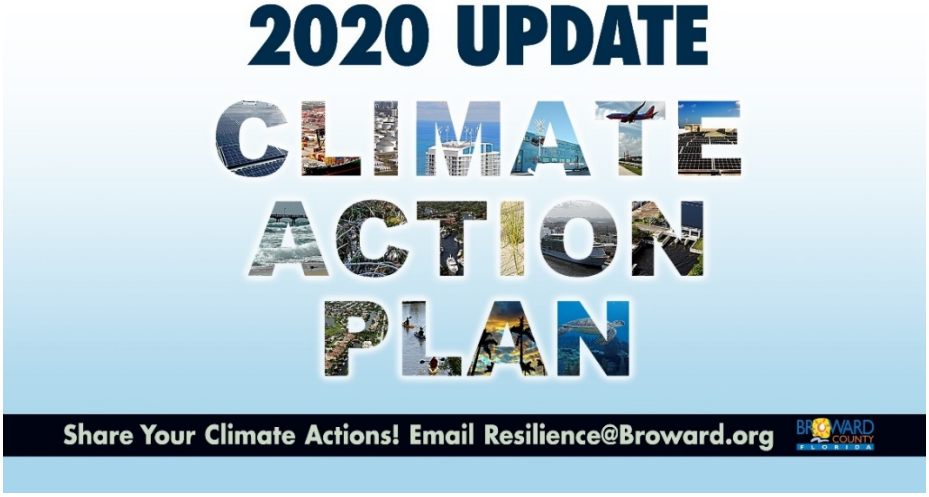
Climate Energy and Sustainability e-News May 2020

2020 Climate Change Action Plan Update



Originally published in 2010, the Broward County Climate Change Action Plan (CCAP) is updated every five years to keep pace with accomplishments and new local opportunities. A county-wide strategy, the plan is intended to be implemented by local government, community partners and residents alike. Two overarching goals will remain the focal points through the 2020 update:

- Mitigate the effects of climate change by reducing greenhouse gas emissions by 2% per year, ultimately leading to a total 80% reduction by 2050, and
- Increase the resilience of our community to the effects of climate change.

The 2020 CCAP plan will be developed with input from the Broward County Climate Change Task Force, Broward County staff from various departments and divisions, local experts, stakeholders, and engaged citizens and youth. The CCAP update will also ensure alignment with the Regional Climate Action Plan and other cross-agency efforts.

The 2015 Broward County Climate Change Action Plan (CCAP) consisted of nearly 100 strategic actions for addressing the economic, environmental, and social impacts of climate change. By 2019, all actions and the 23 high priority actions were completed or initiated, a 100% success rate. Some actions are related to ongoing collaboration or maintenance of projections and data and rollover from one edition of the plan to the next. Others are project-based and will be updated in the 2020 CCAP with new ideas to address evolving community needs.

The Broward community can submit actions online for consideration in the 2020 CCAP update by emailing resilience@broward.org. Community outreach opportunities will be announced soon. Social media events will be hosted by @BrowardEnv on facebook and twitter.

https://www.broward.org/Climate/Pages/ClimateActionPlan.aspx

Adoption of 2019 Unified Sea Level Rise Projection for Southeast Florida and Municipal Call to Action

On March 10, 2020, the Broward Board of Commissioners accepted the 2019 update to the Regionally Unified Sea Level Rise (SLR) Projection for Southeast Florida as the basis for sea level rise adaptation planning in Broward County and in coordination with our regional partners. This action helped to ensure that all major infrastructure projects and planning decisions in the Southeast Florida region are informed and guided by a common, geographically-relevant sea level rise projection. Municipalities are now requested to formally adopt the projection as the basis for adaptation and major infrastructure planning in their communities. A sample resolution and support documents can be obtained from resilience@broward.org.

