Implementation of Fairfax County's Climate Plans 2023 Progress Update

Resilient Fairfax, CECAP Implementation Plan, and the Operational Energy Strategy



A Fairfax County, VA publication





Fairfax County Office of Environmental and Energy Coordination

12000 Government Center Parkway Fairfax, Virginia 22035

OEECinfo@fairfaxcounty.gov

https://www.fairfaxcounty.gov/environment-energy-coordination/



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Acronyms

APA - American Planning Association

CAP – Conservation Assistance Program

CECAP – Community-wide Energy and Climate Action Plan

CRS – Community Revitalization Section of DPD

CSB – Community Services Board

DEI – Department of Economic Initiatives

DIT – Department of Information Technology

DEMS – Department of Emergency Management and Security

DFS - Department of Family Services

DMB - Department of Management and Budget

DOF - Department of Finance

DPD - Department of Planning and Development

DPMM - Department of Procurement and Material Management

DPSC - Department of Public Safety Communications

DPWES - Department of Public Works and Environmental Services

DVS – Department of Vehicle Services

ECAP – Energy Conservation Assistance Program

FACS – Faith Alliance for Climate Solutions

FCDOT – Fairfax County Department of Transportation

FCPA - Fairfax County Park Authority

FCPL - Fairfax County Public Library

FCPS - Fairfax County Public Schools

FEEE – Fairfax Employees for Environmental Excellence

FEET – Fairfax Environmental Engagement Team

FMD – Facilities Management Department

HCD – Housing and Community Development

HD or FCHD – Fairfax County Health Department

LDS – Land Development Services

MCC – Mclean Community Center

MWCOG – Metropolitan Wahington Council of Governments

NCS – Neighborhood and Community Services

NVRC – Northern Virginia Regional Commission

NVSWCD – Northern Virginia Soil and Water Conservation District

OEEC – Office of Environmental and Energy Coordination

OES – Operational Energy Strategy

One FFX - One Fairfax

PD - Planning Division of DPD

RCC – Reston Community Center

RF - Resilient Fairfax

SSDN – Southeast Sustainability Directors Network

TRIP - Transportation Resilience Improvement Plan

UFMD – Urban Forest Management Division of DPWES

VAECC – Virginia Energy Efficiency Council

VEPGA – Virginia Energy Purchasing Governmental Association

VESPN – Virginia Energy and Sustainability Peer Network

ZAD – Zoning Administration Division of DPD

ZED – Zoning Evaluation Division of DPD

PART I: EXECUTIVE SUMMARY

Background

The County's Climate Plans

Fairfax County, Virginia is working to address both the **cause** and the **effects** of climate change. The Fairfax County Board of Supervisors (BOS) has adopted and/or accepted the three climate plans summarized in the figure below. On the "cause" side, we are doing our part in the global effort to reduce greenhouse gas emissions in the community (see the <u>Community-wide Energy and Climate Action Plan (CECAP)</u>), and in government operations (see the <u>Operational Energy Strategy (OES)</u>). On the "effects" side, we are adapting and building resilience to the impacts that we experience locally such as increasingly extreme heat, severe storms, and flooding (see <u>Resilient Fairfax</u>). **This document is a progress report on the implementation of all three climate plans in Fairfax County.**

Figure 1: Fairfax County's Climate Plans

Climate Plans in Fairfax County

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

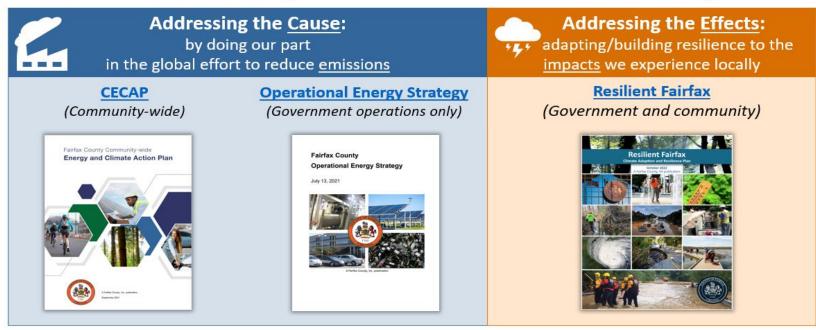


Figure 2, below, summarizes the major topics that are covered within each climate plan.

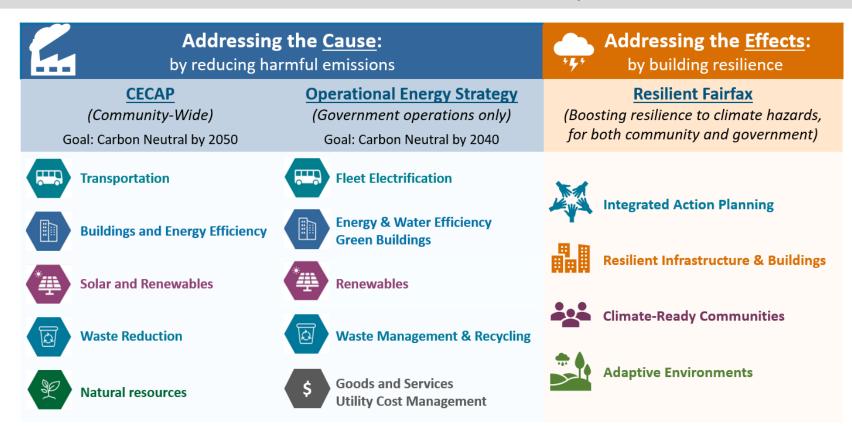
The Community-wide Energy and Climate Action Plan (CECAP) and the Operational Energy Strategy (OES) are both focused on addressing the cause of climate change by reducing greenhouse gas emissions, so the topics covered in those plans are similar. Both CECAP and OES have strategies to reduce emissions from transportation, buildings, energy supply, and waste. The difference between the two plans is that CECAP focuses on reducing emissions throughout the Fairfax County population, whereas OES focuses on reducing emissions in county government buildings and operations specifically. For example, the "transportation" strategies in CECAP encourage the whole population to bike, walk, take transit, and transition to electric vehicles when possible, while the "transportation" strategies in OES focus on electrifying the county government's fleet vehicles. The "buildings" strategies in CECAP focus on making homes and businesses throughout the community more energy-efficient, whereas the "buildings" strategies in OES focus on energy efficiency for county government-owned buildings. There are a few topic areas that are different between CECAP and OES. CECAP includes a sector for natural resources, because the tree canopy and other natural resources in Fairfax County help to sequester carbon, absorbing a small percentage of the community's emissions. The OES includes focus areas for goods and services (sustainable procurement) and utility cost management, helping the county ensure that it is operating in an efficient and sustainable manner.

The <u>Resilient Fairfax</u> plan, in contrast, is focused on boosting resilience to the <u>effects of climate change</u>, or addressing vulnerabilities to climatic hazards that we experience locally. The Resilient Fairfax plan applies to both the general population and county government. There are <u>48 strategies in Resilient Fairfax</u>. These <u>48 strategies</u> are organized into <u>four pillars</u>, symbolized in Figure 2 below.

