



Climate Action Progress Update

Office of Environmental and Energy Coordination

Update for the
Environmental Quality Advisory Council

February 7, 2024

Agenda

- OEEC Coordination Role
- Climate Action Plans Introduction
- Program Highlights
- Budget Overview
- [OEEC Webpage](#) Updates
 - Resources for Residents and Businesses
 - Stay Connected
 - Climate Action Plans Topic Pages
 - Climate Action Dashboard

CONTACT INFORMATION: Our office is open to visitors by appointment only. Please call or email from 8:00 a.m. - 4:30 p.m., Monday through Friday.

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John Merrill
Acting Director

OEEC

What We Do
The Office of Environmental and Energy Coordination (OEEC) leads the county's interdepartmental activity on environmental and energy plans, policies, and programs, including climate action and resiliency.

[LEARN MORE](#)

Department Resources

- About Us +
- Our Work +
- Latest News and Events +
- Track Our Progress +

Related Resources

- Environmental Quality Advisory Council >
- Recycling and Trash >
- Stormwater >
- Wastewater >
- Trees >
- Noise >
- Environmental Health >

STAY CONNECTED

Search Our Site

Search our site [SEARCH DEPARTMENT](#)

- Climate Action Plans
- Climate Action Dashboard
- County Government Energy Data
- Resources for Businesses
- Resources for Residents
- Request a Speaker

Climate Plans in Fairfax County

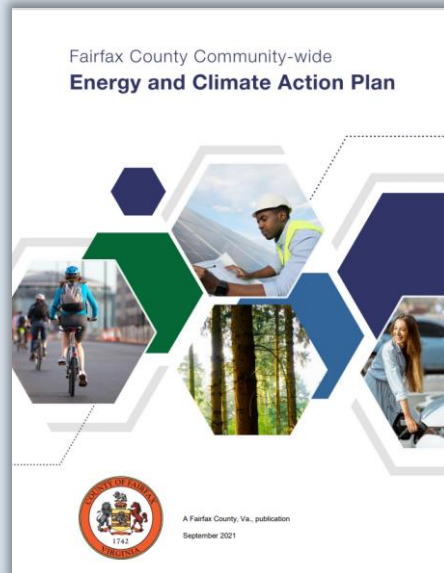
We are addressing both the **cause** and the **effects** of climate change.



Addressing the Cause:
by doing our part
in the global effort to reduce emissions

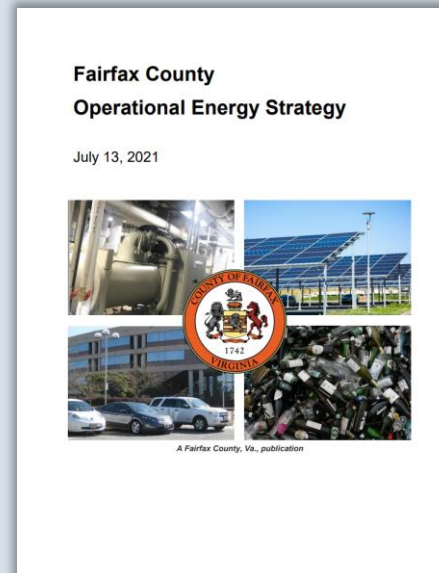
CECAP

(Community-wide)



Operational Energy Strategy

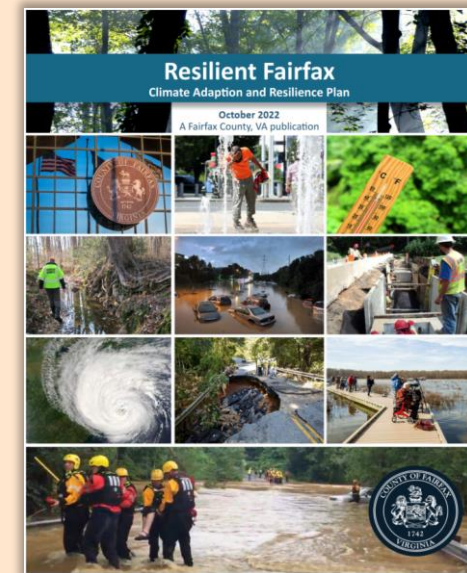
(Government operations only)



Addressing the Effects:
adapting/building resilience to the
impacts we experience locally

Resilient Fairfax

(Government and community)



