



**HEALTH, SOCIAL AND ENVIRONMENTAL AFFAIRS COMMITTEE MEETING
AGENDA
TUESDAY, MARCH 26, 2024**

The Health, Social and Environmental Affairs Committee will conduct a Council Standing Committee Meeting on Tuesday, March 26, 2024 at 1:00 p.m. at City Hall (Mayor's Conference Room), 1737 Main Street, Second Floor, Columbia, SC 29201. The meeting can be viewed online at www.columbiasc.gov. Please contact the City Clerk's Office at (803)545-3045 or cityclerk@columbiasc.gov if you have questions regarding the meeting.

The Honorable Aditi Bussells, At-Large
The Honorable Edward H. McDowell, Jr., District II ■ The Honorable Tyler D. Bailey, At-Large

Prior to entering the meeting please turn all electronic communication devices to the silent, vibrate or off position. All presenters are asked to speak directly into the microphone for recording purposes.

CALL TO ORDER

COMMITTEE DISCUSSION

1. Tree and Appearance Commission Update - Mr. Russell Jeter and Ms. Kristin Dow, Co-Chair and Member of Tree and Appearance Commission
2. Rental Housing Ordinance - The Honorable Tyler D. Bailey
3. Update on Perfluorinated Substances in Drinking Water - Mr. Clint Shealy, Assistant City Manager for Columbia Water

ADJOURNMENT



We Are Columbia

MEETING DATE: March 26, 2024

DEPARTMENT: City Clerk

FROM: *Erika Hammond, City Clerk*

SUBJECT: **Tree and Appearance Commission - Mr. Russell Jeter and Ms. Kristin Dow, Co-Chair and Member of Tree and Appearance Commission**

**FUNDING SOURCE &
ORIGINAL BUDGET:**

ATTACHMENTS:

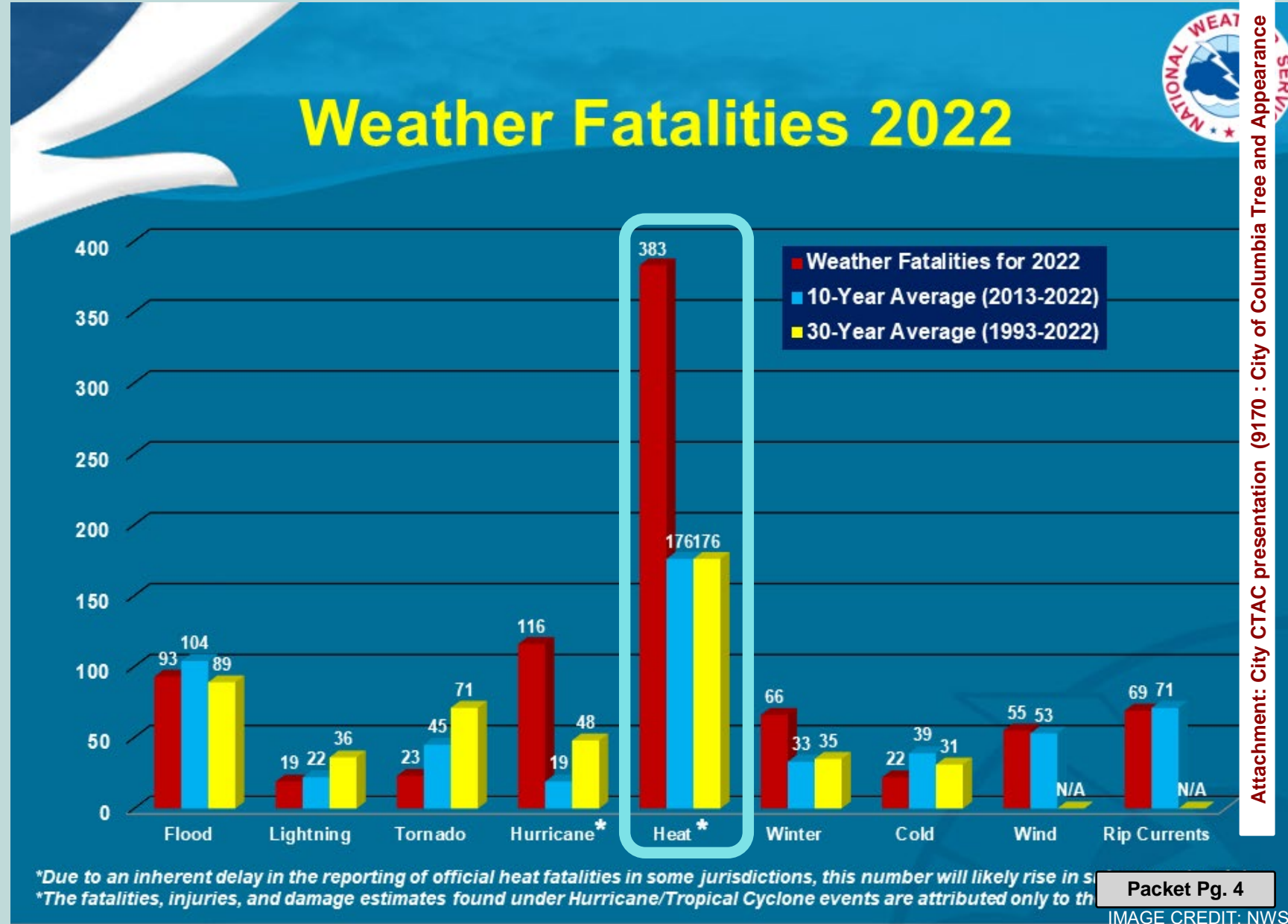
- City CTAC presentation (PDF)

