Agenda

1. Overview Presentation (10:35 - 11:00)
   • Extreme Heat - What are the risks
   • County’s Policies and Framework
   • Trees: Case Study
   • Cool Pavement: Case Study
   • What the County and Partners are Doing
   • Opportunities

2. Breakout Groups (11:00 - 11:50)

3. Groups Summary to Full Group (11:50-12:00)
Extreme Heat

- Heat is the leading weather-related killer in the United States
- High heat and humidity can lead to heat-related illness, including heat cramps, heat exhaustion and heat stroke
- Most HRIs and deaths are preventable
- High risk groups experience a disproportionate amount of health impacts
- Marginalized communities, the elderly, young children, pregnant women and outdoor workers are more vulnerable to heat related illnesses and deaths
- Extreme heat conditions are increasing due to climate change and urban development.
<table>
<thead>
<tr>
<th>Heat Index above</th>
<th>Historical (1971-2000)</th>
<th>By midcentury (2036-2065)</th>
<th>By late century (2070-2099)</th>
<th>By late century, if we limit warming to 2°C (2070-2099)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90°F</td>
<td>154 days</td>
<td>187 days</td>
<td>200 days</td>
<td>183 days</td>
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<td>100°F</td>
<td>41 days</td>
<td>134 days</td>
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<td>105°F</td>
<td>7 days</td>
<td>88 days</td>
<td>138 days</td>
<td>60 days</td>
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<tr>
<td>Off the Charts</td>
<td>0 days</td>
<td>1 days</td>
<td>14 days</td>
<td>0 days</td>
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</tbody>
</table>
Heat Index
Above 90°F
Outdoor workers become more susceptible to heat-related illness.

Heat Index
Above 100°F
Children, elderly adults, pregnant women, and people with underlying conditions are at heightened risk of heat-related illness.

Heat Index
Above 105°F
Anyone could be at risk of heat-related illness or even death as a result of prolonged exposure.

Heat Index
Off the Charts
Undetermined: any level of exposure is presumed extremely dangerous for all people and likely to result in heat-related illness or even death.
Heat risks are **elevated** in urban environments
County and State Tree Policies

• Goal of 30% Tree Canopy in Comprehensive Development Master Plan, Climate Action Strategy, and Street Tree Master Plan
• In 2009, Miami-Dade County Commission amended the Chapter 18 Landscape Code and Manual to include Florida Friendly principles. Includes requirements for private land and right-of-way
  • permits for tree removal
  • minimum # of trees per lot or acre
  • restrictions on palms counting as trees (max 30%, 2 for 1)

• 2019, Florida Law on Residential Tree Removal - No tree removal permit needed with a letter from arborist stating tree presents a risk to human safety or property
STREET TREE MASTER PLAN

Identified policies and practices that result in tree loss and then set the course to reverse the trend.

GOALS

- Plant quality trees in public rights of way
- Develop and execute a Tree Management Plan to craft sustainable tree structure
- Promote the design of urban spaces that adequately fit trees
- Encourage local growers to produce the quality and species for public rights-of-way
- Educate policy makers and the public on the importance of adequate tree canopy
HEALTHY, SAFE AND EQUITABLE STREETS VISION

Thrive 305: Action 6.2 Improve Streets and Bus Stops for Bicycle and Pedestrian Safety

Resilient305: Action 13 Develop a Better Bus Network

**Great Streets**

connecting parks and neighborhoods through tree lined boulevards, parkways, and complete streets that encourage people to walk, bicycle and live healthier lifestyles
Room to grow
For the health of your trees and the reliability of your electric service, give your trees ample room to grow without interfering with power lines or equipment. FPL recommends the following setback distances based on your tree’s mature height.

- **Large Trees**: 30’ minimum setback
- **Medium Trees**: 20’ minimum setback
- **Large Palms**: Set-back must be maximum palm frond length plus 10’

**Utility Pruning Zone**

**Figure 3.6.2** | Appropriate locations and vertical dimensions for landscaping at bus stops.

FDOT Accessing Transit, 2013
County Initiatives to Promote Trees

- **Adopt-a-Tree**: The program provides Miami-Dade single-family and duplex homeowners with two free trees every year. More than 200,000 trees have been adopted since the program's inception in 2001. It uses GIS collector apps to screen properties which have the ability to plant trees. Upcoming events:
  - Sunday, June 12 - Miami-Dade North Campus
  - Saturday, July 16 – FIU main campus
  - Saturday, September 24 – South Dade Cultural Arts Center

- The MDC Dept of Environmental Resources Management (DERM) has also planted 7,000 trees on various public and institutional lands including 2,000 at MDCPS schools
- The Environmentally Endangered Lands program has acquired over 27,000 of natural forests and identified additional one in areas of lower tree canopy
County Initiatives to Promote Tree