The 2019 Regionally Unified Sea Level Rise Projection consists of the NOAA High curve, the NOAA Intermediate High curve, and the median of the IPCC AR5 RCP 8.5 scenario (IPCC, 2013) as the basis for a Southeast Florida sea level rise projection for the 2040 and 2070 planning horizons. Mean sea level rise is projected to be 10 to 17 inches by 2040 and 21 to 54 inches by 2070 (above the 2000 mean sea level in Key West, Florida). In the longer term, sea level rise is projected to be 40 to 136 inches by 2120. Interannual and interdecadal variation in the sea level rate of rise is anticipated, as is a persistent increase in sea level over the long term. Since 2013, the observed mean sea level has varied between the IPCC Median and NOAA Intermediate-High curves. The guidance document describes the recommended application of the projection as it relates to both high- and low-risk projects and short- and long-term planning efforts along with the methodology and science applied to develop the projection.

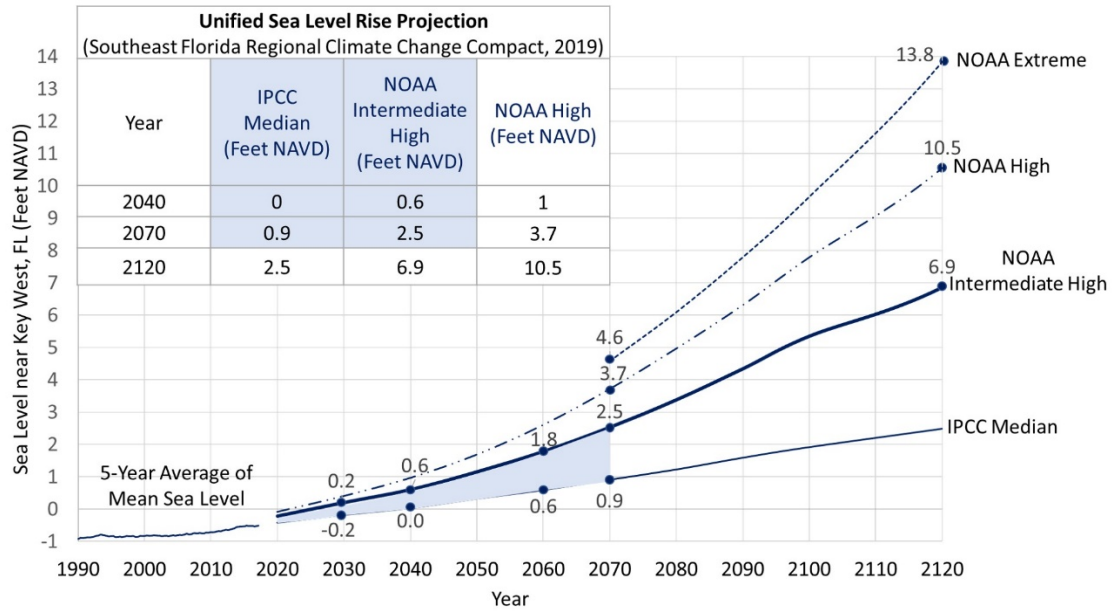


Figure: Projection Referenced to the North American Vertical Datum. The Unified Sea Level Rise Projection referenced to the North American Vertical Datum (NAVD) is shown in above figure. Each NOAA tide gauge in the region has published datums that can be used for conversions between elevations https://tidesandcurrents.noaa.gov/datums.html?id=8724580. The relative sea level rise projection (change in inches) referenced to the mean sea level in 2000 can be found in the guidance document.

Climate Change Task Force Action

The three Climate Change Task Force Subcommittees are actively coordinating to address climate actions related to Electric Vehicle Infrastructure and Transportation, City Collaboration, and Social Equity and Engagement. The collaboration in the subcommittees has resulted in robust conversations with agency partners on evaluation, prioritization and budgeting for resilient transportation projects and building greater transparency into long term planning and emergency response processes. The City Collaboration subcommittee has directly communicated with municipal elected officials and staff to provide information from the task force meetings and encourage climate action on key priorities. The Social Equity and Engagement subcommittee is considering local application of social vulnerability indices and possible partnerships with institutions of higher learning to fill data gaps and share information related to areas of vulnerability (such as housing access and cost, exposure to inundation, climate gentrification, energy burden, and heat vulnerability). The Equity and Engagement subcommittee is also contemplating outreach strategies to community-based organizations for citizen-led science initiatives and greater inclusivity of vulnerable populations into decision-making.