City of Columbia Tree and Appearance Commission

Russ Jeter, Co-Chair
Kirstin Dow, Member

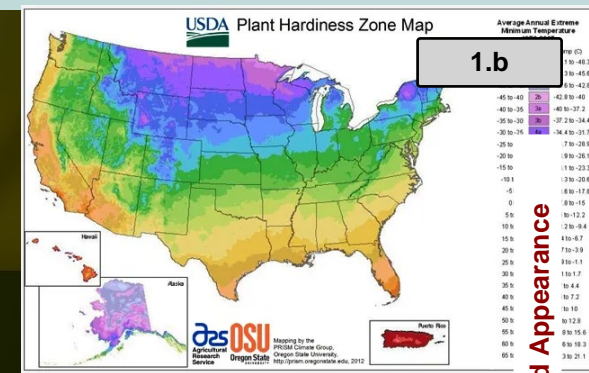
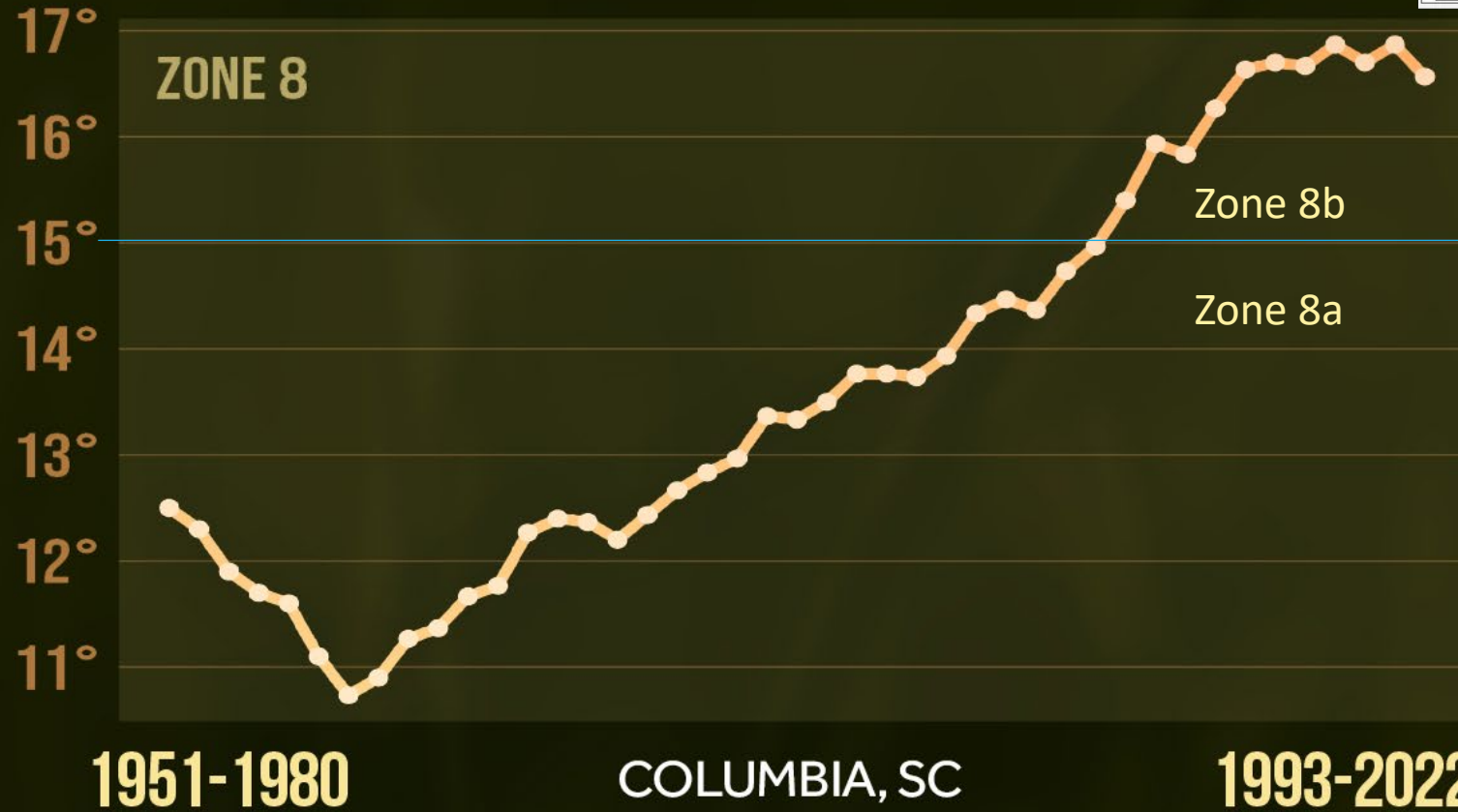
Heat is an increasingly serious, but manageable risk

- In the south, heat is a given, but it's getting hotter than it used to be.
- Increased heat exposure impacts health.
- Heat kills more people annually than any other weather hazard.
- Heat risks are not well integrated into planning



