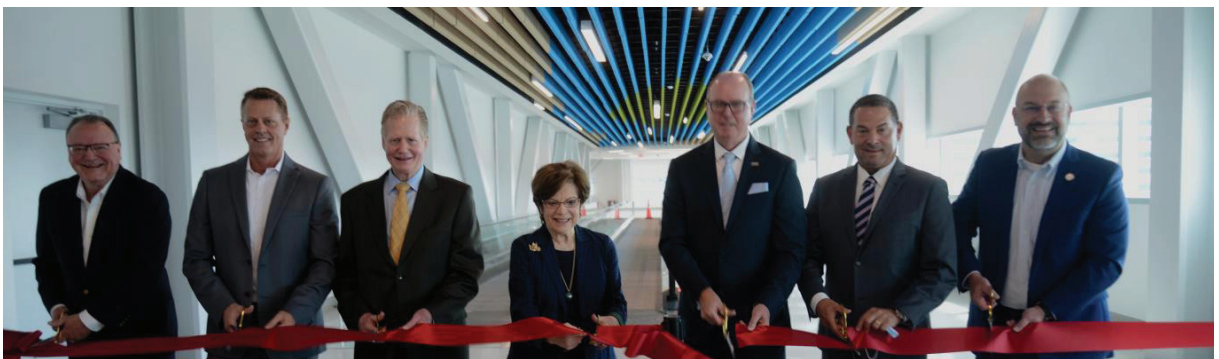
The Center is equipped with two solar canopy systems that protect riders from the elements provides ample lighting and generates clean, renewable solar energy. It is the County's first Net-Positive facility. In addition to the solar panel system, the facility is equipped with charging stations for electric vehicles, and has infrastructure in place for charging electric buses in the future.

The facility is designed and constructed to seek Leadership in Energy and Environmental Design (LEED) Gold certification.

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PORT GOES SOLAR

Port Everglades' new Heron Garage is using solar power and moving walkways to transport passengers from their cars to Cruise Terminals 2 and 4. "The state-of-the-art 1,818-space garage features 360 photovoltaic (PV) panels on the top floor that create a solar power generating system to offset electrical grid impact by converting sunlight into electricity."



Unveiling the new Heron Garage at Port Everglades: (l-r) Tim Moore, Stiles Construction Company; Jamey Armstrong, Pirtle Construction Company; Broward County Commissioners Tim Ryan, Nan Rich and Lamar Fisher; Broward County Vice Mayor Michael Udine; Jonathan Daniels, Port Everglades Chief Executive and Port Director.



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

Last year's Summit was attended by 729 registrants, with more than 70 speakers and panelists. Keynote speakers included Brenda Mallory, White House Council on Environmental Quality; Daniel Blackman, US EPA; Senator Bill Nelson; NASA Administrator, Shannon Estenoz; US Fish & Wildlife Service, and Crystal Bergemann, US Dept. of Housing and Urban Development. Panelists included state legislators,

the South FL Water Management District, the US Army Corps of Engineers, county administrators, mayors, and other experts.

Panels discussed affordable housing, climate-smart agriculture, investing in resilience, net-zero emissions, coastal resilience, extreme heat, and youth calls for climate action.

Didn't get a chance to attend the 2021 SE FL Virtual Climate Leadership Summit?

Recordings of the keynote speeches, panel sessions, and other resources are available.

broward.org/Climate/Summit2022



IPCC CLIMATE REPORT

The latest report from the Intergovernmental Panel on Climate Change (IPCC), the United Nations' climate research unit, examines the consequences of rising average temperatures for people around the world. The 3,600-page report provides one of the most comprehensive views of a warmer future.

The nearly 2,000-page report has a global focus, but Florida was repeatedly used as an example of a place where the impacts of climate change are already being felt, both economically and environmentally.

Florida has already spent hundreds of millions raising roads, homes and seawalls to defend against the incoming threats, but the report noted that at a certain point, there isn't enough money or technology to keep everywhere in the world habitable.

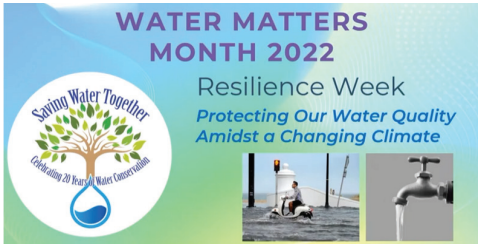
The IPCC report doesn't name a single event or global temperature that would be a tipping point, but concludes that this point has already been reached for some ecosystems around the world, like coral reefs. If the planet reached 2 degrees Celsius of global warming, up to 99% of the globe's coral reefs will be lost, according to research cited in the report. But even under the best-case scenario, where the world stays under 1.5 degrees Celsius of global warming, 95% of coral reefs will be lost.

www.ipcc.ch

“We simultaneously need to reduce our greenhouse gas emissions and adapt to reduce the impacts of climate change... and we have a very limited amount of time to do this.”

