



**CLIMATE READY DC**  
**The District's Climate**  
**Adaptation & Preparedness Plan**

★ ★ ★ DEPARTMENT  
OF ENERGY &  
ENVIRONMENT

# Sustainable DC Climate Adaptation

## 2032 Goal:

Advance physical adaptation and human preparedness to increase the District's resilience to future climate change.

## 2032 TARGET:

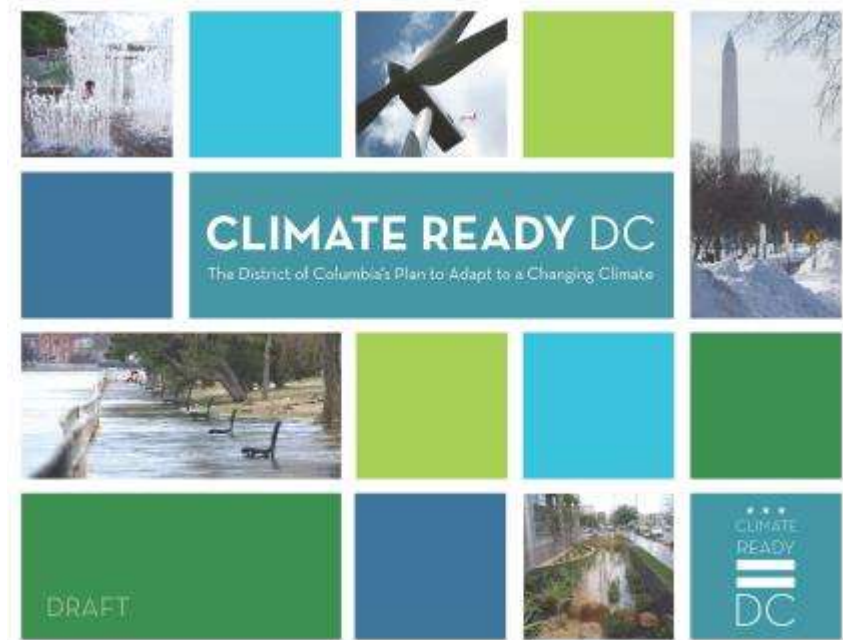
Require that all new buildings and infrastructure projects undergo climate impact analysis



# Climate Ready DC Development

## Three-part Analysis to:

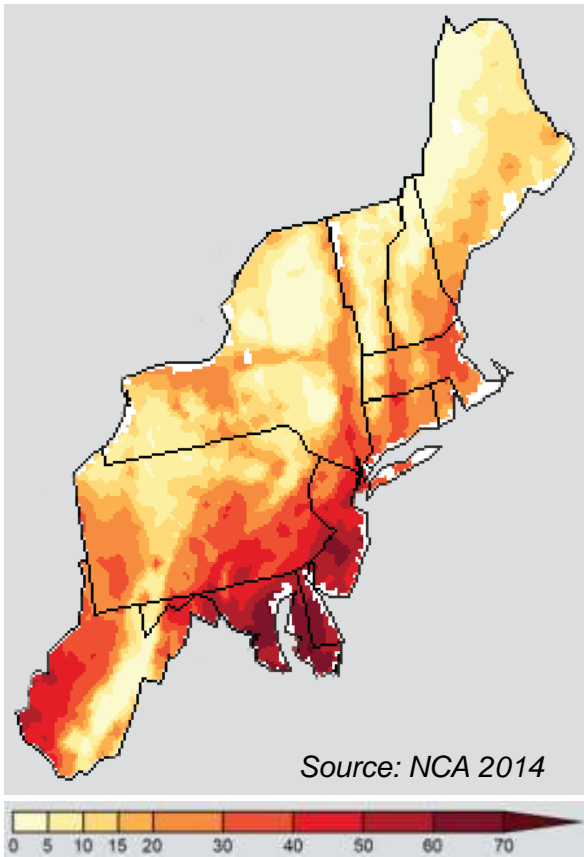
1. Analyze Climate Impacts
2. Assess Risks & Vulnerabilities
3. Identify & Prioritize Solutions