SHIFTING PLANTING ZONES

30-Year average lowest annual temperature (°F)

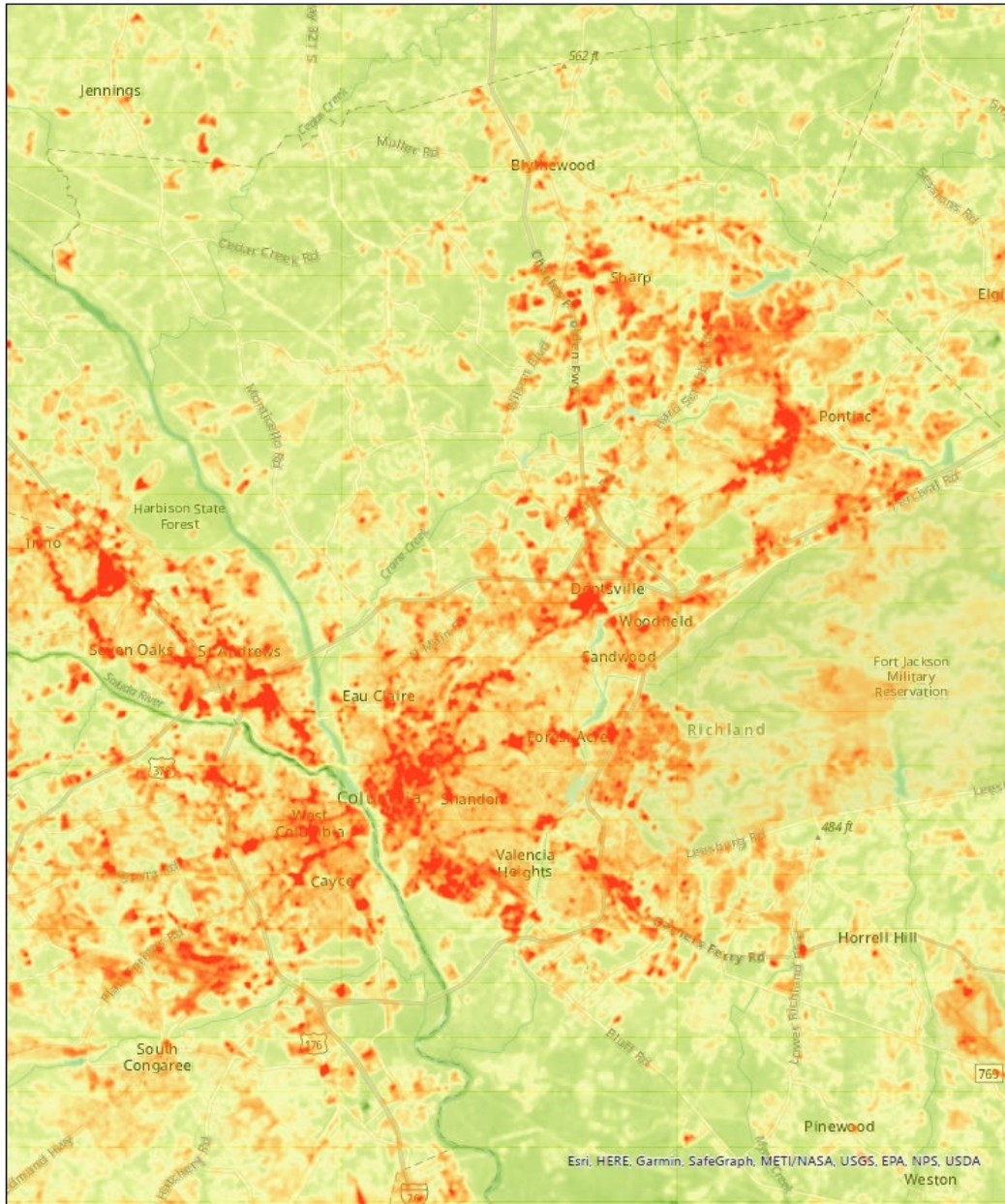


Planting zone ranges from USDA/NOAA
Source: RCC-ACIS.org

CLIMATE CENTRAL

Attachment: City CTAC presentation (9170 : City of Columbia Tree and Appearance

Columbia Heat 2020



Temperature (F)