ADELLE THOMAS - RESEARCHER AT THE UNIVERSITY OF THE BAHAMAS AND A LEAD AUTHOR ON THE IPCC REPORT.

ACHIEVEMENTS AND UPDATES



event focusing on teaching residents about the need to conserve and protect water for people, plants, and

animals. The Resilience presentation focused on climate change impacts to water quality. Watch this and other videos from Water Matters Month here > [youtube.com/user/BrowardEnvironment](https://www.youtube.com/user/BrowardEnvironment)

WATER MATTERS MONTH

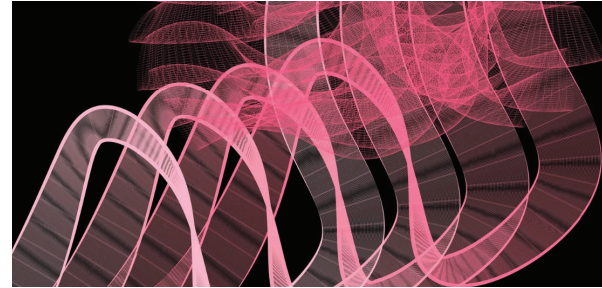
Resilience team member Adrienne Aitken presented the Resilience component of Water Matters Month - a family-friendly online



LEGISLATIVE UPDATE

On March 3 Florida's state House passed a measure to create a state climate resilience office. The bill would require the state to develop a resilience strategy for

its highways as well as a list of other resilience projects, with a list of priorities and cost estimates. It would also create a central database of sites such as hospitals, utility headquarters and airports at direct risk from rising sea levels.



ECOSYSTEMS OF EXPRESSION

The City of Pembroke Pines and The Frank C. Ortis Art Gallery present *Ecosystems of Expression*, on Thursday, April 14th at 6:00 PM a multi-sensory art experience that conveys the potency of art and environmental activism in drawing attention to scientific research.

This event responds to The Frank's current exhibition *Elemental: Terra, Tide & Time* with themes of changing ecosystems, environmental stewardship and sustainability. Presented in partnership with Broward County Natural Resources Division and Broward County Cultural Division.

thefrankgallery.org/p/exhibitions

Feilice Grodin, Diana, 2018

UPLOAD YOUR FLOODING PHOTOS

Flooding is a life-threatening and expensive issue in coastal communities of South Florida and across the nation.

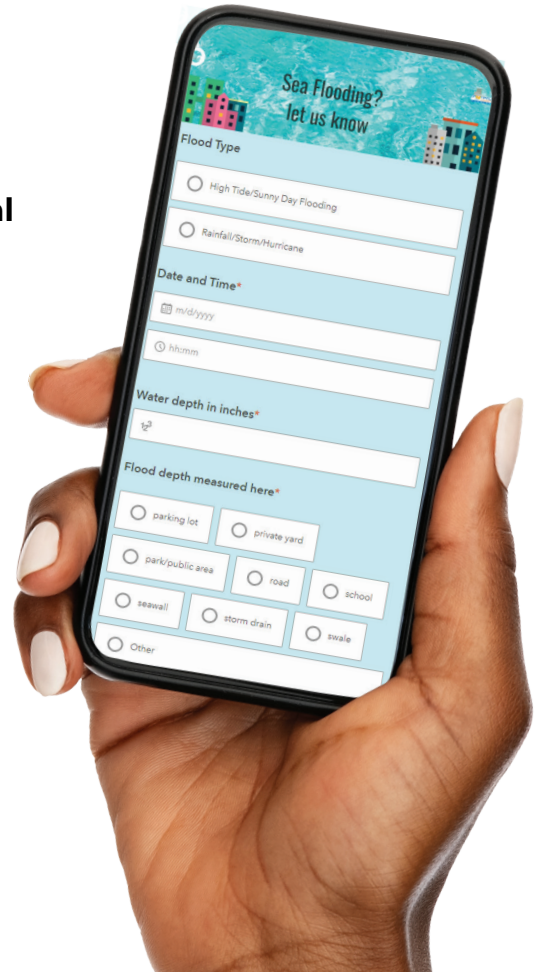
More and more areas will be subject to coastal and 'sunny day' flooding in the future due to the rising sea levels. Our new crowdsource tool uses a community driven approach to address some of the challenges associated with coastal flooding.

We invite you to share your flood experience via **flooding.broward.org** to help create awareness of the impacts of flooding countywide.




Upload your photos and include date and time. Send us social media links for your videos so we can add them to the videos page.

An important goal of this project is to have an accurate measure of where flooding occurs naturally. Finding all flooded locations across Broward County is impossible for a small crew. Our hope is that your help and the "power of the crowds" will help us build the most complete and up-to-date database of floods in South Florida.

View the results of our crowdsourced data on your desktop or smartphone by visiting **crowdsource.broward.org**




STAY IN TOUCH

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