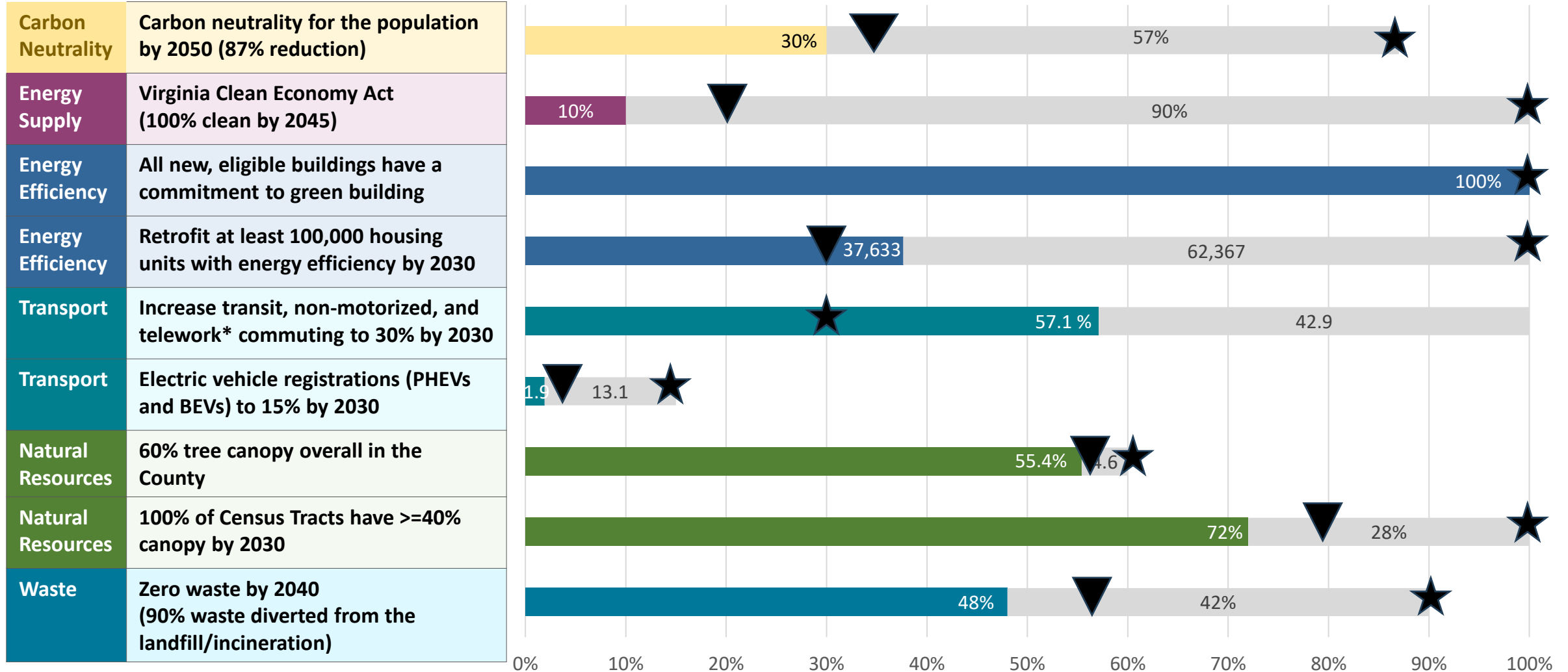
How do the plans roll up into implementation groups?



Groups	What We're Doing: <i>Strategy "Roll-Ups"</i>	RF	CECAP	OES	Roll-up Status	Roll-up Status Bar
Group 1 Coordination, Funding, Legislation	Interagency & Regional Collaboration, Staff Capacity Building, Strategic Plan	✓	✓	✓	Steady Progress	<div style="width: 75%;"><div style="background-color: #1a4a8e; height: 10px;"></div></div>
	Federal, State, and Other Funding Opportunities	✓	✓	✓	Started	<div style="width: 40%;"><div style="background-color: #1a4a8e; height: 10px;"></div></div>
	Adaptation Action Area Implementation	✓			Started	<div style="width: 20%;"><div style="background-color: #1a4a8e; height: 10px;"></div></div>
	Legislative Proposals and Advocacy	✓	✓		Started	<div style="width: 15%;"><div style="background-color: #1a4a8e; height: 10px;"></div></div>
Group 2 Development Codes, Plans, Policies	Flood Risk Reduction	✓			Started	<div style="width: 30%;"><div style="background-color: #8b7d3d; height: 10px;"></div></div>
	Comprehensive Plan	✓	✓		Started	<div style="width: 25%;"><div style="background-color: #8b7d3d; height: 10px;"></div></div>
	Urban Design Guidance	✓			Started	<div style="width: 15%;"><div style="background-color: #8b7d3d; height: 10px;"></div></div>
	County Codes & Zoning Ordinance	✓	✓		Steady Progress	<div style="width: 50%;"><div style="background-color: #8b7d3d; height: 10px;"></div></div>
Group 3 Community Aid, Education, Engagement, Incentives	Incentives for Communities	✓	✓		Steady Progress	<div style="width: 60%;"><div style="background-color: #4b3d7d; height: 10px;"></div></div>
	Aid and Risk Reduction for Communities	✓			Steady Progress	<div style="width: 55%;"><div style="background-color: #4b3d7d; height: 10px;"></div></div>
	Education, Workforce Development	✓	✓		Started	<div style="width: 45%;"><div style="background-color: #4b3d7d; height: 10px;"></div></div>
	Community-Led Pilot Programs, Partners, Champions		✓		Started	<div style="width: 35%;"><div style="background-color: #4b3d7d; height: 10px;"></div></div>
Group 4 Natural Resources	Consolidated Natural Resources Management Plan Process	✓	✓		Early Stage	<div style="width: 10%;"><div style="background-color: #5d8c6d; height: 10px;"></div></div>
	Tree Programs	✓	✓		Started	<div style="width: 30%;"><div style="background-color: #5d8c6d; height: 10px;"></div></div>
	Surveying & Protection of Natural Areas	✓	✓		Started	<div style="width: 20%;"><div style="background-color: #5d8c6d; height: 10px;"></div></div>
	Nature-Based Restorations and Green Infrastructure	✓	✓		Started	<div style="width: 25%;"><div style="background-color: #5d8c6d; height: 10px;"></div></div>
Group 5: Facilities & Operations	County Facilities: Energy, Water, Green Buildings, Utilities		✓	✓	Started	<div style="width: 40%;"><div style="background-color: #a0522d; height: 10px;"></div></div>
	Resilience for County Facilities and External Infrastructure	✓			Early Stage	<div style="width: 5%;"><div style="background-color: #a0522d; height: 10px;"></div></div>
	Fleet and Transit		✓	✓	Started	<div style="width: 45%;"><div style="background-color: #a0522d; height: 10px;"></div></div>
	Zero Waste and Sustainable Purchasing and Procurement		✓	✓	Started	<div style="width: 30%;"><div style="background-color: #a0522d; height: 10px;"></div></div>
Group 6 Data and Research	Data and Map Updates	✓	✓	✓	Steady Progress	<div style="width: 70%;"><div style="background-color: #006d6d; height: 10px;"></div></div>
	Climate-Related Research	✓			Started	<div style="width: 20%;"><div style="background-color: #006d6d; height: 10px;"></div></div>