- Strategies in the "Integrated Action Planning" pillar provide the foundation for long-term success through resilience-related interagency coordination, data, funding, and plan alignment.
- Strategies in the "Climate Ready Communities" pillar include resilience-related county services and aid, public education and outreach, and updates to county codes to encourage more climate-ready neighborhoods.
- Strategies in the "Resilient Infrastructure and Buildings" pillar include physical upgrades to infrastructure and buildings so that they can better withstand modern and future climatic conditions and hazards. This includes both direct upgrades to infrastructure within county control, such as stormwater pipes, and advocacy for resiliency upgrades to infrastructure that is not within county control, such as the electricity grid or the Metro system.
- Strategies in the "Adaptive Environments" pillar focus on protection and restoration of natural resources in the county that naturally provide substantial climate resilience. For example, when our wetlands and shorelines are healthy, they absorb floodwater and storm surge, protecting the neighborhoods behind them. When our forests and trees are healthy and resilient, they reduce the Urban Heat Island effect and absorb stormwater.

Figure 2: Major topics within each climate plan.

Climate Plans in Fairfax County



Documents that Preceded the Climate Plans

The county's three climate plans were built upon a strong foundation of preceding plans, reports, and declarations in the county. To reduce confusion, the county's current focus is on the three plans described in the section above. The preceding documents have largely been fulfilled by or folded into the OES, CECAP/CECAP IP, or Resilient Fairfax. The preceding documents that have been folded in include the Environmental Vision, Fairfax Green Initiatives, Joint Environmental Task Force Final Report, Carbon Neutral Counties Declaration and the annual Sustainability Initiatives report. The Sustainable Development Policy for Capital Projects is part of the implementation of the OES.

Figure 3: Documents that preceded the climate plans.

	Previou	s reports ha	ave been fo	lded in / ar	e no longei	applicable.	Please foo	us on these	three_
		Environmental Vision	Fairfax Green Initiatives	(JET) Final Report	Carbon Neutral Counties	Sustainability Initiatives	OES & Sustainable Devel. Policy	CECAP	Resilient Fairfax
•	= Included	Fairfax County Environmental Vision June 2017	The first has all appropriate and the first has a first has all appropriate and the first has a first	Joint Environmental Task force state summer and automore state summer and automore state summer and automore from frequent more 1 mm	And the second s	SUSTAINABILITY INTIATIVES PY 2022	Fairfax County Operational Energy Strategy	Final Count Committee and Energy and Committee Action Plan	Nation Parks
0	= Partially	2017	2019-2020	2020	2021	FY 2022	2021	2021	2022
	included but not the main purpose	General vision for the environment	BOS Board Matter for enviro. action items	A report about a FCPS and BOS Task Force	Commitment to carbon neutral gov. operations	Status report and general information on everything	Plan for emissions reduction in government	Plan for emissions reduction in community	Adaptation & resilience plan
٠.	Emissions Reduction	•	•	•	•	environmental, all	•	•	
What?	Resilience	0	0			departments and all topics			•
	Other Enviro	•	•	•			0		
6	Gov Ops	•	•	•	•		•	0	•
Who?	Community	0	0					•	•

How the Plans are Being Implemented

The county is responsible for implementing all three climate plans simultaneously. <u>CECAP</u> and the <u>CECAP Implementation Plan</u> were accepted by the Board of Supervisors (BOS) in September 2021 and December 2022, respectively. The <u>Operational Energy Strategy (OES)</u> was adopted by the BOS in July 2021. <u>Resilient Fairfax</u> was adopted by the BOS in November 2022. For greatest efficiency, the county is implementing all three plans in a streamlined and consolidated manner, as illustrated in the figure below. Strategies from all three plans were compiled and then sorted by topic area. Six groups emerged. Strategies in **Group 1** relate to general coordination, funding, legislative, and other state-level updates for climate. Strategies in **Group 2** focus on climate-related updates to development codes, policies, and plans. Strategies in **Group 3** focus on enhancement of community aid, education, engagement, and incentives for climate. **Group 4** focuses on natural resource strategies. **Group 5** focuses on strategies for county facilities and operations. **Group 6** includes strategies for climate-related research and data collection.





First, strategies from all three plans were compiled and streamlined. Duplicative strategies were combined, as illustrated below:



Next, the 77 strategies were "rolled up" by topic, to enable bigger picture progress tracking. For example, all incentive-related strategies are in the "Incentives" roll-up. The 22 "roll-ups" were further organized into 6 overarching groups, as illustrated in the table below.

Table 1: Summary of Strategy Roll-Ups

6 Groups	22 "Roll-ups"	77 Strategies			
Constant formalism	Interagency & Regional Collaboration, Staff Capacity Building				
Group 1: Funding,	Federal, State, County, and other Funding Opportunities				
Coordination, and Legislative Action	Adaptation Action Area Implementation	20 Strategies			
Action	Legislative and State-level Proposals and Advocacy				
	Flood Risk Reduction				
Group 2: Development Codes,	Comprehensive Plan Amendments for Climate	9 Strategies			
Plans, and Policies	Urban Design Guidelines for Climate	8 Strategies			
	County Code and Zoning Ordinance Updates				
Group 3: Community Services,	Incentives for Communities				
Education, Engagement, and	Aid and Risk Reduction Services for Communities	14 Stratogies			
Incentives	Education and Workforce Development for Communities	14 Strategies			
	Community-led Pilot Programs, Partners, and Champions				
	Consolidated Natural Resource Management Plan				
Group 4: Natural Resources	Tree Programs	8 Strategies			
	Surveying and Protection of Natural Areas	o Strategies			
	Nature-Based Restorations and Green Infrastructure				
Group E: County Escilities and	County Facilities: Energy, Water, Green Buildings, Utilities				
Group 5: County Facilities and Operations	Resilience for County Facilities and External Infrastructure	21 Strategies			
	Fleet and Transit Upgrades	21 Strategies			
	Zero Waste and Sustainable Purchasing and Procurement				
Group 6: Data and Research	Data and Map Updates	6 strategies			
	Climate-Related Research	o strategies			

Who is Involved?

The Office of Environmental and Energy Coordination (OEEC) coordinates interagency efforts for the implementation of the county's climate plans. Over 25 agencies and 150 staff are involved in implementation activities. Many actions listed in this progress report are implemented by multiple agencies or by agencies other than OEEC.

Figure 5: Interagency Coordination for Climate Plan Implementation





150+ staff from 25+ agencies are involved in climate plan implementation.

OEEC coordinates

across all agencies, and with community groups, businesses, fellow jurisdictions, utilities, state and federal government, and the general public.

The figure below summarizes how county agencies are represented on the Interagency Climate Team and its topic-focused groups. Many agencies are represented in multiple groups. However, this agency representation is often achieved through different staff members, as appropriate. For example, within FCPA, staff who manage Rec Centers are relevant to Group 3 (Community Services) and Group 5 (Facilities), whereas FCPA staff who manage natural resources are relevant to Group 4 (Natural Resources) and Group 2 (Development Codes). For a full contact list of staff involved, please contact the Office of Environmental and Energy Coordination.