# Local Climate Change Impacts

Heat



Number of days > 90°F

Precipitation



Sea Level Rise



Extreme Weather



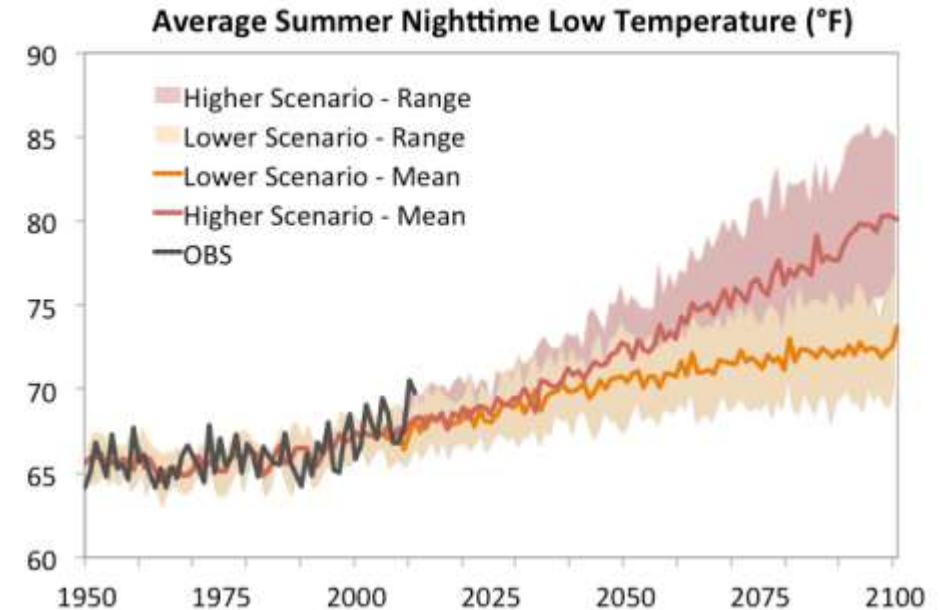
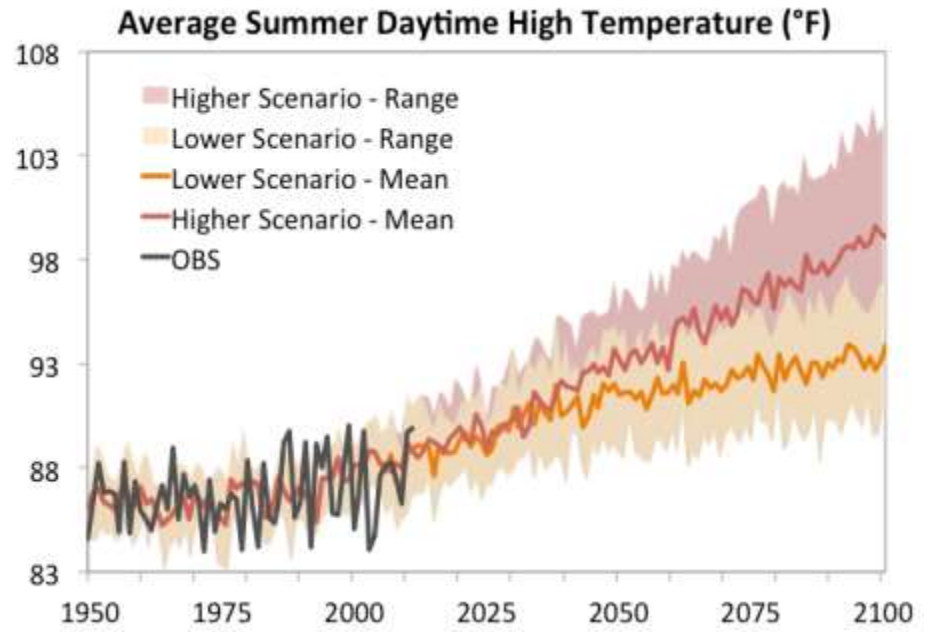
Storm Surge



# Temperature

Average and seasonal temperatures in the District are expected to increase.

Under the high scenario (red), average high and low temps are projected to increase by **10°** by the 2080s.



