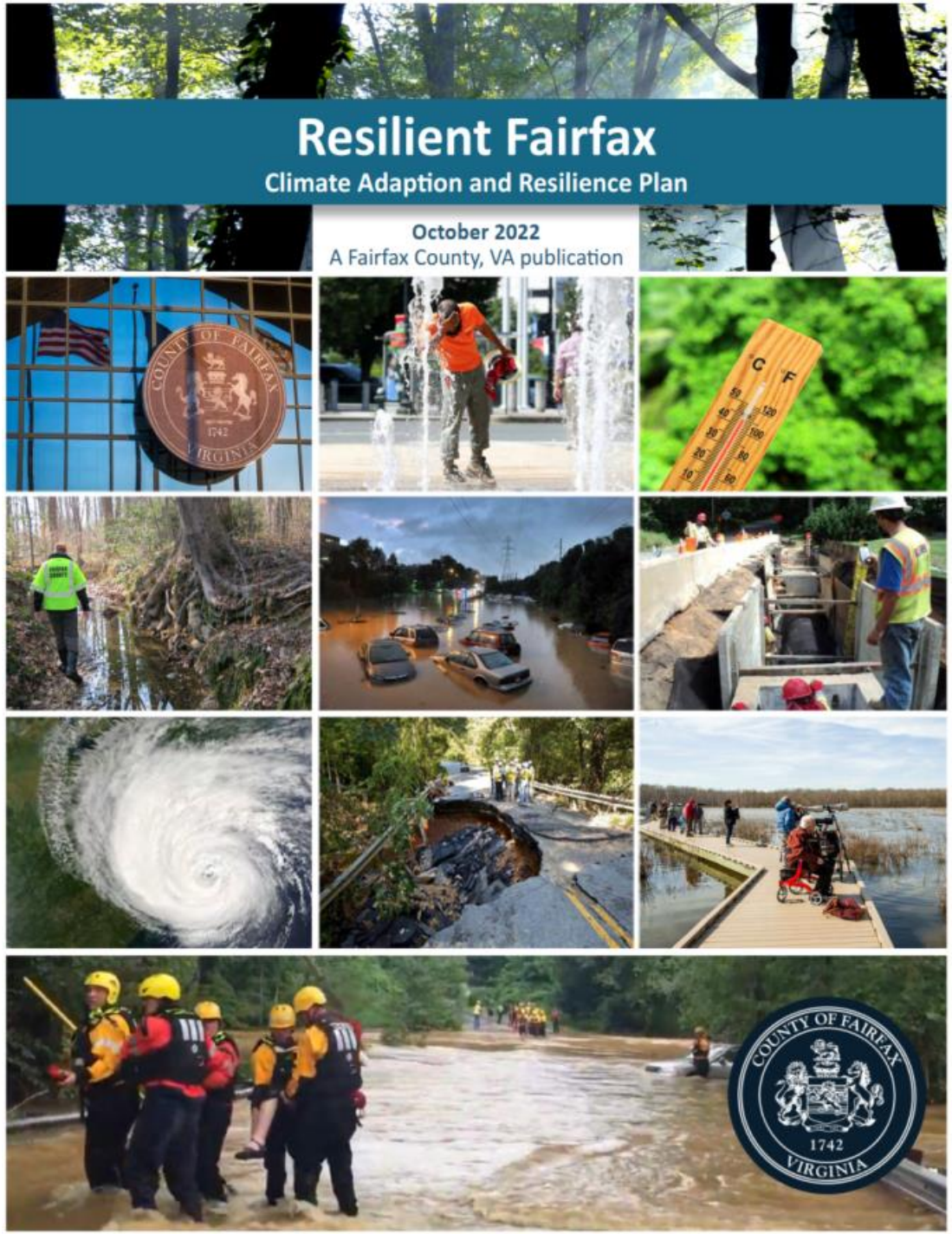


Resilient Fairfax

MWCOG
Chesapeake Bay & Water Resources Policy Committee

Matt Meyers | Division Director
Allison Homer | Planner IV, Resilient Fairfax Program Manager
Office of Environmental and Energy Coordination

July 21, 2023

Climate Plans in Fairfax County

We are addressing both the **cause** and the **effects** of climate change.

Addressing the Cause:

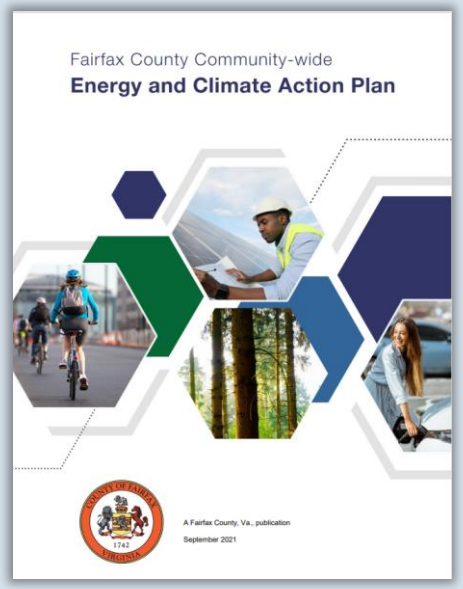
by doing our part
in the global effort to reduce emissions

Addressing the Effects:

adapting/building resilience to the impacts we experience locally

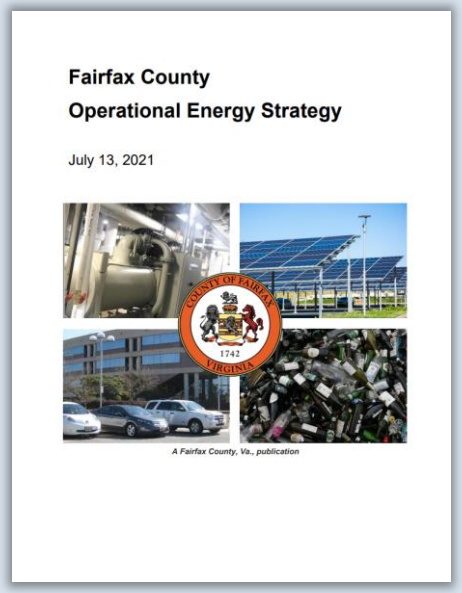
CECAP

(Community-wide)



Operational Energy Strategy

(Government operations only)



Resilient Fairfax

(Government and community)

Climate Plans in Fairfax County

Addressing the Cause:
by reducing harmful emissions

CECAP
(Community-Wide)

Goal: Carbon Neutral by 2050

- Transportation
- Buildings and Energy Efficiency
- Solar and Renewables
- Waste Reduction
- Natural resources

Operational Energy Strategy
(Government operations only)

Goal: Carbon Neutral by 2040

- Fleet Electrification
- Energy & Water Efficiency
  Green Buildings
- Renewables
- Waste Management & Recycling
- Goods and Services
  Utility Cost Management

Addressing the Effects:
by building resilience

Resilient Fairfax
(Boosting resilience to climate hazards, for both community and government)

- Integrated Action Planning
- Resilient Infrastructure & Buildings
- Climate-Ready Communities
- Adaptive Environments

Resilient Fairfax Plan Overview

1. How much is our local climate changing?

- Climate Projections Report (CPR)

2. What are our top vulnerabilities to these climate hazards?

- Climate Vulnerability and Risk Assessment (VRA)

3. How are we currently doing?

- Audit of Existing Policies, Plans, and Programs

4. Which strategies will strengthen our resilience?

- Adaptation and Resilience Strategies (in full plan)

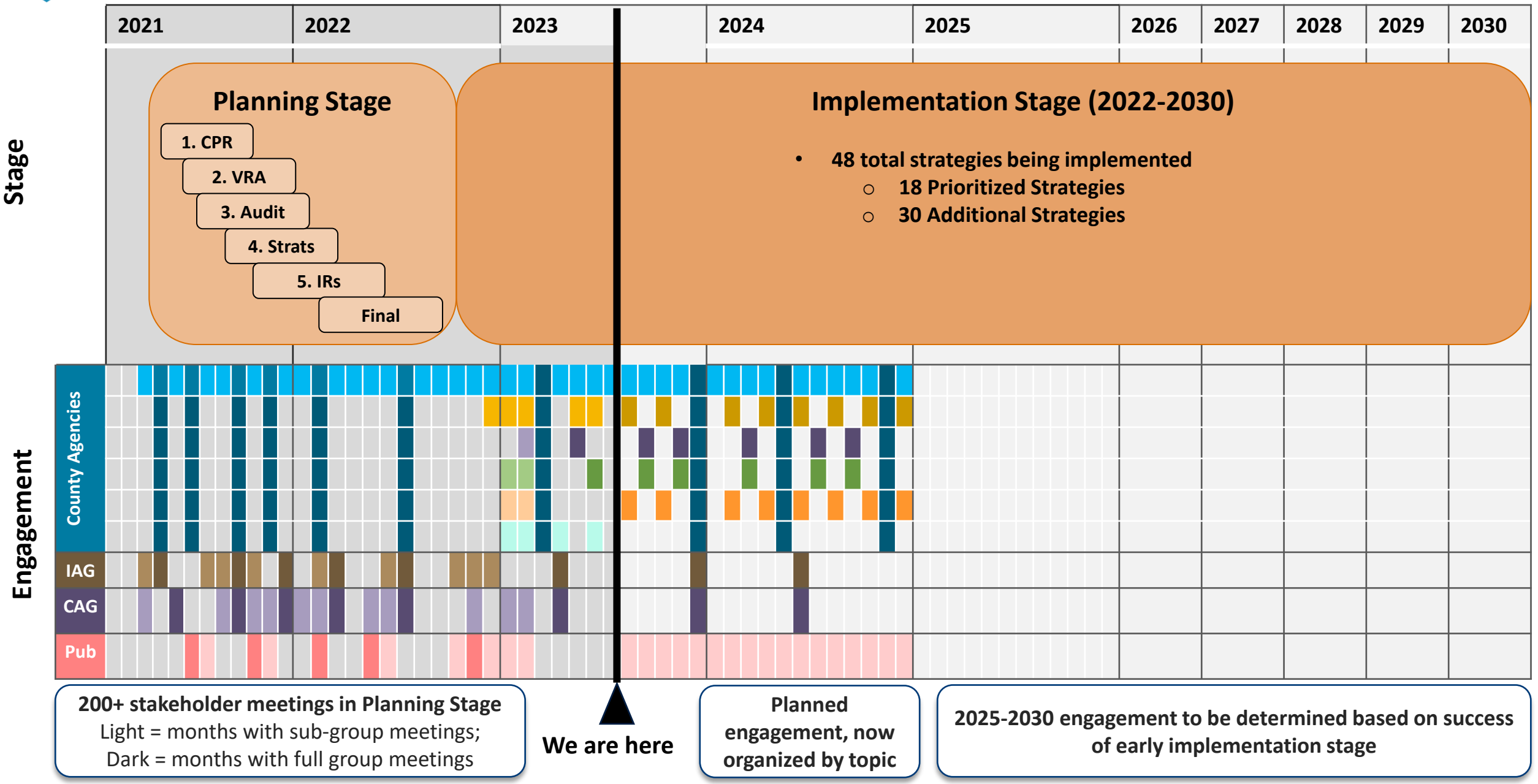
5. How do we implement those strategies?

