



City of Miami

Heat Season Plan

Office of Resilience and Sustainability

Last Updated: April 12, 2024

Pursuant to City Commission Resolution R-23-0354, the City of Miami has developed an Extreme Heat Season Plan to articulate short-term and long-term actions that can be taken to address extreme heat in the City.

A RESOLUTION OF THE MIAMI CITY COMMISSION DIRECTING THE CITY MANAGER TO EXPLORE OPTIONS AND SOLUTIONS FOR THE CITY OF MIAMI (“CITY”), INCLUDING BUT NOT LIMITED TO CITY PARKS, TO ADDRESS THE EXTREME HEAT IN THE CITY.

Background on Extreme Heat in Miami

EXTREME HEAT IN MIAMI

Miami experiences approximately 130 days at or above 90°F (32.2°C) degrees per year, roughly 1/3 of the year. By 2080, this number is expected to increase to approximately 180 days per year. Due to Miami’s high humidity, the number of days with an extreme heat index (days where it feels over 90° F/32.2°C), is projected to grow and exceed any other city in the country by 2050. July 2023 was Miami’s hottest month ever recorded (so far) with an average temperature of 86.5°F. For 46 consecutive days (June 11 – July 27, 2023), the heat index reached or exceeded 100°F.

In response to the growing number of high heat days, Miami-Dade County has officially recognized a “Heat Season” spanning from May 1 to October 31 every year. In addition, in May 2023, the National Weather Service began an experimental pilot program for Miami-Dade County to reduce the Heat Index threshold for Heat Advisories and Heat Warnings so community members receive alerts before temperatures/heat indices reach extreme levels. Miami-Dade County is the only area in the country that the National Weather Service is performing this pilot.

- ☀ Heat Advisory – reduced from 108°F for 2 hours, to 105°F for 2 hours.
- ☀ Heat Warning – reduced from 113°F for 2 hours, to 110°F for 2 hours.

As average temperatures rise and linger, population grows, and more technology is powered by electricity, it is important for the region to work together with our electricity utility, Florida Power & Light, to ensure the energy grid can support this growing demand. Insufficient planning and preparation can lead to blackouts which could be extremely dangerous and even deadly during a heat event.

CAUSES OF EXTREME HEAT AND GLOBAL TRENDS

Human-caused greenhouse gas emissions from activities like burning fossil fuels to produce electricity or driving cars are the primary contributors to global climate change. 70% of global carbon dioxide emissions (the primary human-caused greenhouse gas) come from cities, which means local governments must be leaders in their commitment to ambitious actions that drastically reduce emissions to avoid the worst impacts of climate change, including extreme heat.

According to the National Oceanic and Atmospheric Administration, the 2022 surface temperature was 1.55°F (0.86°C) warmer than the 20th-century average of 57.0°F (13.9°C) and 1.90°F (1.06°C) warmer than the pre-industrial period (1880 – 1900). This increase in global average temperature disrupts historic climate patterns leading to extreme changes in weather and natural disasters. In Miami, these impacts are experienced as increased flooding due to sea level rise, intensified hurricanes and storms, and growing periods of extreme heat.

The City of Miami has set a long-term target of net-zero greenhouse gas emissions by 2050 in accordance with the Paris Climate Agreement, which stipulates that global average temperature rise should be kept to well below 2°C above preindustrial levels, and ideally be limited to 1.5°C. The Miami Forever Carbon Neutral plan establishes an ambitious interim 2035 target of 60% emissions reduction below 2018 levels and outlines actions the City and its stakeholders can take to reach that target.

EXTREME HEAT DATA AND RESEARCH IN MIAMI

The City has participated in a number of studies and initiatives to get a better understanding of the City's heat profile and areas in most need of cooling interventions. For many years the City only had land surface temperature maps, which are helpful in showing variations in heat throughout the City but they overestimate ambient temperatures as surface temperatures are known to be higher. Due to this, the City of Miami participated in a project supported by NOAA and CAPA Strategies in summer 2020 called **Heat Watch** which engages local communities in a heat mapping campaign to gather data and create high-resolution descriptions of ambient heat at the human level. Teams of citizen scientists drove designated routes throughout the City in the morning, afternoon, and evening with sensors that tracked temperature, humidity, and GPS coordinates to create a Citywide heat model. Florida International University and Catalyst Miami have teamed up for another heat-related citizen science initiative called **Shading Dade** which places small iButton sensors throughout the County, for 3 months at a time, to measure the impact of shade interventions. The data does require processing and analysis so findings from sensor deployments are not immediate. Most recently, the City worked with Google Environmental Insights Explorer and was selected as a pilot city for their **Tree Canopy Lab** which uses aerial imagery and machine learning to provide estimates of tree canopy density at the Census Tract level.