Outcomes: CECAP (Emissions Reduction for the Population)



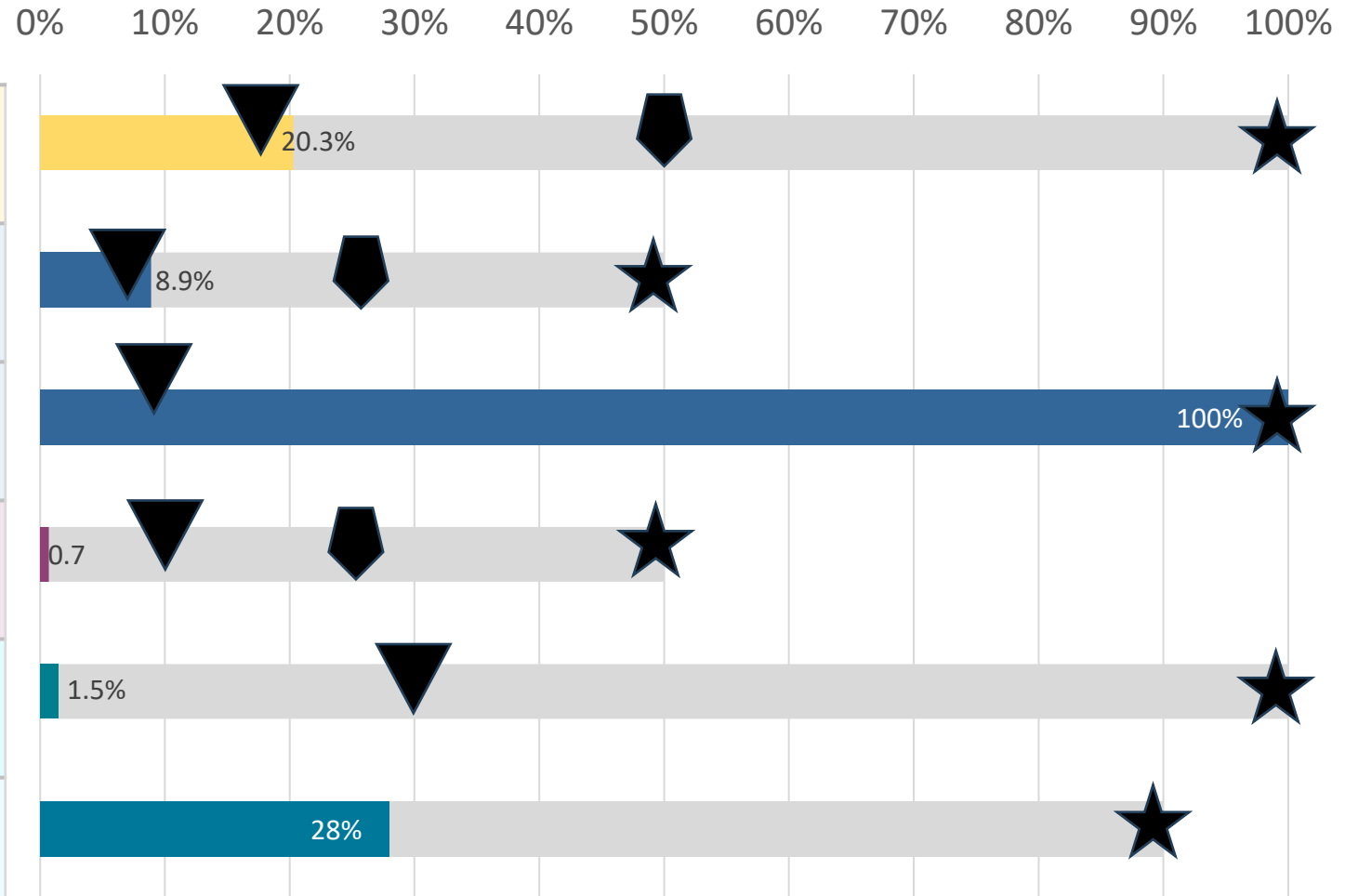
*Due to teleworking during the pandemic, this goal was surpassed, but will likely regress as workers return to the office

