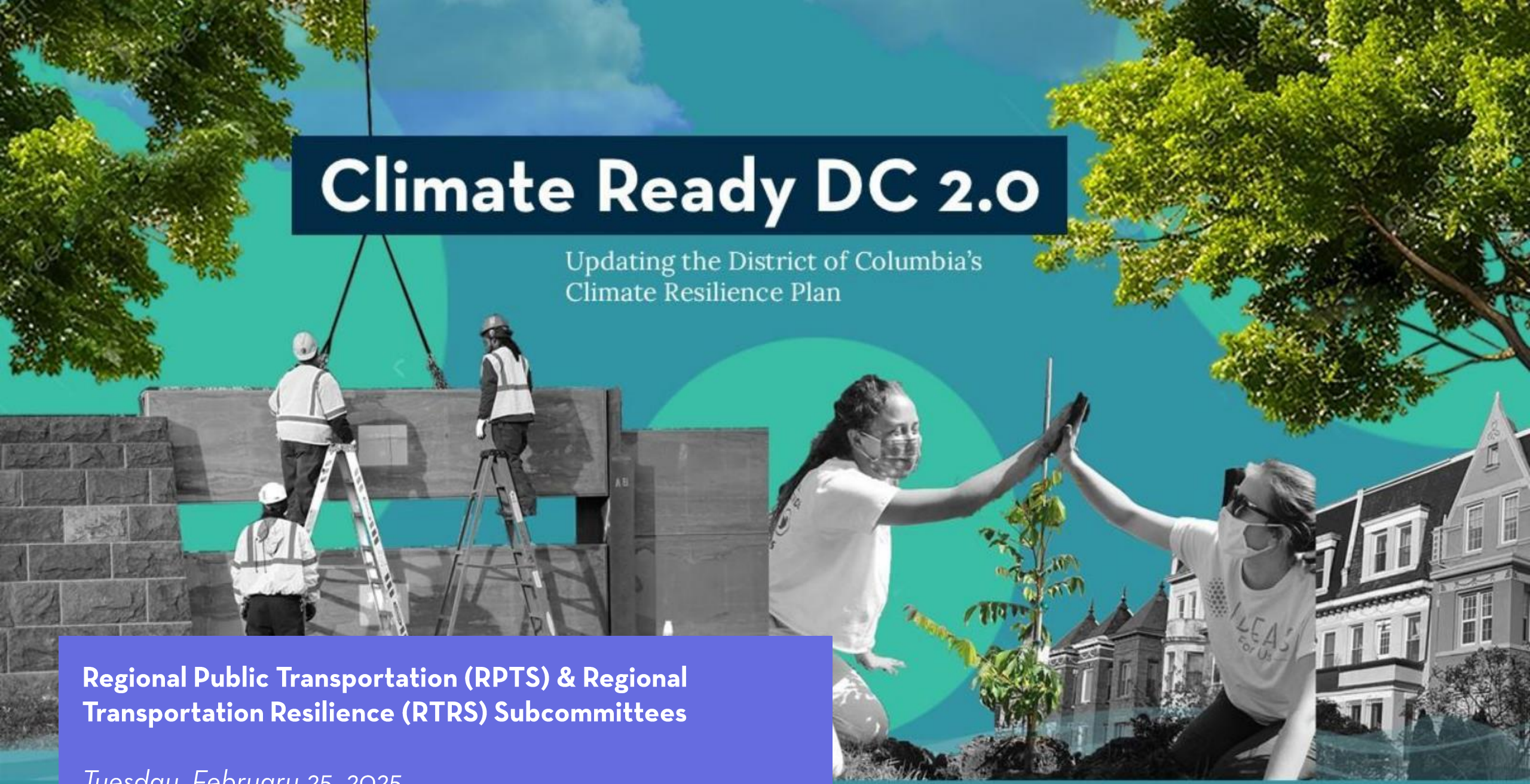

Regional Public Transportation (RPTS) & Regional Transportation Resilience (RTRS) Subcommittees

