



# Resilient Fairfax

*Climate Adaptation and  
Resilience Plan*

## Public Meeting #3

February 1, 2022

6:30 pm



Office of Environmental and Energy Coordination

CADMUS



# Welcome!

## Resilient Fairfax Public Meeting #3





# Agenda

- I. Introduction & Project Recap
- II. Resilient Infrastructure & Buildings
- III. Climate Ready Communities
- IV. Adaptive Environments
- V. Integrated Action Planning
- VI. Next Steps

# Background: Difference Between the Climate Plans

Fairfax County is addressing both the **cause** and the **effects** of climate change

## CECAP / Carbon-Free Fairfax



### **Cause: Reducing emissions that lead to global climate change**

- Examples: Transition to renewable energy, energy efficiency, waste reduction, alternative transportation
- Community-led plan, because 95% of emissions are from the community
- January 2020 – July 2021 planning process
- Now transitioning to implementation → [Carbon Free Fairfax](#)

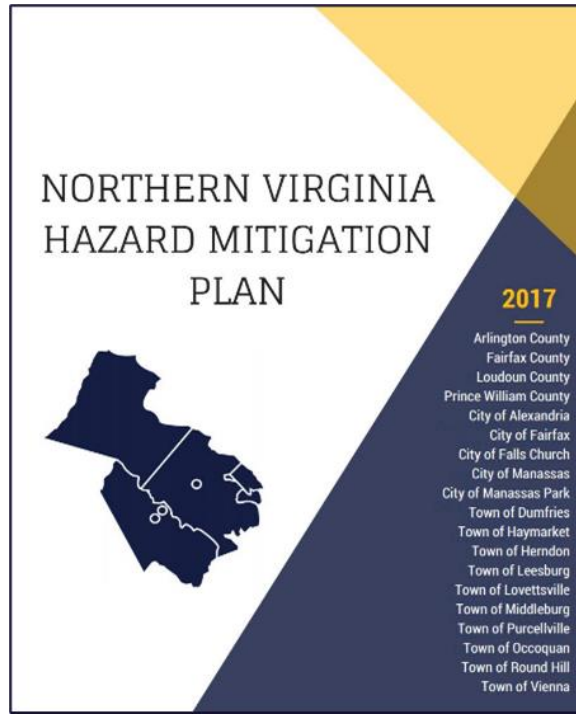
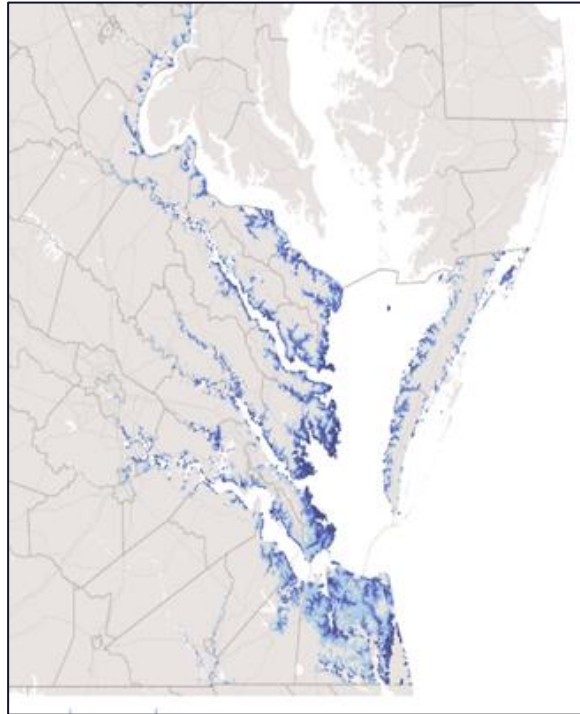
## Resilient Fairfax (*focus of this meeting*)



### **Effects: Adaptation & resilience to climate hazards**

- Examples: Resilience and ability to handle flooding, extreme temperatures, extreme weather, health hazards, precipitation pattern changes
- Led by government, because responsible for infrastructure and service upgrades
- Feb 2021 – Fall 2022 planning process

# Concurrent Plans, Programs, Policy Updates

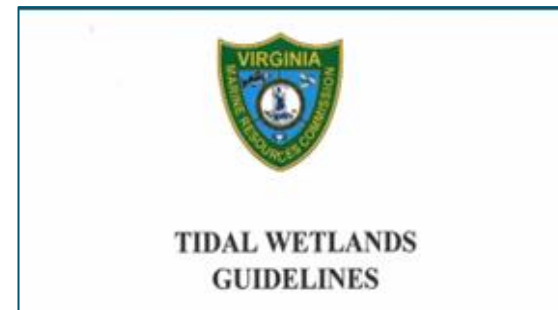


VA Coastal Resilience Master Plan

NOVA Hazard Mitigation Plan

Fairfax County Strategic Plan

USACE Coastal Storm Risk Study



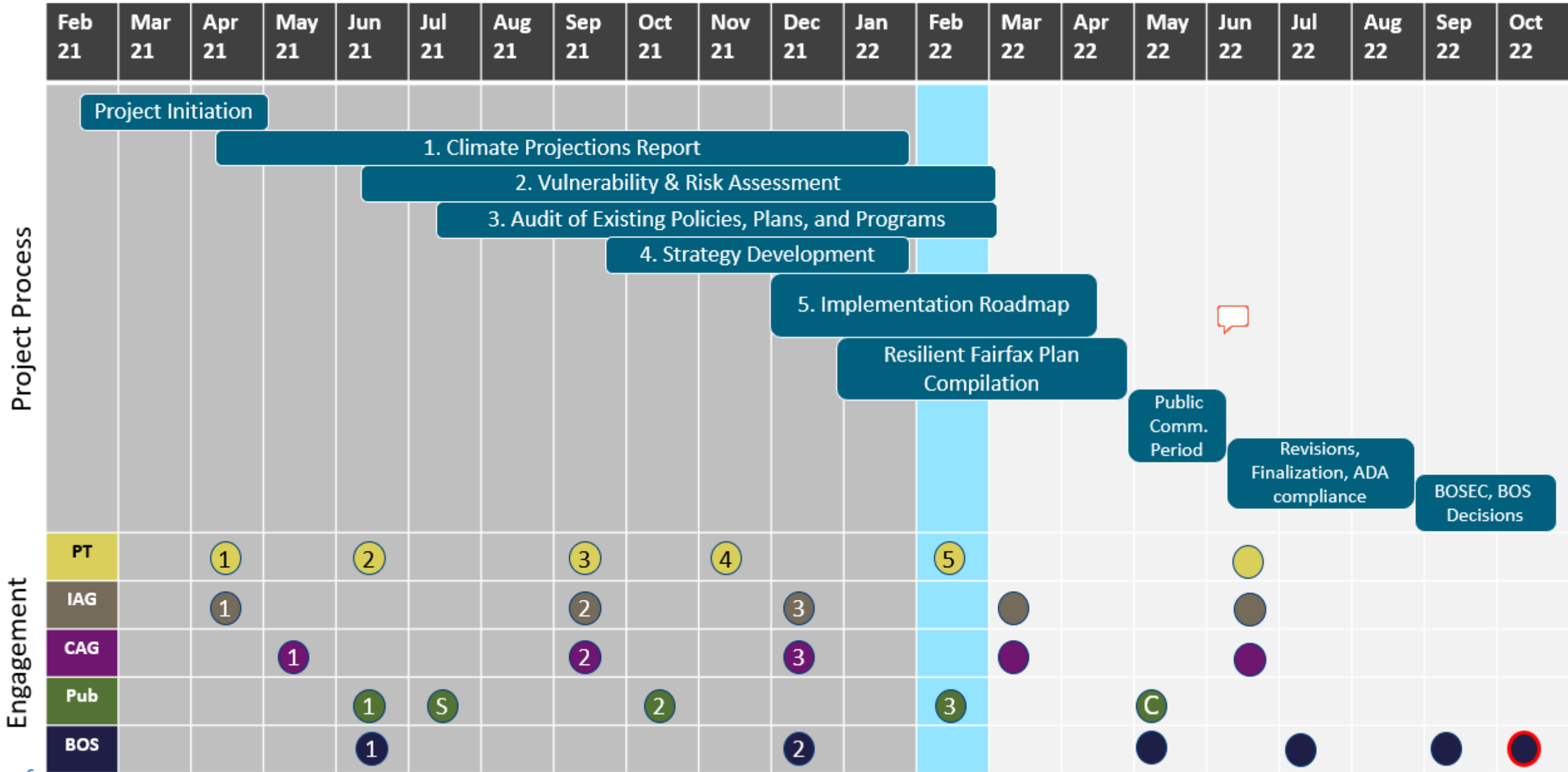
VDEQ Ches. Bay Reg. Amend.