Bars = Where we are ▼ = Where we should be ★ = Final Goal



Outcomes: OES (*Emissions Reduction for County Government*)

Carbon Neutrality	<ul style="list-style-type: none"> • Energy Carbon Neutrality by 2040 • 50% GHG emissions reduction by 2030
Energy Efficiency	<ul style="list-style-type: none"> • 50% building energy reduction by 2040 • 25% building energy reduction by 2030
Green Buildings	<ul style="list-style-type: none"> • New bldgs. LEED Gold + 50% Savings • <i>[Future]</i> Net Zero Energy + All-Electric
Renewables	<ul style="list-style-type: none"> • 50% renewable electricity by 2040 • 25% renewable electricity by 2030
Fleet	<ul style="list-style-type: none"> • Fleet is fully electric or non-carbon by 2035
Waste	<ul style="list-style-type: none"> • Achieve Zero Waste by 2030 (% waste tonnage diverted from landfill)



Bars = Where we are ▼ = Where we should be ◼ = Interim Goal ★ = Final Goal



Outcomes: *Resilient Fairfax*

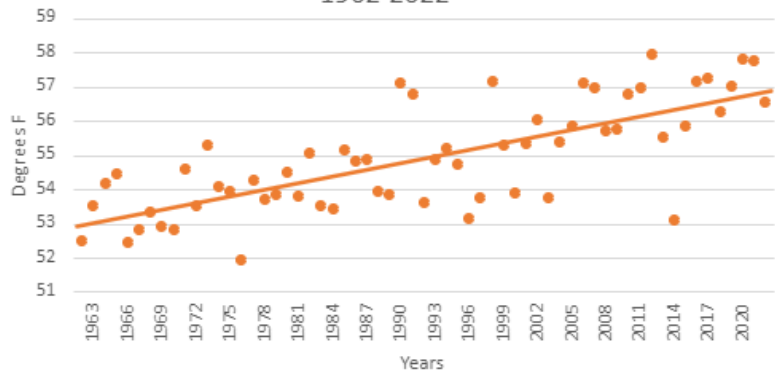
Like running on an accelerating treadmill:

Many resilience metrics are tracking conditions that worsen as we seek resilience improvement.

While “perfect resilience” may not exist, the county’s work ensures we don’t fall off the back of the treadmill.