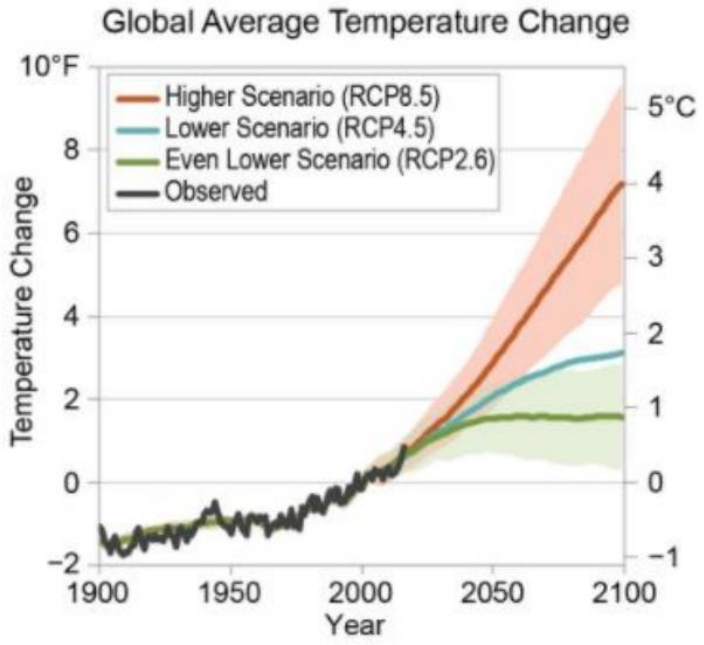
- Implementation Roadmap (in full plan)

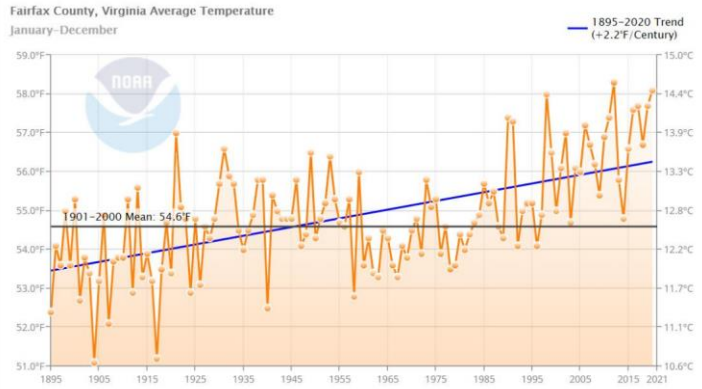
Who is involved?

Lead	Office of Environmental and Energy Coordination (OEEC)			
County Government (Interagency Climate Team)	**County departments and agencies**	**Group 1: All Hands** **Group 2: Development** **Group 3: Community** **Group 4: Nature** **Group 5: Facilities** **Group 6: Data**	OEEC (Lead); County Attorney; Economic Initiatives; Emergency Mgmt. & Security; Facilities Mgmt.; Family Services; GIS; Health; Health & Human Services; Housing; Land Development Services; Neighborhood & Community Services; NVSWCD; One Fairfax; Park Authority; Planning & Development (PD, ZAD, CR); Procurement & Materials Mgmt.; Public Affairs; Public Safety Comms.; Public Schools; Public Works (STW, WW, SW, UFMD, Cap Facilities); Transportation; Vehicle Services	**25+ entities** **100+ ppl**
Infrastructure Advisory Group (IAG)	**Utilities, authorities, & infrastructure managers at local, state, regional, federal levels**	**(Meets as 1 Full Group)**	Columbia Gas, Cox, DEMS, Dominion, DPWES, Fairfax Water, ESI, FCPS, FEMA, MWCOG, NAIOP, NOVEC, NVBIA, NVRC, NVTA, OEEC, RUCA, TAC, USDOD, VDCR, VDEM, VDEQ, VDOT, Verizon, Washington Gas, WMATA, WTS	**27 entities** **50+ ppl**
Community Advisory Group (CAG)	**Residents of each Supervisor District, & advocacy organizations, non-profits, BCAs, community groups**	**(Meets as 1 Full Group)**	Residents of Braddock, Dranesville, Hunter Mill, Lee, Mason, Mount Vernon, Providence, Springfield, Sully; 350; Chamber; Cornerstones; Disability Services Board; EcoLatinos; EQAC; FACS; FCA; GMU; League of Women Voters; Multicultural Advisory Council; NAACP; NVSWCD; Resilient VA; Reston Association; Sierra Club; Small Business Commission; Tysons	**27 entities** **30+ ppl**
				80+ entities **180+ ppl**

Resilient Fairfax Timeline







Planning Stage Highlights

Part 1: Climate Projections

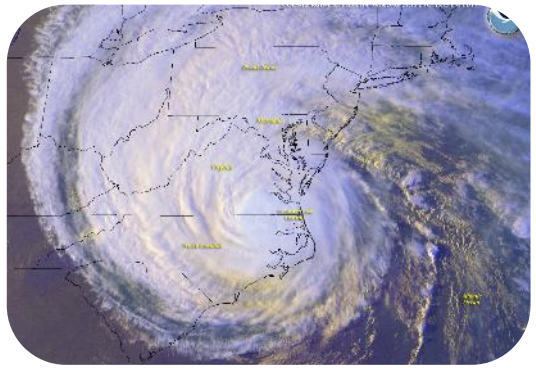
Purpose: To find out how much the *local* climate is changing

1. Climate Projections: Our Approach

Six Hazards

Extreme Heat

Heavy Precipitation



Severe Wind & Storms

Extreme Cold

Drought

Coastal Flooding

Two Scenarios

- **RCP 4.5** (Somewhat bad)
- **RCP 8.5** (Very bad)

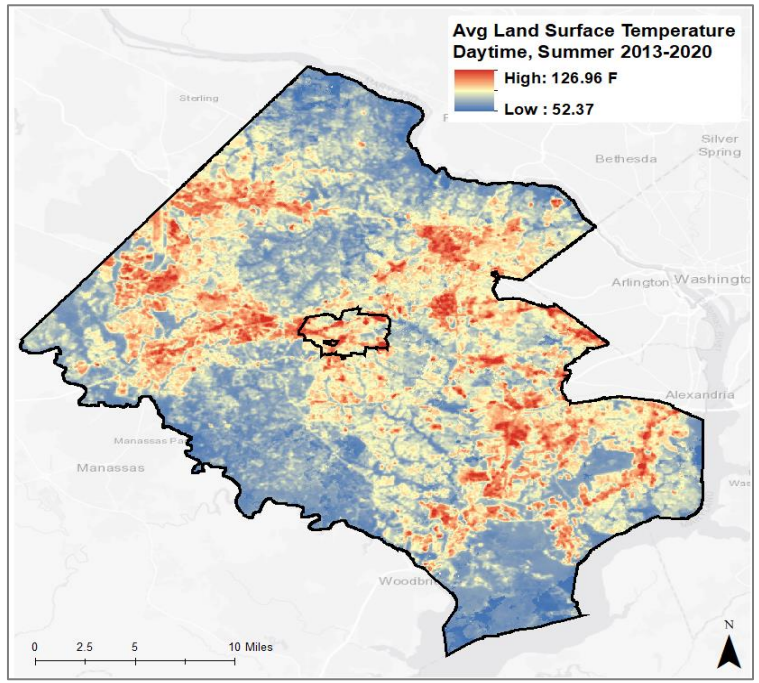
Four Time Periods

- **Baseline** (1976 – 2005)
- **Current** (1991 – 2020)
- **Mid-Century** (2035 – 2064)
- **End of Century** (2070 – 2099)

Models/Sources: LOCA (32 models), METDATA/NL-DAS2, Observational, NASA, NOAA, USACE, MARISA, Chesapeake Bay Program, USPRB, NVRC, MWCOG, FEMA, NWS

