Broward County Resilience Update

Presented to the Broward Climate Change Task Force

February 1, 2024

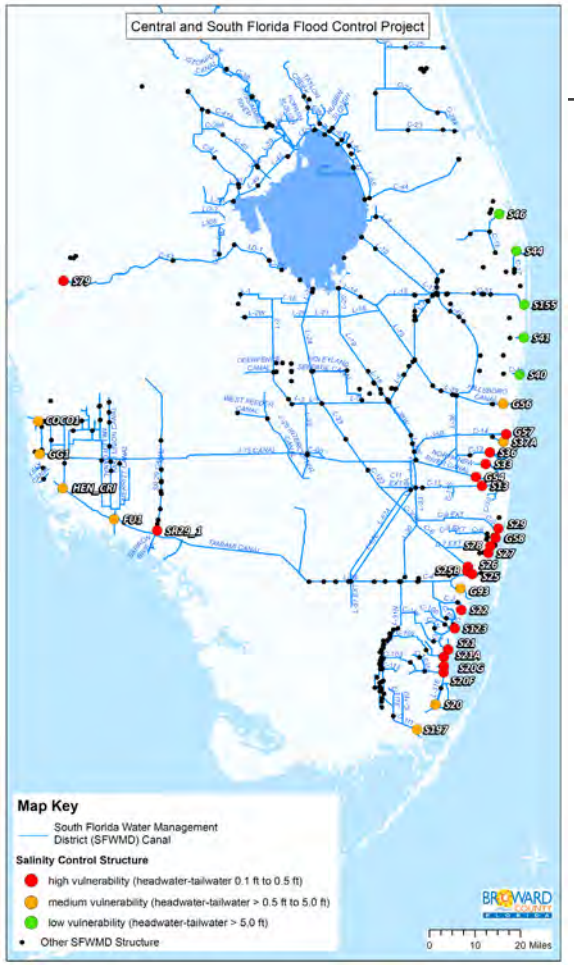
Overview

- C&SF Project Status
- Resilience Plans / Projects
- Underwater: Broward
- Compact - CPRG
- Engagement

Solar Installation at Delevoe Park

Section 216 Flood Risk Study – Status

- Early draft Scope of Work presented by USACE/SFWMD project team (spring ‘23) proposes $19M scope of work.
- USACE Vertical team requests "descoping" to reduce project scale and budget
- Project scaled to prioritize only salinity control structures - $11.3M with target for WRDA 2026
- Submitted to USACE leadership for approval in July 2023 with an eye to receiving approval in September to meet appropriations deadlines

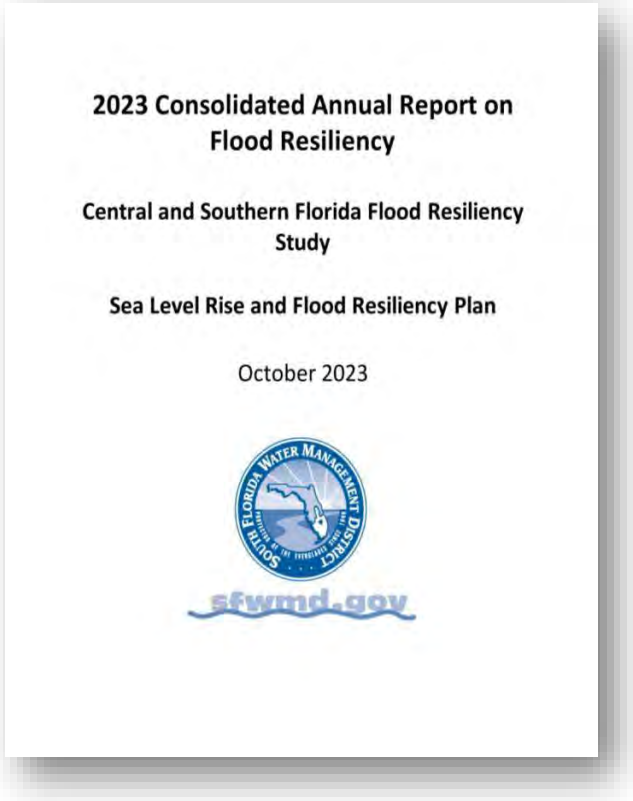


But, while awaiting approval…

- USACE introduces new study requirement –20% engineering design (Level 3) for all project recommendations
- With 20 PHASE 1 structures (unfunded), estimates are $40+ Million and delay to WRDA 2032
- County and partners advocated for exemption from Level 3 Engineering Studies to preserve advancement of all structures for WRDA 2026
- At same time, project team develops hybrid proposal:
  - Level 3 engineering for 4 Salinity Control Structures with preliminary estimates for remaining 16 Structures
  - Extends timeline to WRDA 2028 for authorization
  - New budget of $19.2 Million (SFWMD $9.6M / USACE $9.6M)