HEALTH RISKS AND VULNERABLE POPULATIONS

Extreme heat is a period of high heat and humidity with temperatures above 90°F for at least two to three days. In extreme heat your body works extra hard to maintain a normal temperature, which can lead to death. Additionally, a hotter, wetter climate will continue to increase the length of mosquito season, which can make residents more susceptible to vector-borne diseases like Zika virus.

Extended periods of high heat can affect Miamians in the following ways:

- Increased risk of heat exhaustion and heat stroke
- Exacerbating risks from chronic health conditions, including asthma and some heart conditions
- Exacerbating poor air quality
- Declining mental health including mental fatigue and increased aggression

Extreme heat and humidity are particularly dangerous for infants and young children, elderly adults, low-income individuals, pregnant people, and outdoor workers. According to 2022 Census data, 5.5% of City residents are under the age of 5 and 16.5% are over the age of 65.

In 2020, Florida passed the Zachary Martin Act requiring schools to do more to protect student athletes from heat strokes, including having water-filled tubs at games and practices to rapidly cool the body. The law also requires schools to train personnel on how to recognize signs of heat-related ailments, including potentially deadly heat strokes, and to take life-saving actions.

How this Document is Organized

This Heat Season Plan is organized into three cooling solutions and a Heat Response Protocol detailing actions departments will take during Heat Season and Heat Events.

Cooling initiatives are organized into objectives with corresponding actions and activities. Initiatives are listed by desired timeline of completion:

- Short-term = completed within 2-3 years
- Medium-term = completed within 5 years

Actions and activities that reference time frames are subject to change based on current needs.

The Office of Resilience and Sustainability will track the actions described under the Cooling Solutions.

The three Cooling Solutions for the City of Miami Heat Season Plan are:

1. SHADE

Includes actions to help people stay cool in shaded environments.

2. WATER

Includes actions to help people stay cool and hydrated by increasing access to water resources.

3. DESIGN

Includes actions to help people stay cool in their homes and at work.

Heat Response Protocol

Includes short-term actions to immediately address the acute symptoms of extreme heat. Includes a timeline and communications strategy.

SHADE

Ensure Shaded Shelters & Structures on City-owned Land

Increase Native and Flowering Trees Communitywide

Increase Nature-based / Green Infrastructure on City-owned Land

Short-term

Medium-term

WATER

Increase Recreational and Waterfront Access to Biscayne Bay, Miami River, and Little River

Provide Additional Drinking Water Fountains with Reusable Bottle Fillers

Increase Access to Pools, Splash Pads, and Misting Stations

Short-term

Medium-term

DESIGN

Implement Heat Response Protocol

Accelerate Development of Resilience Hubs / Cooling Centers

Mandate Heat Responsive Policies and Procedures

Expand City's Climate Ready Residential Programs

Short-term

Medium-term


SHADE


Shaded areas provide refuge from direct sunlight and reduce land surface temperatures, which both creates a more comfortable environment for people as well as addresses thermal radiation which drives the urban heat island effect. Shade can be created through both green and gray infrastructure but different interventions can have different thermal cooling effects.

Short-term Actions (completed within 2-3 years)


ACTION	DESCRIPTION	LEAD DEPT
Ensure Shaded Shelters & Structures on City-Owned Land		
<p>☀️ Provide Additional Shading at Bus and Trolley Stops</p> <p>🌿</p>	<p>Shaded areas are valued by those waiting for buses and trolleys. Trees, tarps, vertical, or horizontal structures can assist in shading bus and trolley stops.</p> <p><i>New Activity:</i> Inventory bus/trolley stops and existing bus shelters and cross reference with existing heat, shade, and transit route information to develop a prioritized needs list for shade at bus and trolley stops. Recommended interventions will be compliant with ADA sidewalk requirements. <i>Analysis of expenses to be undertaken.</i></p>	<p>Resilience & Public Works</p>
<p>☀️ Identify Types of Shade Structures in Parks</p>	<p>Many Parks across the City use a variety of shade structures to provide access to more comfortable temperatures.</p> <p><i>New Activity:</i> Identify the types of shade structures being used at Parks, and the types of additional structures that can be used in Parks. <i>Additional expenses not anticipated.</i></p>	<p>Parks & Recreation Office of Capital Improvements</p>
<p>☀️ Include Window and Door Coverings and Dehumidifiers in City-Owned Facilities</p> <p>🌿</p>	<p>Inexpensive heat reducing measures can be installed in city-owned facilities to protect from heat to reduce indoor air temperatures and save money on utility bills.</p> <p><i>New Activity:</i> Evaluate facilities where installation of window film, curtains and/or blinds on windows, air curtains at entries, and dehumidifiers are needed. <i>Analysis of expenses to be undertaken.</i></p>	<p>General Services Administration</p>