Actions for the 2020 Climate Change Action Plan will be derived from the work of the subcommittees and the Task Force as a whole. Climate Change Task Force meetings can be viewed online https://broward.granicus.com/ViewPublisher.php?view_id=15.

Regional Standards for Seawalls & Flood Barriers

Broward County has created regional guidance so that coastal flood barriers will continue to provide protection, even under future sea level rise conditions. All new tidal flood barriers and substantial improvements to shorelines and shoreline structures must meet a minimum seawall and top-of-bank elevation of 5 feet by 2050.

The regional standards were adopted by the Broward County Board of County Commissioners into the Land Use Plan on January 7, 2020 and into Broward County Code of Ordinances on March 31, 2020. All Broward County cities with tidally-influenced areas are required to adopt a local ordinance implementing the regional standard by February 13, 2022. The ordinance adopted for the Broward Municipal Services District includes a real estate disclosure at the time of sale to the owner that infrastructure built to the minimum elevation may be required to abate nuisance flooding.

Higher seawalls are just one of many floodproofing options. Berms and other coastal flood barriers can be equally effective and provide important benefits to estuarine shorelines. Even seawalls can be designed to include Living Shoreline features, thus serving an ecological function while continuing to be protective barriers with watercraft accessibility.

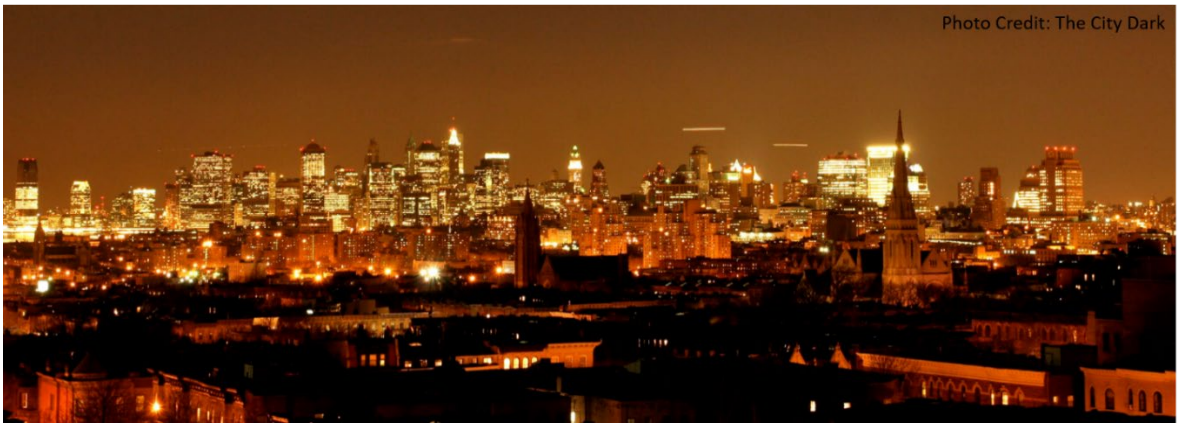
Stakeholder engagement was a critical component of the planning process. Participation by the marine industry, real estate community, engineers and planners from both the private and public sector, and other stakeholders in extensive public meetings and surveys was integral to the adoption of a regional standard that could be utilized by and serve to benefit the entire community. Recent presentations and discussion regarding the proposed policy can be viewed online. Download the "Build it High, Keep it Dry" brochure, and learn more about the new regional standards and the USACE Flood Risk Study here.

King Tide Schedule

As sea level rises, high tides will be more likely to cause nuisance flooding. As noted in the Southeast Florida Regional Climate Change Unified Sea Level Rise guidance document (Compact, 2020), by 2050, Southeast Florida may experience 60 to 150 days of flooding if adaptation measures, such as the recently adopted Broward County Regional Resilience Standard for Tidal Flood Barriers, are not fully implemented. As sea level rises, nuisance flooding will occur in not only in the Fall season, but also in the Spring. To assist the Broward community in preparing for potential nuisance flooding events this year and to encourage photo documentation of flooding events across the County using the "Document the Floods Application", the table below is provided. The table summarizes the predicted peak dates and heights for 2020, in feet above North American Vertical Datum (NAVD). As a reference, the average high tide for this location in 2020 is 0.40 feet NAVD. These predictions are based on the South Port Everglades Tidal Station operated by NOAA. Alerts during potential tidal flooding events are posted at www.Broward.org/climate.