CSN IDF Curve Research

VMRC Tidal Wetlands Guidelines

Ongoing regional resilience work

# Resilient Fairfax Planning Timeline



# Meeting Goals & Reminders

## Meeting Objective:

- Solicit public feedback on draft **adaptation & resilience strategies** for Resilient Fairfax

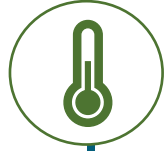
## Things to keep in mind today to help shape the strategies:

- Consider how the strategy could **better address needs of your community**, particularly those most vulnerable
- Strategies are still **DRAFT form**; continued opportunities to provide feedback

## Ground Rules:

- Step up; step back
- Speak openly & honestly and/or add your comments in the chat
- Listen carefully and respectfully to each person
- Please stay on topic – this meeting is about **Resilient Fairfax**
- For other questions or comments, please contact [OEECinfo@fairfaxcounty.gov](mailto:OEECinfo@fairfaxcounty.gov)

# Resilient Fairfax: Project Recap



## Climate Projections Report (Done)

*"What will our climate be like in the future?"*



## Vulnerability & Risk Assessment (Near Final)

*"Given those projections, where are we vulnerable?"*



## Audit of Existing Policies, Plans, and Programs (Near Final)

*"How are we doing as a county in terms of resilience?"*



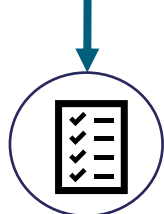
## Strategies (Finalizing)

*"What can we do to enhance our resilience?"*



## Implementation Roadmap (Ongoing: Winter 2021-Spring 2022)

*"How should we implement the strategies?"*



## Climate Adaptation & Resilience Plan (Summer 2021)

*Above rolled into one "Resilient Fairfax" plan + interactive maps, fact sheets, & resources*



# Resilient Fairfax: Project Recap, cont.

## 1. Climate Projections Report:

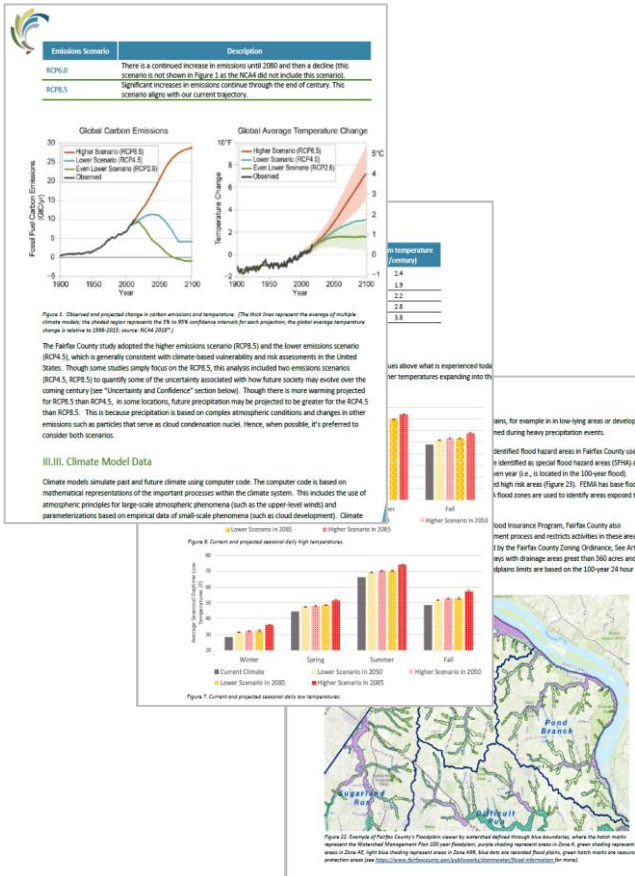
Future climate conditions and hazards

## 2. Vulnerability & Risk Assessment:

Vulnerability of assets, systems, and populations to climate threats & top risks

## 3. Audit of Policies, Plans, & Programs:

Strengths and gaps of existing county policies, plans, programs



### XII. STORMS AND WINDS CAUSING VULNERABILITIES DUE TO POWER OUTAGES

Storm and wind events are projected to increase in intensity and frequency in Fairfax County. Fairfax County typically experiences a range of storm events each year, including thunderstorms, tropical cyclones, high wind events, and mid-latitude frontal storms. For more information on the projected frequency of such events, see Section 30, Storms and Winds Causing Detours, Damage and Unsafe Conditions.