121.275

53

N

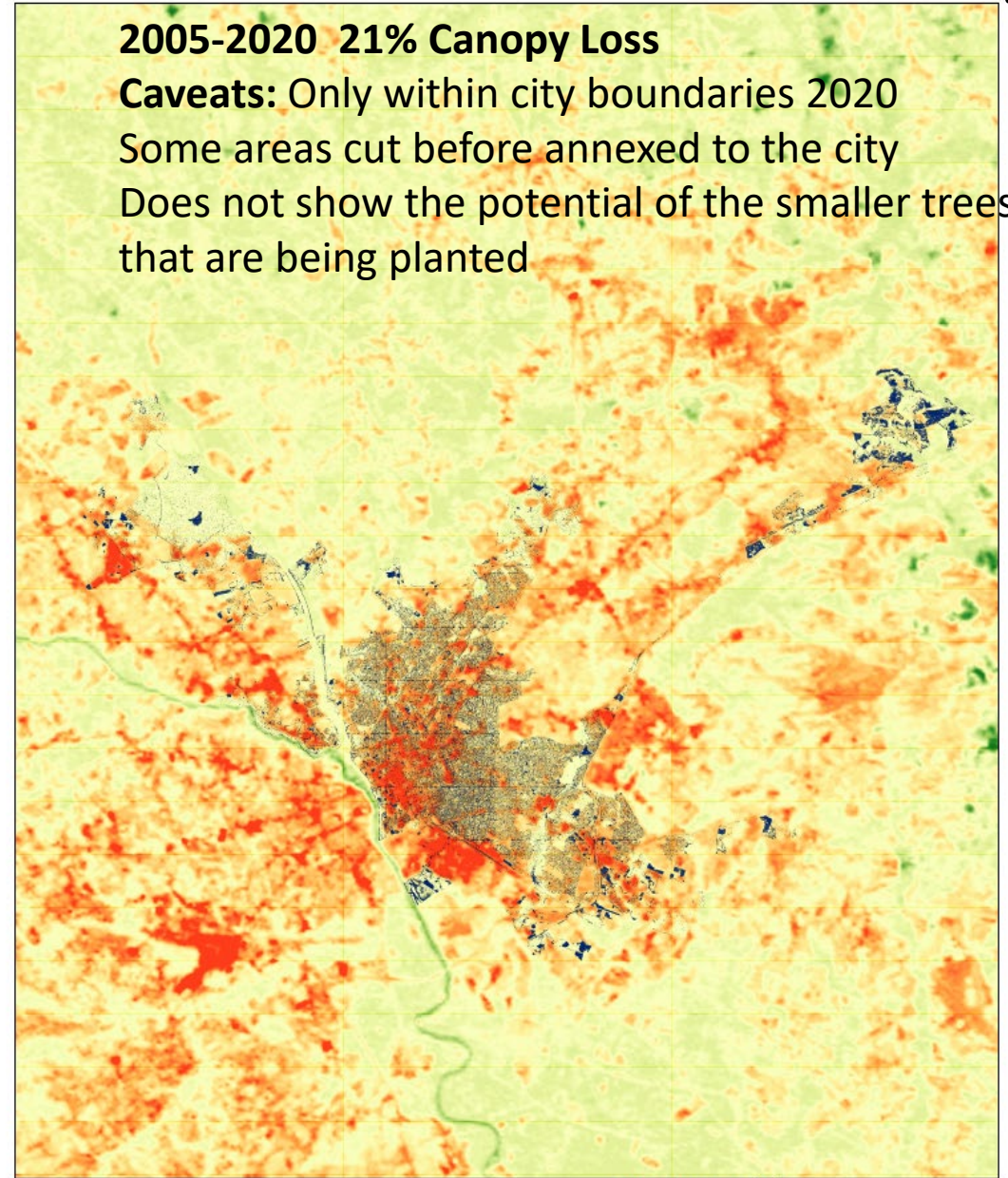


Columbia Tree Canopy Change

1.b

2005-2020 21% Canopy Loss

Caveats: Only within city boundaries 2020
Some areas cut before annexed to the city
Does not show the potential of the smaller trees that are being planted



Temperature (F)