Tuesday, February 25, 2025

DEPARTMENT OF ENERGY & ENVIRONMENT

GOVERNMENT OF THE DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

Introduction

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Climate Ready DC

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(202) 525-8995

CLIMATE READY DC

KEEP COOL DC

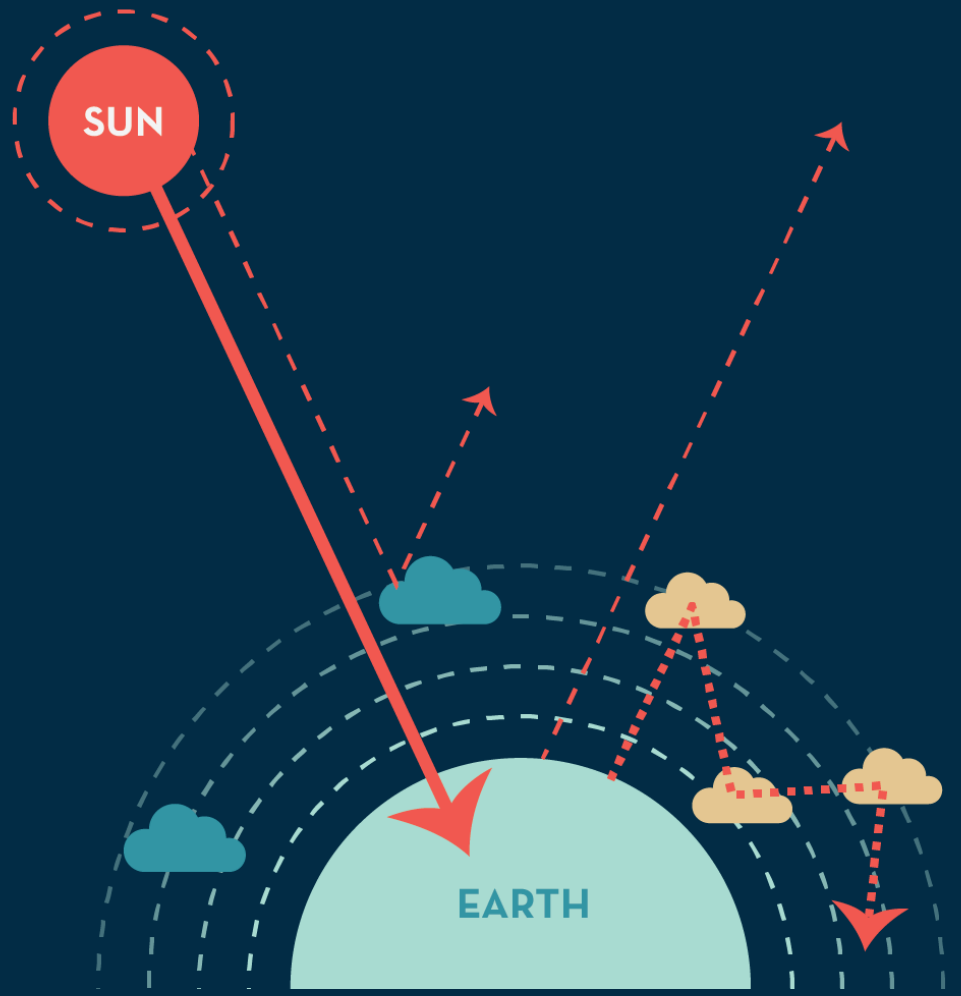
Contents

1. Climate change projections
2. An interagency approach to updating Climate Ready DC
3. Transportation-related actions

2024

Updated Climate

Projections



The District will experience in the future...

HOTTER

Annual average and summer **temperatures will continue to increase.**

Heat waves will become more intense and will last for longer periods of time.

WETTER

The **frequency** and **intensity** of **extreme precipitation events** are expected to **increase.**

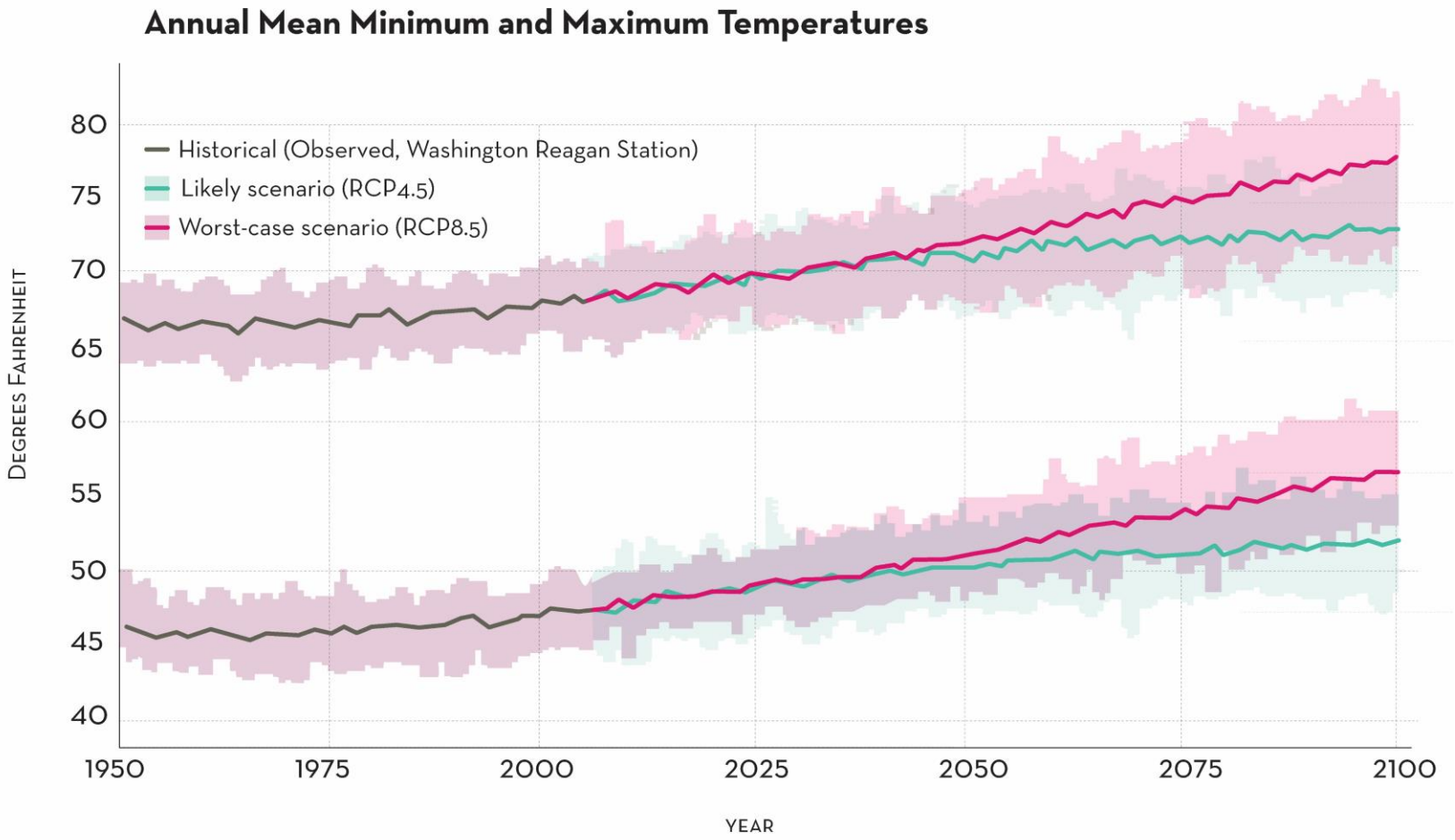
Sea level rise is expected to continue and **will accelerate in the future** due to global ice sheet melting.