# Extreme Heat Events

## Days Over 95°F Heat Index

**Baseline**

**2020s**

**2050s**

**2080s**

June	1	2	3	4	5	6	7	
	8	9	10	11	12	13	14	
	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	
	29	30	1	2	3	4	5	
	6	7	8	9	10	11	12	
	13	14	15	16	17	18	19	
July	20	21	22	23	24	25	26	
	27	28	29	30	31	1	2	
	3	4	5	6	7	8	9	
	August	10	11	12	13	14	15	16
		17	18	19	20	21	22	23
		24	25	26	27	28	29	30
		31						

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

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29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
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31						


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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6
7	8	9	10	11	12	13


**30**  
days

**50**  
days

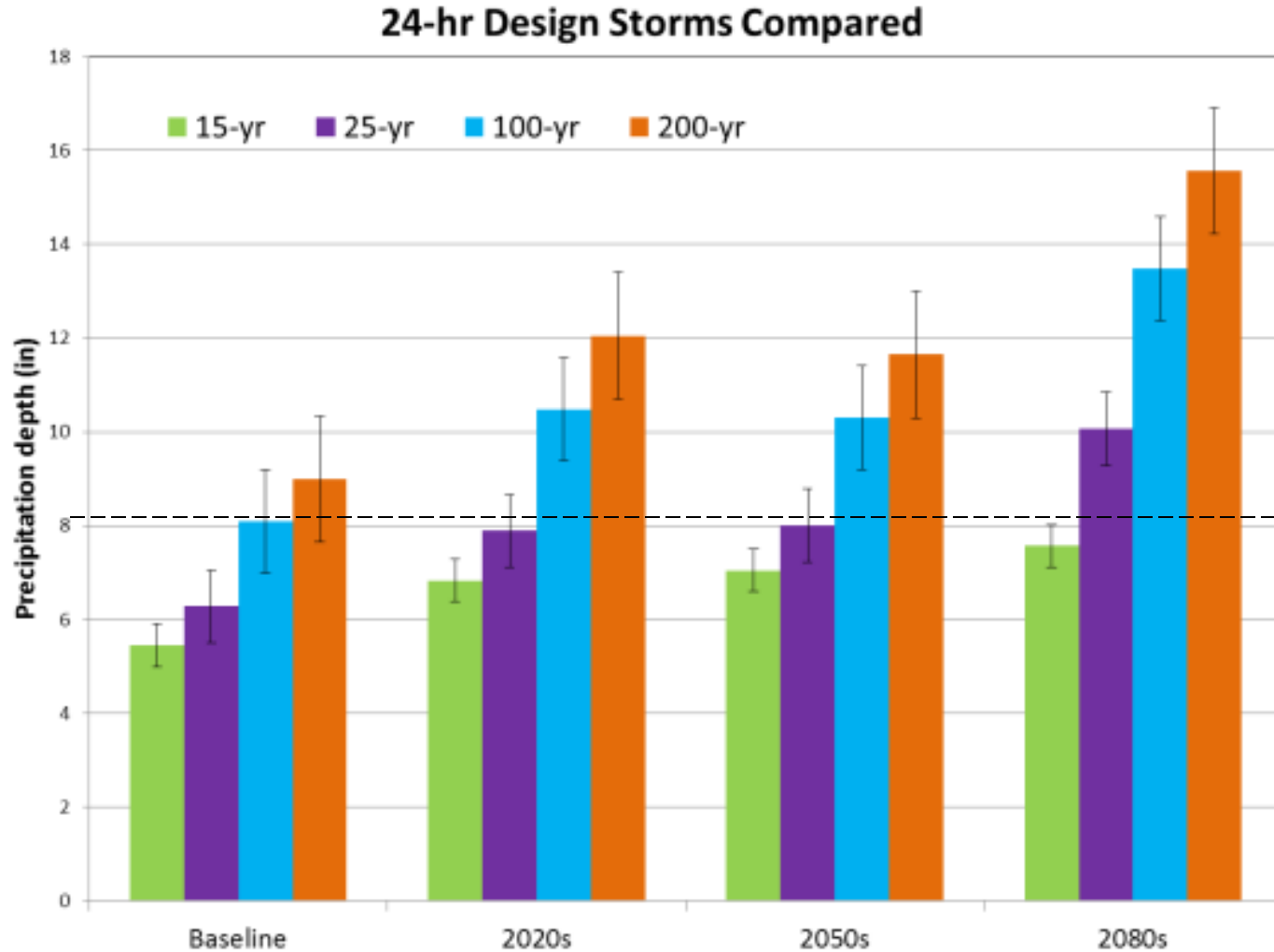
**70-80**  
days

**75-105**  
days

 Days above 95°F Heat Index (low emission scenario)

 Days above 95°F Heat Index (high emission scenario)