Such events have historically led to power outages across the county due to downed power lines. Examples of past severe storm events in Fairfax County include:

- In 2015, a severe thunderstorm knocked down Dominion Energy poles and wires, which affected about 8,000 customers.<sup>114</sup>
- On May 14, 2018, a line of severe thunderstorms tracked over 400 miles, producing high winds and wind damage from Ohio through Virginia.<sup>115</sup> Within Fairfax County, there were reported downed trees, falling, and roofing shingles in the streets. Tens of thousands of power outages occurred within both Fairfax County and Loudoun County.<sup>116</sup>
- In April 2021, two cold fronts brought wind gusts of 40 to 60 mph, which knocked down power lines around Fairfax County, leaving 44,000 Dominion Energy customers without power with more than 25,000 of those in Fairfax.<sup>117</sup>
- In April 2022, two cold fronts brought wind gusts of 40 to 60 mph, which knocked down power lines around Fairfax County, leaving 44,000 Dominion Energy customers without power with more than 25,000 of those in Fairfax.<sup>118</sup>

Within Fairfax County, there are known county facilities more susceptible to power outages than others as well as facilities that tend to be prone to losing power during storm events (see following graphic). These facilities are particularly important for the services they provide to the community.

County facilities that are known to be prone to power outages during storm events	High Risk
Public Health Unit	• Electrical Infrastructure
Newborn Hearing Methodics	• General Population
Public Health Family Doctor	• Vulnerability Population
Domestic Violence Shelter	• Drinking Water
Health Department Clinic and Health Services	• Emergency Response
Health Department Inspection	• Health and Community Services

**Water Infrastructure**

County as precipitation on average is never, episodic drought may still pose to this hazard, particularly in the change-related impacts to the B report. Fairfax County, located in 2002, 2007, and 2010.

**Score**

Exposure = 1 (Low)

**Sensitivity = 3 (High)**

Water availability is dependent on precipitation. Drought can also lead to chemicals for water treatment plants with contaminants that cause higher risk to using water from a fast enough rate to support well.

**Impacts?**

**Score**

Adaptive Capacity = 2 (Moderate)

Drinking water has a moderate adaptive capacity to drought. Measures have been taken to reduce the worst of the drought's impact on the drinking water system, but the potential harm on the system and water supply still remains.

The Northern Virginia Regional Water Supply Plan (NVRSP) documents the Metropolitan Washington Council of Governments (MWCOG) plan. The MWCOG has established drought response activities. During drought conditions, Fairfax County uses the drought stages as defined by the drought declaration of the Metropolitan Washington Water Supply and Drought Awareness Response Plan<sup>119</sup> (shown in the table below) to reduce public water use and mitigate impacts on drinking water supply. This increases public awareness, asking water customers to voluntarily conserve water and reduce

Management Strategy	12	12	12	4	4	6
Public Health Unit	12	12	12	4	4	6
Newborn Hearing Methodics	12	8	8	4	4	1

### V. Transportation

T-1 Has a vulnerability assessment been completed for transportation infrastructure across jurisdictions/levels of government?

**Relevance:**

Transportation infrastructure (including roadways, bridges, public transportation, rail, bicycle, scooter, and pedestrian infrastructure, and floating stations) can be highly vulnerable to climate effects. Impacts to transportation infrastructure can cause cascading additional impacts, such as lack of access to emergency services or evacuation routes. Transportation infrastructure is often maintained and managed by multiple levels of government or jurisdictions (i.e., VDOT, FDOT, MWCOG, Washington Metropolitan Area Transit Authority (WMATA), Virginia Department of Public Safety, and others). Therefore, vulnerability assessments that are coordinated across these authorities may be helpful in planning for comprehensive transportation network resilience.

**Findings:**

Consultant score: 3

Not Strong at All | Not So Strong | Neutral | Strong | Very Strong

**Federal and State-level assessments:**

At the federal level, FEMA conducts Preliminary Damage Assessments after natural disasters. FEMA then uses these estimates to determine the type and amount of aid that is made available. These estimates typically include loss estimates to infrastructure, property, and crops. The National Oceanic and Atmospheric Administration (NOAA) and the US Army Corps of Engineers also conduct studies and maintain robust data on natural disasters and vulnerabilities, such as vulnerabilities to severe storms, projected sea level rise and coastal storm surge, among other hazards. The National Climate Data Center database also tracks impacts from extreme weather events.

It should be noted that the existing roadway network in Fairfax County is largely maintained and operated by VDOT, and not FDOT. At the state level, VDOT maintains a comprehensive database of roadway conditions.

Currently, the Commonwealth of Virginia is conducting transportation climate vulnerability and risk assessments related to coastal flooding as part of the Virginia Coastal Resilience Master Plan. Transportation assets evaluated for coastal flooding include roadways, bridges, rail and public transit lines, and other infrastructure.

Recent legislation (H 1217) requires VDOT to identify public transportation infrastructure in Planning District 8 that is at risk of deterioration due to recurrent flooding. Fairfax County is in Planning District 8, but VDOT staff note that they are identifying vulnerable infrastructure statewide.

**Opportunities:**

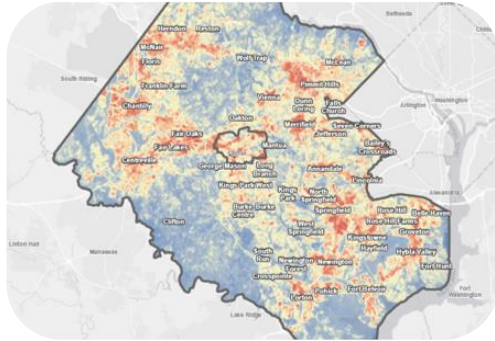
- There is an opportunity to increase advocacy and call for stronger codes and standards at the state level.
- The county can develop voluntary resilience design guidelines and/or resilience checklists.
- The county can help expand educational opportunities for building owners, developers and engineers ensuring they have access to climate projections that will affect buildings and need to be implemented in resilience practices on county buildings.

**Resilient Fairfax | Audit of Policies, Plans, and Programs**

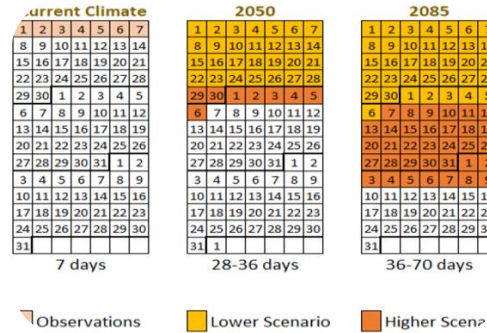
Policy/Plan/Program	1	2	3	4	5
Virginia Coastal Resilience Master Plan					
Northern Virginia Rail & Water Corridor					
Other County Rail					
Northern Virginia Rail & Water Corridor					
Other County Rail					
Northern Virginia Rail & Water Corridor					
Other County Rail					
Northern Virginia Rail & Water Corridor					
Other County Rail					

# Project Recap 1: Climate Projections Report

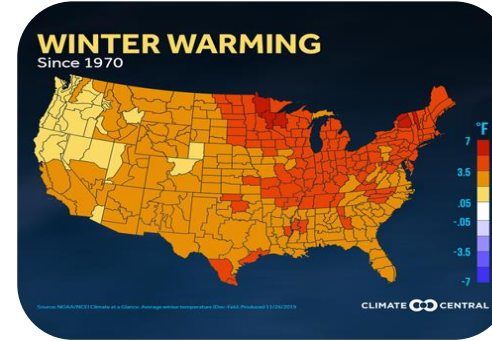
*What climate conditions and hazards is Fairfax likely to face in the future?*