121.275

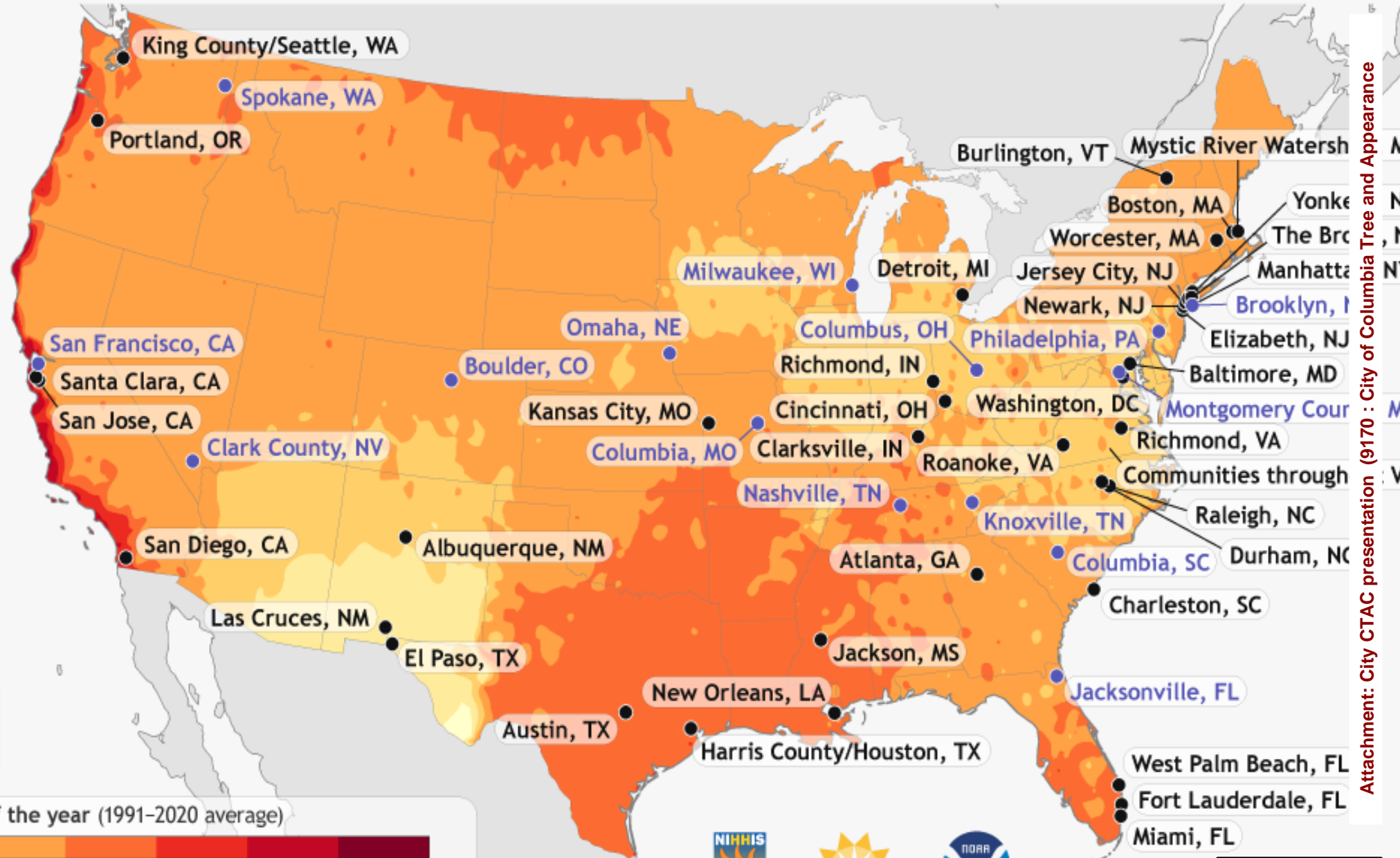
53

Tree Canopy Change

N



NOAA Urban Heat Island Mapping Campaigns: All Locations, 2017-2022



- 2022 campaigns
- Previous campaigns



Attachment: City CTAC presentation (9170 : City of Columbia Tree and Appearance

Columbia Heat Watch About 40 volunteers and more backup supporters

1.b



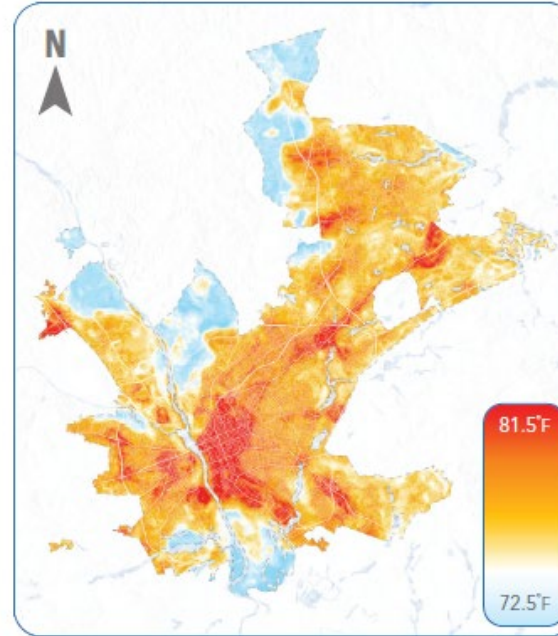
Attachment: City CTAC presentation (9170 : City of Columbia Tree and Appearance

Heat Mapping Findings

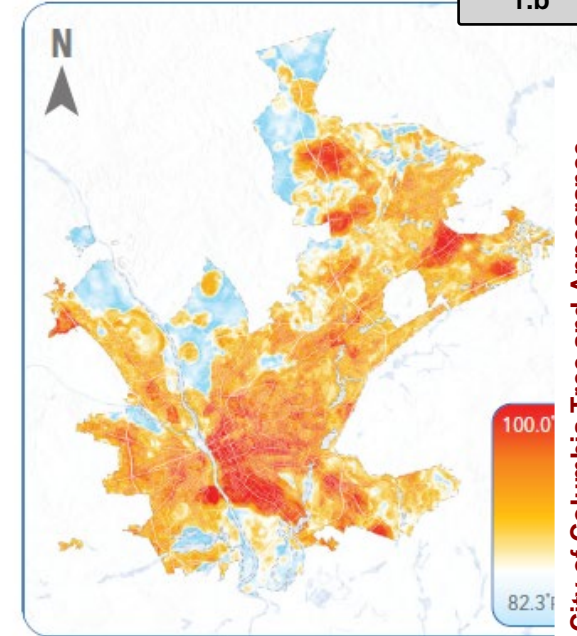
August 6-7th 2022

- 18.5 °F Temperature Differential Afternoon
- 114.9° Maximum Heat Index
 - (OSHA Very High to Extreme)
- 100.2°F Maximum Temperature
 - Air temperature about 6 feet
 - Airport recorded 93 °F
- ≈ 9°F Morning and Evening Temperature Differential