WILDER

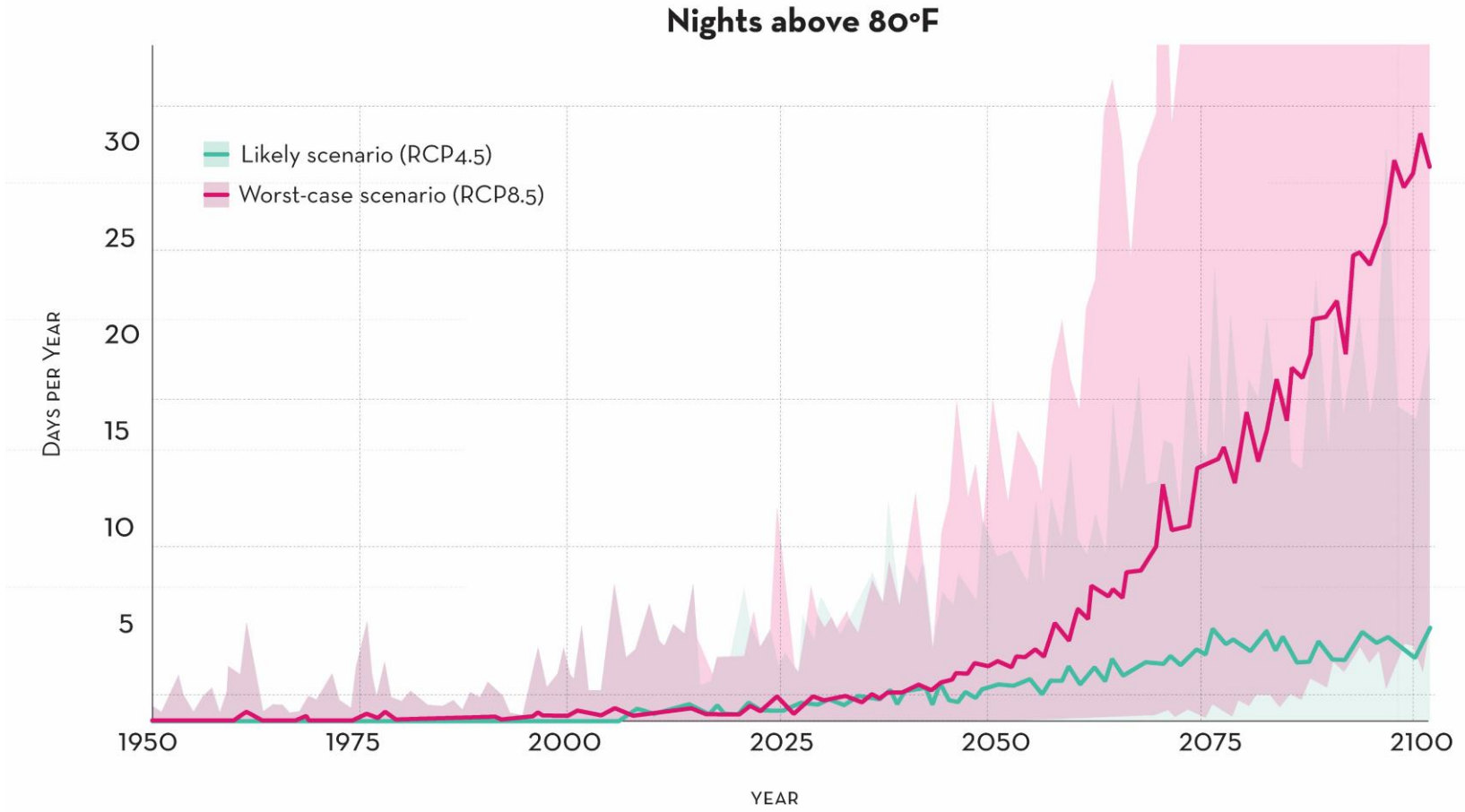
The **intensity of extreme storms** like derechos and hurricanes is likely to **increase**.

Unseasonably warm or cold days in the shoulder seasons will become more likely.