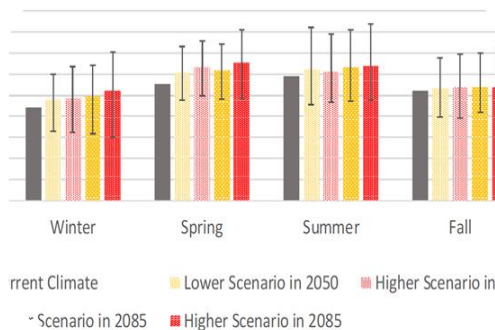
**Warmer annual & seasonal temperatures**



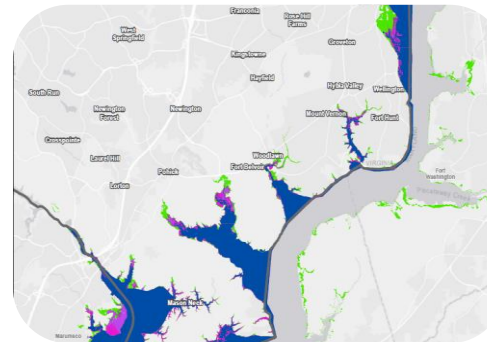
**More extremely hot days**



**Reduction in cold days**



**Increase in annual and seasonal precipitation**



**Increase in sea level & coastal flooding (Potomac River)**



**Increase in heavy precipitation events**

# Project Recap 2: Vulnerability and Risk Assessment

## Fairfax County's Top Vulnerabilities



**Exposure:** is the population/ infrastructure exposed to the hazard?



**Sensitivity:** when exposed to the hazard, does something bad happen?



**Adaptive Capacity:** are we able to adapt to the hazard?

**Total Vulnerability =**

Exposure x Sensitivity x Adaptive Capacity

Sector	Subsector	Extreme Heat	Heavy Precipitation and Inland Flooding	Severe Storms and Wind	Extreme Cold	Coastal Flooding	Drought
Water infrastructure	Drinking Water	8	8	18	9	4	6
	Stormwater	4	12	4	2	4	2
	Wastewater	8	12	4	4	6	2
Energy & Comms	Electricity	18	8	18	6	8	4
	Natural Gas	1	8	8	6	2	1
	Communication	4	8	12	2	0	2
Transportation	Roadways	12	18	18	4	6	4
	Public Transit	12	12	12	4	4	0
	Bike & Ped	12	8	12	4	8	0
Buildings	Buildings	6	18	18	2	18	2
Populations	General Population	12	12	12	4	12	2
	Vulnerable	27	18	18	12	18	4
Natural & Cultural	Water Bodies	12	12	8	2	12	6
	Wetlands and Environmentally Sensitive Areas	12	12	8	2	12	6
	Trees and Forested Areas	12	12	18	9	2	18
	Agricultural Districts and Farms	18	12	18	6	6	12
	Cultural and Historical Resources	4	12	12	2	6	0
Public Services	Health and Community Services	12	8	18	4	6	2
	Emergency Response and Management Services	18	12	27	4	9	6
	Parks and Recreational Facilities	12	12	12	4	4	6
	Waste Management	12	8	8	4	4	1

# Project Recap 2: Vulnerability and Risk Assessment, cont.

## *Fairfax County's Top Risks*



**Heavy precipitation causing inland flooding of communities**



**Combined events impacting natural systems**



**Storms & wind causing debris, damage, and unsafe conditions**



**Storms & wind causing vulnerabilities due to power outages**



**Extreme heat causing health related impacts**



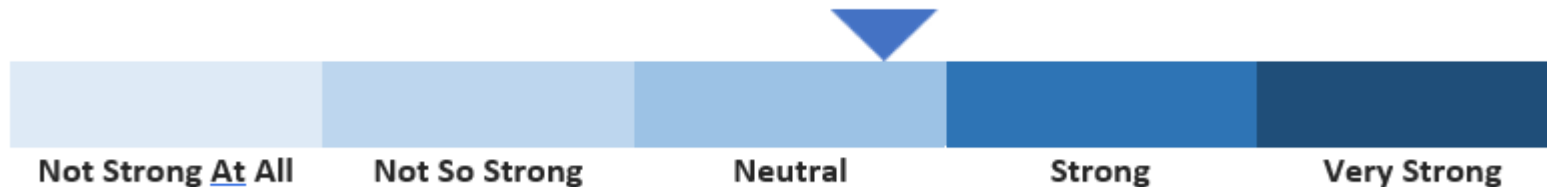
**Coastal flooding (Potomac River) impacts**

# Project Recap 3: Audit

By reviewing existing programs, plans, and policies related to climate resilience, the Audit helps to identify:

- 1) Where Fairfax has **already begun to implement best practices** for increasing resiliency,
- 2) **Opportunities** to expand, extend, or accelerate **existing initiatives**, and
- 3) **Gaps** where **new strategies** or policy updates may be needed to address climate resiliency needs.