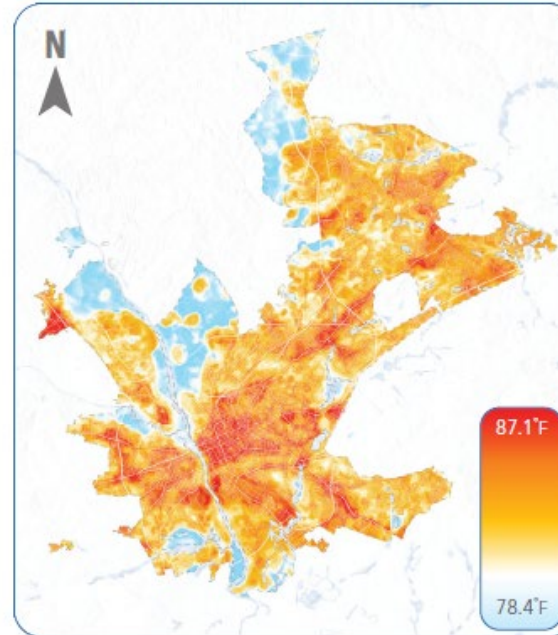
Morning Area-Wide Predictions (6 - 7 am)



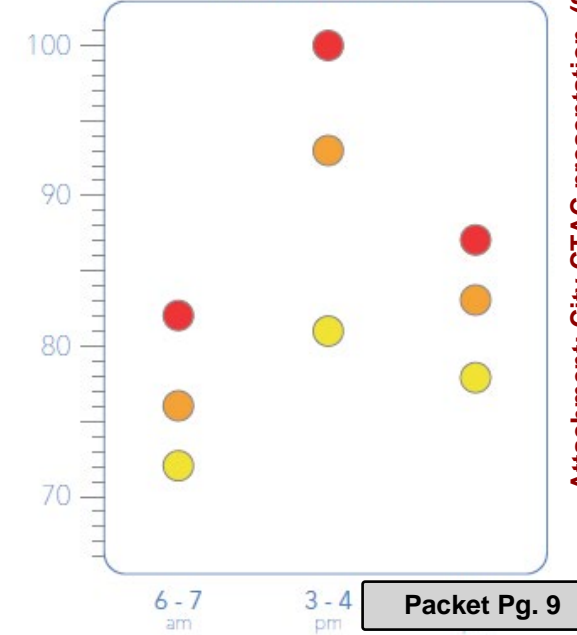
Afternoon Area-Wide Predictions (3 - 4 pm)