Increase Native and Flowering Trees Communitywide


 Increase Fruit Tree & Small Shrub Give-aways to City Residents	<p>Flowering trees beautify the City and help to increase local pollinators. Fruit Tree & Small Shrubs Give-aways occur throughout April to celebrate Arbor Day and fulfill requirement of being a Tree City. Four standards include: 1) a tree committee, 2) a tree ordinance, 3) a community forestry program of an annual budget of at least \$2 per capita (Tree Trust Fund), and 4) annual Arbor Day observance.</p> <p><i>New Activity:</i> Increase number of Give-away events to quarterly for each year. <i>Analysis of expenses to be undertaken.</i></p> <p><i>New Activity:</i> Explore an Adopt-a-Tree, Tree Relocation, and/or Tree Exchange program for trees that are removed through development. <i>Analysis of expenses to be undertaken.</i></p>	<p>Building</p>
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 Develop a 'Cool Routes' Tool	<p>For those walking, biking, or otherwise commuting through the elements, a shaded route is desirable and often the safest path to take (heat-wise).</p> <p><i>New Activity:</i> Develop a web-based tool where people can see the coolest route they can take to their destination. (note: not necessarily the fastest route) <i>Analysis of expenses to be undertaken.</i></p>	<p>Resilience & Sustainability</p> <p>Resilience & Public Works</p>
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Medium-term Actions (completed within 5 years)

ACTION	DESCRIPTION	LEAD DEPT
<p>Increase Nature-based / Green Infrastructure on City-owned Land</p>		
 Increase Stormwater Impact Fee and rebrand to 'Storm to Shade' or 'Showers to Shade'	<p>The City's stormwater infrastructure is being expanded to address sea level rise, king tides, and flooding from storms. Public engagement reflects the desire to incorporate Green Infrastructure into these upcoming projects.</p> <p><i>New Activity:</i> Increase the Stormwater Impact Fee to incorporate Nature-based / Green Infrastructure into these upcoming projects. Rebrand Stormwater Fee to 'Storm to Shade' or 'Showers to Shade' or a similar concept. <i>Analysis of expenses to be undertaken.</i></p>	<p>Resilience & Public Works</p>

 Increase Tree Canopy, including Native and Flowering Trees, in Climate Justice Communities	<p>Large trees are planted in right-of-ways to beautify and cool the City. City Commission passed Resolution R-23-0338 to accept and approve the Southwest Streetscape Master Plan (A). Additionally, on February 9, 2023, the City Commission approved the expansion of the Plan to include District 1 and District 5, inclusive of all City Commission Districts (B). The Southwest Streetscape Master Plan guides right-of-way plantings and investments in one of the City’s hottest and most hardscaped areas. The City is also in the process of updating the Urban Street Tree Master Plan which will guide tree plantings Citywide.</p>	Resilience & Public Works Planning
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 Increase Trees and Greenery in City Parks	<p>Parks, natural areas, and areas designated as City of Miami Natural Forest Communities are managed by the Parks & Recreation Department. Information on tree and greenery coverage is available in the Parks Master Plan updated July 2023.</p> <p><i>New Activity:</i> Identify Parks with shade gaps where additional trees can be planted. <i>Analysis of expenses to be undertaken.</i></p> <p><i>New Activity:</i> Identify Parks with dog parks and shaded areas for pets. <i>Additional expenses not anticipated.</i></p> <p><i>New Activity:</i> Identify Parks that need additional ADA considerations for shaded walkways. <i>Analysis of expenses to be undertaken.</i></p>	Parks & Recreation
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WATER

Water can help thermoregulate the body and prevent heat related illnesses. Proximity to water can create a cooling effect and help mitigate urban heat island effects. In addition, consuming water is vital on hot days and the City can increase access to safe drinking water in the public spaces it stewards.