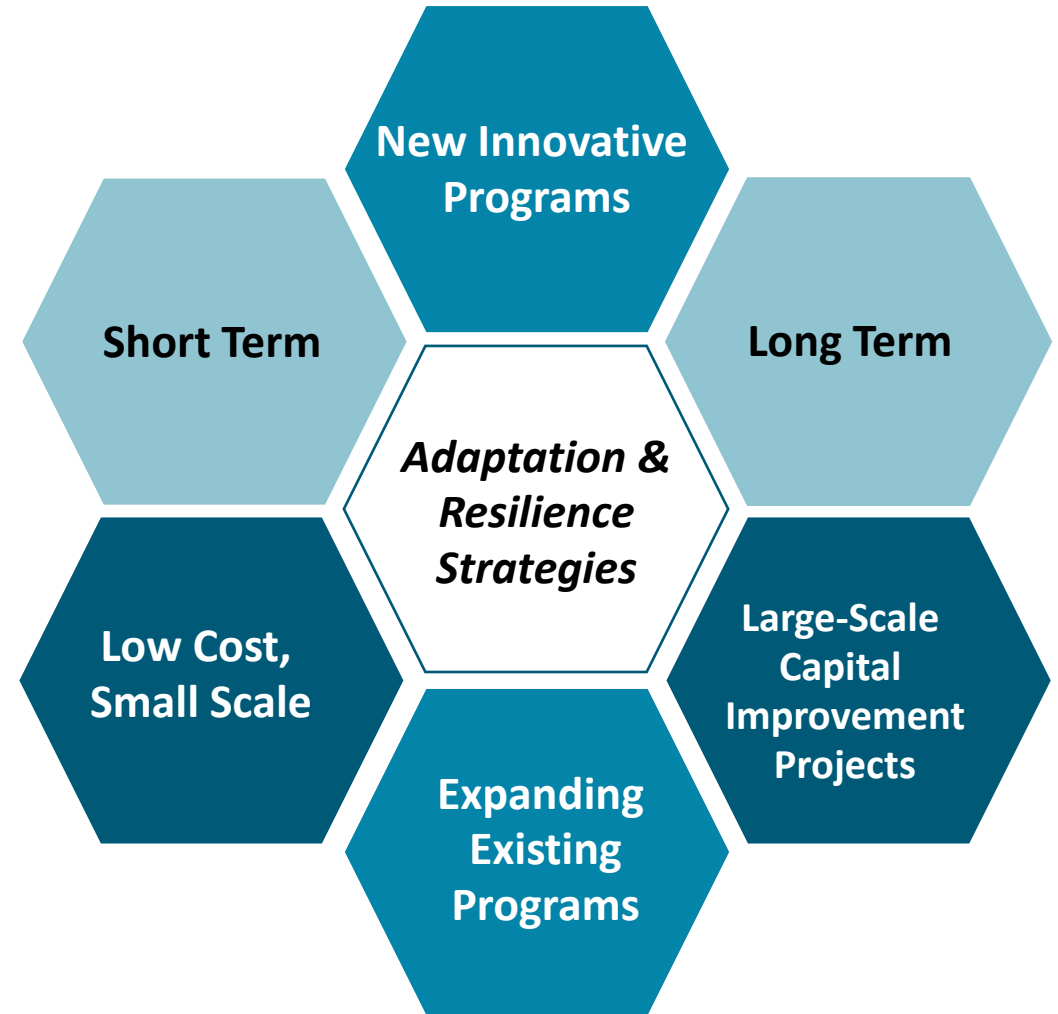
The image shows a screenshot of a report titled "Resilient Fairfax: Audit of Existing Policies, Plans, and Programs". The cover includes the Fairfax County seal and the text "Prepared for: Fairfax County Office of Environmental and Energy Coordination and Resilient Fairfax Planning Team". To the right, a table of contents is visible, listing sections such as "Introduction", "Methodology", "Findings", and "Recommendations". A blue arrow points from the "Findings" section of the table of contents to a specific page in the report, which is highlighted in the main image.



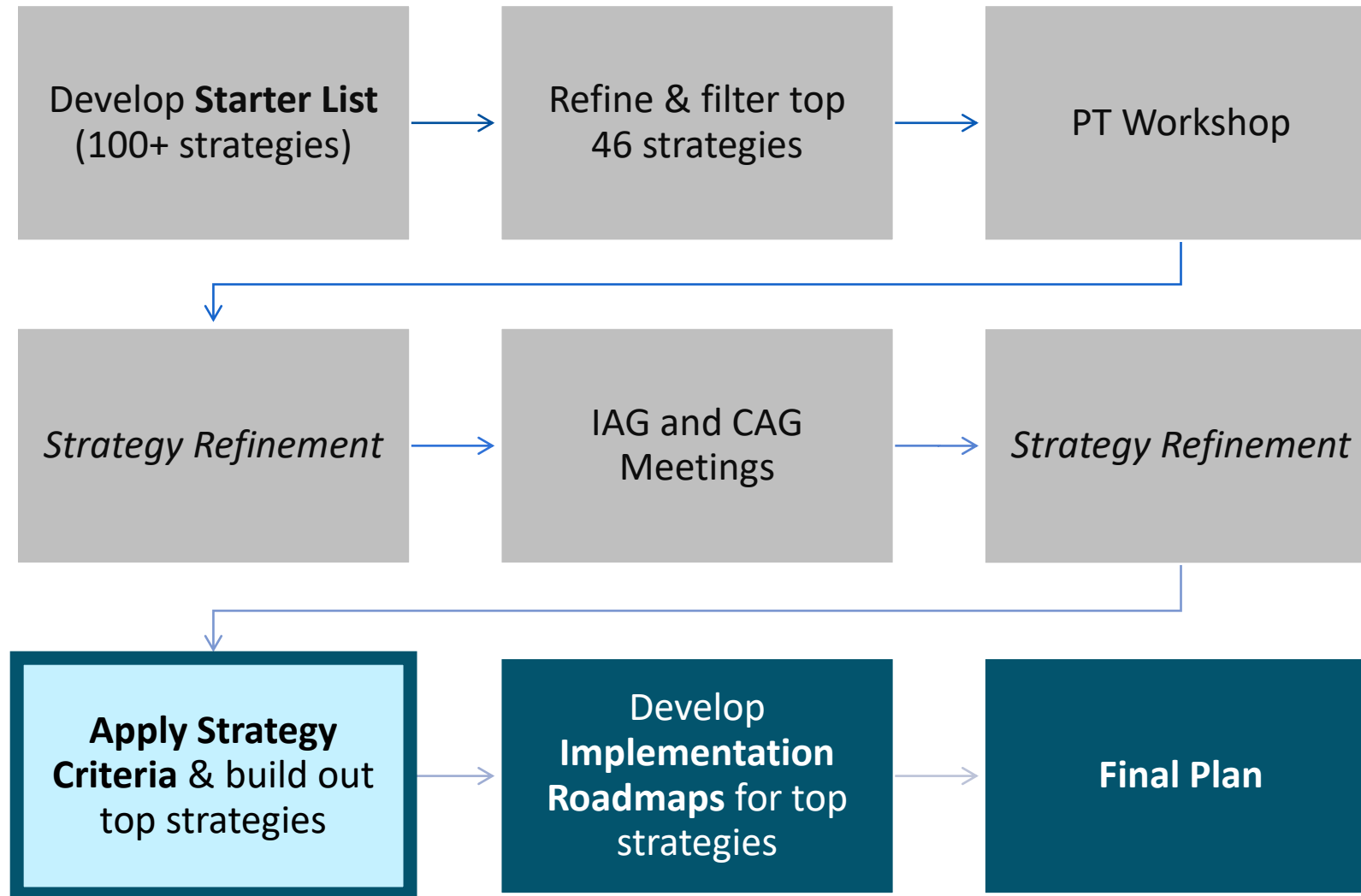
# Strategy Goals

## Strategies should:

- ✓ Include a diverse and balanced mix of actions
- ✓ Address range of top risks
- ✓ Be within county control
- ✓ Consider key next steps



# Strategy Development Process



# Strategy Criteria

<b>Tier 1: Prioritization Criteria</b>	<b>Prioritization Criteria</b>			
	✓ Within County Control		✓ Addresses a Top Risk	
<b>Tier 2: Strategy Development Criteria</b>	<b>Implementation Criteria</b>			
	Capacity	Robustness	Technical Feasibility	Alignment with Plans
	<b>Co-Benefits</b>			
	Quality of Life & Public Health	Environmental Quality	Avoided Losses & Economic Benefit	Social Equity