Extreme heat



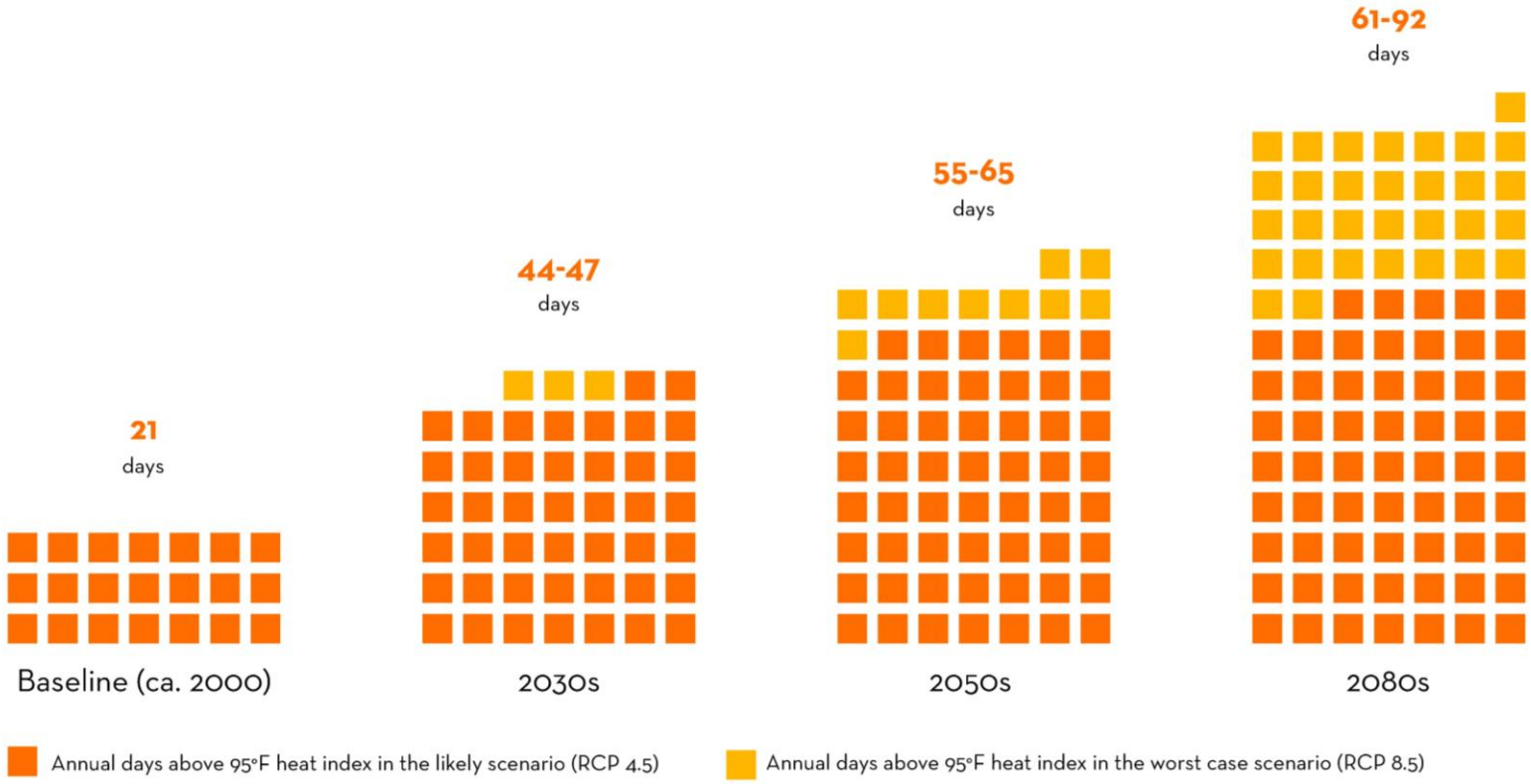
Extreme heat



The new **Nights Above 80°F** metric could be considered in planning for human health risks for residents who are unhoused or who do not have access to air conditioning.

Extreme heat

Projected Heat Emergency Days per Year



1900s 1950s 2000s 2050s 2100s

Dawn

Born: 1935.

In 2015, Dawn is 80. She doesn't like going outside in the heat.

Mary

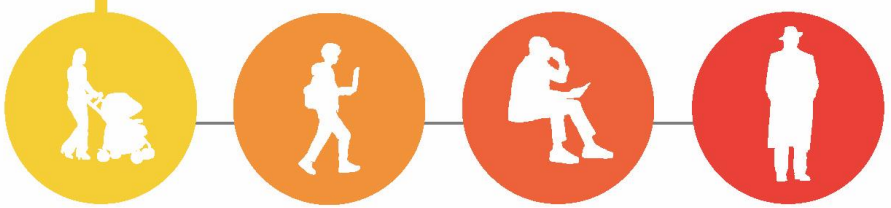
Born: 1963
(baby boomer)

In 2043, Mary is 80 years old. She is considering moving north to escape the heat as she ages.

Michelle

Born: 1991
(millennial)

In 2071, Michelle is 80 years old. Frequent heat emergencies make it unsafe for her to leave the house in the summer.