- **Million Trees Miami**: a community-wide effort to plant 1 million trees in order to achieve a 30% tree canopy cover for Miami-Dade County. Million Trees Miami is an initiative of Neat Streets Miami, which offers different giveaway programs:
  - Matching trees program with municipalities
  - Tree giveaways
  - Garden giveaways

- Million Trees Miami (MTM) now has a dedicated source of County funding through the Tree Trust Fund.
- MTM is administered by Neat Streets Miami-Dade, a MDC Board chaired by Commissioner Eileen Higgins and housed in MDC Parks
THE UNDERLINE

… a 120-acre, world-class linear park spanning 10-miles below the aimed at transforming regional mobility

- A partnership with Miami-Dade County, board of directors, public and private donors and hundreds of volunteers
- $15M+ of Miami-Dade County funding toward Phase 1 and 2
- Phase 3 in Procurement
- Alignment with other MDC plans
LUDDLAM TRAIL

...6.2-mile multi-use trail through the heart of MDC within the former Florida East Coast railway right-of-way

- Encourages the use of alternate modes of transportation
- Enhances overall connectivity
- Links existing systems
- Fills social and economic demand in area
- Aligned with other State and County Plans
Collaborative Efforts between County and Partners

- Shading Dade: A citizen science initiative led by FIU for students and volunteers to assist with deploying heat-sensors around Miami-Dade County to better understand local ambient air temperatures.
Opportunities: Trees

- Improve data and analysis of heat islands
- Count trees as our assets on the County’s balance sheet
- Update and align landscape and public works manuals
- Train Fit2Lead interns to do neighborhood level outreach to promote and facilitate tree adoption
- Broward: License tree trimmers, Supported by County IFAS/Extension
- Increase landscape regulation compliance for developers. Hire an arborist to review site plans for right tree in right place
More Opportunities: Trees

- Prioritize acquisition of Environmentally Endangered Lands (EEL) within low canopy neighborhoods
- Identify tree planting potential on all county properties within the low canopy areas.

- Bring before the Board of County Commissioners a Tree Trust Fund package that earmarks funds for planting trees on MDCPS and EEL properties so that DERM can increase and prioritize funds for the low canopy areas.
Case Study: Miami Beach’s Urban Forestry Plan

IMPLEMENTATION - SHAPING THE VEGETATION PALETTE IN MIAMI BEACH

• **Species Diversity**
  • Palms – moving back to an accent plant

• **Tree Species Selection**
  • Re-prioritize species to those that are more resilient to sea level rise, flooding & increasing salinity, limited growing space, and increasing temperatures

• **Highlights the characteristics of various species**
  • Can also be used by homeowners to make better species selection when planting trees on their private properties.
Case Study: Miami Beach’s Urban Forestry Plan (2021)

IMPLEMENTATION: PLANNING AND PRIORITIZING STREETS BY CHARACTER & USE

• Planning for a city-wide approach
  • Establishing a classification strategy for all streets within the City.

• Street-by-Character
  • Understanding that streets are not only about traffic movement, but also about experience; working in concert with abutting land uses.

• Street tree species prioritization plan
  • Identifying key species for specific street-types to build uniformity and wayfinding
Opportunities: Cool Bus Stops and Pavements

• Shaded bus stops
  • 80% of bus stops have no shade. There are plans to install 300 shaded bus stops within the next year

• Cool Roadways Partnership by Global Cool Cities Alliance:
  • [Cool Streets LA](#)
Case Study: Cool Streets LA

- 2017: StreetsLA installed cool pavement coating on one city block in each of the 15 Council Districts

- 2019: First 3 Cool Neighborhood Projects

- 2021: Identified 200 city blocks for cool pavement coating and planting of 1900 shade trees across 8 underserved neighborhoods for the FY 21-22 Next Phase
  - Identified neighborhoods using data including urban heat islands, social vulnerability, and active transportation priorities
Case Study: Cool Streets LA

2021 Accomplishments

- Oct 2021-Feb 2022: Completed 4 Cool Neighborhoods
  - 30 lane miles, 100 city blocks
  - Planted over 700 street trees

- March-April 2022: Complete 5 Cool Neighborhoods
  - 30 lane miles, 100 city blocks
  - Planting 1,000 street trees
Upcoming workshops

National Integrated Heat Health Information System (NIHHIS) National Meeting

- Learn about and leverage heat and health activities, opportunities, and resources
- Expand and strengthen partnerships and networks, and
- Foster a shared vision and path forward for equitable, heat resilient communities
Breakout Questions

1. How could the County and its partners create better engagement opportunities on their efforts to cool down our most vulnerable neighborhoods?

2. What other policies or actions should the County and its partners consider to cool our streets or to enhance and maintain our tree canopy?

3. What are other municipalities and NGO partners that we haven’t mentioned doing locally?

4. What other stakeholders need to be involved?