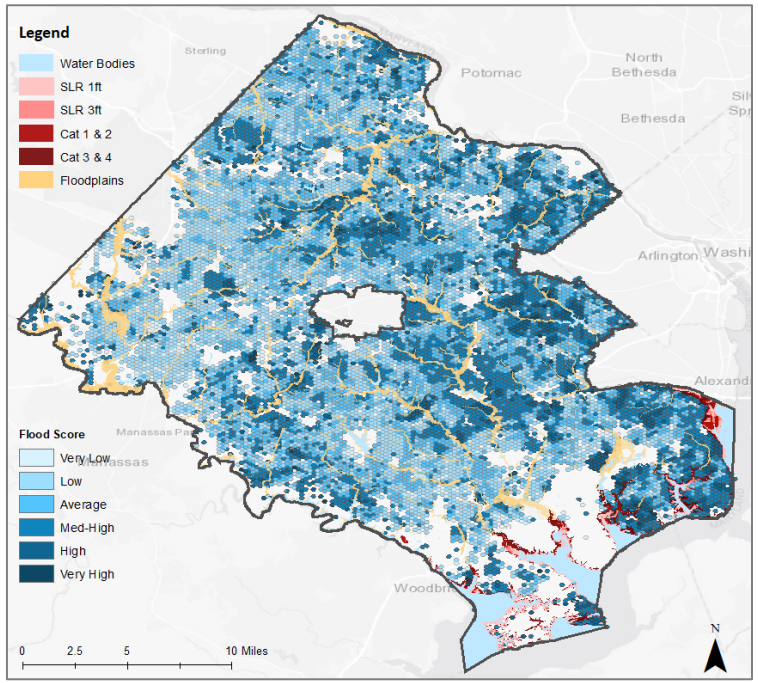
1. Climate Projections: Results

Warmer



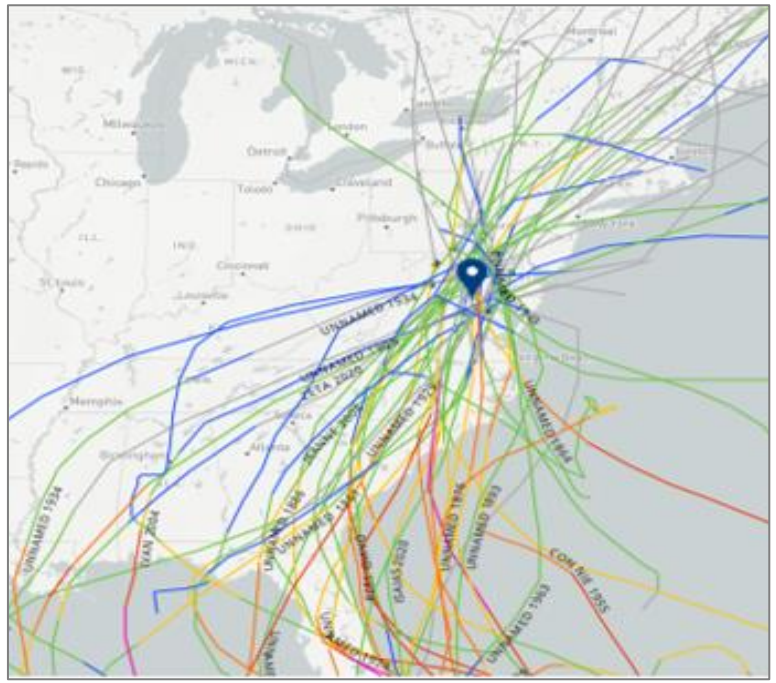
- **Annual temperature** rise 4.4 – 8°F by 2085
- **Extreme heat days** to increase from 7 to 68 days per year by 2085
- **Urban Heat Island Effect** (pictured above) on top of temperature increase

Wetter



- **Annual and seasonal precipitation** increase
- **Precipitation intensity** increase across all return periods
- **Sea level rise** --> Potomac River

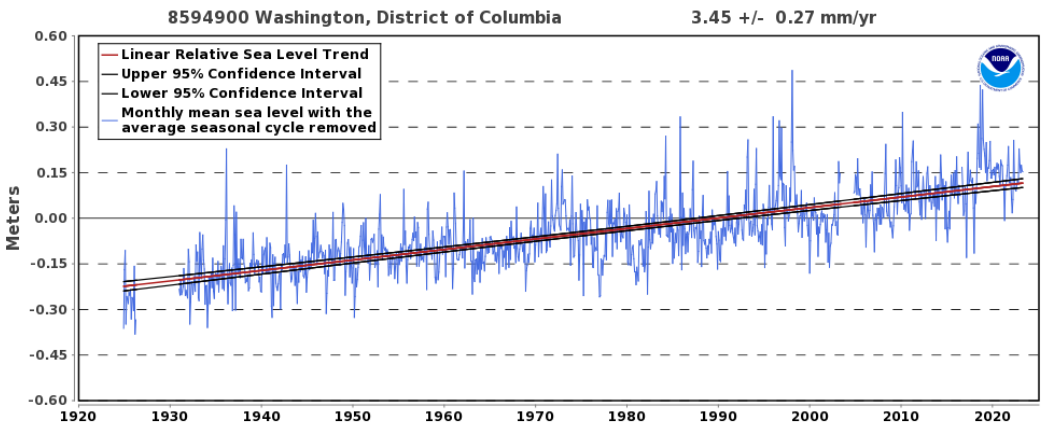
Weirder

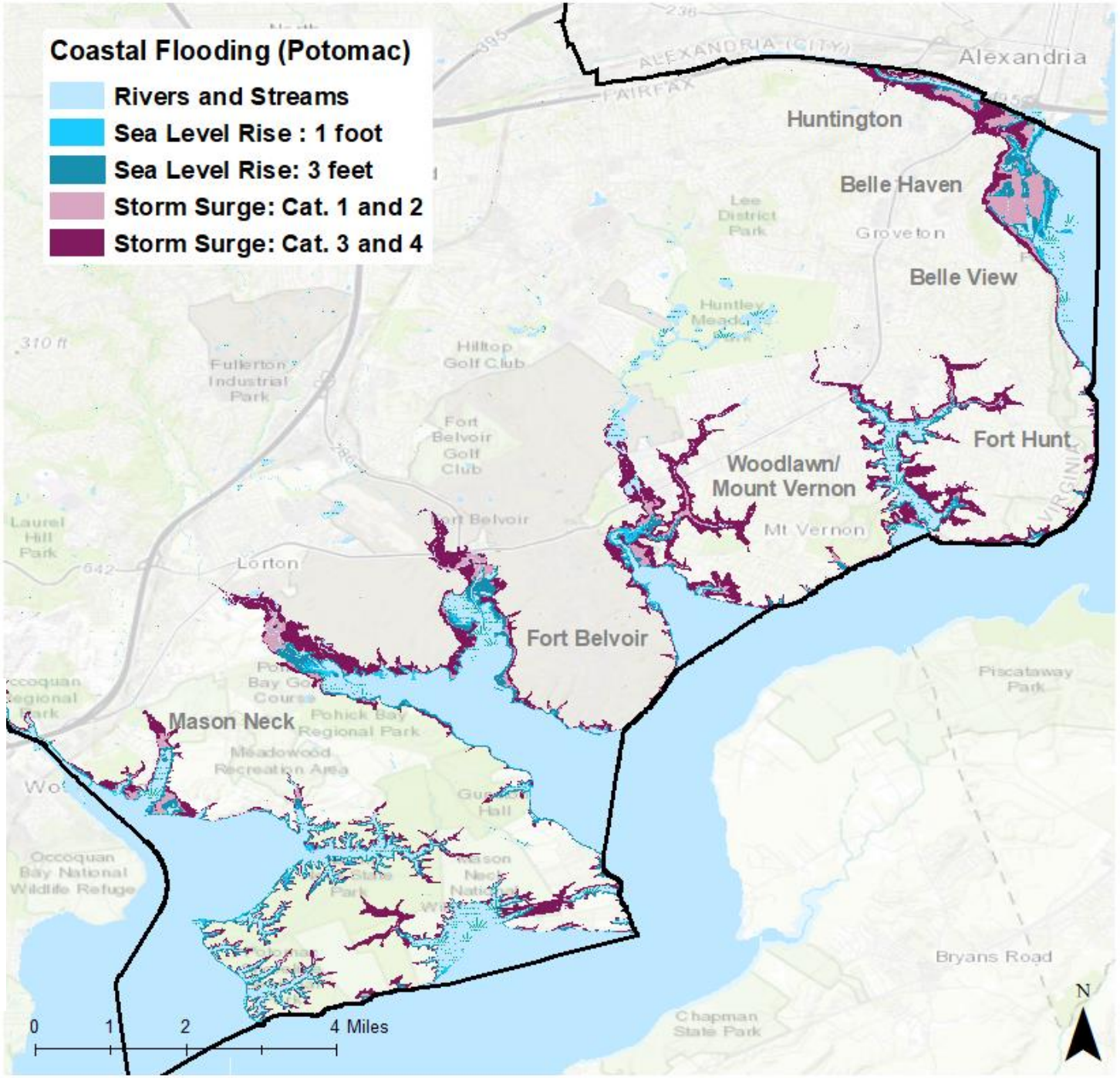


- **Severe storm strength increase**, including tropical storms, derechos, hurricanes, nor'easters
- **Unseasonably warm/cool** temperatures
- **No precipitation followed by sudden, heavy precipitation**

1. CPR., continued

- When the sea rises, the Potomac Rises
- **1924 – 2022**: + 1.13 ft
- **2050:** additional 1.10 - 3.56 ft
- **2080:** additional 1.76 – 11.27 ft





Office of Environmental and Energy Coordination

Part 2: Vulnerability and Risk Assessment

Purpose: To find where/how your locality is most *vulnerable* to climatic hazards

2. Vulnerability & Risk Assessment (VRA)

Water Infrastructure
- ❑ Wastewater
- ❑ Stormwater
- ❑ Drinking water

Energy & Comms Infrastructure
- ❑ Electricity
- ❑ Natural Gas
- ❑ Communications Infrastructure

Transportation Infrastructure
- ❑ Roadways, private rail
- ❑ Public transportation, private rail
- ❑ Bike & pedestrian

Buildings
- ❑ Residential, commercial, industrial
- ❑ Government buildings

Populations
- ❑ General population
- ❑ Vulnerable populations

Natural & Cultural Resources
- ❑ Water bodies
- ❑ Wetlands
- ❑ Floodplains & RPAs
- ❑ Tree Canopy
- ❑ Agricultural districts & farms
- ❑ Cultural & historical resources

Public Services
- ❑ Public & health services
- ❑ Emergency management
- ❑ Parks & recreation
- ❑ Waste management

Vulnerability = E x S x A

Exposure: How much are they exposed to each hazard?