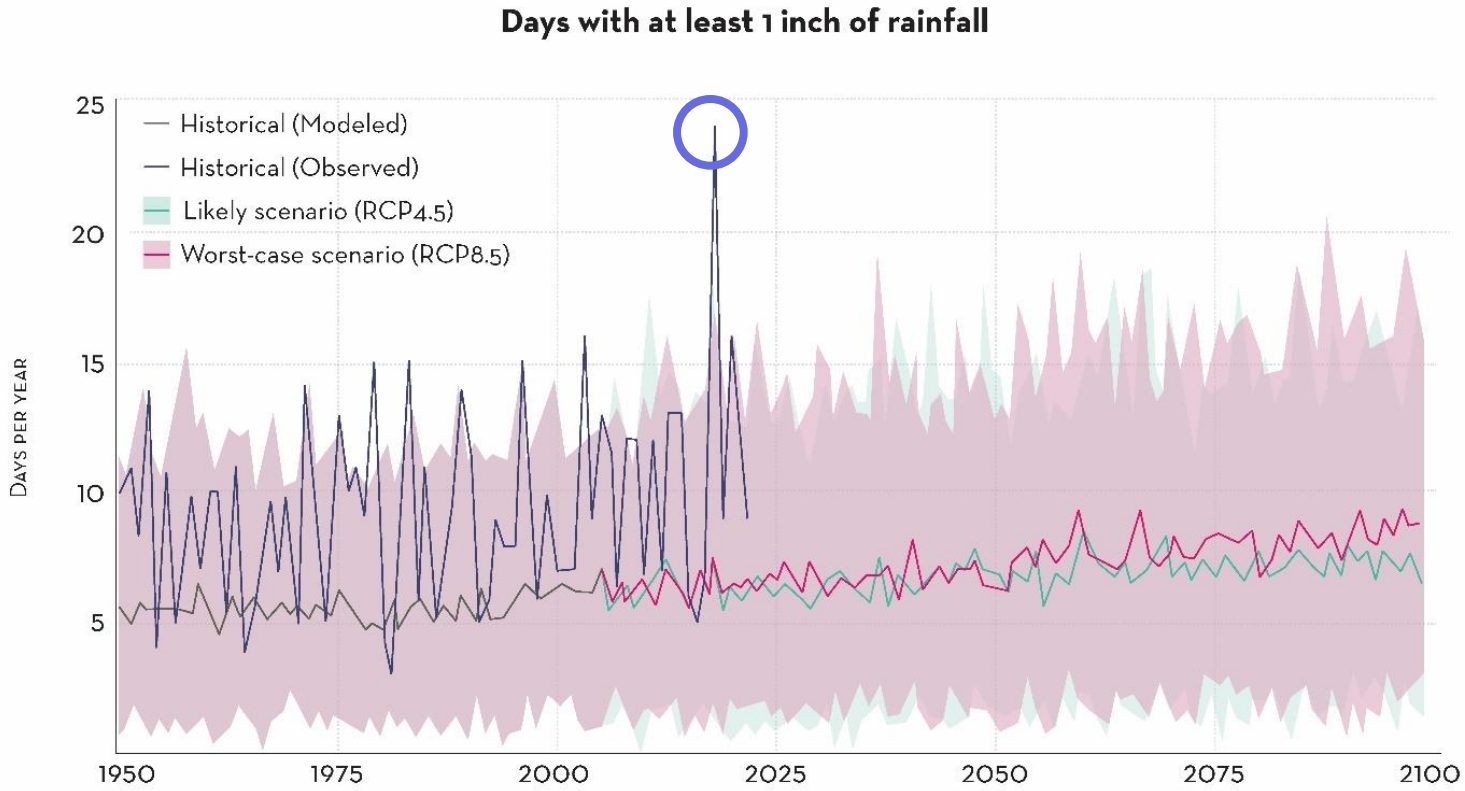


Casey

Born: 2023
(gen alpha)

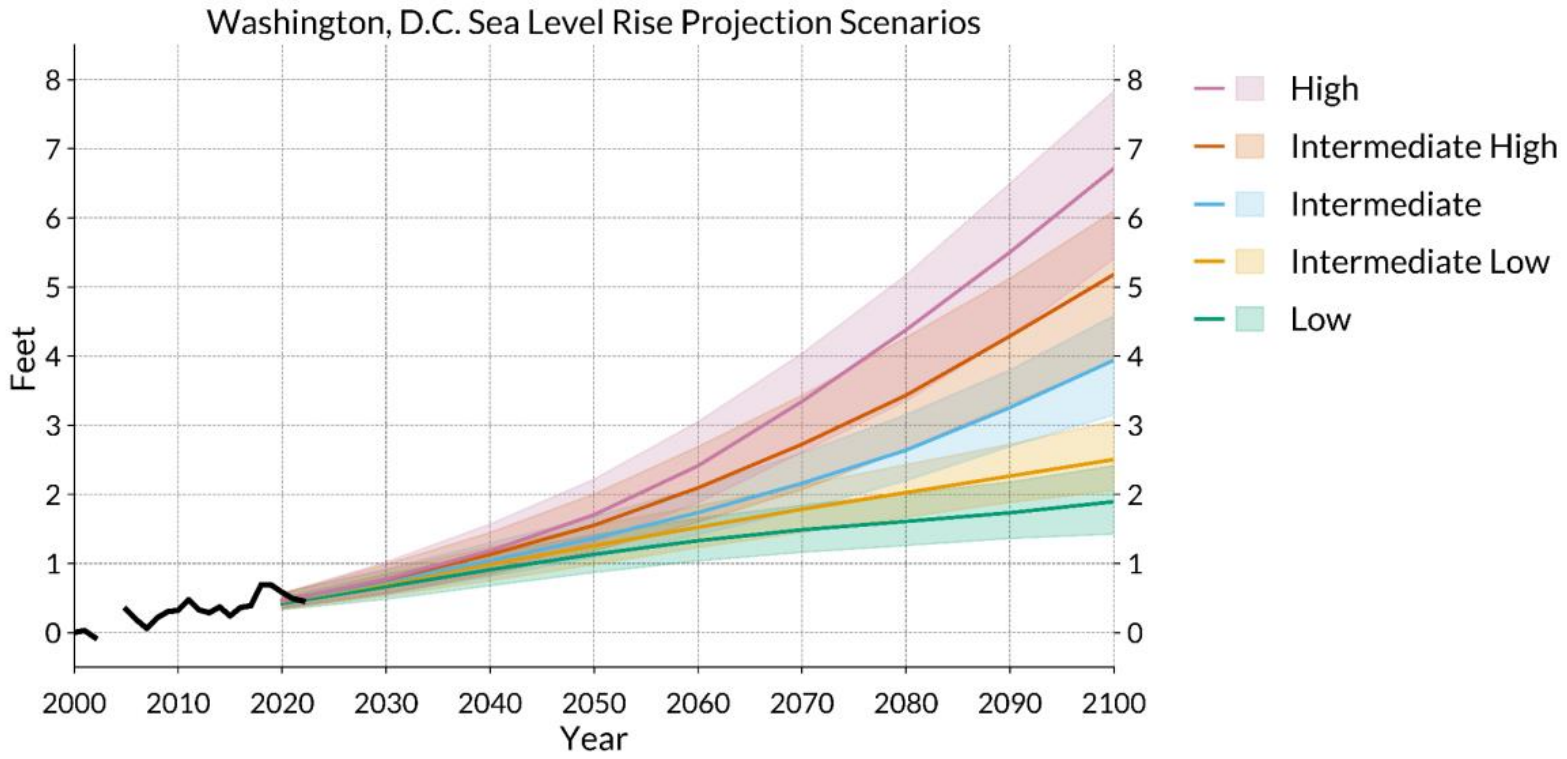
In 2103, Casey is 80 years old. The District is in a state of heat emergency for the majority of the summer and he in constant danger of heat-related illness.