Current Status and Proposed Path

- USACE not responsive to request for Level 3 engineering exemption
- Potential path forward:
  1. Press for approval of hybrid proposal by USACE - $19.2 M
  2. Coordinate with SFWMD to accelerate Level 3 engineering studies for remaining structures (5 in Broward) at $1.5 M each for $7.5 Million total
  3. Seek county budgeting and SFWMD cost share



Procurement Update

- Net Zero Plan –
  - Advertised, 3 respondents
- EV Charging Infrastructure Strategy –
  - In Negotiations
- EV Software – Finalizing award

The Underwater: Broward

- 10 Schools Selected for Engagement
- Community Town Hall Scheduled – 4/27
- Public Art Installation – County Garage, Schools
- Joint Engagement Panel – Gulf of Mexico Conference 2024
- Bus Wrap – March 2024
- Water Matters Day - March 9, 2024

Compact Climate Pollution Reduction

Project Status:

- Priority strategies selected for modeling of GHG and LIDAC benefits
- Input solicited from counties, cities, tribes and LIDAC community
- Grant writer under contract
- Letter of Intent Submitted

Grant Focus:

- Lower Income Residential Energy Efficiency
  - Building Envelope
  - Heat pumps - A/C and water heater
  - Roof and Insulation
- Residential Solar
- EV Charging Infrastructure
  - Fleet
  - Public
- Commercial Energy Efficiency?

Communications

- The next issue of our “Resilience!” newsletter is in production
- Focus on Water Issues
- Spotlights:
  - Business
  - Drones

Engagement, Partnering and Advocacy

- COP28
  - Resilient Cities Water Forum
  - Resilience Cities Energy Forum
  - Under2 Energy Forum
  - ICLEI Data Forum
  - ICLEI Public Access to Nature
- Broward Days – Resilience Panel
- SB 102 – Live Local – Legislative Briefings
- Resilient Cities – Broward Journey

- 9th Broward Leaders Water and Climate Academy
- Sierra Club – IPCC
- Coming Up
  - Leadership Fort Lauderdale
  - Leadership Hollywood
  - National Academies – Gulf of Mexico Conference
  - Tower Forum

Climate Change in 2023

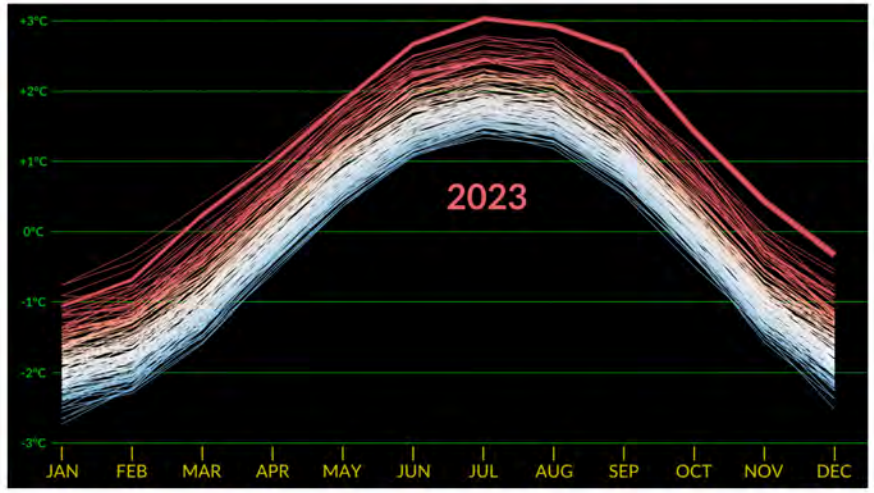
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Search NOAA sites