Figure 6: Agencies Involved in the Interagency Climate Team and its Groups

Interagency Climate Team Groups DPWES **FCPA** DIT & GIS NVSWCD One FFX DPMM Wastewater Recenters Natural Res. DEMS Solid Waste FCDOT DPD DPD DPSC Stormwater FMD DVS MCC MCC DFS OCA 삥 OPA Cap. Fac. Group 1-Coordination, Funding, Legislation Group 2 -Development Codes, x x Х Х $x \mid x$ Х Plans, Policies Group 3 – Community Services, Education, x|x|x $|\mathbf{x}|\mathbf{x}|\mathbf{x}$ Х Х Х $x \mid x$ XX |x|x|xx|x|xEngagement, **Incentives** Group 4 - Natural Х Х Resources Group 5 - County Х Х x|x|x|Х X X X Facilities and Х Х Х Х Х Operations Group 6 - Data and Х X Research

In addition to coordination within Fairfax County government through the Interagency Climate Team (shown in the top row in the figure below), there are external stakeholders involved in the implementation of Resilient Fairfax. The external Infrastructure Advisory Group (IAG) is composed of utilities, authorities, and infrastructure managers at the local, state, regional, and federal levels. The purpose of the IAG is to help ensure that resilience upgrades are also being made to external infrastructure outside of county control. The external Community Advisory Group (CAG) is composed of residents of each Supervisor District, along with representatives of advocacy organizations, non-profits, and various Boards, Authorities, and Commissions. The purpose of the CAG is to help ensure that Resilient Fairfax is implemented in a way that is best for the community. The figure below summaries the composition of these groups. For a full list of participants, please contact the Office of Environmental and Energy Coordination (OEEC).

Figure 7: Broader Stakeholder Engagement

Lead	Office of Environmen	ntal and Energy Coordinati	on (OEEC)	
County	County	Group 1: All Hands	OEEC (Lead); County Attorney; Economic Initiatives;	25+ entities
Government	departments	Group 2: Development	Emergency Mgmt. & Security; Facilities Mgmt.; Family Services; GIS; Health; Health & Human Services; Housing;	150+ ppl
(Interagency	and agencies	Group 3: Community	Land Development Services; Neighborhood & Community	
Climate Team)		Group 4: Nature	Services; NVSWCD; One Fairfax; Park Authority; Planning & Development (PD, ZAD, CR); Procurement & Materials	
		Group 5: Facilities	Mgmt.; Public Affairs; Public Safety Comms.; Public Schools; Public Works (STW, WW, SW, UFMD, Cap	
		Group 6: Data	Facilities); Transportation; Vehicle Services	
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, BACs, 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
Office of Environmental a	and Energy Coordination			80+ entities 230+ ppl

Summary of Progress at the "Roll-up" Level

The figure below shows a bird's eye view of progress made to date. Progress is shown at the "Roll-Up" level, which is highly condensed and simplified. The figure shows the Groups, Roll-Ups, applicable plans (RF = Resilient Fairfax; CECAP = Community-wide Energy and Climate Action plan; OES = Operational Energy Strategy), and statuses of the Roll-Ups. The figure shows that while progress varies, progress is being made across all topics. For details on each Strategy and Implementation Action within these Roll-Ups, please see *Part II of this report: Detailed Progress Updates*.

Figure 8: Summary of Progress, by Strategy Roll-up

Groups	What We're Doing: "Roll-Ups" of Strategies	RF	CECAP	OES	Roll-up Status	Roll-up Status Bar
Group 1	Interagency & Regional Collaboration, Staff Capacity Building, Strategic Plan	✓	✓	✓	Steady Progress	
Coordination,	Federal, State, and Other Funding Opportunities	✓	✓	✓	Started	
Funding, Legislation	Adaptation Action Area Implementation	✓			Started	
Legislation	Legislative Proposals and Advocacy	✓	✓		Started	
Group 2	Flood Risk Reduction	✓			Started	
Development	Comprehensive Plan	✓	✓		Started	
Codes, Plans, Policies	Urban Design Guidance	✓			Started	
rollties	County Codes & Zoning Ordinance	✓	✓		Steady Progress	
Group 3	Incentives for Communities	✓	✓		Steady Progress	
Community Aid, Education, Engagement, Incentives	Aid and Risk Reduction for Communities	✓			Steady Progress	
	Education, Workforce Development	✓	✓		Started	
	Community-Led Pilot Programs, Partners, Champions		✓		Started	
Group 4	Consolidated Natural Resources Management Plan Process	✓	✓		Early Stage	
Natural Resources	Tree Programs	✓	✓		Started	
	Surveying & Protection of Natural Areas	✓	✓		Started	
	Nature-Based Restorations and Green Infrastructure	✓	✓		Started	
Group 5: Facilities	County Facilities: Energy, Water, Green Buildings, Utilities		✓	✓	Started	
& Operations	Resilience for County Facilities and External Infrastructure	✓			Early Stage	
	Fleet and Transit		✓	✓	Started	
	Zero Waste and Sustainable Purchasing and Procurement		✓	✓	Started	
Group 6 Data and	Data and Map Updates	✓	✓	✓	Steady Progress	
Research	Climate-Related Research	✓			Started	

The figure below shows an example of the content that is summarized within a "Roll-Up." On average, each Roll-Up (or each row in the preceding figure) contains 3-4 Strategies. Those Strategies, in turn, include several Implementation Actions and programs. Progress from each Implementation Action is compiled to calculate the progress of each Strategy and Roll-Up. In the example below, the Roll-up "Incentives for Communities" includes several Strategies that cover topics such as incentives for buildings and energy efficiency, solar, and transportation. One of these strategies, Strategy 29, is "Incentives for Buildings and Energy Efficiency: County Led Programs." That Strategy, in turn, includes several major programs. For detailed descriptions of the progress of these and other strategies, please see *Part II* of this report, *Detailed Progress Updates*.

Figure 9: Example of Strategies within a Strategy Roll-Up

Example for Scale: What is inside a "Strategy Roll-up"



Outcomes: Key Targets and Metrics

In addition to tracking the progress of *strategies* and *actions,* it is essential to track the *outcomes* of those efforts, or the progress being made towards overarching goals and targets.

Emissions Reduction Metrics for the Population

Figure 10 below illustrates progress on the outcome metrics for the Community-wide Energy and Climate Action Plan (CECAP), which focuses on emissions reduction for the general population. The outcome metrics from CECAP were set by the community during the CECAP planning process. The ultimate metric is the overall emissions reduction goal, which is to reduce 87% of emissions by 2050. From the 2005 baseline, as of 2020 there has been a 30% reduction in greenhouse gas emissions. This is only slightly behind where the county should be for linear progress. This metric will next be updated by MWCOG with 2023 data. The community also set many of the sector-based goals shown above. These metrics may be replaced and updated during implementation as the county and community reach or exceed these goals, or to reflect more relevant metrics that emerge over time.

For the **energy sector**, <u>CECAP</u> points to the Virginia Clean Economy Act goal of 100% clean energy by 2045. The county does not have direct control over the energy supply grid and energy sources. However, Dominion Energy's progress towards this goal is tracked by the state.

For the **buildings sector**, <u>CECAP</u> sets two goals. The first is for all new, *eligible* buildings to be green buildings. This goal is based on the existing green building policy in the Comprehensive Plan, which applies to developments that go through the entitlement process. This goal has been reached through day-to-day implementation of the green building policy. The Comprehensive Plan policy on green buildings is scheduled to be reviewed, and it is anticipated that this goal will continue to be met. The second buildings-sector goal in CECAP is to retrofit at least 100,000 housing units with energy efficiency improvements by 2030. There had been steady progress toward this goal, with at least 37,633 known housing units already having made energy efficiency improvements through various county, state, and utility programs.