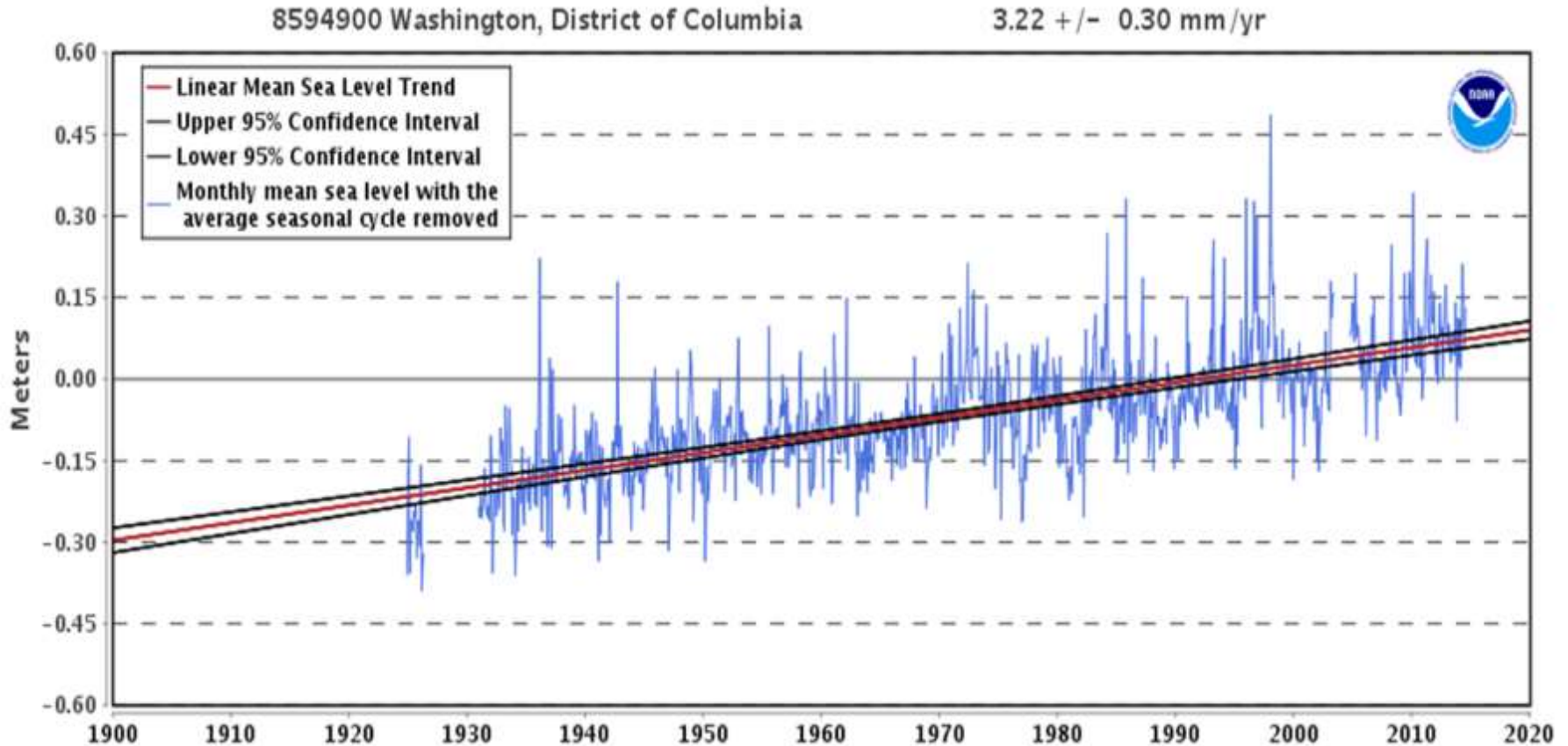
# Extreme Precipitation Events



Today's  
100-year  
rain event  
(8 inches)

Extreme precipitation events, when a large amount of rain/snow falls in a short period of time are projected to become **more frequent** and **more intense**.