Precipitation



2018, the wettest year in observed District history, received 24 days with at least one inch of rain. This exceeds even the maximum of the worst-case warming scenario projections by the year 2100, indicating that this model should be understood as a conservative estimate.

Sea level rise

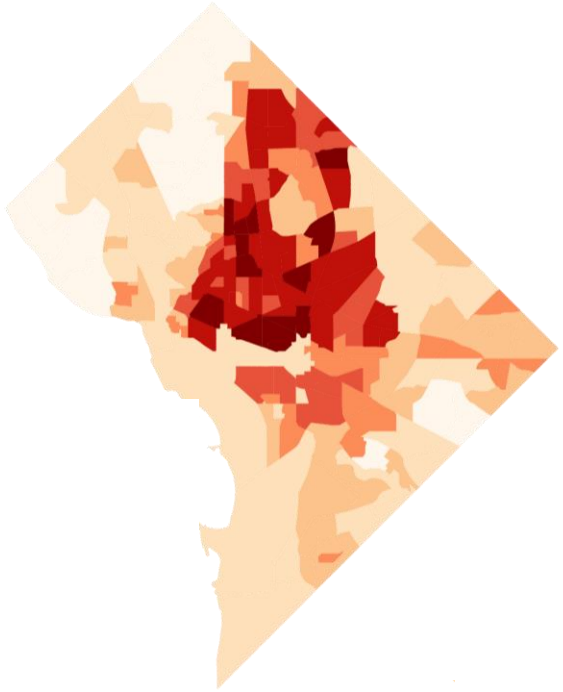


Data: 2022 Sea Level Rise and Coastal Flood Hazard Scenarios and Tools Interagency Task Force report

Extreme Weather

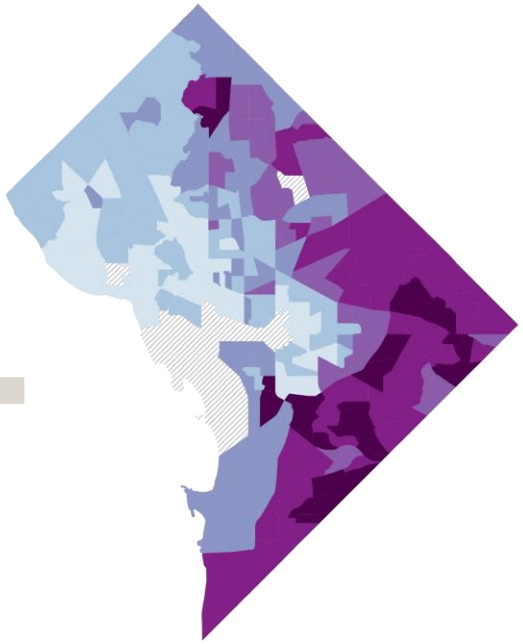
- Storms of all types are expected to get more intense in the future
- Weather is expected to become more volatile and more difficult to predict.

Understanding Climate Risk: Heat



Heat Exposure Index

- Low
- Moderate
- High



Heat Sensitivity Index

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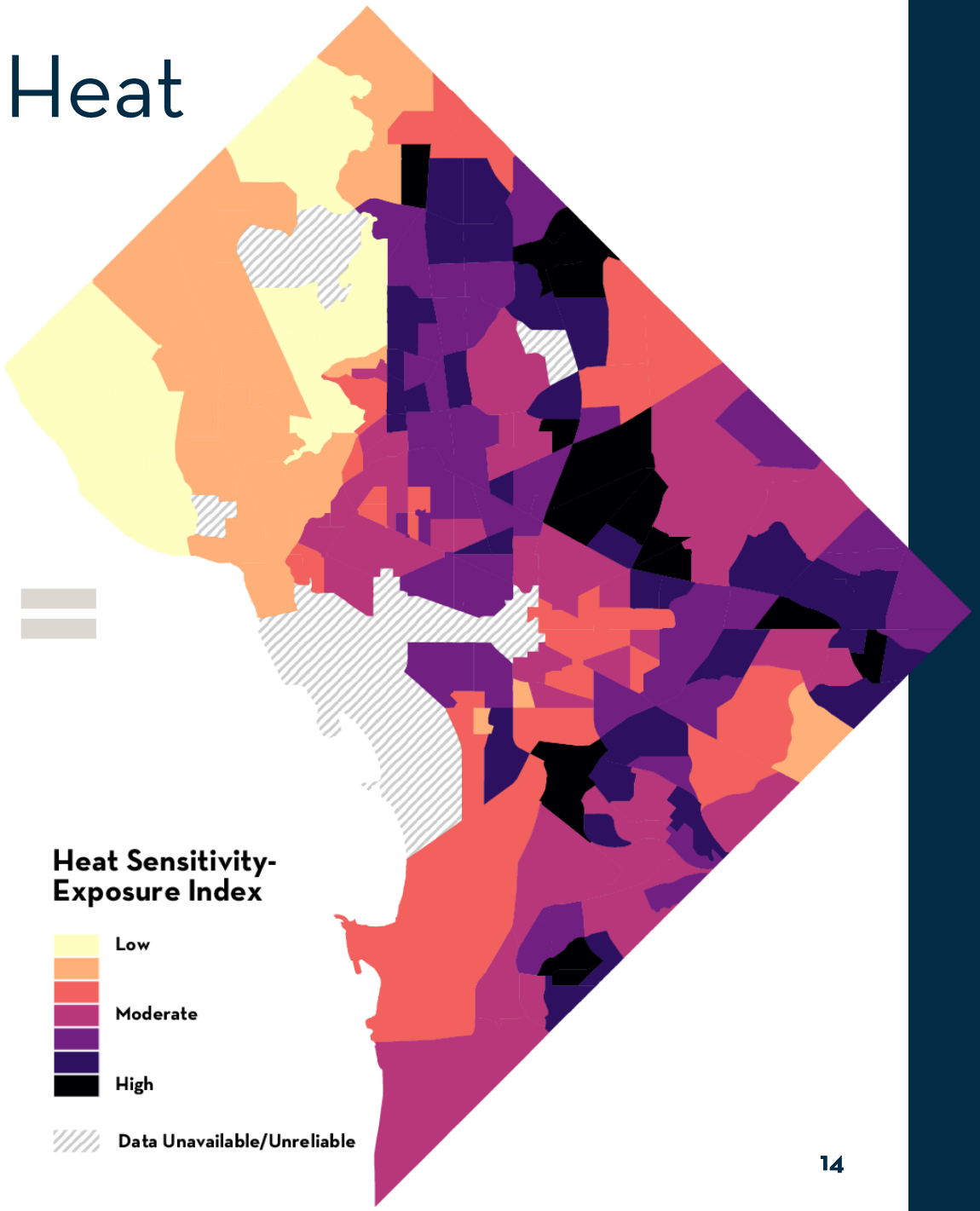