Short-term Actions (completed within 2-3 years)

ACTION	DESCRIPTION	LEAD DEPT
Increase Recreational and Waterfront Access to Biscayne Bay, Miami River, and Little River		
☀ Provide Information on public and private Recreational Opportunities	<p>Many recreational activities, both public and private, are available on the Biscayne Bay, Miami River, and Little River. These activities are posted on the Parks webpages.</p> <p><i>New Activity:</i> Expand outreach on these opportunities by regularly including in newsletters, social media, flyers, and other public outreach.</p> <p><i>Additional expenses not anticipated.</i></p>	Parks & Recreation
☀ Increase use of Living Shorelines that allow access to Waterbodies on City-owned Land	<p>The areas near waterbodies can be 2-6 degrees Celsius cooler than surrounding areas. Access to waterfronts, particularly waterfronts that combine green and grey features, provide a cooling opportunity for residents. A number of parks and City-owned areas have utilized grant funding to develop resilient waterfronts. Appendix B in Miami21 provides Waterfront Design Guidelines.</p> <p><i>New Activity:</i> Incorporate elements from the Resilient Waterfront Design Plan developed in June 2023 into City-owned waterfronts.</p> <p><i>Analysis of expenses to be undertaken.</i></p>	<p>Capital Improvements</p> <p>Resilience & Sustainability</p> <p>Resilience & Public Works</p> <p>Parks & Recreation</p> <p>Real Estate & Asset Management</p>

Medium-term Actions (completed within 5 years)

ACTION	DESCRIPTION	LEAD DEPT
Provide Additional Drinking Water Fountains with Reusable Bottle Fillers		
☀ Provide Additional Drinking Water Fountains with Reusable Bottle Fillers in City Parks	<p>All new buildings include drinking water fountains with reusable bottle fillers and dog bowl fillers.</p> <p><i>New Activity:</i> Prepare an assessment to determine how many Parks have water fountains and the costs of new water fountains.</p>	<p>Capital Improvements</p> <p>Parks & Recreation</p>

New Activity: Incorporate drinking water fountains with reusable bottle fillers and dog bowl fillers in renovation projects. Identify upcoming renovation projects annually.
Analysis of expenses to be undertaken.

Increase Access to Pools, Splash Pads, and Misting Stations

☀ Increase Availability and Installation of Pools, Splash Pads, and Misting Stations in City Parks

Public engagement shows that pools, splash pads, and misting stations are desired components of City parks. (e.g., Public Meeting for Park 3699 on SW 1st Ave requested water misting station.) Map of City parks with pools and a map of City parks with splash pads are available in the Parks Master Plan updated July 2023. (See attached excerpts from the Plan.) Pools and splash pads are also included on the City park webpages. Staff are being trained from the American Red Cross on signs of heat exertion to help keep park visitors safe.

Capital Improvements
 Parks & Recreation

New Activity: Identify high traffic parks to install additional splash pads.
Analysis of expenses to be undertaken.

New Activity: Extend pool and splash pad operating hours during the Heat Season (May 1 – October 31).
Analysis of expenses to be undertaken (early analysis would be limited additional costs as staff schedules could shift to start later in the day as the pool will close later in the day.

New Activity: Identify list of City parks with misting stations. Identify high traffic parks to install additional low-cost misting stations.
Analysis of expenses to be undertaken.

☀ Increase Access to Misting in other City Owned Areas

Cities around the world are implementing misting measures to keep residents and visitors cool.

Capital Improvements
 Parks & Recreation

New Activity: Explore low-cost misting equipment in publicly-owned spaces along the Baywalk, Riverwalk, sidewalks, and other right-of-ways.

Real Estate & Asset Management

Analysis of expenses to be undertake

Resilience & Public Works

DESIGN

Beyond public spaces, the City can help residents stay cool in their homes and at work. Policies and regulations can enable worker protections for both City employees and workers that are contracted by the City. The City can help residents cool their homes by providing funding and resources to improve building envelopes and install cooling solutions. It is important for the City to proactively plan for and attempt to mitigate situations wherein residents are unable to cool off in their homes.