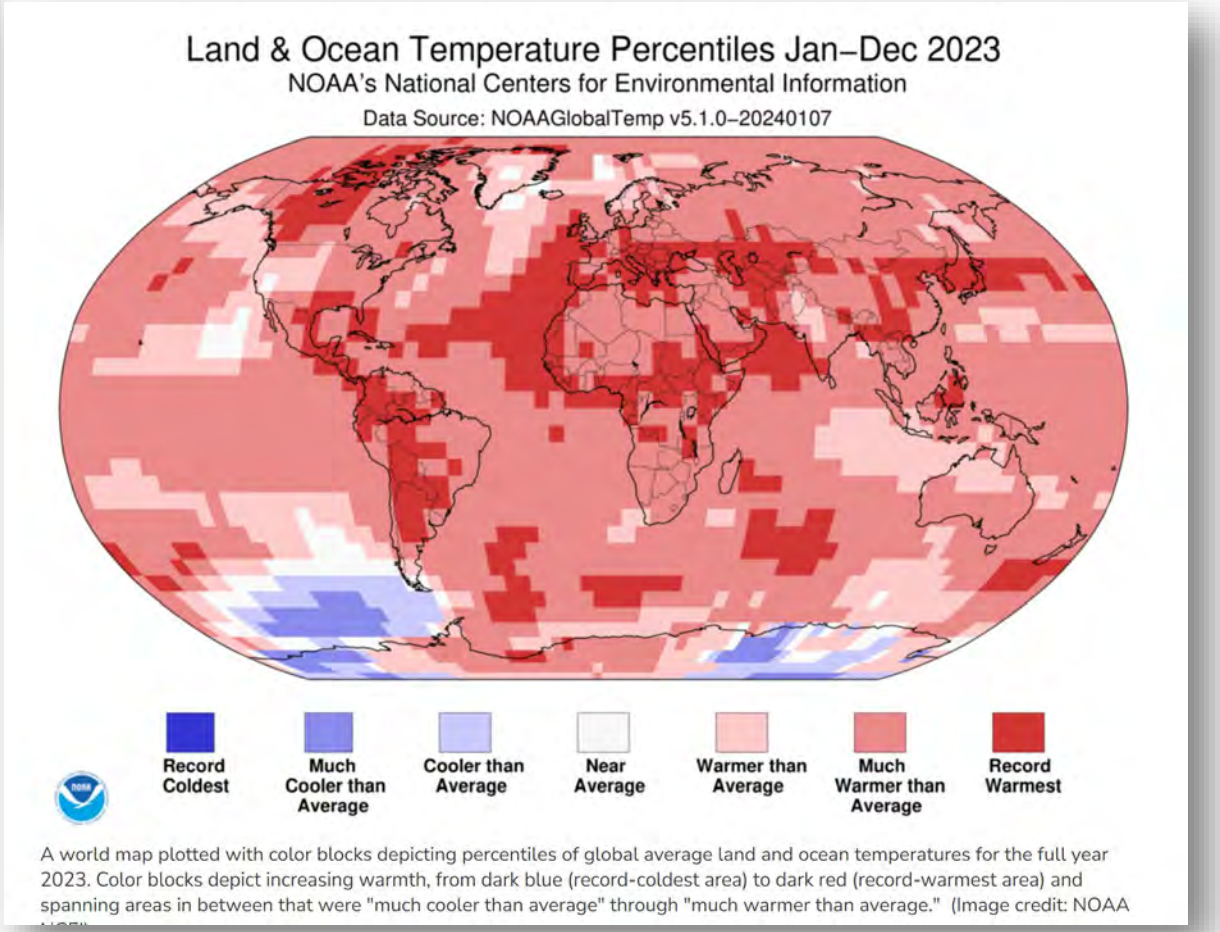
Home / News & Features

2023 was the world's warmest year on record, by far

Antarctic sea ice coverage hit record low



This data visualization, which is updated monthly, shows the seasonal cycle of temperature variation on the Earth's surface, and how those temperatures deviate from the average from 1951 to 1980. The data come from the GISS Surface Temperature Analysis and are publicly accessible here. The seasonal temperature offsets are based on the MERRA-2 reanalysis data here.
NASA's Scientific Visualization Studio