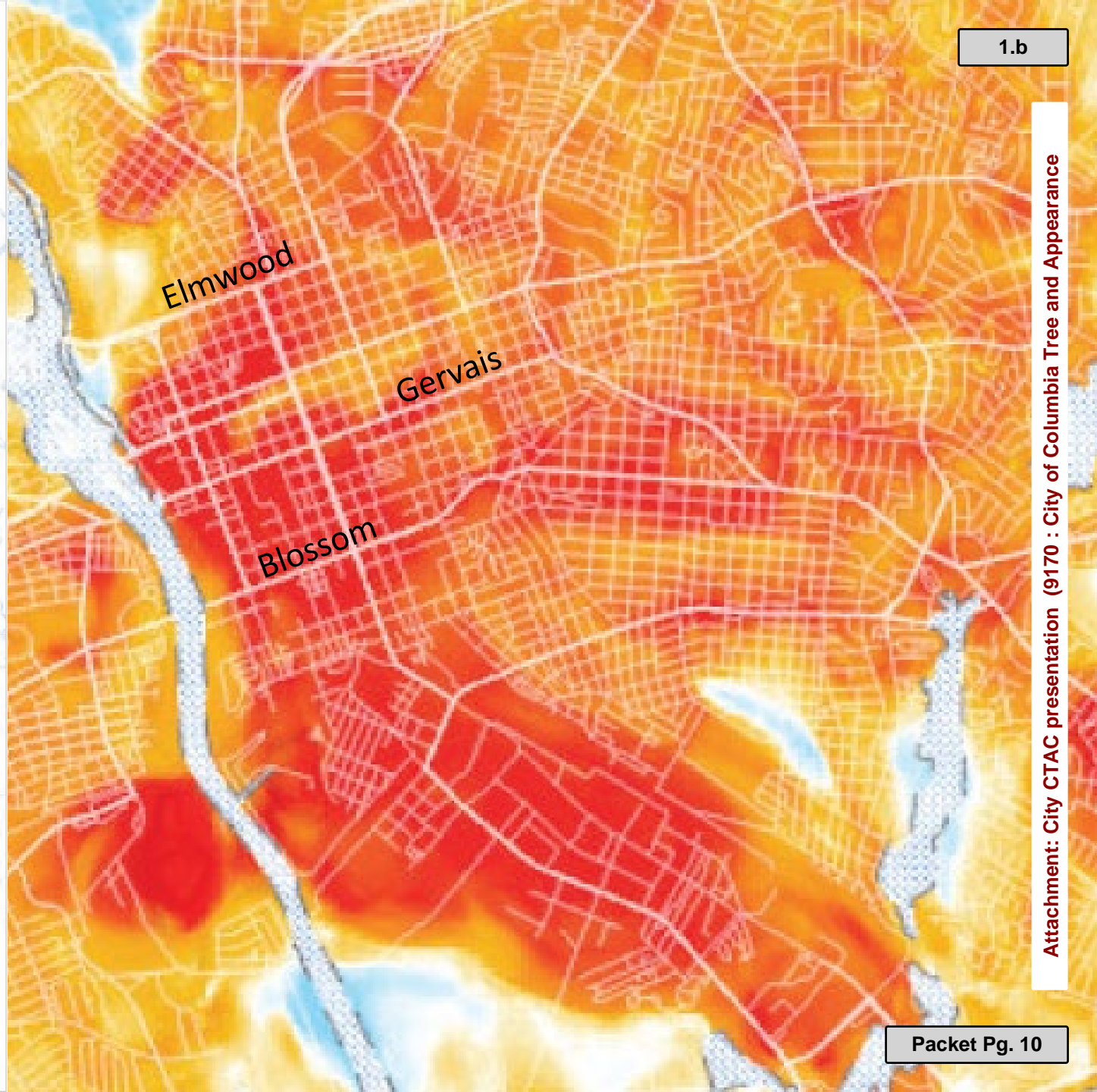
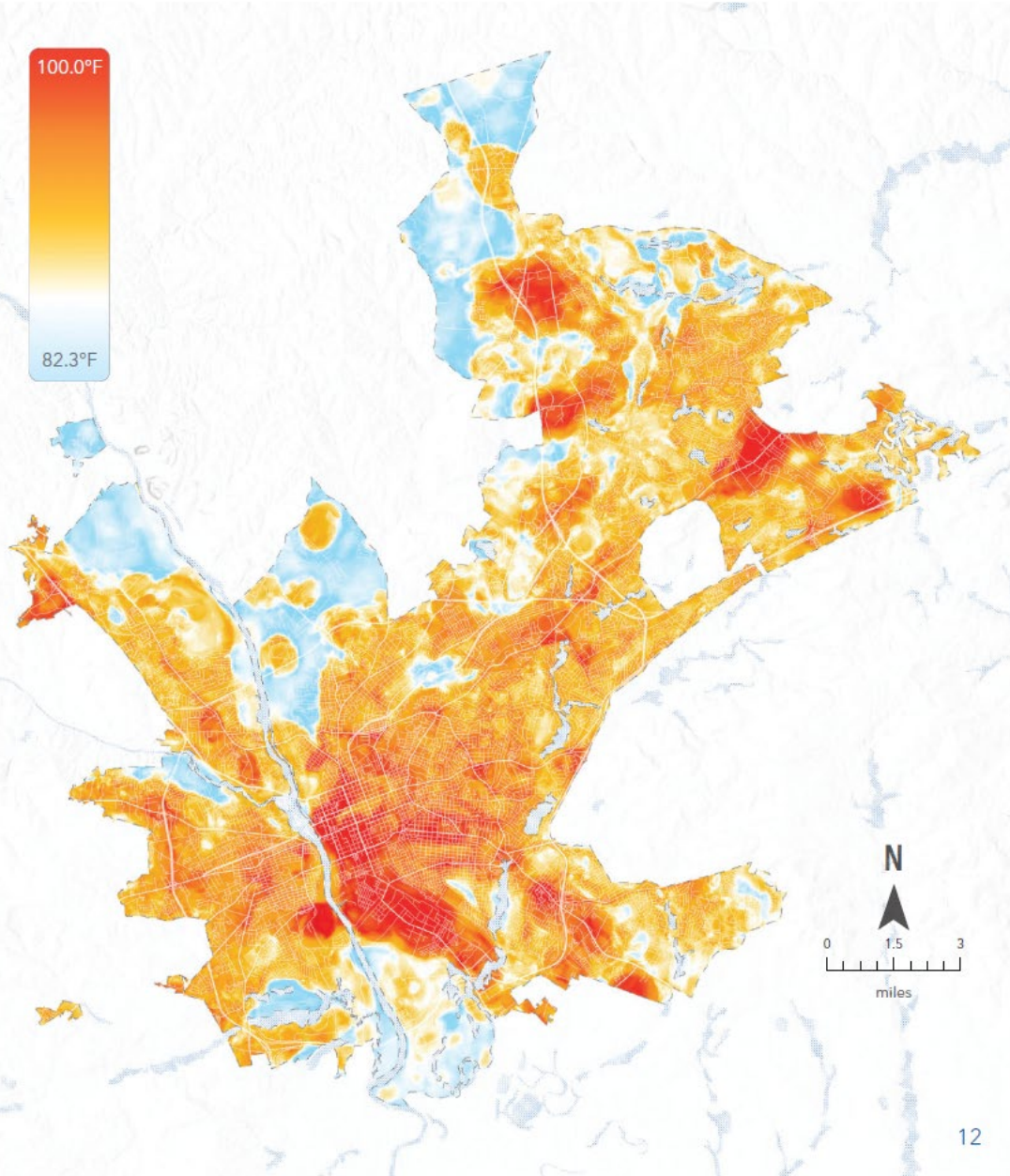


Evening Area-Wide Predictions (7 - 8 pm)



Traverse Points (°F)





Heat index values indicate potential risks

Aug 6, 2022

Max Airport Temp 93° F

NWS Heat Index

Temperature (°F)