Short-term Actions (completed within 2-3 years)

ACTION	DESCRIPTION	LEAD DEPT
Implement Heat Response Protocol		
<p>☀️ Implement Coordinated Heat Response Protocol</p>	<p>Miami-Dade County has designated May 1 – October 31 as “Heat Season.” Within Heat Season, there are episodic heat events wherein the heat index reaches levels that pose a risk to human health.</p> <p><i>New Activity:</i> Develop and activate, as needed, a Citywide Heat Response Protocol that outlines City operational adjustments as well as public safety measures departments will take.</p> <p><i>Additional expenses not anticipated.</i></p> <p><i>New Activity:</i> Develop an extensive communications campaign of personal preparedness for extreme heat through signage, social media, and videos on the importance of staying hydrated, vulnerable groups such as young, aging, and pregnant persons, and signs of heat stress.</p> <p><i>Analysis of expenses to be undertaken.</i></p>	<p>Resilience & Sustainability Emergency Management Communications</p>

Accelerate Development of Resilience Hubs / Cooling Centers

☀️ Accelerate Development of Resilience Hubs / Cooling Centers

The City is developing a network of neighborhood Resilience Hubs that will assist with post-disaster response; access to social services, information, and City resources; and serve as Cooling Centers. Grant funding has been received to enhance the Carrie P. Meek Center at Charles Hadley Park to be a Resilience Hub and three new City parks buildings are currently being constructed with Resilience Hub criteria. Suggested Resilience Hubs are included in the Parks Master Plan updated July 2023. (See attached excerpts from the Plan.)

Capital Improvements
Parks & Recreation
Resilience & Sustainability
Emergency Management

New Activity: Develop a feasibility study to solidify the Resilience Hubs locations and provide a timeline for bringing locations on board.

Analysis of expenses to be undertaken.

New Activity: Ensure that new Park buildings in these locations are built with Resilience Hub criteria and capabilities to rapidly grow the Citywide network. Additionally, develop operations protocols and train staff

Analysis of expenses to be undertaken.

New Activity: Operate Resilience Hubs as Cooling Centers during the Heat Season (May 1 – October 31), not just after a major disaster such as a hurricane.

Analysis of expenses to be undertaken.

⚙️ Define Cooling Centers & Identify Cooling Centers within the City

Cooling Centers provide places for people to go to stay cool during heat events. Cooling Centers typically extend hours of operation during heat events.

City Manager
Resilience & Sustainability

New Activity: Define what constitutes a Cooling Center including how they will operate (extended hours, etc.)

Additional expenses not anticipated.




Parks & Recreation
Emergency Management






New Activity: Designate facilities to serve as Cooling Centers within the City.

Analysis of expenses to be undertaken.

General Services Administration

Mandate Heat Responsive Policies and Procedures

	<p>Implement Heat Safety Measures for Construction Workers</p>	<p>Currently, the City code limits construction hours to 8am-6pm. Contracted construction firms are not required to have any heat safety protocols for workers.</p>	<p>Building Capital Improvements Resilience & Public Works Code Enforcement</p>
		<p><i>New Activity:</i> Extend construction hours from 6am-8pm during Heat Season (May 1 – October 31) to allow for construction workers to work outside of peak heat hours. In addition, develop minimum heat safety requirements to include in construction bids. <i>Additional expenses not anticipated.</i></p>	
	<p>Implement Heat Safety Measures for City Employees who Work Outdoors</p>	<p>City employees who work outdoors are exposed to extreme heat. To prevent injury or heat stress, safety measures are needed.</p>	<p>Resilience & Public Works Parks & Recreation Capital Improvements Solid Waste General Services Administration</p>
		<p><i>New Activity:</i> Purchase modified uniforms, modify work hours, provide additional water and ice, and increase breaks for employees who work outdoors during the Heat Season (May 1 – October 31). Heat sensors and thermometers that alert workers to high temperatures will also be considered. <i>Analysis of expenses to be undertaken.</i></p>	
	<p>Perform Assessment of AC Units Citywide</p>	<p>Assessing AC Units in each City-owned building will identify which AC Units are not working properly and which ones are operating most efficiently.</p>	<p>General Services Administration</p>
		<p><i>New Activity:</i> Assess AC Units in municipal buildings Citywide to determine effectiveness and efficiency of existing Units to determine cost savings that can be seen for AC Units that are replaced with more energy efficient models. <i>Analysis of expenses to be undertaken.</i></p>	
		<p><i>New Activity:</i> Prepare a preventative maintenance plan for AC Units. <i>Analysis of expenses to be undertaken.</i></p>	
		<p><i>New Activity:</i> Develop protocols for when AC Units cease operations such as having ready access to portable AC Units. <i>Analysis of expenses to be undertaken.</i></p>	