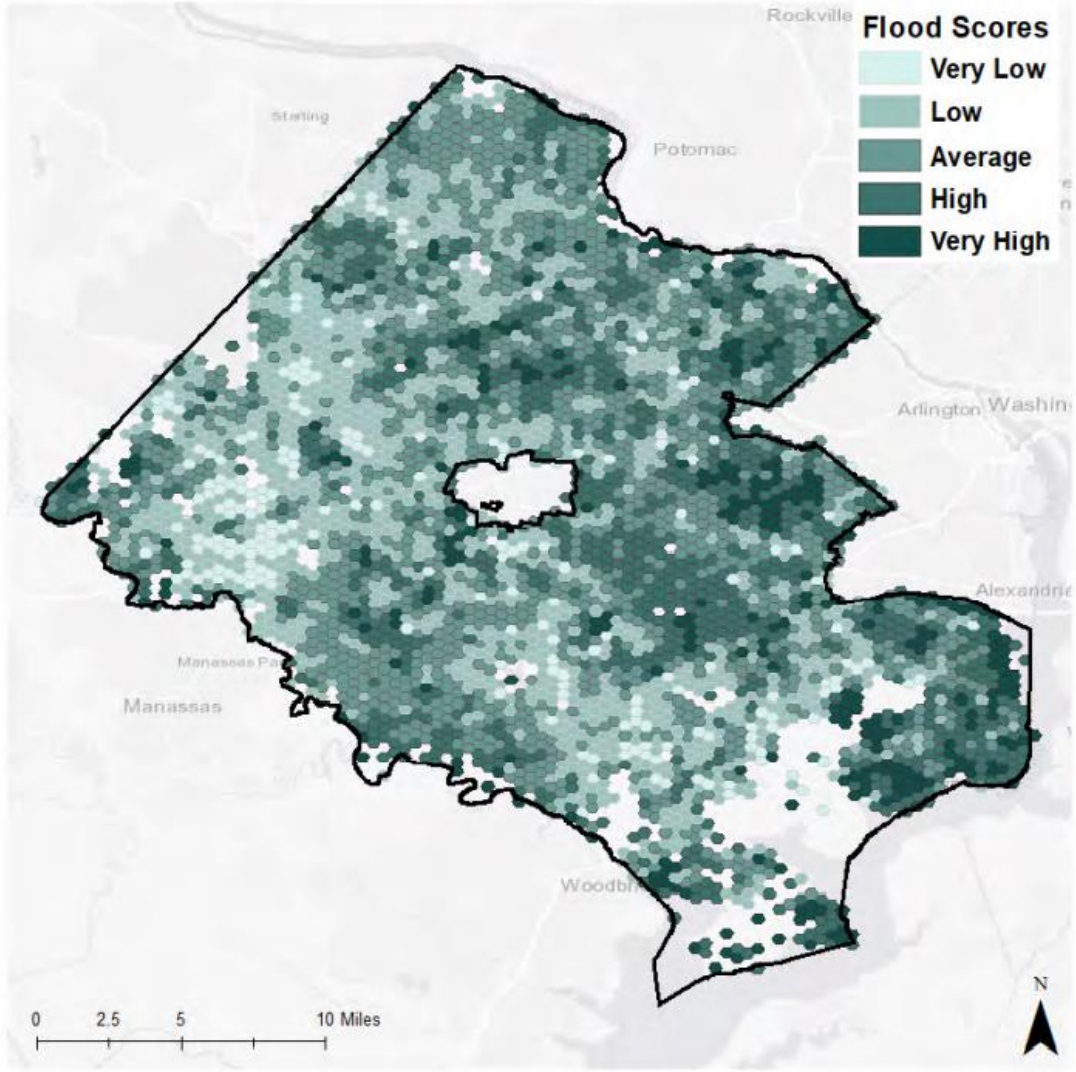
Sensitivity: Do bad things happen (damage) if they're exposed?

Adaptive Capacity: Can they adapt to changing conditions?

2. VRA: Example – Residential Buildings & Flooding

Exposure: Each parcel scored for 10 flood factors

Figure 7. Flood Exposure: 10-factor flood score. (Source: DPWES/GIS).



Exposure

1. In a county floodplain?
2. In a FEMA floodplain?
3. How close to a water body?
4. Parcel in a sump?
5. Structure in a sump?
6. Built before modern SWM regulations?
7. Absence of stormwater infrastructure?
8. Outside a Facility Drainage Area?
9. Infill development?
10. Reports of flooding issues?

Sensitivity

(High): Damage caused to buildings by flooding.

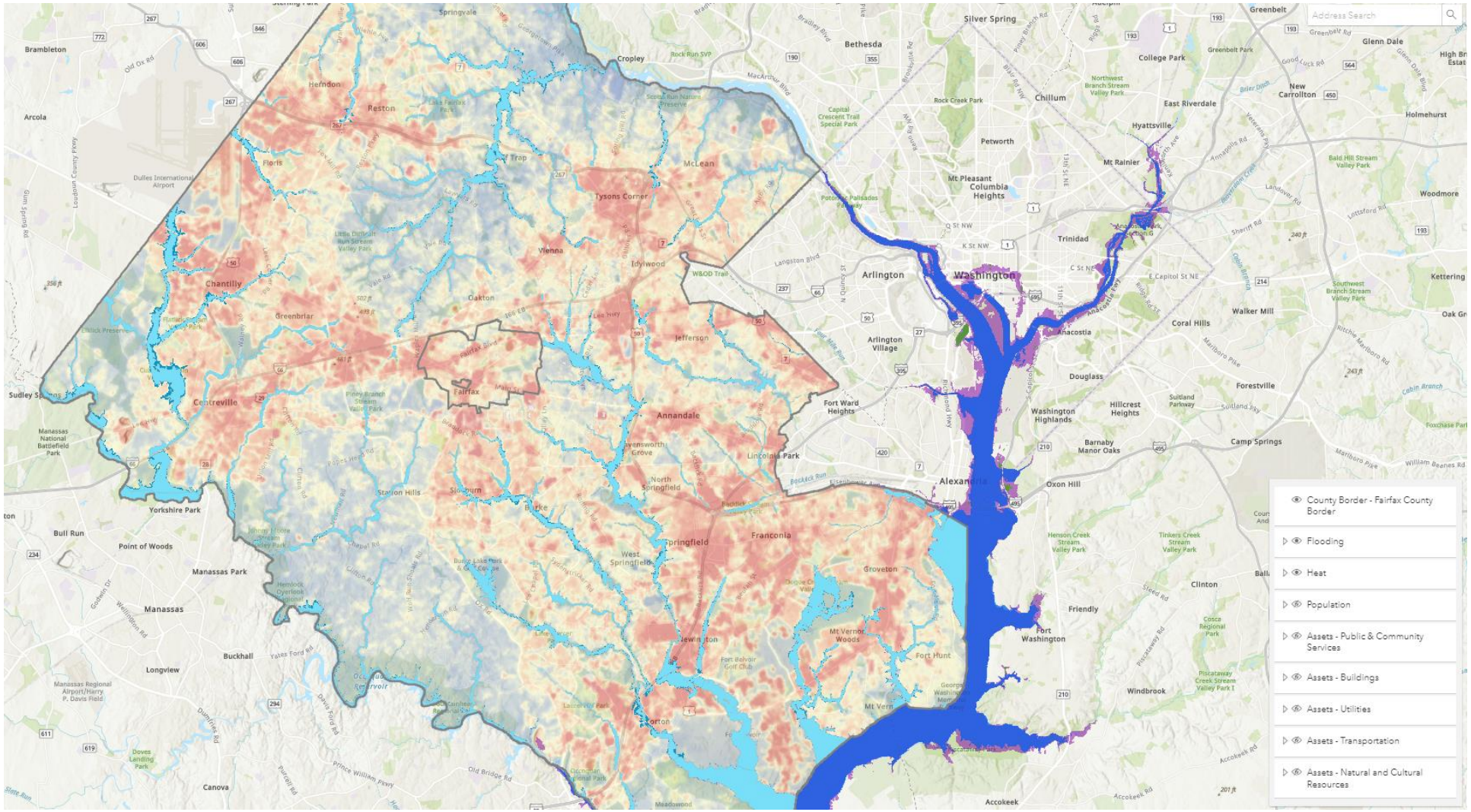
Adaptive Capacity

(Moderate): Some ways to adapt/ upgrade.

Please see VRA for much more detail.