# Overview of Draft Strategy Categories

## Resilient Infrastructure & Buildings



- Resilience in major county infrastructure decisions
- County building & facility resiliency
- Advocacy for external infrastructure resiliency

## Climate Ready Communities



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

## Adaptive Environments




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

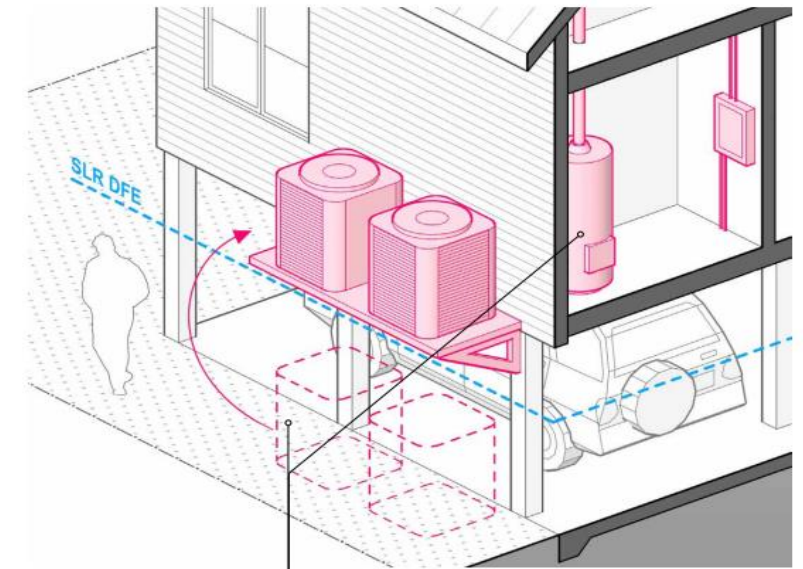
## Integrated Action Planning



- Resilience into county plans and policies
- Resilience data collection
- Funding plan
- Continued interagency coordination

# Draft Goals & Strategies Overview

 <b>Resilient Infrastructure &amp; Buildings</b>			
<b>Goals</b>	<b>County infrastructure decisions</b>	<b>County building and facility resiliency</b>	<b>Advocacy for external infrastructure</b>
	Capital Improvement Program (CIP) criteria	Flood resiliency for county facilities	Energy resiliency advocacy
<b>Strategies</b>	Climate projections into stormwater capital infrastructure decisions	Energy resiliency for county facilities	Building code advocacy
	Climate projections into wastewater & transportation planning	Blank cell	Blank cell
	A/E Procurement	Heat resiliency for county facilities	Public transit resiliency advocacy
	PFM Updates	Blank cell	Blank cell



**Protecting in Place**


If protecting in place is the most feasible option, watertight walls and shields are most practical when flood depths are less than 3'. Utilize a watertight closure panel if a floodwall is too high to step over. Utilize anchors and tie-downs to hold equipment in place.

**Elevating Equipment**

When relocating or elevating MEP systems, consider horizontal and vertical clearances for routine maintenance; venting requirements for combustion equipment; drain pans for equipment containing water storage to prevent leakage and provisions to prevent equipment from freezing.

\*Draft strategies may be further revised during review by appropriate county agencies.

# Draft Goals & Strategies Overview

 <b>Climate Ready Communities</b>			
<b>Goals</b>	<b>Network of Safe and Resilient Spaces</b>	<b>Community Capacity</b>	<b>Climate Ready Development</b>
	Resilience Hubs	Engagement & aid in vulnerable areas	Flood-resilient development standards to factor in climate
<b>Strategies</b>	Adaptation Action Areas (AAAs)	Education & guidelines	Heat-resilient development standards to factor in climate
	Targeted tree plantings	Workforce development	Transfer of Development Rights Ordinance
	Warning system	C-PACE expansion	



*Resilience Hub*



*\*Draft strategies may be further revised during review by appropriate county agencies.*

# Draft Goals & Strategies Overview

## Adaptive Environments



**Protection of existing natural resources that enhance resilience**

**Restoration of damaged areas with nature-based and natural solutions**

Conservation and protection of environmentally sensitive areas

Green infrastructure: for stormwater management & heat mitigation

Update conservation easement requirements

Stream corridor restorations

Enhance review process for Resource Protection Areas (RPA) to minimize encroachments

Urban reforestation

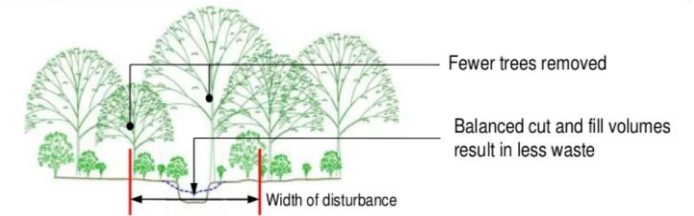
Consolidated Natural Resources Management Plan

Living shorelines, wetland and floodplain restorations

Climate Projections in Urban Forestry Program

Regenerative agriculture

Priority 1 Restoration – Raise stream to reconnect with floodplain.



Before


Pimmit Run  
Tributary Stream  
Restoration



After

*\*Draft strategies may be further revised during review by appropriate county agencies.*

# Draft Goals & Strategies Overview

 <b>Integrated Action Planning</b>				
<b>Goals</b>	<b>General Planning</b>	<b>Data Collection</b>	<b>Funding Plan</b>	<b>Agency Collaboration &amp; Coordination</b>
	Comprehensive Plan	Resilience metrics	County Climate Fund	Agency collaboration
<b>Strategies</b>	Zoning Ordinance	Research and data support	Federal & state funding	Staff training and capacity building
	Strategic Plan	Database of flood prone areas	Long-term data funding	Continuity of Operations (COOP)
	Climate Health Plan	Hazard mitigation action tracking	Additional funding opportunities	
		Tree canopy and rainfall data		
	Blank cell			



*\*Draft strategies may be further revised during review by appropriate county agencies.*

# Draft Goals & Strategies Overview

*Each Implementation Roadmap will outline the following for prioritized strategies:*

- **Lead:** Department leading
- **Partners:** Departments or partners supporting
- **Timeline:** Timeline for implementation
- **Cost:** Cost estimates for implementation
- **Implementation Actions:** Action steps
- **Equitable Implementation:** Considerations for equity focused implementation
- **Funding Opportunities:** Potential funding sources