# Local Sea Level is Rising



Source: NOAA gauge 8594900 in Washington Channel

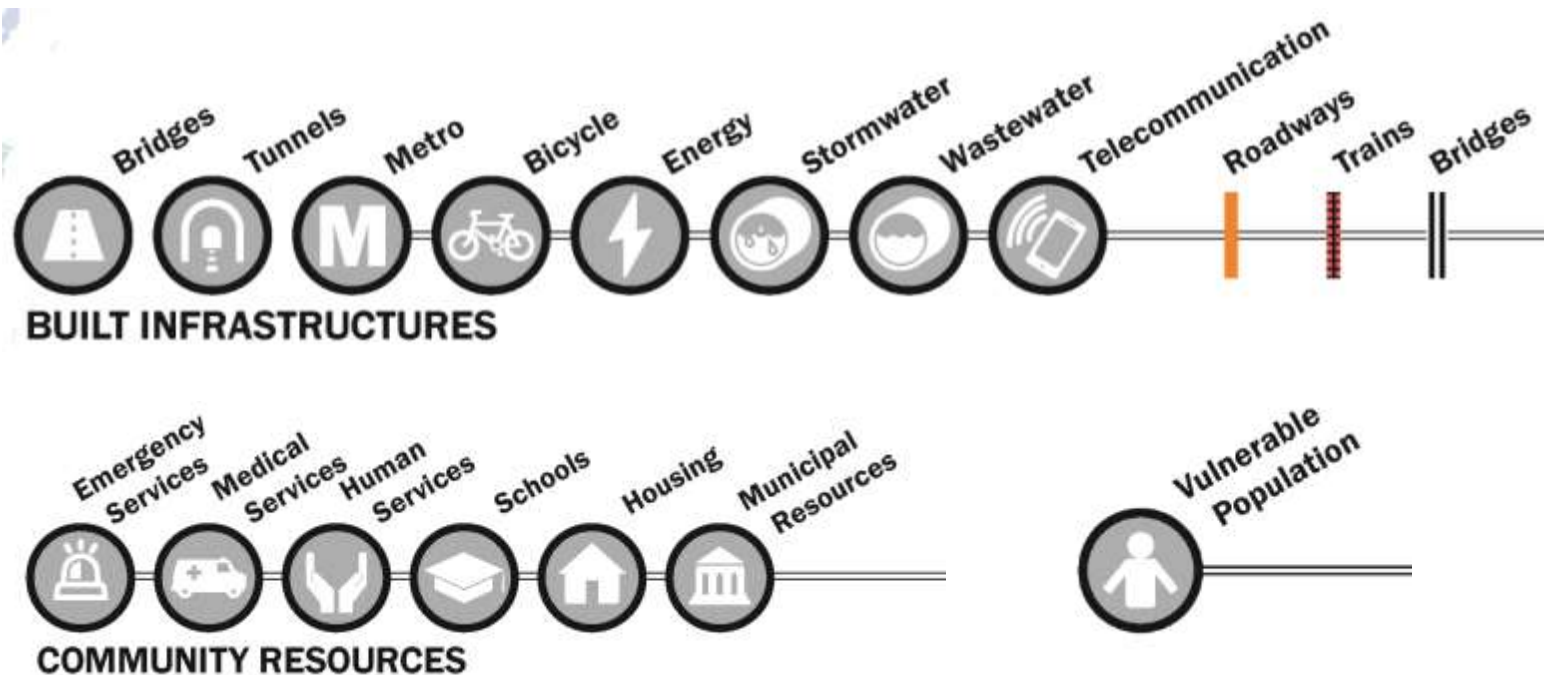
Local sea level has risen **11"** since 1924.



# Vulnerability & Risk Assessment

Goal: Identify the District's infrastructure, public facilities, and populations at greatest risk to climate change.