Heat Sensitivity-Exposure Index

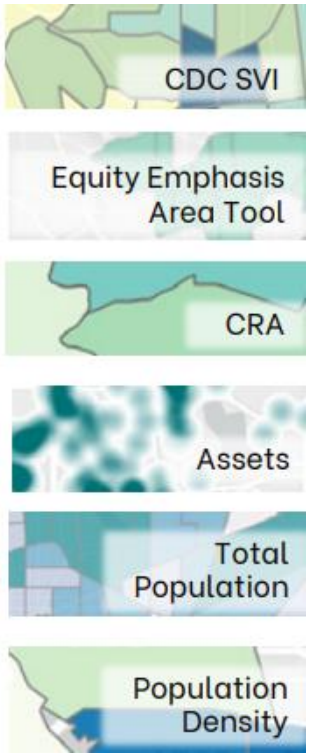
- Low
- Moderate
- High
- Data Unavailable/Unreliable

Understanding Climate Risk: Flooding

Climate Risk Exposure

+

Socio-economic Sensitivity



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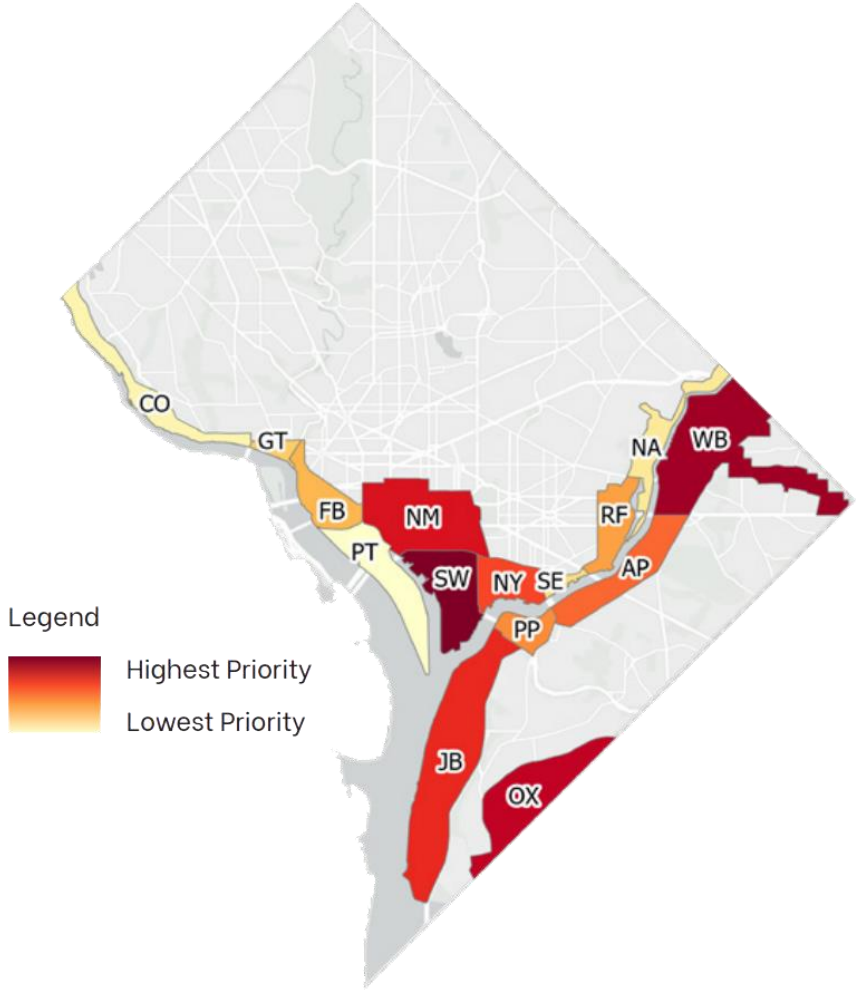
Actionability