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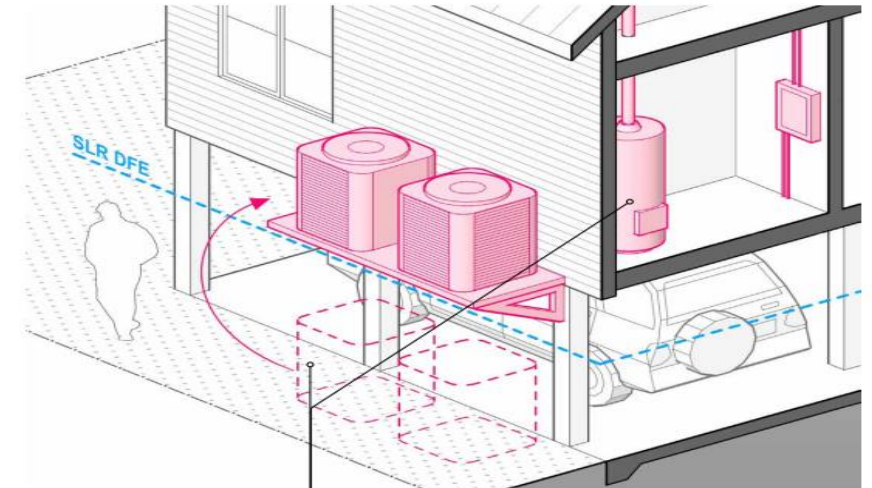


# Resilient Infrastructure & Buildings

Infrastructure and buildings that can withstand climate impacts, keep residents safe, reduce service disruptions, and improve countywide resilience.

## Resilient infrastructure and buildings ...

- ✓ Can withstand heat, flooding, and severe storms
- ✓ Are built and prepared for future conditions
- ✓ Are energy-resilient, energy efficient, and leverage diverse & clean energy sources with back up power
- ✓ Support safe movement to jobs, homes, and other points of interest



### Protecting in Place

If protecting in place is the most feasible option, watertight walls and shields are most practical when flood depths are less than 3'. Utilize a watertight closure panel if a floodwall is too high to step over. Utilize anchors and tie-downs to hold equipment in place.

### Elevating Equipment

When relocating or elevating MEP systems, consider horizontal and vertical clearances for routine maintenance; venting requirements for combustion equipment; drain pans for equipment containing water storage to prevent leakage; and provisions to prevent equipment from freezing.







# Resilient Infrastructure & Buildings: Draft Strategies

<b>County infrastructure decisions</b>	<b>County building and facility resiliency</b>	<b>Advocacy for external infrastructure resiliency</b>
<b>Capital Improvement Program (CIP) criteria:</b> Revise CIP evaluation process to advance capital projects that build resilience to climate hazards & impacts.	<b>Flood resilience for county facilities:</b> Address county building vulnerabilities to flooding and storm hazards, especially critical service provider buildings.	<b>Energy resiliency advocacy:</b> <ul style="list-style-type: none"><li>• Identify opportunities for distributed energy</li><li>• Coordinate with energy utilities</li><li>• Develop Energy Assurance Plan</li></ul>
<b>Climate projections into stormwater project infrastructure decisions:</b> Integrate future climate projections into the county's stormwater infrastructure projects planning and design.		

## *Additional Strategies in this Category*

- PFM and A/E updates
- Incorporate climate projections into wastewater & transportation planning
- Heat & energy resilience upgrades for county facilities
- Building Code Advocacy
- Public Transit Resilience Advocacy

*\*Draft strategies may be further revised during review by appropriate county agencies.*



# Resilient Infrastructure & Buildings: Discussion

- What do you like or dislike about these draft strategies?
- What should be considered as the county implements these strategies?
- What needs of community members, particularly more vulnerable populations, need to be addressed?
- With which community-based organizations can the county partner to implement these strategies?





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# Climate Ready Communities

**A well-connected and prepared community is better able to respond to and recover from climate impacts.**

## Climate Ready Communities have:

- ✓ Strong social cohesion to support community response to climate hazards
- ✓ Homes and neighborhoods that are prepared for flooding, extreme heat, storms, and power outages
- ✓ Resources easily accessible to all members before, during, and after climate events
- ✓ Historical inequities addressed and the needs of the most vulnerable populations prioritized



*Resilience Hub*



# Climate Ready Communities: Draft Strategies

Network of Safe and Resilient Spaces	Community Capacity	Climate Ready Development
<p><b>Resilience Hubs</b></p> <ul style="list-style-type: none"><li>• Pursue development of Resilience Hubs network beginning with pilot</li><li>• Assess needs, facility capacity and barriers to access</li></ul> <p><b>Adaptation Action Areas</b></p> <ul style="list-style-type: none"><li>• Identify and prioritize areas of the county most in need of resilience action</li></ul>	<p><b>Engagement &amp; aid in vulnerable areas</b></p> <ul style="list-style-type: none"><li>• Launch community engagement campaign for continuous identification and alleviation of pressing resilience needs, access to resources, and meaningful inclusion of vulnerable populations.</li></ul> <p><b>Education &amp; guidelines</b></p> <ul style="list-style-type: none"><li>• Launch a climate resilience education and guidance program</li><li>• “Resilience ambassadors” program</li></ul>	<p><b>Flood-resilient development standards to factor in climate</b></p> <ul style="list-style-type: none"><li>• Pursue potential updates to county development review procedures and standards that factor in both existing conditions and projected climate change.</li><li>• In addition to requirements, draft “above and beyond” voluntary resilience design guidelines.</li></ul>

## *Additional Strategies in this Category*

- Targeted tree plantings
- Warning System
- Workforce development
- C-PACE expansion
- Heat-resilient development standards to factor in climate
- TDR ordinance

*\*Draft strategies may be further revised during review by appropriate county agencies.*



# Climate Ready Communities: Discussion

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# Adaptive Environments

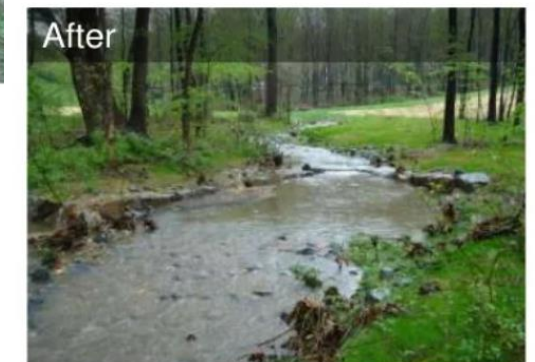
**Natural environments that are protected and restored to improve overall county resilience to climate impacts.**

## Adaptive Environments in Fairfax include:

- ✓ Green infrastructure that enhances neighborhood resilience to heat and flooding
- ✓ Ecosystems that are able to thrive, provide ecosystem services and natural resilience, and be accessible to the public
- ✓ Environmentally sensitive areas that are protected and conserved
- ✓ Future conditions are considered in natural resources planning