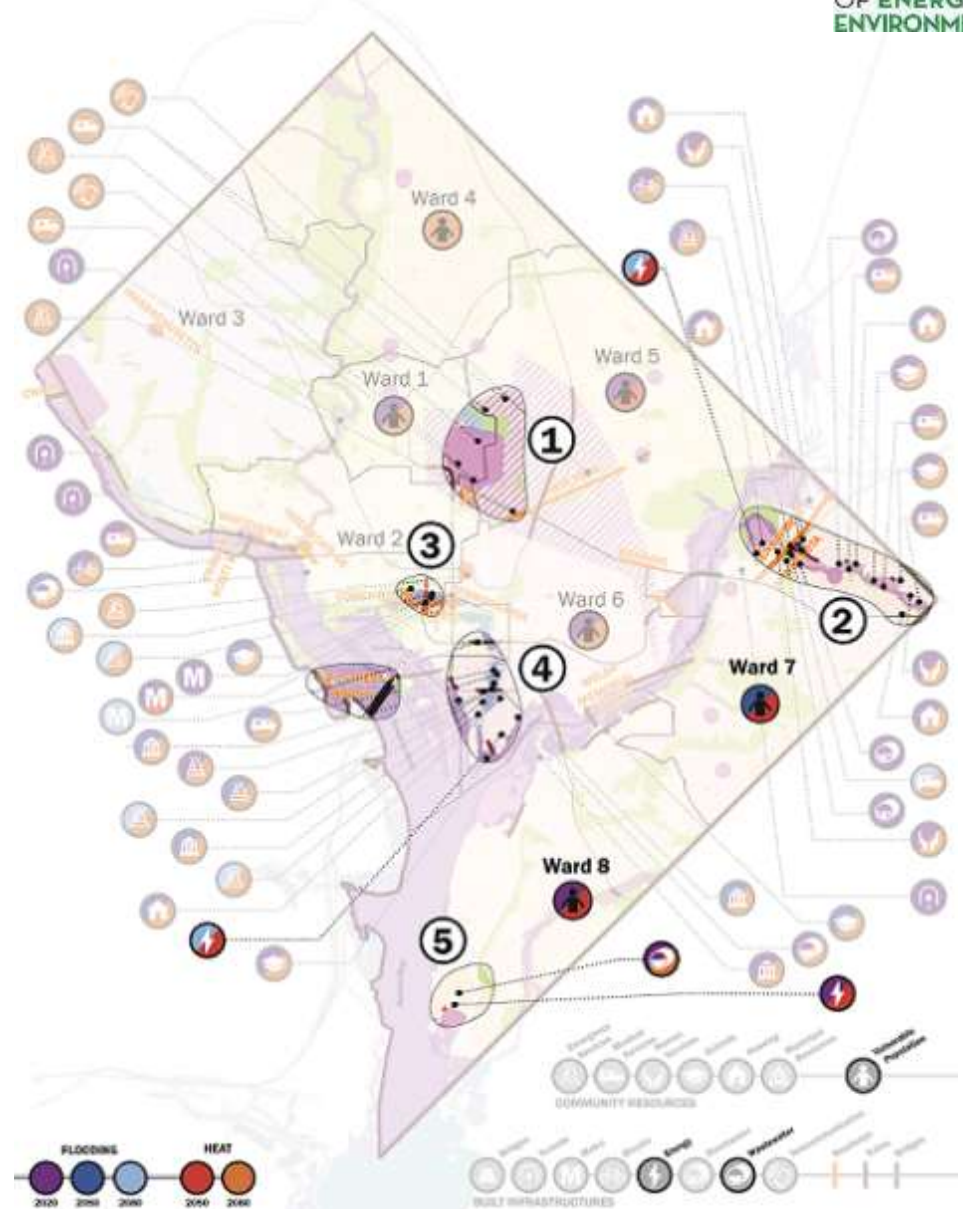
## Scope of Assessment



# Vulnerability & Risk Assessment

## Priority Planning Areas

1. Bloomingdale & LeDroit Park
  2. Watts Branch
  3. Downtown/Federal Triangle
  4. Southwest/Buzzard Point
  5. Blue Plains
- +Vulnerable Populations in Ward 7 & Ward 8