 Cool Surfaces (Roofs, Pavements)	<p>Increasing albedo/solar reflectance is one way cities can mitigate urban heat island impacts as lighter surfaces do not absorb as much thermal energy. Section 3.13.2 of Miami21 designates requirements for solar reflectance of roofing materials.</p> <p><i>New Activity:</i> Look into pathways to increase solar reflectivity requirements and enforcement on existing buildings that are not in compliance. In addition, look into and pilot pervious and vegetated pavements that both reflect sunlight and absorb stormwater.</p> <p><i>Analysis of expenses to be undertaken.</i></p>	<p>Building Zoning Resilience & Public Works</p>
 Request No FPL Shut-Offs During Heat Advisories	<p>Heat Advisories are issued within 12 hours of the onset of extremely dangerous heat conditions - when the maximum heat index temperature is expected to be 100° or higher for at least 2 days. Being without AC or a fan during heat events, especially overnight, is a life safety issue.</p> <p><i>New Activity:</i> Advocate for FPL to suspend utility shut-offs during declared Heat Advisories issued by the National Weather Service.</p> <p><i>Additional expenses not anticipated.</i></p>	<p>City Manager Housing & Community Development Resilience & Sustainability</p>
  Accept DOE's Invitation to Join the Better Climate Challenge	<p>The U.S. Department of Energy's voluntary, non-binding Better Climate Challenge will provide technical assistance to the City to set an energy reduction goal for municipal buildings.</p> <p><i>New Activity:</i> Join the U.S. Department of Energy's Better Climate Challenge to learn ways to reduce greenhouse gas emissions from energy use while also providing increased cooling solutions for the public.</p> <p><i>Additional expenses not anticipated.</i></p>	<p>City Manager General Services Administration Parks & Recreation</p>
 Ensure Heat Plan and Hurricane Plan Activities are Coordinated	<p>The City of Miami has a Heat Season (May 1 – October 31) and a Hurricane Season (June 1 – November 30).</p> <p><i>New Activity:</i> Coordinate activities between the Heat Season and Hurricane Season plans</p>	<p>Emergency Management</p>


to ensure public safety during extreme heat events during and after a hurricane.
Additional expenses not anticipated.

Medium-term Actions (completed within 5 years)

ACTION	DESCRIPTION	LEAD DEPT
<i>Expand City's Climate Ready Residential Programs</i>		
 Provide Incentives or Mandates for Keep Safe Miami Program (renters)	<p>The Keep Safe Miami program equips affordable housing owners and operators with tools to assess their buildings' resilience to climate change and natural disasters, and provide them with actionable strategies and guidance on financing to address these vulnerabilities. Currently the program is opt-in and provides forgivable loans, up to \$100,000, if a building maintains affordable rents for at least 10 years.</p> <p><i>New Activity:</i> Create additional incentives and/or mandates to increase participation in the Keep Safe Miami program. There are a limited number of property owners willing to participate in the preliminary assessment and have suggested incentives are needed for participation. Examples of incentives could include providing technical assistance on investment plans to implement the assessments, subsidies for relocation costs (if needed), increasing the overall loan amount to include subsidized partial rent-boost payments to the property owners (to account for a subset of potential losses that may be incurred by maintaining affordable rents), etc.</p> <p><i>Additional expenses not anticipated.</i></p>	<p>Housing & Community Development</p> <p>Resilience & Sustainability</p> <p>Building</p>
 Re-initiate and Expand Miami Cools Program (renters and homeowners)	<p>In 2019, the City launched the Miami Cools program wherein free window AC units were distributed to senior and special needs residents to address health concerns associated with heat.</p> <p><i>New Activity:</i> Reinitiate this initiative, focusing on residents that are low-income, senior, and/or have disabilities. Fund contractors to</p>	Human Services

assist with installation of the AC units and incorporate options such as fan and dehumidifier giveaways for rapid relief.

Analysis of expenses to be undertaken (early estimates are \$87,500 for 250 AC units. Cost per unit is \$350 with 50 units per district.)