*Pimmit Run Tributary  
Stream Restoration*







# Adaptive Environments : Draft Strategies

<b><u>Protection</u> of Existing Natural Resources that Enhance Resilience</b>	<b><u>Restoration</u> of Damaged Areas with Nature-based and Natural Solutions</b>
<p><b>Conservation and protection of environmentally sensitive areas</b></p> <ul style="list-style-type: none"><li>• Explore strategic partnerships and/or financing opportunities for conservation and protection of environmentally sensitive areas, including but not limited to tidal and freshwater wetlands, intermittent streams, and habitat for key species.</li></ul>	<p><b>Green infrastructure: Pursue greening for stormwater management &amp; heat mitigation</b></p> <ul style="list-style-type: none"><li>• Identify areas that are flood-prone/ heat vulnerable that can be resolved through green infrastructure (i.e., do not need larger scale improvements).</li><li>• Support community greening to encourage reduction of impervious spaces and increase of green spaces in communities. Develop maintenance programs for green spaces.</li></ul>

## ***Additional Strategies in this category***

- Conservation easement requirement updates
- Enhance RPA review process
- Consolidated Natural Resources Management Plan
- Climate projections into Urban Forestry Program
- Stream restoration, living shorelines, wetland restoration
- Urban reforestation
- Regenerative agriculture

*\*Draft strategies may be further revised during review by appropriate county agencies.*



# Adaptive Environments: Discussion

- What do you like or dislike about these draft strategies?
- What should be considered as the county implements these strategies?
- What needs of community members, particularly more vulnerable populations, need to be addressed?
- With which community-based organizations can the county partner to implement these strategies?





# Agenda

- I. Introduction & Project Recap
- II. Resilient Infrastructure & Buildings
- III. Climate Ready Communities
- IV. Adaptive Environments
- V. Integrated Action Planning**
- VI. Next Steps

# Integrated Action Planning

**Integration of climate in planning and coordination ensures resiliency is at the forefront of county initiatives.**

**A county with integrated action planning is:**

- ✓ Monitoring progress, supporting transparency, and informing implementation
- ✓ Integrating climate change preparedness across county operations
- ✓ Advocating for resilience action beyond county control (e.g., public transit, building codes, energy resilience)
- ✓ Positioning county to be competitive for state and federal funding opportunities
- ✓ Building new funding streams and providing dedicated funding source to support county's climate goals



# Integrated Action Planning: Draft Strategies

Data Collection	Funding Plan	Agency Collaboration & Coordination
<p><b>Resilience Metrics:</b></p> <ul style="list-style-type: none"> <li>• Develop metrics for ongoing assessment of community resilience and improvements.</li> <li>• Considerations should include but are not limited to: vulnerable populations, social factors, built infrastructure, and environmental infrastructure.</li> </ul>	<p><b>Climate Fund:</b></p> <ul style="list-style-type: none"> <li>• Explore options for development of a county Climate Fund for county investment in climate adaptation and mitigation projects with priority considerations for more vulnerable communities.</li> </ul> <p><b>Federal &amp; State Funding:</b></p> <ul style="list-style-type: none"> <li>• Increase use of federal and state funding for resilience projects, including natural and nature-based solutions in addition to built infrastructure resilience.</li> </ul>	<p><b>Collaboration:</b></p> <ul style="list-style-type: none"> <li>• Establish a system for continued climate resilience collaboration between county departments, regional entities, and levels of government.</li> </ul>

## Additional Strategies in this Category

- Amendments to Comprehensive Plan, Zoning Ordinance, Strategic Plan, and Climate Health Plan
- Research and data support
- Tree canopy and rainfall data
- Consolidation of flood-prone area databases
- Staff training, COOP assistance, and capacity building

*\*Draft strategies may be further revised during review by appropriate county agencies.*



# Integrated Action Planning: Discussion

- What do you like or dislike about these draft strategies?
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# Next Steps

- ❑ **Climate Projections Report** posting on web: *February*
  - ❑ **Vulnerability and Risk Assessment** posting on web: *March*
  - ❑ **Audit of Policies, Plans, and Programs** posting on web: *March*
  - ❑ Develop **Implementation Roadmaps** for top strategies: *Ongoing*
  - ❑ Draft **Climate Adaptation and Resilience Plan** public comment period: *May*
- Please contact [ResilientFairfax@fairfaxcounty.gov](mailto:ResilientFairfax@fairfaxcounty.gov) with any questions or comments about Resilient Fairfax.
  - Please contact [carbonfreefairfax@fairfaxcounty.gov](mailto:carbonfreefairfax@fairfaxcounty.gov) with any questions or comments about greenhouse gas emissions reduction or reducing our contributions to climate change.
  - Please contact [OEEInfo@fairfaxcounty.gov](mailto:OEEInfo@fairfaxcounty.gov) with any questions or comments about other initiatives.



# Draft Goals & Strategies Overview: For Reference

Resilient Infrastructure & Buildings			Climate Ready Communities			Adaptive Environments		Integrated Action Planning			
County infrastructure decisions	County building & facility resiliency	Advocacy for external infrastructure resiliency	Network of Safe & Resilient Spaces	Community Capacity	Climate Ready Development	Protection of existing natural resources that enhance resilience	Restoration of damaged areas with nature-based and natural solutions	General Planning	Data Collection	Funding Strategy	Agency Coordination
Capital Improvement Projects (CIP) criteria updates	Flood resilience for county facilities	Building code advocacy	Resilience Hubs	Engagement & aid in vulnerable areas	Flood-resilient development standards to factor in climate	Conservation and protection of environmentally sensitive areas	Green infrastructure: for stormwater management & heat mitigation	Comprehensive Plan updates	Resilience metrics	County climate fund	Interagency collaboration
Stormwater Capital Project decisions	Heat resilience for county facilities	Public transit advocacy	Adaptation Action Areas (AAAs)	Education & guidelines for flood, heat, and storm resilience	Heat-resilient development standards to factor in climate	Updates requirements for conservation easements	Stream corridor restorations	Zoning Ordinance updates	Research & data support	Federal & State Funding	Staff training and capacity building
Public Facility Manual (PFM) Updates	Energy resilience for county facilities	Energy resiliency advocacy	Targeted tree plantings	Workforce development for resilience skillsets	Transfer of Development Rights (TDR) ordinance	Enhance review process for Resource Protection Areas (RPAs)	Urban reforestation	Strategic Plan updates	Tree canopy data	Funding for long-term data collection	Continuity of operations plans (COOP) during hazards
Architecture and Engineering (A/E) procurement updates			Warning system for extreme heat and other climate hazards	C-PACE expansion		Consolidated Natural Resources Management Plan	Living Shorelines	Climate and Health Plan completion	Hazard mitigation tracking	Additional funding, grants, PPPs, cost-shares	
Wastewater planning						Climate projections into Urban Forestry program	Wetland and floodplain restoration		Flood-prone areas and rainfall data consolidation		
Transportation planning							Regenerative agriculture		Lidar regular updates		

# Thank You!



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