A world map plotted with color blocks depicting percentiles of global average land and ocean temperatures for the full year 2023. Color blocks depict increasing warmth, from dark blue (record-coldest area) to dark red (record-warmest area) and spanning areas in between that were "much cooler than average" through "much warmer than average." (Image credit: NOAA

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Environment

2024 will break the extreme temperature records set in 2023

The elements that conspired to make 2023 so unusually warm are likely to push the dial even further in 2024, with meteorologists already warning about extreme heat

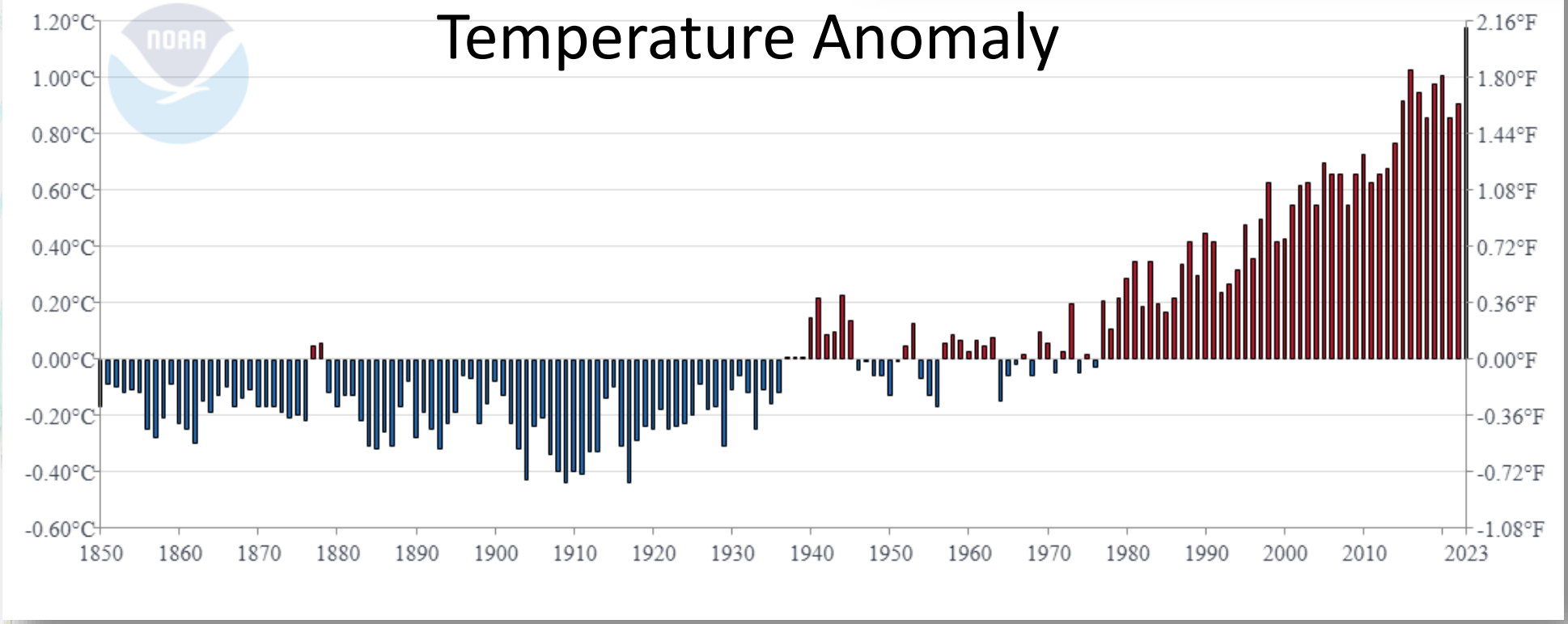
By James Dinneen

Rank 1 = Warmest Period of Record: 1850–2023	Year	Anomaly °C
1	2023	1.18
2	2016	1.03
3	2020	1.01
4	2019	0.98
5	2017	0.95
6	2015	0.92