Date	Prediction (Feet NAVD)	Approximate Time
April 7-8	0.8	9:00 AM
May 7	1.1	9:30 AM
August 21-23	0.9	11:00 AM
September 15-21	1.4	9/19, 11:00 AM
October 15-19	1.6	10/17, 9:14 AM
November 14-17	1.5	11/15, 7:57 AM
December 13	1.1	6:49 AM

Night Sky Program



The inappropriate or excessive use of artificial light, commonly referred to as light pollution, can have serious environmental consequences for humans, wildlife, and the climate. In 2015, Broward's Environmental Planning and Community Resilience Division began educating the public on light pollution and create spaces to dialogue with local planners, architects, recreation managers, and others on the benefits of reducing excessive or misplaced light. Night-Friendly Lighting policies are now incorporated into the Broward County Climate Action Plan (Action #11), Land Use Plan (POLICY 3.6.8), and Comprehensive Plan (POLICY CC2.6). On January 29, 2019, the Broward County Board of Commissioners adopted Sec. 39-112. - Outdoor lighting into the Code of Ordinances, which can be used as a model code by local municipalities. These policies promote use of light only where needed - thereby limiting excess light, discourage light trespassing, and reducing glare to create a safe and pedestrian scaled lit environment.

A Sky Quality Monitoring Program has been established since 2018 to assess Broward County's night sky quality and measure progress in reducing light pollution over time. The County has Sky Quality Meters (SQM) at parks, libraries, and other county-owned facilities throughout the community. Students and members of the community can also take part in citizen-science initiatives to measure the quality of Broward's night sky. Learn more on the new Broward Night Sky page.

Climate Ambassador Training – now online!

Ever want a local climate training delivered to your door? Wish you could feel more comfortable discussing climate change with friends, family, colleagues, students and neighbors?

Broward County Environmental Planning and Community Resilience Division has launched an online version of the Climate Ambassador Training Program. Check out the Broward Environment YouTube page to access the first in this series of educational videos.

Module 1: Learn about global climate change and the 10 local impacts – available at https://youtu.be/W1AMCJLl2rk

Coming soon: Module 2 (County Initiatives) and Module 3 (How to share your personal climate story). *Stay tuned!*

Legislative Update

Florida legislators enacted the first major piece of climate-related legislation in a decade during the 2020 session by unanimously adopting Senate Bill 178 - Public Financing of Construction Projects. If signed by the Governor, the bill will require the state, local governments, or any other public entity to conduct a Sea Level Rise Impact Projection (SLIP) Study before construction of any state-funded project in a coastal building zone. Also approved was Senate Bill 7018 - Essential State Infrastructure, which includes language requiring FDOT to develop a master plan for electric vehicle charging infrastructure along the State Highway System. Florida Forever, the state's main program for buying land for conservation purposes, will be funded at $100 million dollars. This level falls short of the program's historic annual levels, which once exceeded $300 million, but represents a tripling of last year's funding level of $33 million.

No other climate or energy legislation passed the state Legislature in 2020, including bills to require renewable energy goals for the state and its electric utilities, to allow for third-party sales of electricity, or to require annual reports on climate risk and climate health impacts. Several bills attempting to remove or move towards removal of the state's preemption of local regulations on plastic bags and polystyrene failed to advance in 2020. Furthermore, the Legislature passed Senate Bill 172 - Florida Drug and Cosmetic Act, which preempts the regulation of over-the-county drugs and cosmetics to the state. This legislation was filed to invalidate the City of Key West's ban on sunscreens containing oxybenzone and octinoxate, two common sunscreen ingredients shown to cause damage to coral. Other cities around Florida, including Fort Lauderdale, had begun to explore similar legislation.