=

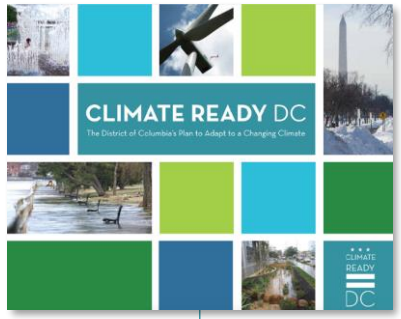
Flood Resilience Focus Areas

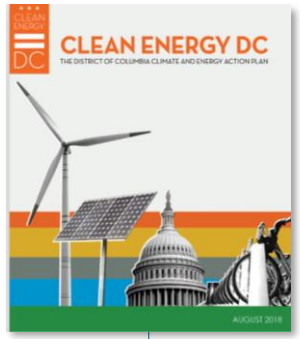


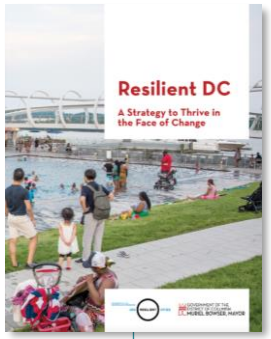
An interagency approach to updating

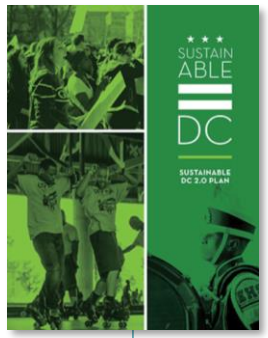
Climate Ready DC

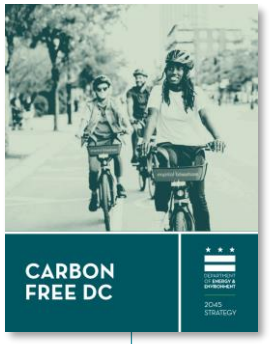
Districtwide Climate-related Plans:





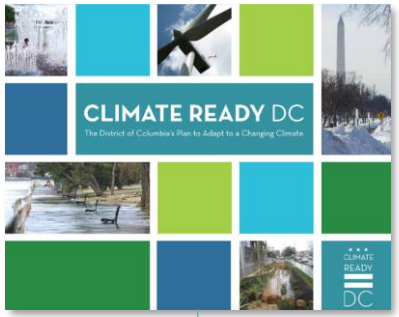






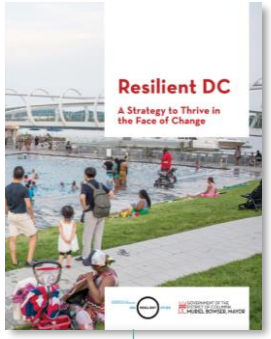
2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

Districtwide Climate-related Plans:



Mayor's 2016 plan to adapt to changing climate

DEPARTMENT OF ENERGY & ENVIRONMENT



DC's 2019 strategy to thrive in the face of change

HOMELAND SECURITY EMERGENCY MANAGEMENT DC

CONSOLIDATE

Climate Ready DC 2.0
Citywide Climate Resilience Plan

Interagency Workshops

Workshop #1
December 12, 2023

- Identify successes and barriers to implementing Climate Ready DC

Workshop #2
February 27, 2024

- Discuss mechanisms for implementation, inter-agency collaboration, and what support is needed.

Workshop #3
June 25, 2024

- Identify strategies to center racial equity in climate resilience planning in the District

Workshop #4
October 29, 2024

- Recap of community engagement and review of proposed goals, objectives, actions

Interagency Workshops

40-50 participants per workshop

17+ entities represented

Interagency Advisory Group

- Working group for 14+ District agencies
- Quarterly meetings
  - Coordinate efforts
  - Advise on CRDC update

CRDC 2.0


Jul 2023
Oct
Jan 2024
Apr
Jul
Oct
Jan 2025
Apr
Resilient DC Online Interactive Storymaps (4/5 published)
Update Climate Projections
Mapping, analysis and racial equity assessments.
Develop new actions
Draft outline
Drafting the plan
Interagency workshops
Agency Feedback on Plan
Quarterly Climate Resilience Interagency Advisory Group Meetings
Interviews with agency staff
Public Survey
Tabling and Community Presentations
Open Houses
Legend
Plan development
Agency engagement
Community engagement

Transportation-related

Resilience Actions

Goals

1. **Support District residents** to become more climate ready.
2. **Protect buildings & infrastructure** from climate impacts
3. **Institutionalize climate change preparedness** in District government.
4. **Use the best available science & tools** to understand climate risks.

High Priority S.M.A.R.T. actions

1 **Support District residents** to become more climate ready.

2 **Protect buildings & infrastructure** from climate impacts

3 **Institutionalize climate change preparedness** in District government.

4 **Use the best available science & tools** to understand climate risks.

- 1.1
- 1.2
- 1.3
- 1.4
- 1.5
- 1.6
- 1.7

S.M.A.R.T.:

- a **specific (S)** step to take that builds from momentum or best practice
- a **measurable (M)** indicator of success, which will be tracked by DOEE and HSEMA
- an **achievable (A)** target
- a **relevant (R)** action that works toward the Goal, and
- a **timeline (T)** for hitting the target within the 5-year implementation period.

1

Support District residents to become more climate

1.5 Develop "**cool corridors**" in neighborhoods vulnerable to extreme heat.

1.6 Expand the number of **shaded bus shelters** in heat vulnerable communities and pilot new design strategies for DDOT-managed bus shelters to provide better protection from extreme heat.

1.7 Add additional tree shade or shade structures along heavily used **pedestrian and bicycle trails**.

2

Protect **buildings & infrastructure** from climate

2.2 Develop a climate risk screening tool and a **climate resilience cost benefit analysis tool** to be used before project costs are estimated and put into the Capital Improvement Plan.

2.3 Develop language related to climate resilience and incorporate it into **capital improvement scopes of work** (SOWs) and **requests for proposals** (RFPs) for District of Columbia funded projects.

2.4 Design and implement **neighborhood-scale blue-green infrastructure networks.**

2.5 Incorporate shade analysis and **higher shade standards** into planning and design.

3

Institutionalize climate change preparedness in District government.

3.3 Establish a **Climate Champion** in each agency and establish a broader Climate Cohort that staff in any agency may join.

3.4 Create a **chief heat officer** position.

4

Use the best available **science & tools** to understand climate risks.

4.5 Conduct a **cost-of-inaction study** to better understand the District's climate risk in financial terms.

Thank you