# Plan Organization

Transportation  
& Utilities

Buildings &  
Development

Neighborhoods  
& Communities

Governance &  
Implementation

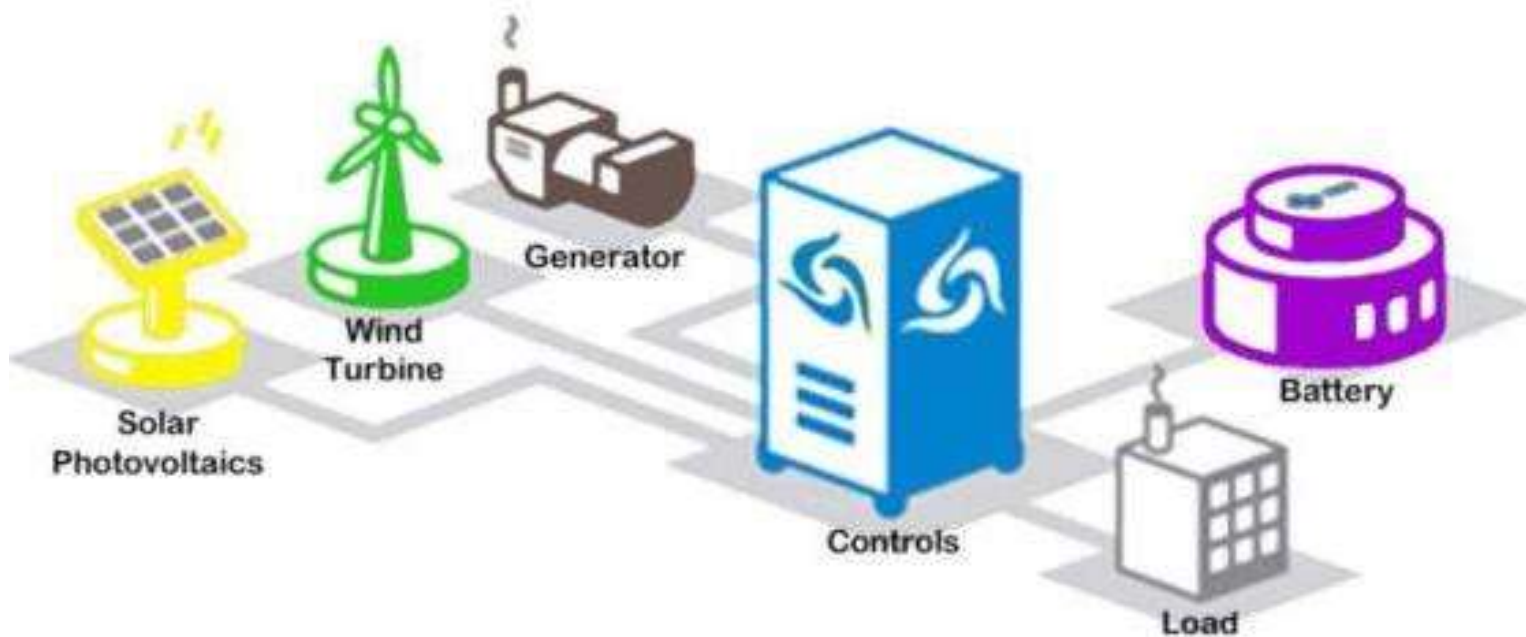
# TRANSPORTATION + UTILITIES

**Goal:** Improve transportation and utility infrastructure to maintain viability during periods of extreme heat, extreme weather, and flooding.

#	Action
TU 1.0	Develop site-level adaptation plans for all at-risk facilities.
TU 2.0	Increase the resilience of energy systems
TU 3.0	Increase the resilience of water systems
TU 4.0	Increase resilience of communication systems
TU 5.0	Increase resilience of transportation systems



# Microgrids



# Flood Proofing



Flood proofing critical facilities like power substations and water pumping stations can prevent outages.

# BUILDINGS + DEVELOPMENT

**Goal:** Upgrade existing buildings and design new buildings and development projects to withstand climate change impacts.

#	Action
BD 6.0	Provide back-up power for emergencies at all identified critical facilities
BD 7.0	Improve thermal safety of buildings during extreme heat events
BD 8.0	Pursue deep energy and water efficiency for all buildings
BD 9.0	Incorporate climate resilience into development planning and review
BD 10.0	Leverage land-use planning to promote resiliency
BD 11.0	Provide incentives to private property owners and developers for flood resilience

# Resilient Buildings





# NEIGHBORHOODS + COMMUNITIES

**Goal:** Make neighborhoods and communities safer and more prepared by strengthening community, social, and economic resiliency.

#	Action
NC 12.0	Improve emergency preparedness and planning related to climate change
NC 13.0	Reduce risks of extreme heat and the urban heat island
NC 14.0	Strengthen Community Cohesion for Safety + Resilience
NC 15.0	Develop Eco-Resiliency District and Community Resilience Hubs

# Cool Neighborhoods



Cool roofs, trees, light colored pavement, and green space can reduce urban heat island impacts and save lives.

# Community Resilience



Build capacity for **community level** preparedness and resilience planning.

The **Evacuteer** organization in New Orleans, in partnership with the city, recruits, trains, and manages evacuation volunteers who assist with New Orleans' emergency response efforts.