Office of Environmental and Energy Coordination

2. VRA: Interactive Climate Map Viewer



[Resilient Fairfax Interactive Map Viewer]

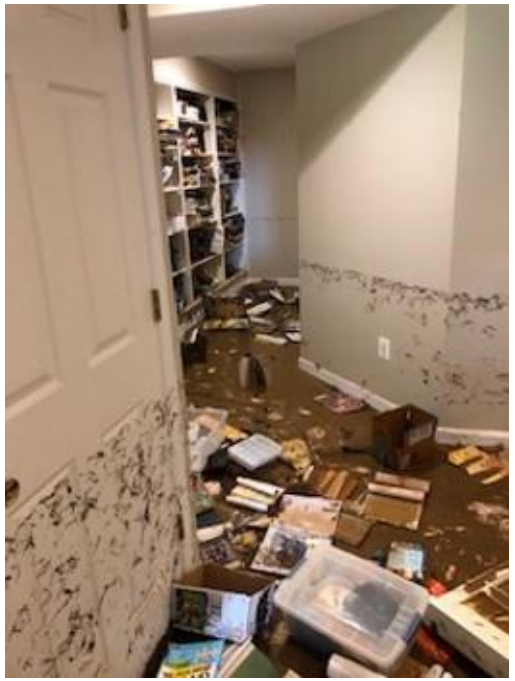
Office of Environmental and Energy Coordination

2. VRA: Results

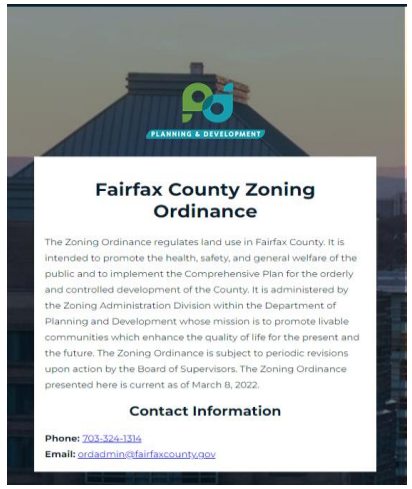
Biggest issue: **Urban Flooding.** Sectors most at risk: **Populations, Roadways, Buildings, Electricity Inf., Cultural & Historic**

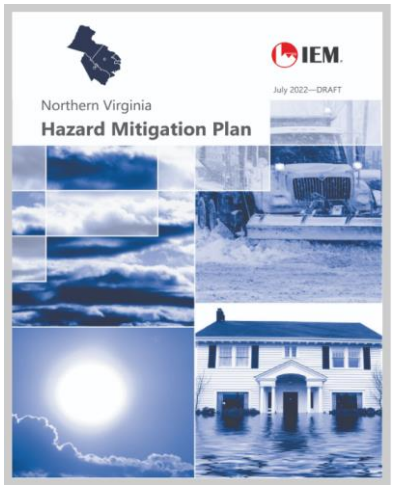






Office of Environmental and Energy Coordination





Part 3: Audit of Existing Policies, Plans, and Programs

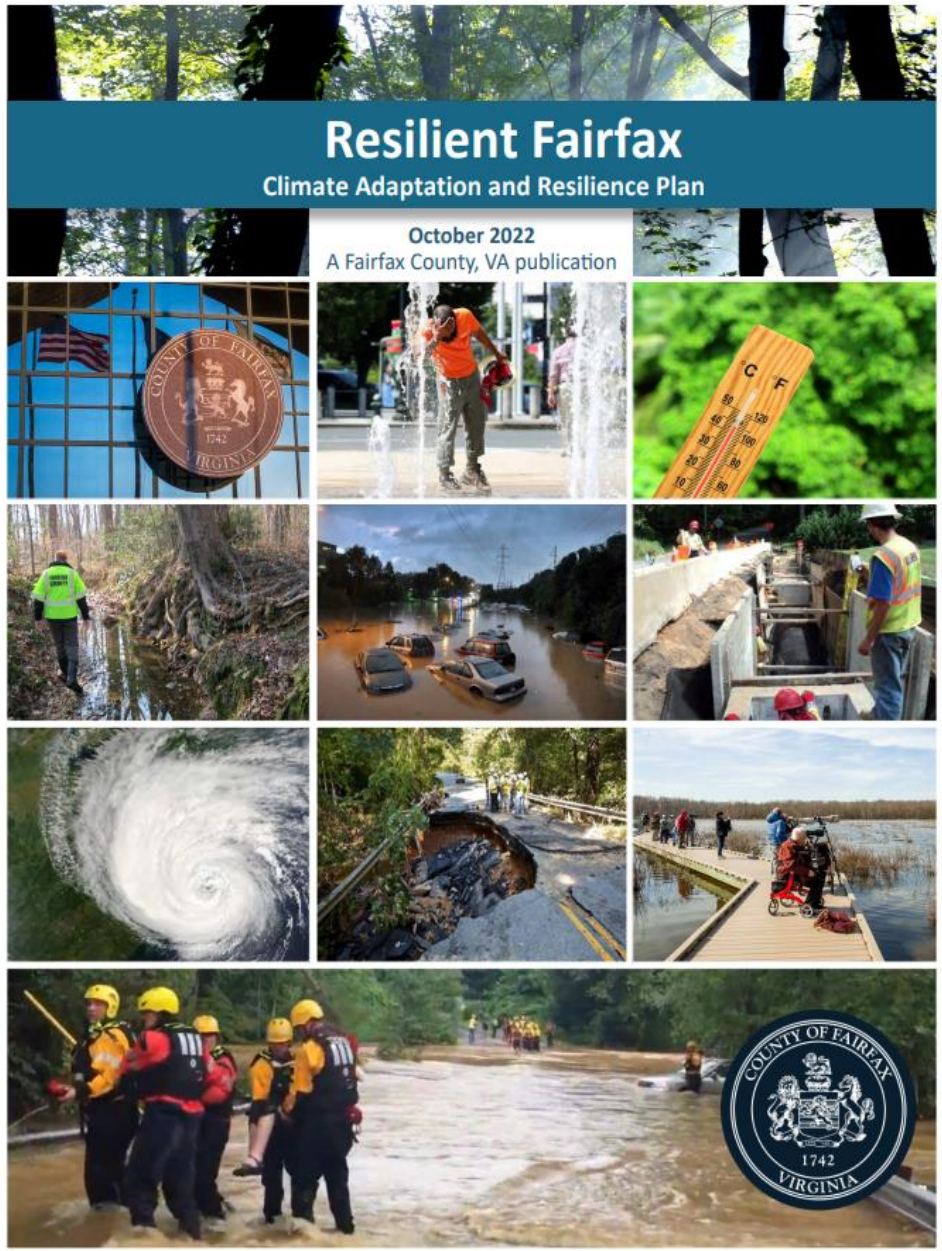
Purpose: To see how your government is currently doing in terms of resilience and find opportunities for improvement.

3. Audit of Existing Policies, Plans, and Programs

“How are we currently doing in terms of climate resilience?”

- ✓ 100+ Policies, Plans, and Programs reviewed by Consultants, Planning Team, IAG, CAG
- ✓ 50 Questions
- ✓ 8 categories

Category		Summary	
	**Governance**	Strong	Climate commitments, coordination, funding, staff
	**Water Infrastructure**	Strong	Drinking water, stormwater, wastewater plans & policies
	**Natural & Cultural Resources**	Strong	Floodplain regs, insurance, NR protections, incentives
	**Transportation Infrastructure**	Neutral	Transportation assessments, design, standards, upgrades
	**Buildings & Sites**	Neutral	Building code, site design, permitting, incentives
	**Energy Infrastructure**	Neutral	Grid assessments, back-up power, energy storage policies
	**Interdisciplinary/ Other**	Neutral	Data, resources, emergency management, incentives
	**Population Services**	Neutral	ID vulnerabilities, engagement, investments, resources



Parts 4 & 5: Strategies & Implementation Roadmaps

Purpose: To identify strategies to boost your locality's resilience, and roadmaps to make implementation easier.

4. Resilient Fairfax Strategy Pillars

Integrated Action Planning (IAP)

- Resilience into county plans and policies
- Resilience data collection
- Resilience funding
- Interagency coordination

Climate Ready Communities (CRC)

- Network of safe & resilient spaces
- Community capacity to prepare for, withstand, and recover from events
- Climate-ready development

Resilient Infrastructure & Buildings (RIB)

- Resilience in major county infrastructure decisions
- County building & facility resiliency
- Advocacy for external infrastructure resiliency, i.e., energy grid & transit

Adaptive Environments (AE)

- Protection of natural resources that enhance resilience
- Restoration of damaged areas with nature-based and natural solutions

48 Resilience Strategies Organized into 4 Pillars

5. Implementation Roadmaps for Each Prioritized Strategy

- ✓ Action Steps
- ✓ Leads
- ✓ Partners
- ✓ Timeline
- ✓ Cost
- ✓ KPIs/ Metrics
- ✓ Equity
- ✓ Co-benefits

Goal CRC.1 — Create Safe and Resilient Spaces for the Community

STRATEGY CRC.1b — Pursue Development of a Network of Resilience Hubs in Climate-Vulnerable Areas of the County

Strategy Description: Resilience hubs are community-serving facilities (often existing facilities) that distribute and centralize information and resources, connect residents to county assistance, support residents' resilience to climate events, and build community capacity and connection. These facilities are sometimes upgraded to enhance their physical resilience to climatic effects, to ensure continuity of service during climate hazards. Resilience hubs are typically located in existing facilities that are trusted by community members, such as recreation centers, community centers, libraries, non-profit facilities, or faith centers. On a day-to-day basis, hubs function as a space for community gathering or events, location for trainings, and as a centralized place for community members to seek resources. Resilience hubs are most effective when there is strong partnership between the local government (the county) and community organizations and/or networks; resilience hubs should be community-led and community-serving. This strategy will explore options for development of a network of resilience hubs in the areas of Fairfax County, with a prioritization for areas with the greatest need and that are most vulnerable to climate change impacts. Resilience hubs should not be confused with "shelter" facilities, which follow specific emergency management protocols and plans. Resilience hubs help to build greater community connection and enhanced capacity to adapt and respond to climate related events.

Climate Hazards Addressed:

Lead:	OEEC
Partners:	DEMS, DFS, DPD, DPSC, DPWES, FCHD, FCPA, FCPS, FMD, GIS, HCD, LDS, NCS, OCA, One Fairfax
Timeline:	Medium-Term (2-5 years)
Cost:	$$$ ($500k - $1 million)
Existing Staff:	Partial

What Are Resilience Hubs?
Resilience Hubs are community-serving facilities augmented to support residents, coordinate communication, distribute resources, and enhance communities' capacity to adapt to climate change. Existing community centers, libraries, and non-profit entities are among potential sites for resilience hubs.