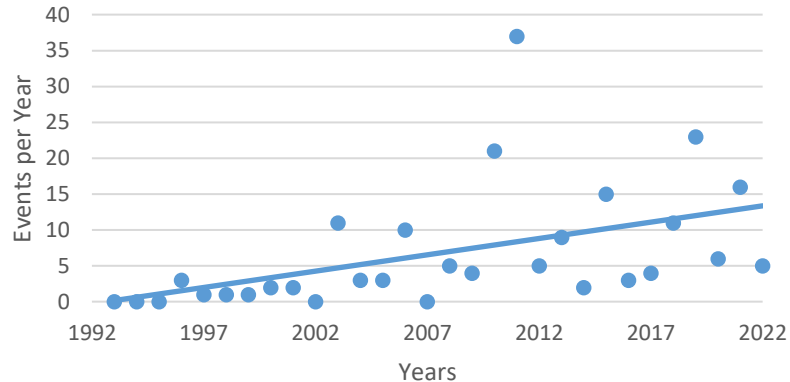
Warmer

Average Temperatures Per Year
in Fairfax County, VA
1962-2022



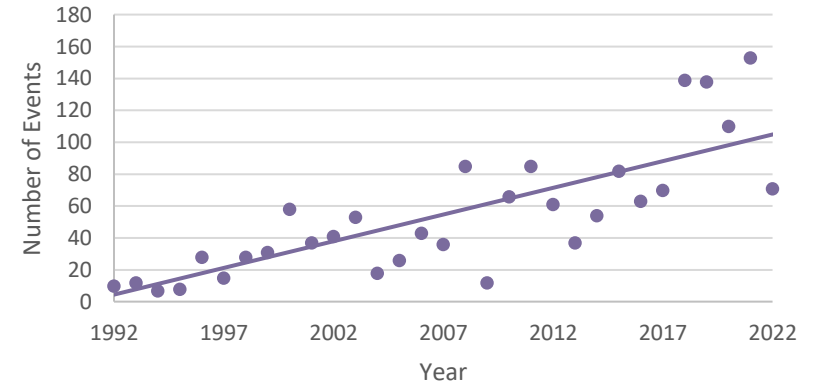
Wetter

Number of Flash Flood Events
in Fairfax County, VA
1992-2022



Weirder

Number of Storm Events Per Year
in Fairfax County, VA
1992-2022



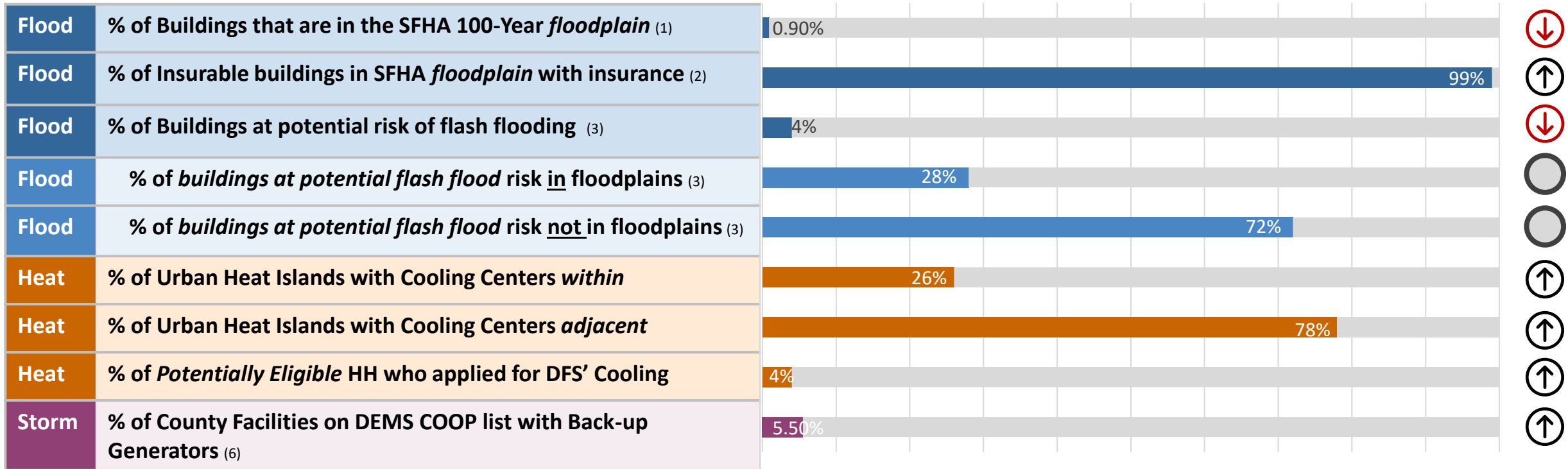


Outcome Tracking: *Resilient Fairfax*

Please note: There are dozens of additional Resilient Fairfax metrics that cannot be logically expressed as status bars.

⬇️ Goal is to decrease. ⬆️ Goal is to increase. ○ General tracking to understand issues.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



(1) Data is based on the 2010 FEMA FIRM.

(2) Buildings in the SFHA have a mandatory flood insurance purchase requirement as a condition for obtaining a federally backed mortgage.

(3) Based on DPWES' [Analyzing Flood Risk Story Map](#)

Highlights: Development Codes, Policies, and Plans

Coordination,
Funding,
Legislation

**Development
Codes, Plans,
Policies**

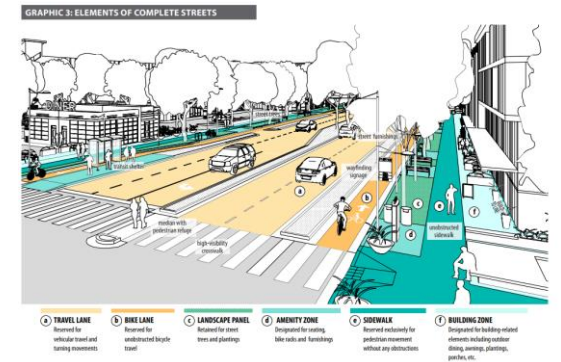
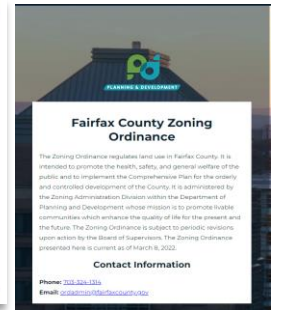
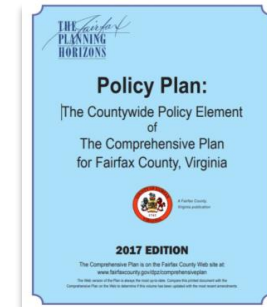
Community
Services,
Education,
Engagement,
Incentives

Natural
Resources

County
Facilities and
Operations

Data and
Research

- **Flood Risk Reduction**
 - Physical Projects
 - Policies
 - Programs
- **Comprehensive Plan Amendments**
- **Zoning Ordinance & Other County Code Amendments**
- **Urban Design Guideline Amendments**
- **Building Code and Legislative Review**
- **Project Review, such as Richmond Highway BRT CBA**



Highlights: for Residents

Coordination,
Funding,
Legislation

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

Natural
Resources

County
Facilities and
Operations

Data and
Research

Public Information and Outreach

✓ NEW resources added to website

- For Residents
- For Businesses







Checklists • Fact Sheets • Dashboard • Carbon Footprint Calculator • Videos & Testimonials

✓ EXPANDED Informational Campaigns

- Solarize VA & Capital Area Solar Switch
- Green Business Partners
- Charge Up Fairfax
- Energy Conservation Assistance Program

Fairfax County residents
are powering their homes
with solar! Meet them.