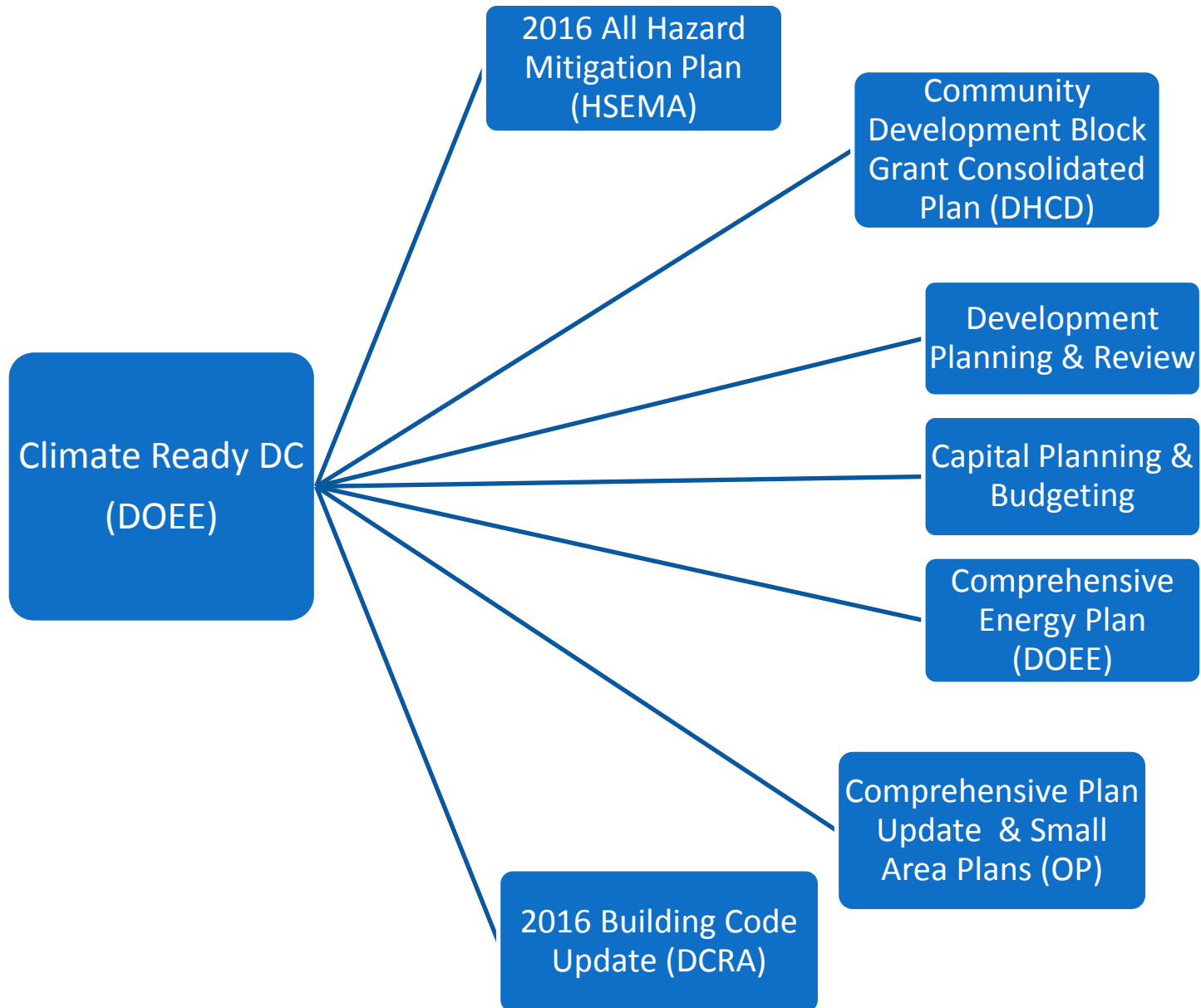
# GOVERNANCE + IMPLEMENTATION

**Goal:** Establish the policies, structures, and monitoring and evaluation procedures to ensure successful implementation of the adaptation plan.

#	Action
GI 16.0	Continue to analyze climate vulnerability to account for latest science
GI 17.0	Integrate Climate Ready DC into related planning efforts
GI 18.0	Establish the necessary structures to ensure successful implementation



# Opportunities for Implementation & Integration



# Contact



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