Implementation Actions:

i.	Identify areas of the county where there is the greatest need and greatest benefit for resilience hubs. Utilize data sources such as Resilient Fairfax, One Fairfax data, Adaptation Action Areas, and others to determine these locations.
ii.	Inventory existing network of centers that could serve as "resilience hubs." Prioritize trusted locations within community, such as community centers (NCS), recreation centers (FCPA), places of worship, and non-profit facilities that provide essential services to the community. Coordinate with DEMs' identification of places to stay cool and OEEC's ESCO (Energy Service Company) work.
iii.	Compile site information to support evaluation of location for resilience hub. Consider building condition, location, transportation and access, site capacity, key climate hazards impacting that community, planned and/or required retrofits, typical operations and staffing, and other needs as identified by the community.
iv.	Conduct outreach to community organizations, nonprofits, faith groups, or other community serving groups in identified areas (CRC.2a) to begin county-community collaboration on the visioning of a resilience hub network in the community.
v.	Identify a pilot resilience hub location and work with facility managers and community partners to build out community resilience offerings.
vi.	Evaluate potential network of resilience hubs, with priority consideration to identified areas in CRC.2a and in collaboration with community partners. Consider staffing and funding needs for resilience hub implementation. As appropriate, explore establishing working groups for each resilience hub location.

Key Performance Indicators:

- Number of potential and actual Resilience Hub locations identified, pursued, and implemented by the county.
- Accessibility of Resilience Hubs within AAAs (e.g. travel distance, closest metro/transit, density per district).
- Number and demographics of community members served by Resilience Hubs.
- Number and type of community members aware of Resilience Hub locations and resources, measured through surveys.

Equitable Implementation:

- ✓ Work with communities to identify needs of vulnerable populations to ensure accessibility to resilience hubs.
- ✓ Work with communities to identify which areas of the county would benefit the most from or have greatest need for resilience hubs.
- ✓ Meet with community organizations and partners to foster collaboration and identify areas that will best serve as resilience hubs.
- ✓ Identify transportation/evacuation routes that would assist access to the hubs.
- ✓ Engage community members on what they want to see in a resilience hub.

Funding and Resource Opportunities:

- BRIC
- Community Development Block Grant

Co-Benefits:

Community Partners
Throughout the Resilient Fairfax plan development process, staff gathered recommendations for community partners, faith-based institutions, and other community organizations who may wish to participate in the implementation of this pillar's strategies. These organizations include but are not limited to: Cornerstones, George Mason Center for Climate Change Communication, Medical Society Consortium for Climate and Health, Virginia Clinicians for Climate Action, Faith Alliance for Climate Solutions, and American Lung Association.

Office of Environmental and Energy Coordination

Part 6: Implementation

Purpose: to bring the plan to life!

	Status of 18 Prioritized Strategies	% of Implementation Actions from RF Plan Complete*
1	IAP.1a: Comprehensive Plan Updates for Resilience	7%
2	IAP.2a: Resilience Metrics and Tracking System	42%
3	IAP.3a: County Climate Fund	10% **
4	IAP.3b: Pursue Federal and State Funding Opportunities	63%
5	IAP.4a: Long-term Interagency Collaboration System	60%
6	CRC.1a: Adaptation Action Areas	13%
7	CRC.1b: Resilience Hubs	33% **
8	CRC.2a: Community Aid and Services for Resilience Needs	6%
9	CRC.2b: Climate Resilience Guidance & Education	14%
10	CRC.3a: Flood Risk Reduction Plan	17%
11	CRC.3b: Heat-Resilient Design, Development, Practices	0%
12	CRC.3c: Zoning and Other County Code Amendments	5%
13	RIB.1a: Capital Improvement Program Process Updates	0%
14	RIB.1b: Flood Resilience for County-owned Buildings & Facilities	5%
15	RIB.2a: Advocate and Partner for Energy Resilience	25%
16	AE.1a: Consolidated Natural Resources Management Plan	<5%
17	AE.1b: Survey and Protect Areas that Provide Natural Resilience	10%
18	AE.2a: Green Infrastructure Projects for Climate Resilience	20%

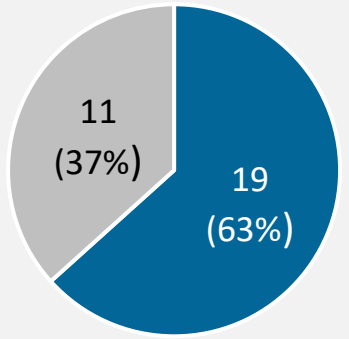
*Based on number of Implementation Actions complete out of total number **Staff recommend a potential change in approach based on new information and opportunities

Many of the 30 Additional (non-prioritized) Resilient Fairfax strategies have also started.

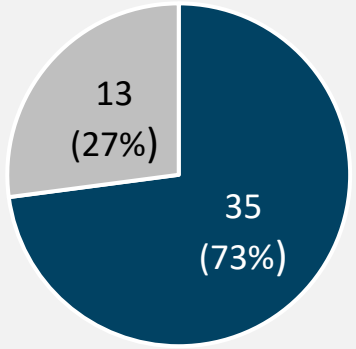
Status of ADDITIONAL Strategies	Started
IAP.1b: Strategic Plan Updates for Resilience	Yes
IAP.1c: Complete the Climate Health Plan	Yes
IAP.1d: Hazard Mitigation Coordination	Yes
IAP.2b: Climate Research Support	Yes
IAP.2c: Consolidated Flood Database	
IAP.2d: Rainfall Data	Yes
IAP.2e: Database for Hazard Mitigation Action	Yes
IAP.2f: Tree Canopy Data	Yes
IAP.2g: LiDAR Data Updates	
IAP.2h: Climate Vector-Borne Disease Data	
IAP.3c: Funding for Long-Term Data Collection	
IAP.3d: Additional & Private Funding	
IAP.4b: Build Staff Capacity on Resilience	Yes
CRC.1c: Targeted Tree Plantings	Yes
CRC.1d: C-PACE Expansion	Yes
CRC.2c: Resilience Related Workforce Devel.	

	Started
CRC.2d: Expand Heat Warning System	Yes
CRC.3d: Update Public Facilities Manual	
RIB.1c: Energy Resilience for County Bldgs	Yes
RIB.2d: Heat Resilience for County Bldgs	
RIB.1e: Resilient Procurement	
RIB.2b: Advocacy for Resilient Bldg Code	Yes
RIB.2c: Advocacy for Transportation Resilience	Yes
AE.1c: Conservation Easement Updates	
AE.1d: Climate in Urban Forestry	Yes
AE.2b: Stream Restorations	Yes
AE.2c: Urban Reforestation	Yes
AE.2d: Living Shorelines	Yes
AE.2e: Wetland & Floodplain Restorations	Yes
AE.2f: Regenerative Agriculture	

Status of ADDITIONAL Strategies



Status of ALL Resilient Fairfax Strategies



CRC.3a: Flood Risk Reduction

Implementation Actions Progress Bar	17%

Progress Updates

- Big picture purpose: reducing flood risk through:

1. Physical projects constructed by the county

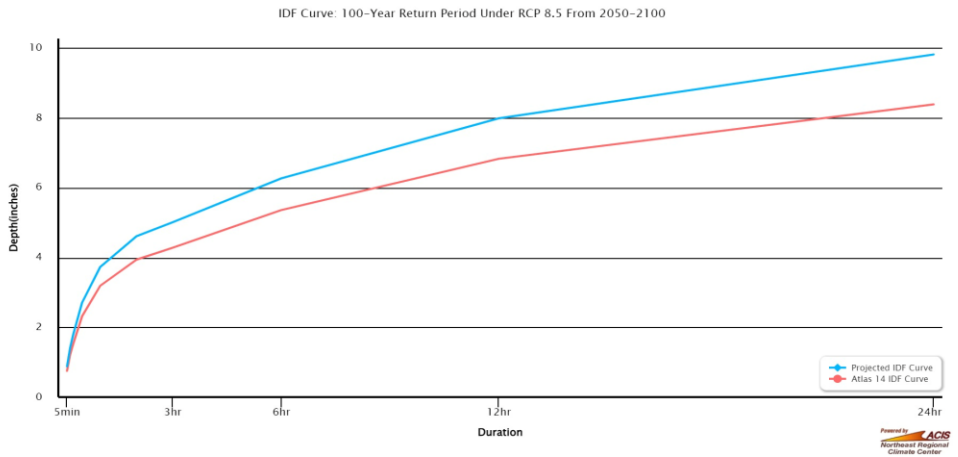
- DPWES manages dozens of Stormwater Improvement Projects
- Resilient Fairfax implementation → updates how/where projects are prioritized (AAAs, CIP updates)

2. Development/ design standards

- Interagency team led by LDS and DPWES for analysis of flood risk areas, design standards, flooding level of service, and options
- Task Order with Consultant for study
- Climate change included, using Resilient Fairfax data

3. Community outreach and education

- DPWES and NVSWCD currently provide outreach and education
- Resilient Fairfax: boost education, interagency collaboration



RIB.1a: Update Capital Improvement Program (CIP) Prioritization to Include Resilience

Two Major Purposes

1. **Ensure that infrastructure and facilities built today can withstand new climatic conditions, for durability.**
   - i.e., ensure roads, facilities, SWM pipes in CIP are using updated design standards and/or updated data.
2. **Ensure that critical stand-alone resilience projects are prioritized.**
   - E.g., flood risk reduction projects in most flooded neighborhoods

Funding and Resource Opportunities:

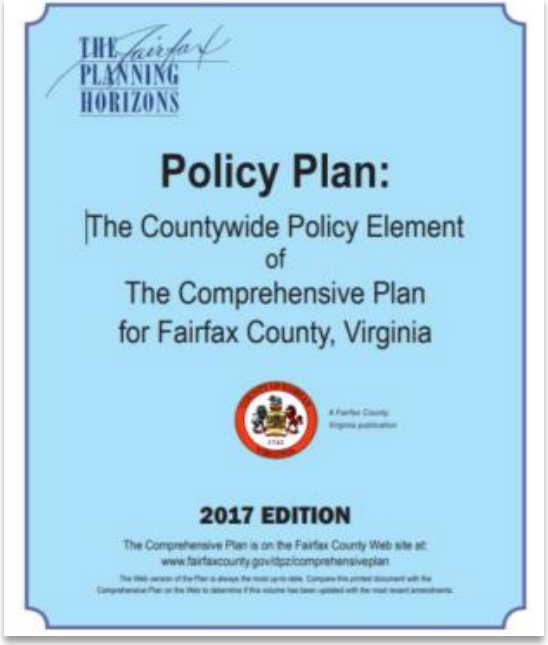
- BRIC
- Hazard Mitigation Grant Program (HMGP)

Climate Hazards Addressed:

Lead:	DMB, DPWES, OEEC
Partners:	DEMS, DPD, DPWES, FCDOT, FCPA, OCA, One Fairfax, UFMD
Timeline:	Medium-Term (2-5 years)
Cost:	$$ ($100k - $500k)
Existing Staff:	Partial

- ✓ Alignment with other strategies, such as CRC.3a (Flood Risk Reduction Plan), CRC.3c (Amendments to County Code)
- ✓ Interagency team currently working to update stormwater design standards

Strategy IAP.1a: Comprehensive Plan Updates



- A **guide** for development and land use
- **Public Facilities Element** amendment underway
- **Environmental Policy Plan** amendment started 2023
- **Transportation, Land Use** also starting; aligned
- **CECAP** (emissions reduction) simultaneously

Examples of Relevance to Climate Resilience

- Public facilities resilience to flooding, heat
- Avoiding flood-prone areas (both urban and floodplain)
- Protecting natural resources that provide resilience
- Encouraging developments to be in climate-safe areas and designed to be climate-resilient.
- Green building standards

Strategy CRC.3c: Zoning & Other County Codes

- **Regulate & enforce** development and land use
- **Landscaping and Screening & Parking Reimagined** underway
- Additional **Zoning** and other **Code** updates upcoming, to implement Flood Risk Reduction (Strategy CRC.3a) and other needs

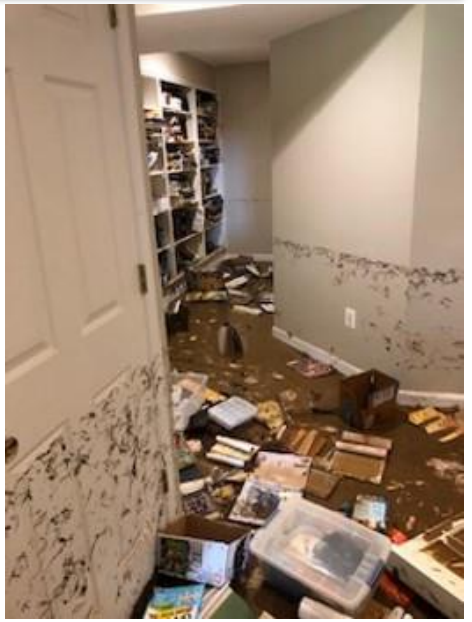
Examples of Relevance to Climate Resilience

- Reducing impervious cover, encouraging green space and native/adapted plant species
- Development that is climate-ready and resilient
- Locating homes and facilities away from hazardous areas
- Building setbacks and elevations above floods
- Stormwater conveyance design standards

CRC.2a, CRC.2d: Community Aid and Services

Flooding-Related Aid and Services for Populations

- **Exploring:** New DPWES/NVSWCD Flood Mitigation Assistance Program (small grants for residential flood mitigation)
  - *Window protections/ floodproof windows*
  - *Flood gates, flood barriers*
  - *Sump pumps, flood vents, drains*
  - *Utility protections, flood alert systems, flood pumps*
  - *Flood-resistant building materials*
  - *Exterior flood risk reduction, grading, drains, obstruction removal*
- **Continuing:** Flooding service requests (DPWES)
- **Continuing:** Conservation Assistance Program (NVSWCD)
- **Continuing:** Emergency response, preparedness (DEMS)
- **Continuing:** Aid and health and human services for especially exposed populations, such as those experiencing homelessness (DHCD, OPEH, CSB, FCHD, NCS, FCPS, One Fairfax)
- (There are a range of services for extreme heat and other hazards, too).



Survey and Protect Areas that Provide Natural Resilience

Progress Bar	5%

- Details: Resilient Fairfax Plan – Pg 81
- Field surveys of sensitive land
  - **FCPA:** Natural vegetation surveys happening in northern and western part of Park Authority land currently.
  - **DPWES:** Conducting surveys as well

❑ Update GIS database of natural areas in need of stronger protections

❑ Identify land prioritized for protective status

❑ Strategic partnerships and financing for conservation & protection

Climate Hazards Addressed:

Lead:	FCPA, NVSWCD
Partners:	DPD, DPWES, FCDOT, OCA, OEEC, UFMD
Timeline:	Long-Term (5-8 years)
Cost:	$$$ ($500k - $1 million)
Existing Staff:	Partial

AE.2b, AE.2e: Stream, Wetland, Floodplain Restorations

- **At any given time, there are many stream, wetland, and floodplain restoration projects ongoing in the County.**
- **FCPA: Helping Our Land Heal Program: 20 projects**
  - Ellanor C. Lawrence Forest Restoration
  - Green Spring Gardens Park Wetland Restoration
  - Huntley Meadows Wetland Restoration
  - Old Colchester Park and Preserve Wetland Restoration
- **DPWES: Stormwater Improvement Restorations: 103 projects**
  - Accotink Tributary at Danbury Forest
  - Crook Branch at Mantua Elementary
  - Little Pimmit Run Tributary at Terrace Stream
  - Long Branch Central Watershed
  - Old Courthouse Spring Branch at Ashgrove
  - Popes Head Creek at Breacon Ridge

AE.2a: Green Infrastructure Projects with Resilience Benefits

Progress Bar	20%

- Can support stormwater management & Urban Heat Island reduction
- Project should have genuine net benefits (e.g., not clear-cutting forest for a building with GI)
- **DPWES:** GI within stormwater projects
- **FCDOT:** GI within transportation projects and plans
- **NVSWCD:** Small-scale GI for residents, private properties
- **DPD:** GI in plan review

Funding and Resource Opportunities:

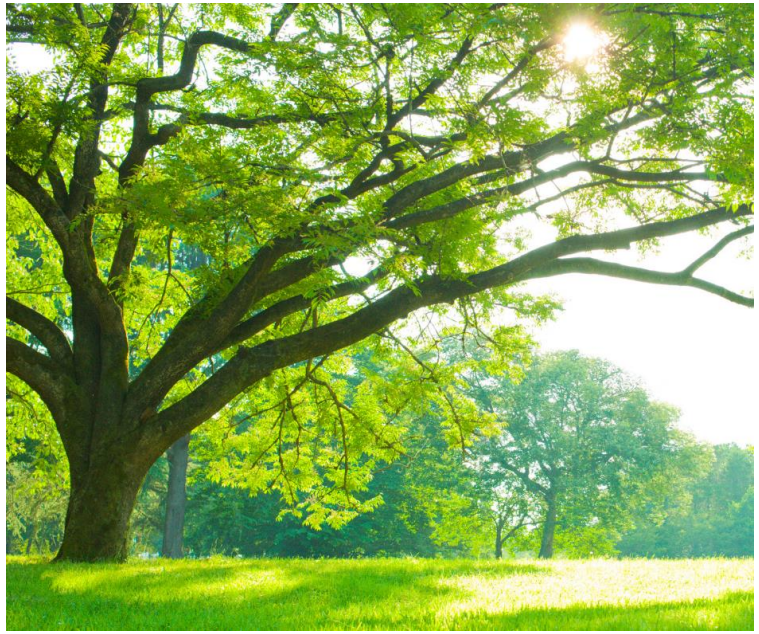
- BRIC
- HMGP
- Flood Mitigation Assistance Grant
- Virginia Community Flood Preparedness Fund
- Healthy Streets Program

Climate Hazards Addressed:

Lead:	FCDOT, DPWES, NVSWCD
Partners:	DPD, FCPA, FCPS, LDS, OEEC, UFMD
Timeline:	Medium-Term (2-5 years)
Cost:	$$$ ($500k - $1 million)
Existing Staff:	Partial

- ✓ Guidance for businesses, homeowners, HOAs
- ✓ Workshops & promotion of existing GI programs
- ✓ Integration of GI into CIP projects where appropriate
- ✓ Prioritization of native or climate-resilient plants