For the **transportation sector**, <u>CECAP</u> sets a goal of increasing transit, non-motorized, and telework commuting to 30% of commutes by 2030. This goal was reached early due to a pandemic-related shift to telework. However, with widespread returns to the office, progress is likely to regress. The next MWCOG update to the data will reflect post-pandemic behaviors. CECAP also sets a goal for electric vehicle (EV) registrations (both plug-in hybrid EVs and battery EVs) to increase to 15% by 2030. There has been some progress in this area, but not as much as anticipated; currently 1.9% of registrations are EVs. It is anticipated that federal tax incentives and increased availability of electric vehicles will increase registrations to meet the 2030 goal.

<u>CECAP</u> has two goals for the <u>natural resources sector</u>: one related to overall tree canopy in the county, and one related to increasing tree canopy in each census tract. There is steady progress toward the goal of 60% overall tree canopy in the county, with many <u>programs</u> available to increase tree plantings throughout Fairfax County. Currently, 55% of the land area in Fairfax County is covered in tree canopy. There is also steady progress toward the goal of having every census tract in the county reach at least 40% coverage by 2030. Currently, 72% of Census Tracts are meeting this coverage goal. Tree planting efforts are focused on tree plantings in Census Tracts that do not meet this standard, with priority given to Census Tracts with high socioeconomic need.

Finally, in the waste sector, CECAP sets a goal of achieving community Zero Waste by 2040. Zero Waste is defined as diversion of 90% of the waste stream from landfill or incineration. There is steady progress toward this goal; currently, an estimated 48% of waste in the community is recycled or otherwise diverted. It is anticipated that the community will have greater involvement in this effort as part of the Solid Waste Management Plan update, as well as participation in composting and recycling efforts.

For highlights of projects that are helping the community reach these goals, please see the *Highlights from 2023* section of this Executive Summary. For details on each strategy and implementation action, please see Part II of this report: Detailed Progress Updates. Please see the Climate Action **Dashboard** for additional information, graphics, and metrics.

Figure 10: CECAP Goals and Targets

Natural

Waste

Resources

FAIRFAXCOUNTY **Outcomes: CECAP** (Emissions Reduction for the Population) Carbon Carbon neutrality for the population 57% Neutrality by 2050 (87% reduction) Energy Virginia Clean Economy Act 10% 90% Supply (100% clean by 2045) All new, eligible buildings have a **Energy** 100% **Efficiency** commitment to green building Retrofit at least 100,000 housing Energy 37,633 62,367 Efficiency units with energy efficiency by 2030 **Transport** Increase transit, non-motorized, and 57.1% 42.9 telework* commuting to 30% by 2030 **Transport** Electric vehicle registrations (PHEVs and BEVs) to 15% by 2030 Natural 60% tree canopy overall in the Resources County

30%

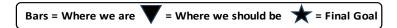
10%

100% of Census Tracts have >=40%

(90% waste diverted from the landfill/incineration)

canopy by 2030

Zero waste by 2040



60%

70%

50%

28%

80%

90%

100%

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

Emissions Reduction Metrics for County Government Operations

Figure 11 below summarizes progress made on the outcome metrics for the <u>Operational Energy Strategy (OES)</u>, which focuses on emissions reduction for county government buildings and operations. Emissions from county government operations make up less than 5% of the total greenhouse gas emissions county-wide. Nevertheless, it is important for the county government to lead by example.

<u>OES</u> has an overall greenhouse gas emissions reduction goal of reducing county government emissions by 50% by 2030 and achieving carbon neutrality by 2040. To date, the county has reduced emissions by 20.3%, compared to the 2018 baseline year. This is significant progress.

In addition to the overarching emissions reduction goal, <u>OES</u> sets sector-specific goals. For **buildings and energy efficiency**, OES has a goal of reducing energy use 25% by 2030 and 50% by 2040. To date, the county has reduced its building energy use 8.9%. Please see the <u>County Government Energy Dashboard</u> for more information on performance of buildings. The OES also sets a goal of building all new county government to LEED Gold standards plus 50% energy savings. This goal has been reached because the county enforces the policy for all new eligible county facilities. The policy will continue to be updated to remain up to date with modern standards.

For the **energy supply** sector, <u>OES</u> focuses on switching to renewable energy in county operations. Specifically, the county government has a goal of being powered by at least 25% renewable electricity by 2030 and 50% renewable electricity by 2040. The county is working ardently on solar installations on county government buildings. However, significant progress remains to be made in this area, and progress depends partly on Dominion Energy.

The **transportation sector** for OES is focused on fleet electrification, aiming to achieve a fully electric or non-carbon fleet by 2035. To date, 306 hybrid and electric fleet vehicles have been purchased, making up 2.0% of the total fleet.

The waste sector for OES has one goal related to Zero Waste for county operations. There is substantial progress toward this goal. Please see the Zero Waste page for more information.

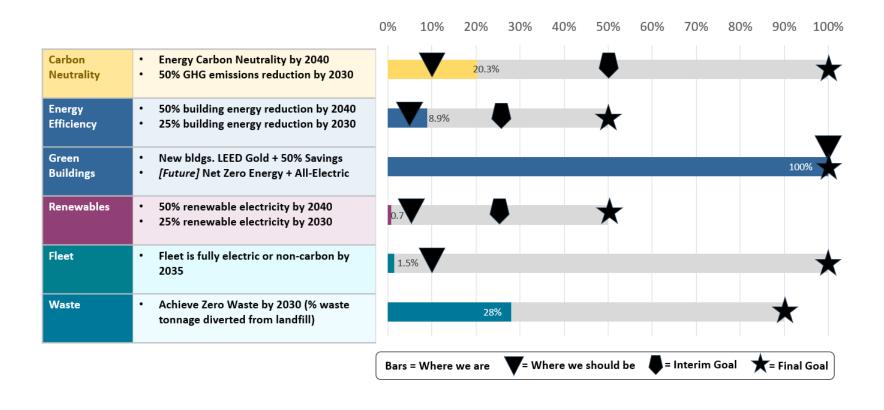
For highlights of projects that are helping the county government reach these goals, please see the *Highlights from 2023* section of this Executive Summary. For details on each strategy and implementation action, please see Part II of this report: *Detailed Progress Updates*. Please see the <u>Climate</u>

Action Dashboard for additional information, graphics, and metrics.

Figure 11: Operational Energy Strategy High-Level Metrics



Outcomes: OES (Emissions Reduction for County Government)



Resilience Metrics

While the county participates in the worldwide effort to reduce emissions (addressing the *cause* of climate change), it is also essential that we build resilience here in Fairfax County (addressing the local *effects* of climate change). In other words, as the county faces "warmer, wetter, and weirder" conditions, we are working to become more resilient to such conditions. As illustrated in the figure below, resilience efforts can be compared to running on a treadmill that is continually accelerating. Many resilience metrics are seeking resilience improvement while the hazards themselves worsen.

Therefore, there may not be such thing as metrics that can show that resilience has been fully "achieved." Nevertheless, the county's <u>Resilient Fairfax</u> efforts are crucial to ensure that we do not "fall off the back of the treadmill," which in this metaphor means permanent loss of life, property, and resources. Resilience means being able to bounce back fully from shocks and stressors without suffering repeated permanent loss.