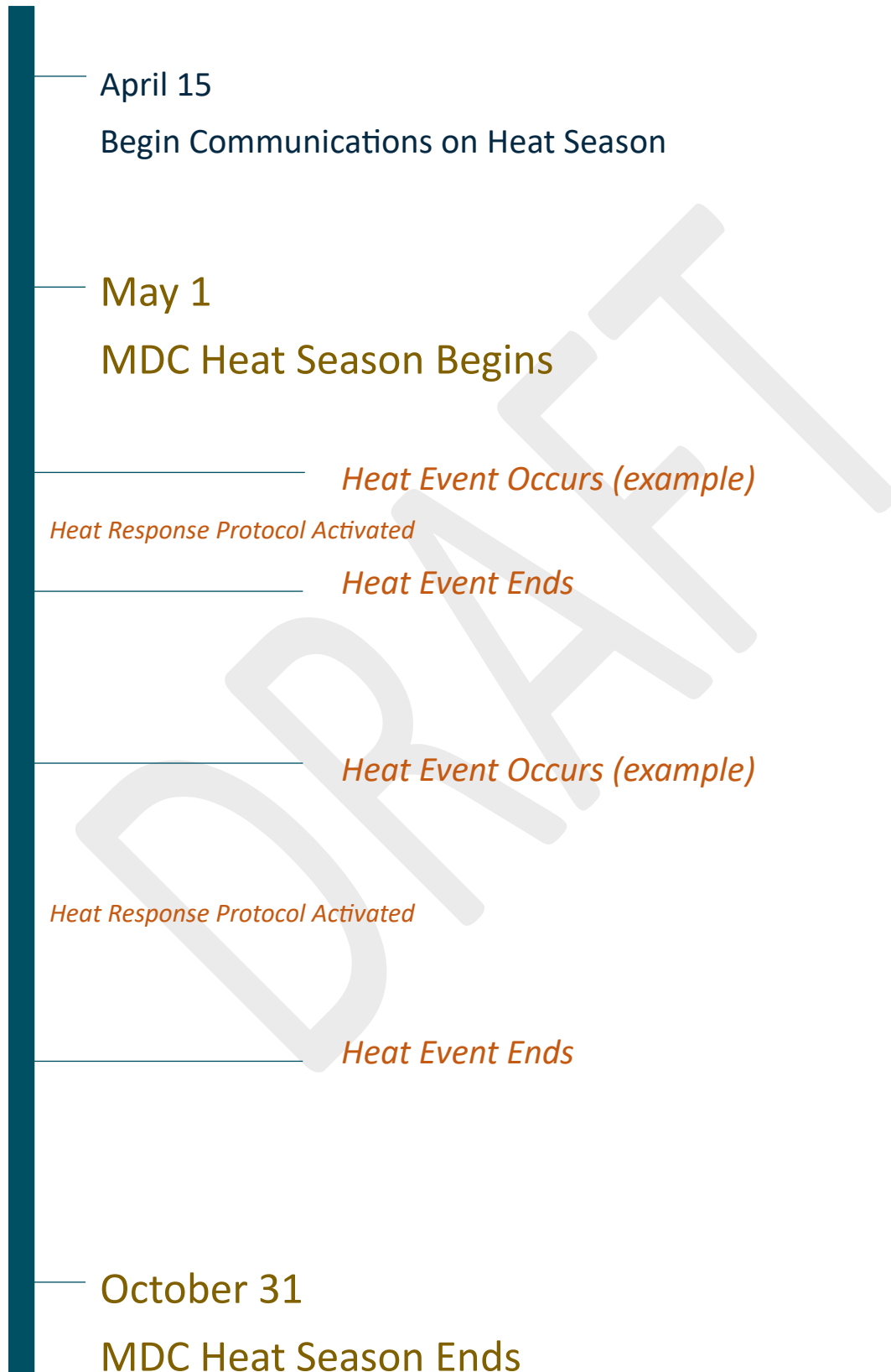
 Fund the Homeownership Preservation Program (homeowners)	<p>The Homeownership Preservation Program (HPP) provides up to \$70,000 in rehabilitation assistance to qualified City of Miami homeowners to fund exterior repairs consisting of repair or replacement of roofs, replacement of windows or doors and/or installation of hurricane shutters, necessary to bring the home to decent, safe and sanitary conditions, and to reinforce the property's exterior to better withstand natural weather occurrences while maximizing the home's energy efficiency. This program can assist households up to 140% of Area Median Income (AMI), based on household size but currently is closed to new applicants. Experience with the program shows that in some areas the demand exceeds the supply of funding. It also shows that some properties were not able to be selected due to extensive termite damage that needed funding above what the program allocated per home.</p> <p><i>New Activity:</i> Allocate additional and/or reoccurring funding to the Homeownership Preservation Program to increase residents served and affordable housing stock.</p> <p><i>Analysis of expenses to be undertaken.</i></p>	Housing & Community Development
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Heat Response Protocol