AE.1d, AE.2c, CRC.2c: Tree Plantings and Urban Forestry



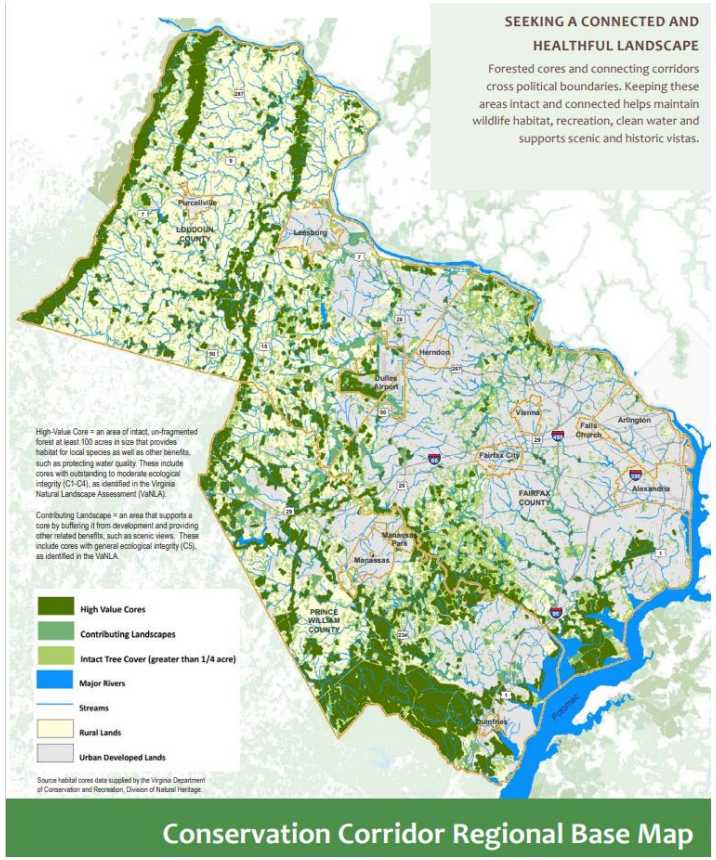
- **19+ existing tree planting programs** in Fairfax County
  - Government: Alien Invaders Program, Buy Virginia Trees, NVSWCD Programs, Park Volunteer Programs, Tree Planting and Preservation Fund (TPPF), Tree Planting at Your School, Trees Please, Watch the Green Grow. Additionally, these entities enforce tree rules and protections, conduct tree planting, maintenance, and science, and provide a range of tree-related education and resources.
  - Arbor Day Foundation, Audubon Naturalist Society of Northern Virginia, Earth Sangha, Fairfax ReLeaf, Falls Church Neighborhood Tree Program, McLean Trees Foundation, Plant NOVA Natives, Plant NOVA Trees, Fairfax County Master Gardeners Association, and Virginia Native Plant Society,

- Streamlining and expanding these efforts through the new **Fairfax County Tree Canopy Program**

Consolidated Natural Resource Management Plan

Details:

- Resilient Fairfax Plan – Pg 79 | CECAP Implementation Plan – Pg 58



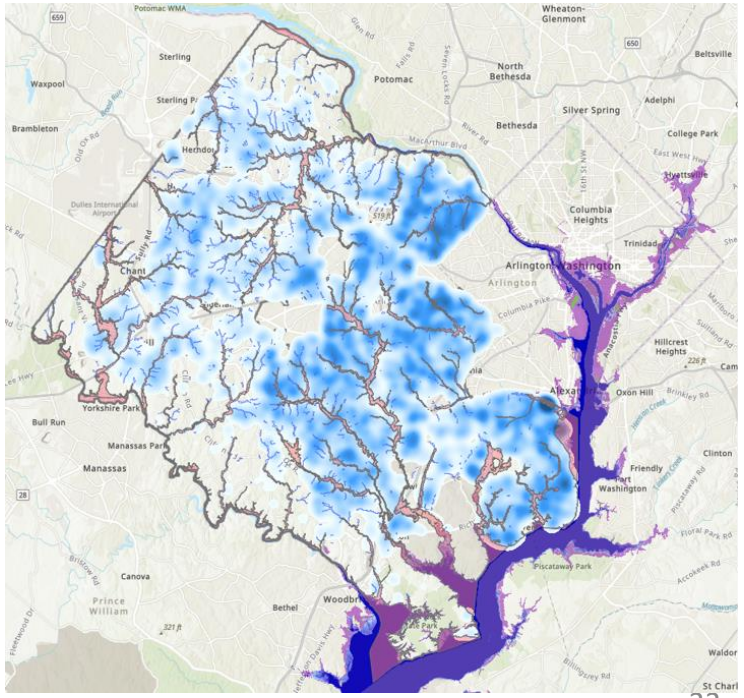
Conservation Corridor Regional Base Map

To more systematically plan and manage:

- Tree canopies and forests
- Parkland
- Conserved land
- Stream corridors and valleys
- Water bodies
- Shorelines
- Wetlands
- Green infrastructure
- Critical habitats
- Other natural resources

IAP.2b, IAP.2c, IAP.2d, IAP.2h, Climate Research and Data

- **Fairfax County + GMU's Virginia Climate Center**
  - Vector-borne disease research
  - Digital Twin and other modeling
  - Resilience Hub Step-by-Step Guide Creation
- **Fairfax County + NVRC + MARISA**
  - Flooding and precipitation change
  - How design standards should change
- **Fairfax County + various tree partners**
  - Urban forestry and tree data updates
- **Adaptation Action Area Mapping**
  - Prioritizing areas on a map that are both climate-vulnerable and socioeconomically vulnerable.



IAP.3b: Pursue Federal and State Funding Opportunities

Implementation Actions Progress Bar	63%

Progress Updates:

- ✓ **Funding and Grant Tracker shared with all relevant departments**
- **Lost:** Applied for but did not receive RAISE grant (DOT)
- ✓ **Won:** DPWES recently won 4 Community Flood Preparedness Fund grants for flood risk reduction ($15.7 million)
- ✓ **Pending:** OEEC applied for EPA EJG2G Grant for Resilience Hub w/ FACS, GMU, Rising Hope, NVSWCD. ($1 million)
- ✓ **Pending:** DPWES applied for USDA IRA Urban and Community Forestry (UCF) grants for street tree planting ($11.5 million) and urban forestry management ($10.7 million)
- ✓ **Pending:** DPWES & Fort Belvoir applied for Defense Community Infrastructure Pilot (DCIP) for Accotink wastewater pump station rehabilitation ($24 million, $7.2 million local match)

DCR Virginia Department of Conservation & Recreation

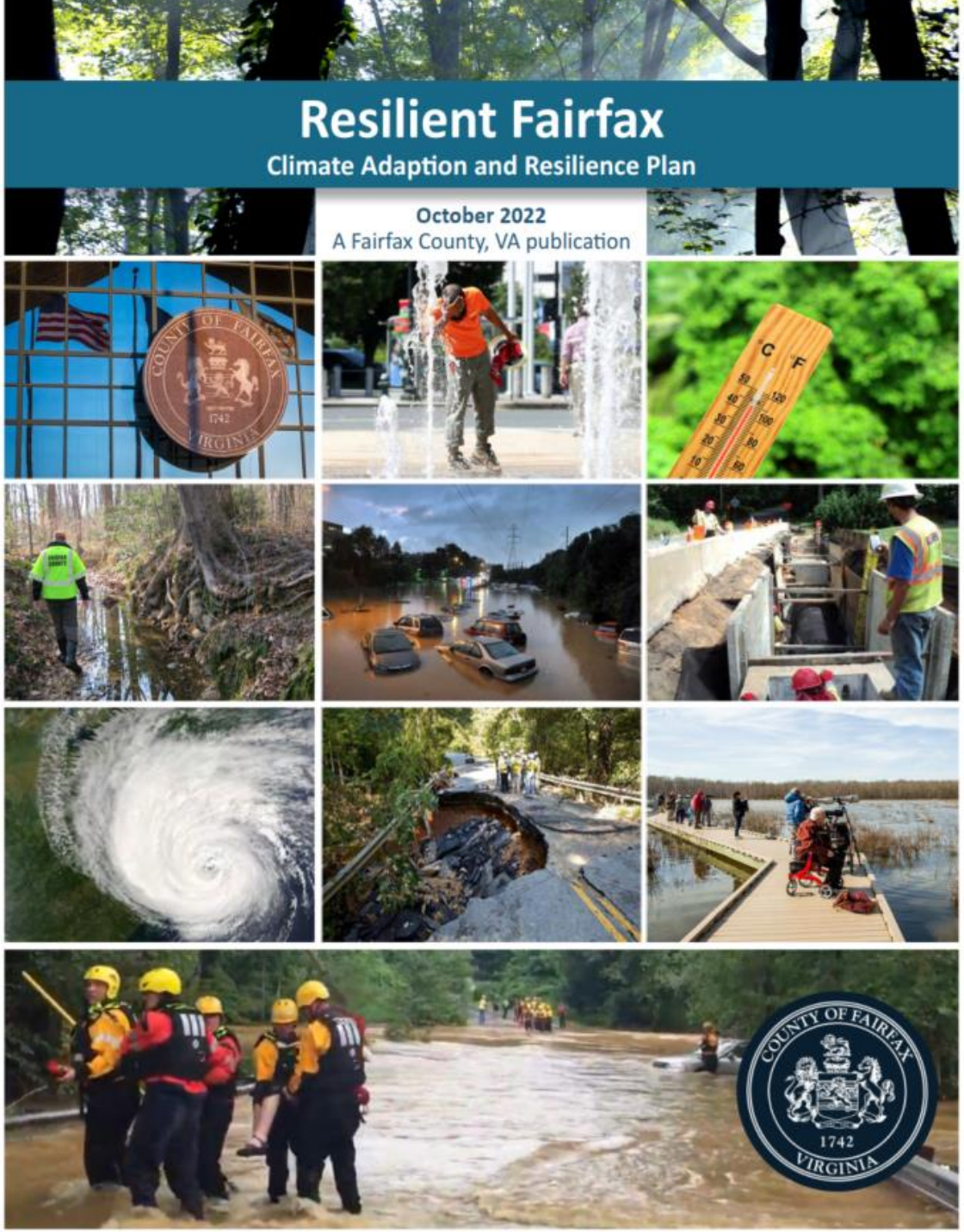
EPA

FEMA

U.S. DEPARTMENT OF ENERGY

U.S. Department of Transportation Federal Highway Administration

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



Questions & Comments?

Contacts:

- **John Morrill**| Interim Director, OEEC
  John.Morrill@fairfaxcounty.gov
- **Matt Meyers** | Division Director (*Climate Programs)*
  Matthew.Meyers@fairfaxcounty.gov
- **Allison Homer** | Planner IV *(Resilient Fairfax)*
  Allison.Homer@fairfaxcounty.gov