Figure 12: Warmer, Wetter, Weirder



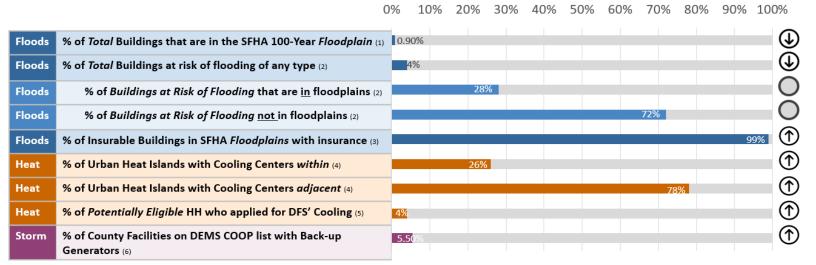
Outcomes: Resilient Fairfax

The Resilient Fairfax plan includes 48 strategies and dozens of key performance indicators (KPIs). Some KPIs from the plan have been modified to be more meaningful. A small selection of high-level metrics are summarized in the figure below. For flooding, the good news is that only 0.9% of buildings in Fairfax County are in FEMA 100-Year floodplains, and 99% of those buildings have the required flood insurance. However, outside of the floodplains, there are many more buildings at risk of urban flooding. In terms of heat, 26% of Urban Heat Islands have Cooling Centers within the same Census Tract. An estimated 4% of households that could be eligible for Cooling Assistance are applying for that assistance, so there is room for improvement. For storm resilience, 5.5% of county facilities on the Continuity of Operations list have back-up power, highlighting an opportunity for enhanced energy resilience. For highlights of projects, please see the *Highlights from 2023* section. For details on each strategy and implementation action, please see *Part II* of this report: *Detailed Progress Updates*. Please see the <u>Climate Action Dashboard</u> for additional information, graphics, and metrics.

Figure 13: Resilient Fairfax High Level Metrics



Outcomes: Resilient Fairfax



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

- Goal is to decrease. Goal is to increase. General tracking to understand issues.
- (1) Data is related to the 2010 FEMA FIRM.
- (2) Based on DPWES' "Analyzing Flood Risk" GIS Excellence Gallery 2023 (arcgis.com)
- (3) Buildings in the SFHA have a mandatory flood insurance purchase requirement as a condition for obtaining a federally backed mortgage.
- "Within" means the Cooling Center is within the UHI Census Tract itself. "Adjacent" means the Cooling Center is in an adjacent Census Tract.
- (5) "Potentially eligible" = Households below 150% of the Poverty Line, which is a LiHEAP requirement.
- (6) Back-up power percentage is based on the 312 facilities on DEMS' COOP list. 17 have generators.

Highlights from 2023

This section of the Executive Summary provides highlights of key programs and success stories from 2023. The highlights featured here are limited to a small number of programs that are of particularly strong interest to the Board of Supervisors or the public. Highlights are organized by strategy group. For detailed information on the status of every strategy and action item, please see *Part II* of this report, "*Detailed Progress Updates*,"

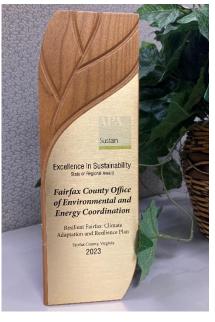
General Highlights and Awards from 2023

In addition to highlights that are sorted by topic in the sub-sections below, there are a few overarching highlights of note from 2023:

- OEEC received a national Award for Excellence in Sustainability from the American Planning Association (APA) for the Resilient Fairfax plan.
- OEEC also received the state-level 2023 Resilient Virginia Community of the Year award for the Resilient Fairfax plan.
- OEEC received recognition from the Virginia Energy Efficiency Council's Energizing Efficiency Campaign for the South Run and Cub Run Recreation Centers and the Streetlighting Project.
- OEEC's communications staff published popular newsletters that featured highlights and success stories on a monthly basis. There are many
 highlights in those newsletters. To see and subscribe to these newsletters please see this webpage: Environmental, Climate, and Energy Newsletter.











Highlights: Group 1 Strategies – (Coordination, Funding, and Legislation)

The strategies in "Group 1" provide the foundation for successful climate action through interagency coordination, funding, and legislative and other state-level action. All agencies are involved in the implementation of Group 1 strategies. For detailed descriptions of progress made, please see Part II of this report, "Detailed Progress Updates." To find an original climate plan strategy's location within the groups, please see Appendix A: Find a Strategy. This section provides a few key highlights for "Group 1" progress made in 2023.

Coordination, Funding, Legislation

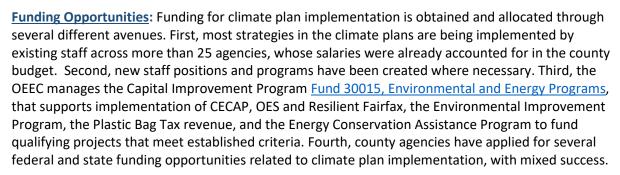
Development Codes, Plans, Policies

Community Services, Education, Engagement, Incentives

Natural Resources

County
Facilities and
Operations

Data and Research Interagency and Regional Coordination and Capacity Building: There are now over 25 county government agencies and over 150 staff involved in the implementation of the county's climate plans, led by the Office of Environmental and Energy Coordination (OEEC). These staff are organized into topic-focused implementation groups. OEEC staff have provided regular training for other agencies on climate information, customized for relevance to the applicable agency. Staff are also working to align other county-wide plans, such as the Strategic Plan, Climate Health Plan, Hazard Mitigation Plan, with the adopted climate plans. (For the Comprehensive Plan and other development plans and codes, please see Group 2). Additionally, staff are coordinating with neighboring jurisdictions, authorities, and other levels of government for well-coordinated, broader action.



State-Level Proposals and Actions: Virginia is a Dillon Rule state, which means that the state (rather than localities) holds authority over many topics. Each legislative session, Fairfax County advocates for environmental considerations by the Virginia General Assembly. In the 2023 General Assembly session and beyond, Fairfax County was involved in efforts to prevent the rollback of environmental and energy programs and policies, including an attempted repeal of the Clean Cars Virginia Bill of 2021 and efforts to withdraw Virginia from the Regional Greenhouse Gas Initiative (RGGI). For details, please see the "Detailed Progress Updates" section of this report.







Highlights: Group 2 Strategies – (Development Codes, Policies, and Plans)

The strategies in "Group 2" focus on climate-related updates to the county's land development codes, policies, and plans. For detailed descriptions of progress made for each strategy, please see Part II of this report, "Detailed Progress Updates." This section provides a few key highlights for "Group 2" progress made in the first year of implementation.

Coordination, Funding, Legislation

Development Codes, Plans, Policies

Community Services, Education, Engagement, Incentives

Natural Resources

County Facilities and Operations

Data and Research

Flood Risk Reduction

The county continues to reduce flood risk to residents in multiple ways, including physical upgrades to stormwater systems, policy changes, and education and outreach. In terms of physical upgrades, there are hundreds of completed, active, and pending <u>stormwater improvement projects</u> to reduce flooding in especially flood-prone areas. In terms of policy changes, an interagency team is currently conducting flood modeling and analyses to determine how the county's development rules and design standards may need to be updated so that our neighborhoods are more resilient to intense rainfall. Additionally, in 2023, the Department of Public Works and Environmental Services (DPWES) presented to the BOS for consideration the new Flood Mitigation Assistance Program (FMAP) that will enable property owners to flood-proof their homes and reduce smaller-scale flood risk.