	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

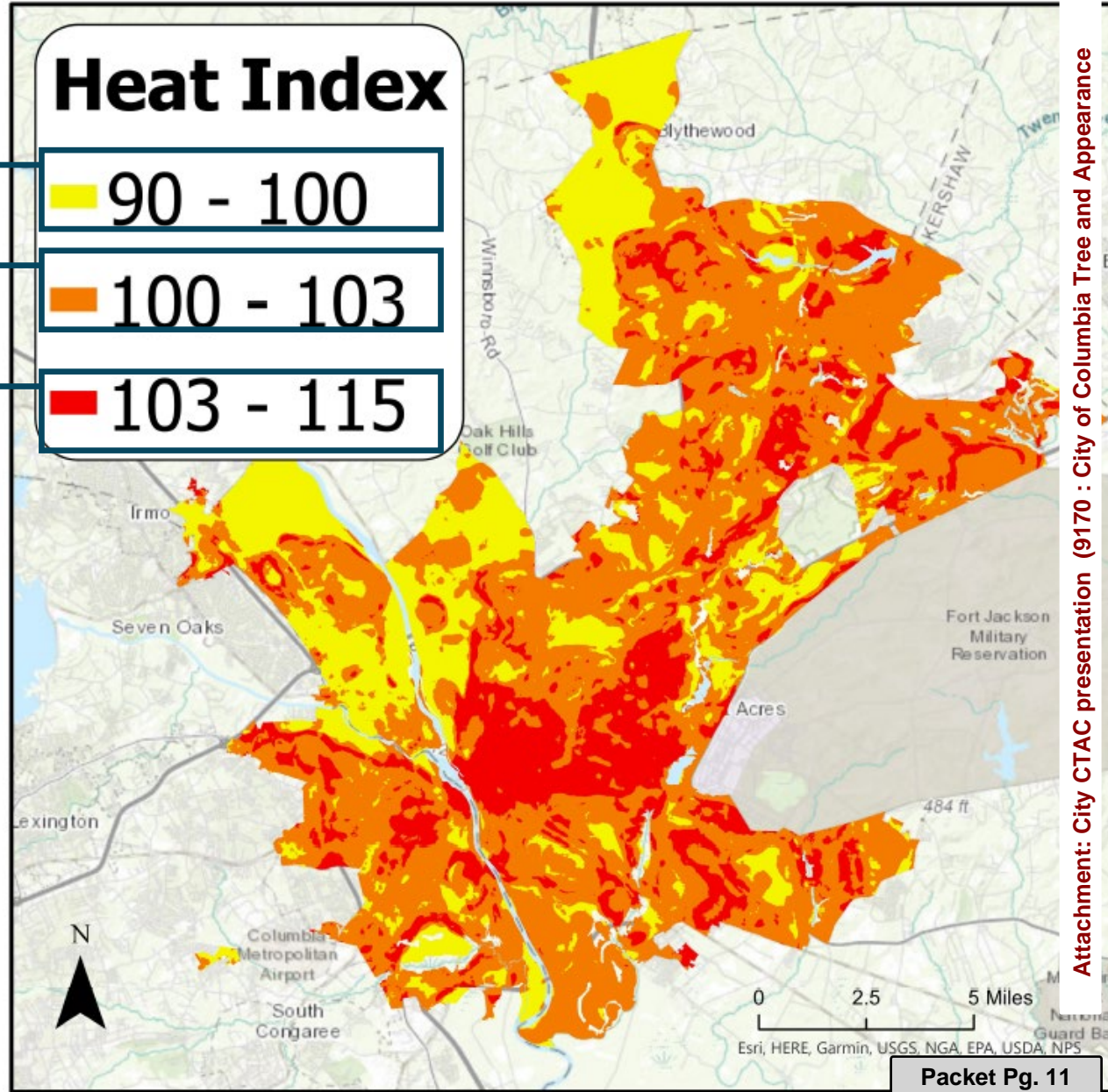


Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

- Caution
- Extreme Caution
- Danger
- Extreme Danger

Heat Index

- 90 - 100
- 100 - 103
- 103 - 115



Attachment: City CTAC presentation (9170 : City of Columbia Tree and Appearance

Benefits of Trees

- Peak air temperatures in tree groves that are 9°F (5°C) cooler than over open terrain.
- Temperatures over grass sports fields that are 2 to 4°F (1 to 2°C) cooler than over bordering areas.
- Evapotranspiration and shade that trees provide help to cool down buildings and reduce the need for air conditioning, which then decreases energy consumption
- In Charleston, large-scale vegetated areas were as much as 11.2°F cooler than non-green city centers
- Trees improve air quality by intercepting particulate matter (PM10) and absorbing gaseous pollutants (NO₂, SO₂, and O₃)
- Large trees (~37 ft. crown spread) intercept over 2,000 gallons of rainfall annually



Ken Lund

Packet Pg. 12

Reducing Urban Heat islands - EPA

Opportunity to Improve Overall Attractiveness



Attachment: City CTAC presentation (9170 : City of Columbia Tree and Appearance

Recommendations for Council Consideration

1. Adopt an Ordinance Which

- a. Prohibits new utilities above ground where utilities have been undergrounded
- b. Requires undergrounding on all new projects of a certain size
- c. Strongly encourages or requires the planting of appropriate trees where undergrounding has been accomplished
- d. Sets up annual funding for burial of residential power lines on a rotating basis for each district in the City with costs to be shared by the City and the affected Residents.

2. Undertake Supporting Actions

- a. The Mayor/Council request a review of the cost of procuring and operating one water truck to water an additional 500 new trees per year.
- b. Council fund an intern for the Tree and Appearance Commission to gather information about possible grants or other sources of funding for Undergrounding Utilities.
- c. Council consider undergrounding one to two blocks annually in the central business district which are relatively inexpensive to underground.
- d. City institute negotiations with Dominion Energy on revising the terms of the Franchise Agreement.



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