 Transportation Checklist		10 actions you can take on the road to save money and lower your carbon footprint		
Action	Cost Up Front	Yearly Savings	CO2e Reduction (lbs per year)	
1 <input type="checkbox"/> Estimate your current carbon footprint using an online calculator. Write down your current yearly emissions.	 Free	Does Not Apply	Does Not Apply	
2 <input type="checkbox"/> Walk or bike for at least half of your short trips to nearby destinations (3 miles or less). Please only complete this item if it is safe to do so in your area.	 Free	\$\$ \$610	↓↓↓ 3,000	
3 <input type="checkbox"/> Join a carpool and gain access to free Express HOV lanes, while also saving gas money and reducing emissions.	 Free	\$\$\$ \$1,300	↓↓↓ 6,100	
4 <input type="checkbox"/> Telework (work from home) at least 2 days per week if your job allows it. Reducing your commuting saves significant emissions, money, and time.	 Free	\$\$ \$640	↓↓↓ 3,100	
5 <input type="checkbox"/> Use fuel efficient driving practices: Reduce your top highway speed to 65 mph and coast to gentle stops rather than rapidly accelerating and braking.	 Free	\$ \$185	↓↓↓ 1,100	

Highlights: for Residents Cont.

Coordination,
Funding,
Legislation

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

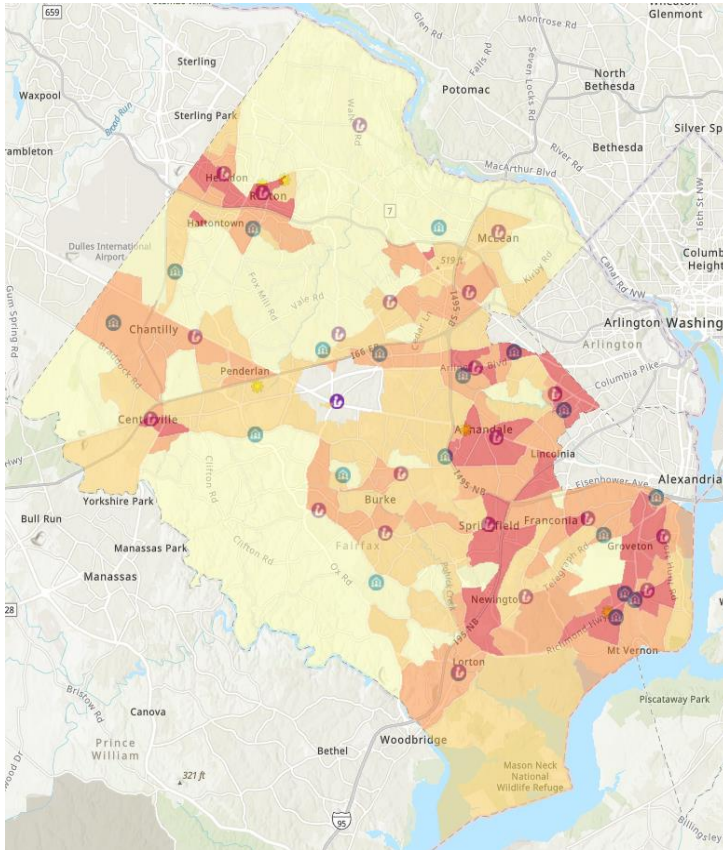
Natural
Resources

County
Facilities and
Operations

Data and
Research

Extreme Heat Services

Cooling Centers, Cooling Assistance, UHI Mapping, Cool Roofs & Pavements, Heat Alerts