DRAFT

Heat Response Protocol

Annual Timeline



Heat Response Protocol

Department Activation Task List

Department	Task	Existing or New?	Timeline (by Department)
Heat Season (May 1 – Oct 31)			
Fire, Emergency Management	Notify Departments Send email to Departments notifying the upcoming beginning of Heat Season	New	April 15
Communications	Notify Public Post to social media on personal preparedness measures for upcoming Heat Season	Existing	1 week prior to May 1
Building	Assisted Living Facilities Ensure compliance with ALF ordinance requiring that an alternate source of power (generator) available for when the temperature is > 81 F	Existing	April 1
	Outdoor Workers – Permittees Notify permittees that work can begin working an expanded work schedule (begin work at 6am, end at 8pm) on June 1	New	1 week prior to May 1
Resilience & Public Works	Outdoor Workers – City Employees Provide large hats	Existing	May 1
	Outdoor Workers – City Employees Provide ice and drinking water	Existing	Daily
Parks & Recreation	Outdoor Workers – City Employees Provide large hats	Existing	May 1
	Outdoor Workers – City Employees Provide ice and drinking water	Existing	Daily
	Outdoor Workers – City Employees Purchase different types of uniforms and/or accessories for staff working in extreme heat conditions. Explore different types of materials and styles of shirts, Adjust uniform requirements (i.e., instead of long pants, staff can wear shorts), Cooling towels, Rashguards, Sun hats, Sunglasses <i>Analysis of expenses to be undertaken</i>	New	May 1

	<p>Facilities</p> <p>Inspect all water fountains to ensure fountains with coolers and water bottle refill access are working properly</p>	Existing	May 1
	<p>Facilities</p> <p>Purchase/Ensure working condition of wet bulb globe thermometers</p> <p><i>Analysis of expenses to be undertaken</i></p>	New	May 1
Capital Improvements	<p>Outdoor Workers – Contractors</p> <p>Send Advisory to contractors on occupational safety for excessive heat</p>	New	May 1, then monthly
Heat Event (Episodic, usually during the Heat Season)			
Fire, Emergency Management	<p>Notify Departments</p> <p>Send notification to Departments communicating heat events (heat advisory or heat warning) through mass notification system.</p>	New	Day 1 of Heat Event
	<p>Alert Miami</p> <p>Send Heat Advisory and Heat Warnings to subscribers that are signed up for Alert Miami</p>	Existing	As Needed
	<p>Emergency Calls</p> <p>Work with responders to keep track of all heat-related 911 calls</p>	Existing	Daily
	<p>Emergency Calls</p> <p>Send daily logs of heat-related 911 calls to the National Weather Service</p>	Existing	Daily
Communications	<p>Social Media</p> <p>Post PSAs, videos, notices to social media for educational purposes, including information on personal protective measures</p>	Existing	Weekly
	<p>Notify Public</p> <p>Prepare signage on ways to stay hydrated, cooling centers available, and signs of heat stress</p>	New	First Week of Heat Event
Human Services	<p>Unsheltered Persons Assistance</p> <p>Outreach Teams provide transportation to homeless shelters when there are Heat Warnings. Homeless shelters act as cooling stations</p>	Existing	Daily

	<p>Unsheltered Persons Assistance</p> <p>Outreach Teams provide drinking water to unsheltered persons. (currently donated by the Homeless Trust)</p> <p><i>Analysis of expenses to be undertaken</i></p>	Existing	Daily
	<p>Unsheltered Persons Assistance</p> <p>Outreach Teams provide cooling supplies (cooling gaiters, electrolytes, cooling towels, and ice packs) to unsheltered persons. (currently donated by the County)</p> <p><i>Analysis of expenses to be undertaken</i></p>	Existing	Weekly until supplies run out
	<p>Child Learning Centers</p> <p>DHS purchase and activate mist cooling fans for outdoor activities and provide the children with Pedialyte fast hydration packs</p> <p><i>Analysis of expenses to be undertaken (early estimates of startup costs are \$6,500 and \$5,000 annually)</i></p>	New	Daily
Parks & Recreation	<p>Youth Summer Programs</p> <p>Adjust youth summer programs so not be in the heat as long – activities late in morning or afternoon</p>	Existing	Daily
	<p>Outdoor Workers – City Employees (Aquatics)</p> <p>Adjust working schedule for Aquatics workers (shortened lifeguard rotation, swim instructor rotation, uniform modifications, increased break frequencies)</p>	Existing	Daily
	<p>Aquatics</p> <p>Extend operations for seasonal pools and evening operations</p>	New	Daily