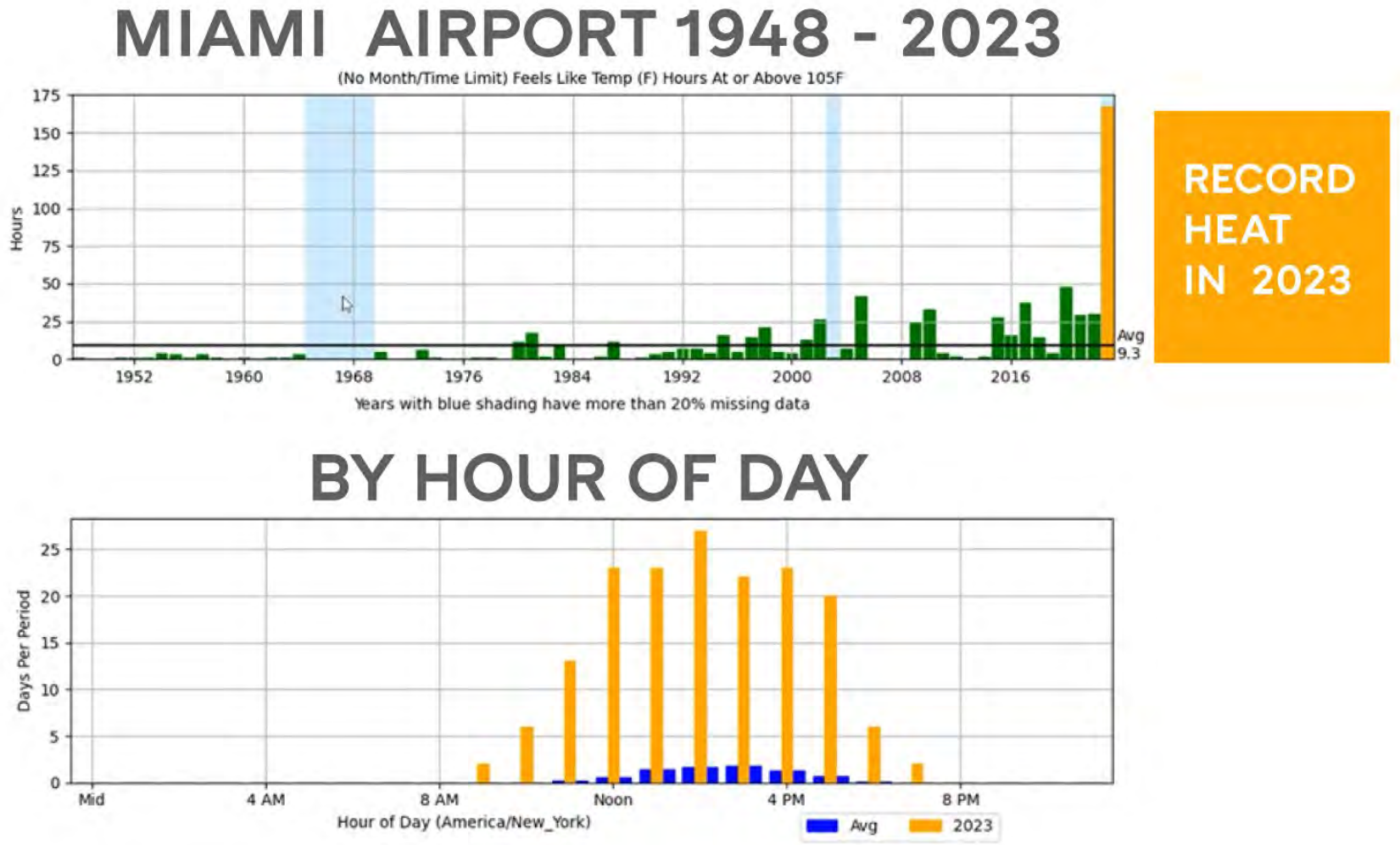
Global Land and Ocean

January-December Temperature Anomalies

Temperature Anomaly



HOURS WITH HEAT INDEX AT OR ABOVE 105°

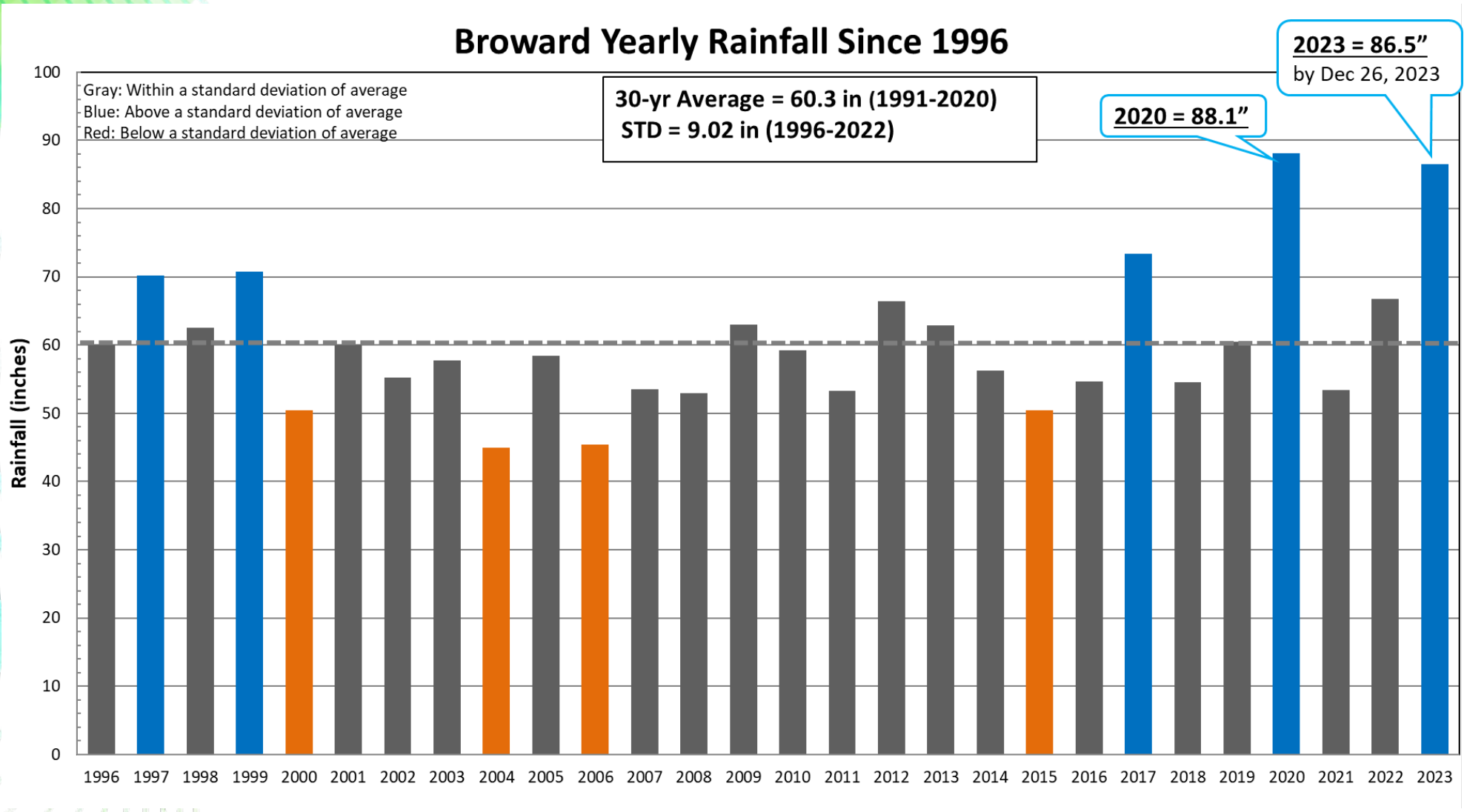


RECORD HEAT IN 2023

National Weather Service
Miami - South Florida
WEATHER FORECAST OFFICE

Source: NWS Miami/South Florida Forecast Office

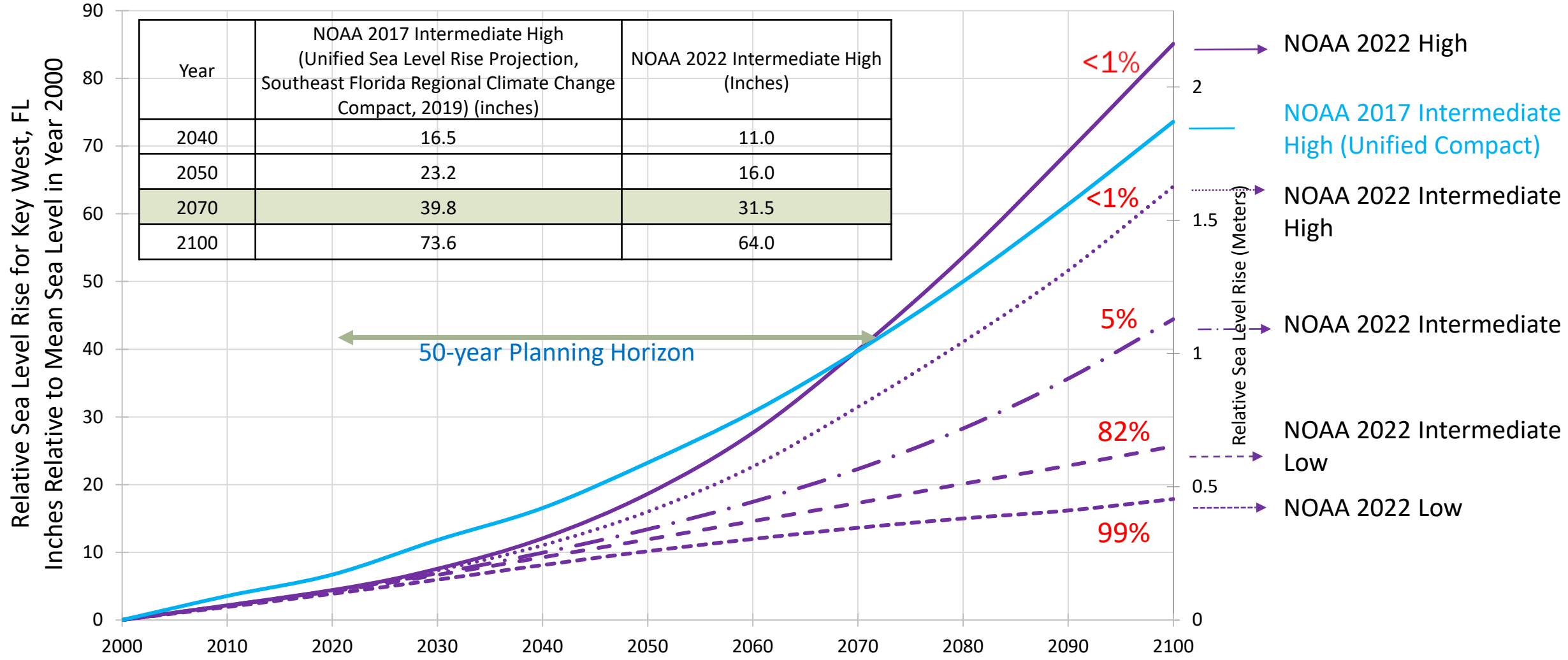
Broward Yearly Rainfall Since 1996



Year	Rain
1996	60.1
1997	70.2
1998	61.9
1999	70.8
2000	50.4
2001	60.0
2002	55.3
2003	57.7
2004	45.0
2005	58.4
2006	45.4
2007	53.5
2008	53.0
2009	63.0
2010	59.3
2011	53.3
2012	66.4
2013	62.9
2014	56.2
2015	50.4
2016	54.7
2017	73.4
2018	54.6
2019	60.5
2020	88.1
2021	53.4
2022	66.7
2023	86.5

Sea Level Rise Planning Scenarios

Year	NOAA 2017 Intermediate High (Unified Sea Level Rise Projection, Southeast Florida Regional Climate Change Compact, 2019) (inches)	NOAA 2022 Intermediate High (Inches)
2040	16.5	11.0
2050	23.2	16.0
2070	39.8	31.5
2100	73.6	64.0



% = Probability of Exceedance under 3°C warming scenario

Summary

- Progress on projects requires constant vigilance and push, and hence a strong and capable team.
- Progress is steady with 2024 anticipated to be a big year for projects.
- Collaborations, partnerships, and engagement are all expanding.
- We are beginning to realize the extremes we have sought to avoid, demanding further GHG reductions and robust adaptation and planning scenarios.
- Opportunity to further refine and focus on challenge and priority strategies as part of 2025 Climate Action Plan.

Questions ?

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