Comprehensive Plan Amendments

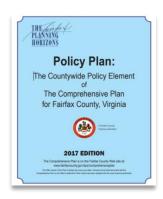
The Board of Supervisors authorized staff to pursue updates to the entire Policy Plan of the Comprehensive Plan, including the Environmental, Transportation, Land Use, Health, Public Facilities, and other sections. The adopted climate plans provide guidance on Comprehensive Plan amendments that would help to reduce emissions and boost resilience in Fairfax County. Staff are in the early stages of those amendments, which will be done in coordination with the public and all applicable boards, authorities, and commissions.

Zoning Ordinance and Other County Code Amendments

The <u>Landscaping and Screening Zoning Ordinance Amendment</u>, which was adopted by the Board of Supervisors January 23, 2024, includes climate considerations. For example, the amendment increases tree canopy in parking lots, which reduces the Urban Heat Island effect, and encourages the planting of native or environmentally tolerant trees.

The <u>Parking Reimagined Zoning Ordinance Amendment</u>, adopted by the Board of Supervisors September 26, 2023 and effective beginning January 1, 2024, includes many climate-friendly provisions such as lower minimum parking requirements for developments in areas of the





Coordination, Funding, Legislation

Development Codes, Plans, Policies

Community Services, Education, Engagement, Incentives

Natural Resources

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Operations

Data and Research county with higher density and more available transit options, new bicycle minimum parking requirements, and expanded options for adjusting parking requirements.

The <u>Chesapeake Bay Preservation Ordinance</u> is being updated by staff to account for state-level legislative changes, including tree preservation and sea level rise considerations in Resource Protection Areas.

Staff are also drafting proposals to modify the processes and special exception requirements for construction in major floodplains, to reduce flood risk.

Staff are conducting research on potential additional amendments to the Zoning Ordinance and other County Codes with relevance to climate.

Urban Design Guideline Amendments

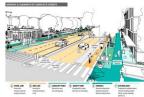
Richmond Highway Bus Rapid Transit Cost Benefit Analysis

The county's <u>Urban Design Guidelines</u> provide detailed guidance on the design of urban areas and streetscapes. Volume I of the Urban Design Guidelines applies to all Commercial Revitalization Districts and Areas, while Volume II provides guidelines for individual locations. The Department of Planning and Development – Community Revitalization Section has launched the process to update <u>Volume I of the Urban Design Guidelines</u>. This update will include climate-related considerations such as cool pavement selection to reduce the Urban Heat Island effect.

Island effect.

An interagency sub-group, led by DPWES and consultants RK&K, conducted a cost benefit analysis of the stormwater and landscape design options for the Richmond Highway Bus Rapid Transit (BRT) project. The project seeks to include high-quality stormwater and landscape design that exceeds minimum requirements, to ensure reduced stormwater runoff, reduced urban heat island impacts, improved tree canopy, improved equity considerations, increased public spaces and comfort, and other ecological services and associated benefits. The group worked to align the Cost Benefit Analysis of the BRT project with the Strategic Plan, Resilient Fairfax, and One Fairfax goals. This project is one prominent example of how interagency implementation of climate plan recommendations can make a measurably positive difference for the community by enabling better design for on-the-ground projects.





Highlights: Group 3 Strategies – (Community Services, Education, Engagement, Incentives)

The strategies in "Group 3" focus on climate-related community services, education, engagement, and incentives. For detailed descriptions of progress made for each strategy, please see Part II of this report, "Detailed Progress Updates." This section provides a few key highlights for "Group 3" progress made in the first year of implementation.

Coordination, Funding, Legislation

Development Codes, Plans, Policies

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Public Information and Outreach

The Office of Environmental and Energy Coordination (OEEC) conducted robust public information and outreach during 2023 through many avenues, including inperson events and meetings, presentations and webinars, social media campaigns, website updates, videos, podcasts, informational campaigns, and production of a suite of new resources and toolkits for residents. Highlights of new or updated resources include the following:

- **UPDATED**: Resources for Residents, including new factsheets and resources in multiple languages, guides for decision making, and video testimonials.
- **UPDATED**: Climate Action Dashboard, with climate data and progress.
- NEW: <u>Climate Action Checklists for Residents</u> and mini checklists for <u>Home</u>
 Energy, Resilience, Transportation, Waste, and Natural Resources.
- **EXPANDED**: Informational campaigns for Solarize VA and Capital Area Solar Switch, Green Business Partners, Charge Up Fairfax, the Energy Conservation Assistance Program, and more.

Charge Up Fairfax

<u>ChargeUp Fairfax</u> is a program that helps community associations, like homeowners' associations and condominium associations, access electric vehicle charging for their residents and guests. The program had several key milestones in 2023, including:

- The pilot program was launched on March 9, 2023, with five communities.
- Staff provided engagement including in-person site visits and direct outreach to over 60 communities, the launch of the ChargeUp Fairfax webpage, a webinar, and promotion through social media, presentations, and published articles.
- Five additional communities were accepted into the pilot program on December 1, 2023, for a total of 10 communities in the pilot.
- Staff are preparing to launch the program at scale in May 2024.





Coordination, Funding, Legislation

Development Codes, Plans, Policies

Community Services, Aid, Engagement, Incentives

Natural Resources

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Green Business Partners

The <u>Green Business Partners program</u> recognizes businesses that are actively engaging in or interested in sustainable business practices that advance climate action and help create a carbon neutral economy. The Green Business Partners program had an exciting re-launch in March 2023, kicking off with a robust Green Business Partners forum that included **70** participants and **46** unique businesses. The program now includes **16** "members" and "leaders" and **5** "allies," for a total of **21** formal Green Business Partners. The Office of Environmental and Energy Coordination (OEEC) boosted outreach and engagement in 2023, through video spotlights (see <u>Freddie Mac Leader Spotlight</u> and <u>River Sea Chocolates Leader Spotlight</u>), webinars, and bimonthly e-newsletters.



Climate Champions Pilot and the Energy Conservation Assistance Program

The Office of Environmental and Energy Coordination (OEEC) also developed a new climate action program for Places of Worship, in partnership with Faith Alliance for Climate Solutions (FACS). Through this "climate champions" program, 15 places of worship have started or are planning to undertake an energy audit or other climate action. FACS was the recipient of a federal grant to build the program and support new FACS staff, and they held 7 webinars in 2023 with over 100 participants total.

In a related effort, OEEC and the Northern Virginia Conservation Assistance Program (NVSWCD) in 2023 launched a significantly upgraded <u>Energy Conservation Assistance Program</u>, expanding the types of organizations that are eligible to apply and the amount of the reimbursement grant available, and adding an equity component to enable higher reimbursements in disadvantaged areas identified by One Fairfax.