1,452

Air conditioning
service requests
approved in 2023

27,000

Supplies distributed
from Cooling Centers

47

Upgraded official
Cooling Centers

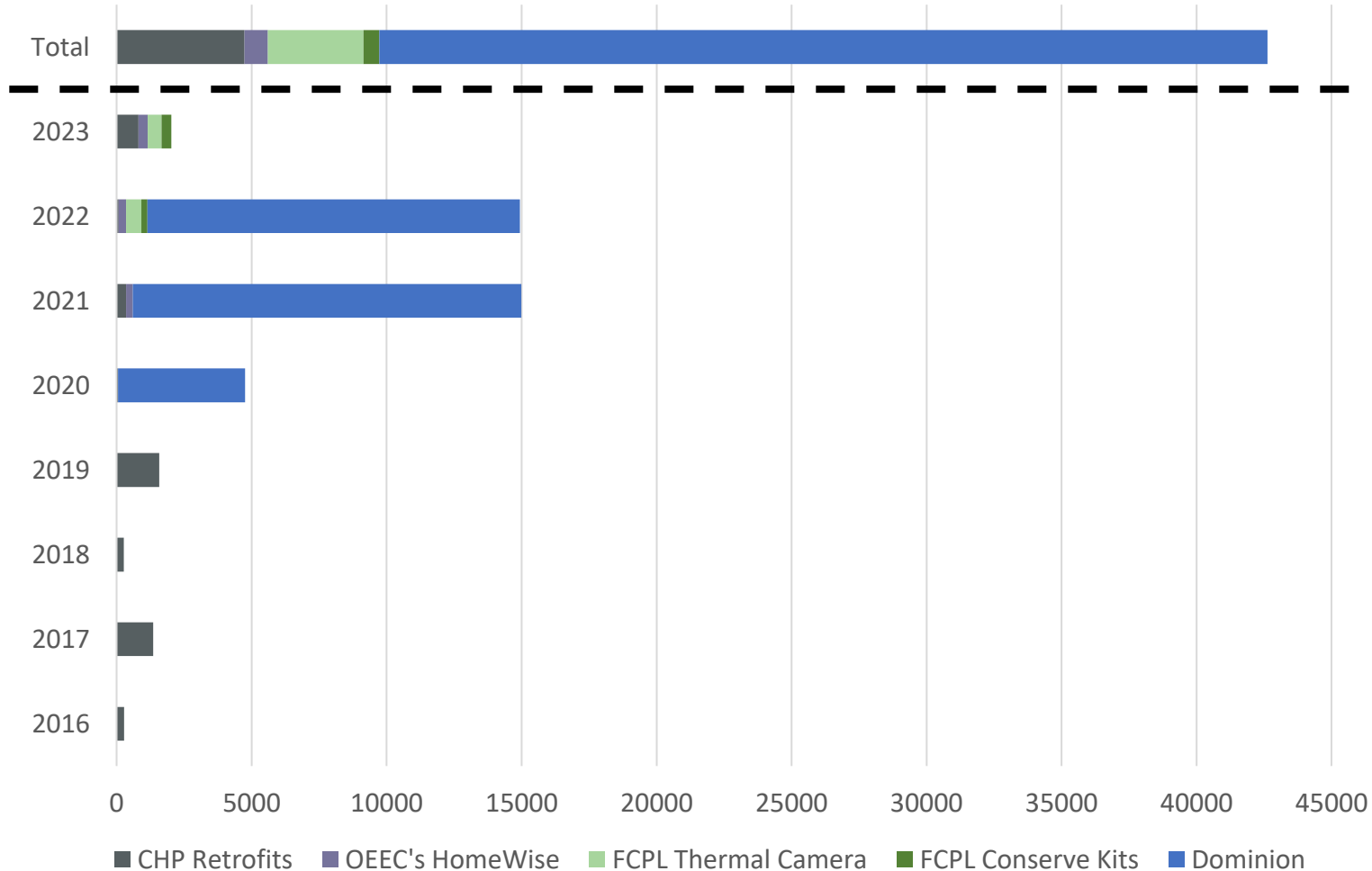
- Temperature data, heat island mapping
- Heat vulnerability & needs assessments
- Cooling Center and protocol upgrades
- Cooling Assistance for those who can't afford AC
- Interagency coordination on services
- Guidance for outdoor workers, outdoor sports being developed
- Guidance on cool roofs, cool pavements, design strategies



Highlights: for Residents, Continued

- Coordination, Funding, Legislation
- Development Codes, Plans, Policies
- Community Services, Aid, Engagement, Incentives**
- Natural Resources
- County Facilities and Operations
- Data and Research

Energy Efficiency Services & Kits



**> 42,000
Households in
Fairfax County
served to date**



Highlights: for Businesses

Coordination,
Funding,
Legislation

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

Natural
Resources

County
Facilities and
Operations

Data and
Research

Green Business Partners

- ✓ Program re-launched in March 2023
- ✓ Forum held in March 2023
 - **70** participants
 - **46** unique businesses
- ✓ Expanded Membership:
 - **20** Members and Leaders
 - **5** Allies
- ✓ County Recognition & Program benefits



Highlights: for Non-Profits and Places of Worship

Coordination,
Funding,
Legislation

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

Natural
Resources

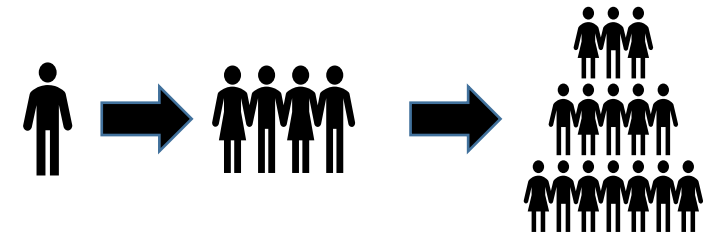
County
Facilities and
Operations

Data and
Research

Climate Champions Pilot

- Development of a *new* climate action program for places of worship led by a non-profit organization (FACS)
- FACS recipient of federal grant to build program & staff capacity
- Updated Fairfax County's incentive program **Energy Conservation Assistance Program** to meet needs of stakeholders

ACCELERATE AND IMPACT



Highlights: for HOAs

Coordination,
Funding,
Legislation

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

Natural
Resources

County
Facilities and
Operations

Data and
Research

Charge Up Fairfax

Charge Up Fairfax provides technical and financial assistance to community associations, like homeowner associations and condominium associations, access electric vehicle charging for residents and their guests.