Energy Efficiency Services and Kits

In addition to the Energy Conservation Assistance Program mentioned above, numerous county agencies and partners have provided energy efficiency upgrades and supplies to over 40,000 households since 2016. These services and kits have been supplied through programs such as OEEC's HomeWise Program, Fairfax County Public Library's Conserve Kits and Thermal Camera Loan Program, Community



Housing Partner's weatherization services, and Dominion Energy's energy efficiency programs, among others.

Coordination, Funding, Legislation

Development Codes, Plans, Policies

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Extreme Heat Services

The county is making great progress on many services and programs related to extreme heat.

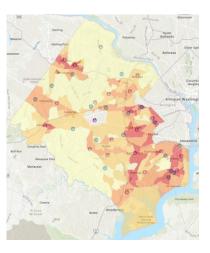
Land surface temperatures and urban heat islands have been mapped across the county thanks to a partnership between OEEC and NASA Develop. (See <u>Resilient Fairfax Interactive Map Viewer</u>). This map shows us which neighborhoods remain significantly hotter during the summer due to excess asphalt, densely built buildings, and lack of green space. Additionally, OEEC has compiled both historic temperature trends and future temperature projections. (See "<u>Resilience Metrics Overall</u>" section of the Climate Action Dashboard.

The Extreme Heat Stakeholders Workgroup's efforts have resulted in upgraded Cooling Center services, transportation and accessibility, and supply distribution on extreme heat days, especially for unsheltered residents. There are now <u>47 official upgraded Cooling Centers</u>. In 2023, **27,000** supplies were distributed from the county's Cooling Centers.

In addition to Cooling Centers, the Department of Family Services (DFS) continues to provide financial and equipment assistance to those without air conditioning through their <u>Cooling Assistance program</u>. **1,452 service requests** were approved in 2023.

Group 3 of the Interagency Climate Team is continuing coordination to ensure those who need heat-related services know about them, and to ensure that similar services are coordinated and aligned with each other.

Moving forward, the group will work on developing heat-related guidance for outdoor workers and outdoor sports, and initiatives for heat-resilient design such as cool roofs and cool pavements.



47 Upgraded official Cooling Centers

27,000 Supplies distributed from Cooling Centers

1,452
Air conditioning service requests approved in 2023.

Highlights: Group 4 Strategies – (Natural Resources)

The strategies in "Group 4" focus on climate-related natural resources strategies. For detailed descriptions of progress made for each strategy, please see **Part II** of this report, "**Detailed Progress Updates.**" This section provides a few key highlights for "Group 4" progress made in the first year of implementation.

Coordination, Funding, Legislation

Development Codes, Plans, Policies

Community Services, Education, Engagement, Incentives

Natural Resources

County
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Tree Planting and Programs

The county and its partners have continued the 20+ local tree planting programs, along with invasive removal and management. An estimated 16,000 trees were planted in 2023. As of 2023, the county has 55.4% tree canopy coverage, with a goal of achieving 60% canopy by 2030. Most of the tree canopy growth is due to existing trees growing larger, rather than new trees being planted. To ensure that trees can survive increasingly severe climatic conditions long enough to grow, staff have also conducted extensive research on which tree species are more resilient to climatic hazards and are preparing recommendations. For more tree information, please see Urban Forestry.

Wetland, Stream, Floodplain, and Forest Restorations

Staff have also continued dozens of restorations through programs including FCPA's Helping our Land Heal and DPWES' Stormwater Improvement Projects. In 2023, FCPA approved partial funding to support the restoration of six acres of meadows at Cub Run Stream Valley Park and 12 acres at Laurel Hill Park. DPWES has approximately 92 stormwater improvement projects listed as "active."

Green Infrastructure

The county continues to implement green infrastructure for both government facilities and the community. These practices include bioretention, permeable pavement, rainwater harvesting, green roofs, dry wells, and more. The county and its partners also provide National Green Infrastructure Certification Program trainings for contractors. NVSWCD's CAP program also provides green infrastructure assistance for homeowners.

Protecting Areas that Provide Natural Resilience

Fairfax County has a long history of protecting natural areas through park land dedications, Resource Protection Areas and floodplain designations, conservation easements, and more. These areas naturally protect our communities by absorbing flooding, storm surge, and reducing heat. The county and its partners are working to continue and expand this sensitive land protection.







Highlights: Group 5 Strategies – (Facilities and Operations)

The strategies in "Group 5" focus on climate-related updates to county government facilities and operations. For detailed descriptions of progress made for each strategy, please see **Part II** of this report, "**Detailed Progress Updates**." This section provides a few key highlights for "Group 5" progress made in the first year of implementation.

Coordination, Funding, Legislation

Development Codes, Plans, Policies

Community Services, Education, Engagement, Incentives

Natural Resources

County
Facilities and
Operations

Data and Research

Green Buildings

As of December 2023, 44 county government buildings are LEED certified. Of those, 18 are LEED Gold. The new Woodlawn Fire Station is the county's first LEED platinum building. See a map of them here.

Energy Audits and Retrofits

The county continues to make diligent progress improving the energy efficiency of existing county government buildings. Since the OES was published in 2021, 21 energy audits have been completed (8 of those in 2023), and 10 energy retrofits have been completed (2 in 2023).

Solar on County Buildings

The county has also rapidly accelerated the installation of solar on county government buildings. As of December 2023, there are five county buildings with rooftop solar, and there are 18 additional planned by the end of 2025.

Electric and Hybrid Vehicles in the County Fleet

The county continues to make progress converting the government fleet of vehicles to electric and hybrid vehicles. As of December 2023, there are a total of 306 low-emissions vehicles in the fleet, including 83 electric vehicles (EVs) and 223 hybrid vehicles. These include two new electric trash trucks in 2023. Due to the size of the fleet, there is still a lot of work to be done; these 306 vehicles make up 2.0% of the county's total fleet. To enable this fleet conversion, the county has also installed 102 EV charging ports on county government property.







Coordination, Funding, Legislation

Development Codes, Plans, Policies

Community Services, Education, Engagement, Incentives

Natural Resources

County
Facilities and
Operations

Data and Research

Zero Waste

The county continues to make progress towards its goal of Zero Waste by 2030 (90% of waste diverted by 2030). To date, approximately 28% of waste is being diverted. The county, led by DPMM, has launched a Departmental Champions Network, and Action Plans are in progress. The county has also created educational and training resources such as the Champions Toolkit, completed Waste Audits for county and schools facilities, launched the Three Bin Pilot (composting) throughout the Government Center, and kicked off the Zero Waste Party Pack Program for reusable foodware. Additionally, the county has launched a Reusable Packaging Program, including reusable pallet wraps rather than plastic wraps at the Logistics Center.

Sustainable Procurement

In addition to Zero Waste, the county is embarking on Sustainable Procurement initiatives, to ensure that the supplies and materials that the county purchases are sustainably and ethically sourced. To date, over 100 major suppliers have joined the Corporate Social Responsibility Program. Additionally, a "Scope 3" Supply Chain Greenhouse Gas Analysis is in progress and a formal Sustainable Procurement Policy is in development.