Program Milestones

- ✓ Pilot program launched March 9, 2023
- ✓ 10 communities as pilot program participants
- ✓ Launching program at scale in Spring 2024



Highlights: Natural Resources

Coordination,
Funding,
Legislation

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

**Natural
Resources**

County
Facilities and
Operations

Data and
Research

- **Tree Planting and Programs**
 - 16,000 trees planted in 2023
 - 55.4% tree canopy coverage > goal of 60% by 2030
- **Wetland, Stream, Floodplain, and Forest Restorations**
 - FCPA: 18 acres of restoration (Cub Run Stream Valley Park, Laurel Hill Park)
 - DPWES: 100+ active stormwater improvement projects
- **Green Infrastructure**
 - Continued implementation throughout the county
 - Training for contractors and homeowner assistance programs
- **Protecting Areas that Provide Natural Resilience**
 - Existing regulations and programs (e.g., RPA, floodplain designations, conservation easements)



Highlights: For County Government

Coordination,
Funding,
Legislation

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

Natural
Resources

**County
Facilities and
Operations**

Data and
Research

- ✓ **44 county buildings are LEED certified**
 - **Woodlawn Fire Station** – Platinum in 2023
 - **18** certified LEED Gold county buildings
- ✓ **21 energy audits completed to date**
 - **8** in 2023, **9-10** additional audits in Spring 2024
- ✓ **10 energy retrofits completed since 2021 OES**
 - **2** completed in 2023, **3** to be completed in 2024
- ✓ **5 county buildings with rooftop solar**
 - **20+** additional planned by end of 2025
- ✓ **306 EVs and hybrid vehicles in the fleet**
 - **83** Electric & **223** Hybrid Vehicles
 - Includes **two new** electric trash trucks in 2023
- ✓ **110 EV charging ports on county government property**
 - More planned installations at new and existing facilities in 2024



Highlights: For County Government, Cont.

Legislation,
Coordination,
Alignment

Development
Codes, Plans,
Policies

Community
Services, Aid,
Engagement,
Incentives

Natural
Resources

**County
Facilities and
Operations**

Data and
Research

Zero Waste

- ✓ Departmental Champions Network Launched, Action Plans in Progress
- ✓ Educational & Training Resources Created (ex: [Champions Toolkit*](#))
- ✓ 2023 Waste Audits Completed (County & Schools Facilities)
- ✓ Three Bin Pilot (Composting) throughout Government Center
- ✓ Reusable Packaging Program Launched - Pallet Wraps at Logistics Center
- ✓ Reusable Foodware - Zero Waste Party Pack Program

Sustainable Procurement

- ✓ “Scope 3” Supply Chain Greenhouse Gas Analysis in Progress
- ✓ Sustainable Procurement Policy in Development
- ✓ 100+ Major Suppliers Joined Corporate Social Responsibility Program

<https://www.fairfaxcounty.gov/procurement/zero-waste-champions-toolkit>



ZERO WASTE
FAIRFAX COUNTY
GOVERNMENT & SCHOOLS



OEEC Budget Overview

- [General Fund](#): OEEC is within the Office of County Executive
- [Carryover Review](#)
- CIP Fund 30015, [Environment and Energy Programs](#)
 - Operation Energy Strategy
 - Energy Efficiency, Solar, EV Charging Infrastructure, LED Street Lights
 - Environmental Improvement Projects
 - Climate Action Implementation
 - Charge Up Fairfax
 - Energy Conservation Assistance Program
 - Green Business Partners
 - Education and Outreach
- Plastic Bag Tax

Supporting Agency Programs




OEEC Website and Climate Action Dashboard



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Share This

703-324-7136 (TTY 711) | oeecinfo@fairfaxcounty.gov | 12000 Government Center Pkwy, Suite 533, Fairfax, VA 22035 | @fthgreen | John Morill, Acting Director



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Related Resources

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- Stormwater >
- Wastewater >
- Trees >
- Noise >
- Environmental Health >

STAY CONNECTED

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Grid of navigation tiles:

- Climate Action Plans
- Climate Action Dashboard** (highlighted with a blue box and arrow)
- County Government Energy Data
- Resources for Businesses
- Resources for Residents
- Request a Speaker

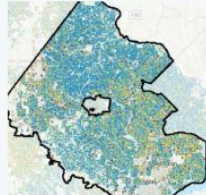
[OEEC Website](#)

Climate Action Dashboard

Fairfax County government operations by 2050 and community-wide carbon neutrality by 2050. The Climate Action Dashboard includes overall metrics page that focus on emissions reduction (which addresses the cause of climate change) and resiliency (which address community Wide Energy and Climate Action Plan (CECAP) and the Resilient Fairfax plan. Additionally, the dashboard has sector-specific metrics pages for the six key sectors addressed by these plans.

Status: Draft | Moderate | Request Review | Log message | [APPLY](#)


EMISSION REDUCTIONS METRICS



This page focuses on metrics that **address the cause of climate change**: greenhouse gases. These metrics are closely associated with the goals of CECAP.

[Explore Overall Metrics for Emissions Reductions](#)

RESILIENCY METRICS



This page focuses on metrics that **address the effects of climate change**, or Fairfax County's resiliency. These metrics are closely associated with the Resilient Fairfax plan.

[Explore Overall Metrics for Resilience](#)

Sector-Specific Metrics:
On the following pages, you'll find emission reduction and resiliency metrics related to specific sectors: Buildings, Energy Supply, Transportation, Waste, Natural Resources, and Community Services.

- Buildings
- Energy Supply
- Transportation
- Waste
- Natural Resources
- Community Services