Resilience of County Buildings and Facilities

Historically, environmental initiatives for county facilities have focused on emissions reduction topics such as energy efficiency, solar, and electric vehicles. In addition to reducing emissions, it is critical to focus on resilience, to ensure that county facilities and operations can better withstand increasingly severe climatic hazards such as flooding, severe storms, and extreme heat. Since the adoption of the Resilient Fairfax plan, the county is now beginning to consider resilience for its own facilities. Staff are evaluating and seeking to address climate change related facility vulnerabilities for both existing and planned facilities. In 2024, staff will be determining the best pathways for implementing these resilience-related upgrades. In alignment with Resilient Fairfax, options include updating the Capital Improvement Program (CIP) prioritization process, incorporating resilience into the Sustainable Development Policy, adding resilience considerations to the ESCO process, and/or leveraging infrastructure sustainability rating systems such as Envision that consider both emissions reduction and resilience.







Highlights: Group 6 Strategies – (Climate Data and Research)

The strategies in "Group 6" focus on climate-related data, metrics, and research. For detailed descriptions of progress made for each strategy, please see **Part II** of this report, "**Detailed Progress Updates**." This section provides a few key highlights for "Group 6" progress made in the first year of implementation.

Coordination, Funding, Legislation

Development Codes, Plans, Policies

Community Services, Education, Engagement, Incentives

Natural Resources

County
Facilities and
Operations

Data and Research

Interagency Environmental Data Coordination

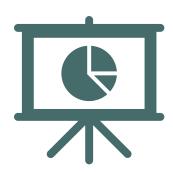
County agencies are systematically working to streamline and improve environmental and climate data tracking and coordination. For the first time, there is an interagency Climate Plan Progress Tracker shared with all agencies that includes all strategies and metrics from all climate plans. For greatest efficiency and alignment, "Group 6 (Data and Research)" of the Interagency Climate Team has merged with the Strategic Plan's data group, enabling countywide consistency on metrics and data.

Climate Action Dashboard

OEEC launched an updated version of the <u>Climate Action Dashboard</u>, which shows climate-related data and metrics for both emissions reduction and resilience. The dashboard features "<u>Emissions Reduction Overall</u>" and "<u>Resilience Overall</u>" pages, along with sector-specific metrics pages for <u>Buildings</u>, <u>Energy Supply</u>, <u>Transportation</u>, <u>Waste</u>, <u>Natural Resources</u>, and <u>Community Services</u>. The sector-specific metrics pages include information for both emissions reduction and resilience as they relate to those sectors.

Climate-related Research

There are numerous cutting-edge research initiatives newly occurring through partnerships with Fairfax County and universities (such as GMU), regional authorities (such as NVRC and MWCOG), and other entities (such as MARISA). Additionally, there is excellent climate research and data collection that has continued within county agencies. Topics include vector-borne disease research, temperature and weather trends, Digital Twin modeling, flood modeling and precipitation change, urban forestry data, emissions inventories and tracking, urban heat island data, and more.





PART II: DETAILED PROGRESS UPDATES – FAIRFAX COUNTY CLIMATE PLANS

Background and How to Read this Document

Fairfax County, Virginia, is working to address both the *cause* and the *effects* of climate change. The Fairfax County Board of Supervisors (BOS) has adopted and/or accepted three climate plans.

- To help address the cause of climate change, Fairfax County is doing our part in the worldwide effort to reduce greenhouse gas emissions.
 - The Community-wide Energy and Climate Action Plan (CECAP) / CECAP Implementation Plan is focused on reducing emissions in the Fairfax County community.
 - The Operational Energy Strategy (OES) is focused on reducing emissions in county government operations.
- **To help address the** *effects* **of climate change,** Fairfax County is adapting and building resilience to the impacts that we experience locally such as increasingly extreme heat, severe storms, and flooding.
 - o The Resilient Fairfax plan focuses on boosting resilience for both the community and the county government.

For greatest efficiency, these three climate plans are being implemented and tracked in a streamlined and consolidated manner. To enable this streamlining, all strategies from <u>CECAP</u>/<u>CECAP IP</u>, <u>OES</u>, and <u>Resilient Fairfax</u> were consolidated and organized into 77 strategies, 22 roll-ups, and 6 groups. For additional background information, please see Part I of this report. **This section of the report, Part II, provides detailed progress updates for each roll-up, strategy, and implementation item from Fairfax County's three climate plans. There are a few layers to this progress tracking system, as summarized in the table below.**

Table 2: Legend for this Progress Report

Description	Legend / Examples
GROUPS: Groups are the highest level of progress tracking. All items are organized into the 6 groups.	Group 1 = Coordination, Legislation, and Funding Group 2 = Development Codes, Policies, and Plans Group 3 = Community Services, Education, Engagement, and Incentives Group 4 = Natural Resources Group 5 = Facilities and Operations Group 6 = Data and Research
ROLL-UPS: Each Group has a few "Roll-Ups," or high-level topics of focus. These	Roll-up Names: There are 22 Roll-ups. Each Roll-up is named to summarize the strategies within. For example, the roll-up "Incentives for Communities" is a collection of incentive-related strategies.

"Roll-Ups" were created by collecting strategies that address the same or similar topics. Roll-ups help with big-picture progress tracking. On average, each Roll-up includes 3-4 **Strategies**. In rare cases where a strategy is too unique to be rolled up with others, that strategy serves as the sole strategy within the Roll-up. The progress bars of each Roll-up are based on a sum of progress made for all Strategies within that Roll-up.

Roll-up Statuses:

Each Roll-up is given a qualitative status ranging from "not started" to "complete." The purpose of this system is to enable consistent progress tracking across Roll-ups that vary widely in type. A legend can be found below.

Not Started (0% of Actions complete): No actions in the Roll-up have been started.

Early Stages (<25% of Actions complete). Fewer than 25% of actions in the Roll-up have been completed. For example, if the Roll-up includes 5 Strategies, and each of those Strategies has 4 Implementation Actions (20 total IAs in the Roll-up), and only 2 of those IAs have been completed, the Roll-up would show 2/20 = 10%.

Started (>25% of Actions complete): At least 25% of actions in the Roll-up are complete, but less than 50%. For example, if the Roll-up includes 5 Strategies, and each of those Strategies has 4 Implementation Actions (20 total IAs), and 6 of those IAs have been completed, the Roll-up would show 6/20 = 30%.

Steady Progress (>50% of Actions complete): At least 50% of actions are complete in this Roll-up, but less than 75%. For example, if the Roll-up includes 5 Strategies, and each of those strategies has 4 Implementation Actions (20 total IAs), and 11 of those IAs have been completed, the Roll-up would show 11/20 = 55%.

Significant Progress (>75% complete): At least 75% of actions in this Roll-up are complete, but less than 100%. For example, if the Roll-up has 5 Strategies, and each of those Strategies has 4 Implementation Actions (20 total IAs), and 16 of those IAs are complete, the Roll-up would show 16/20 = 80%.



Complete (100% of Actions complete): All actions in the Roll-up are complete.

STRATEGY: Strategies are the next level of progress tracking. Strategies are from the county's three climate plans. Strategies usually have multiple *Implementation Actions*. The status of a strategy is based on the sum of progress of its Implementation Actions.

Strategy Numbers and Descriptions:

The 77 Strategies are compiled from the three climate plans. Each of these climate plans had their own naming and numbering system. For clarity in this compiled version, there was a need to assign a fresh numbering system, while also maintaining a connection to the original plans. The strategies are numbered 1 through 77. Strategies that were identical or nearly identical between climate plans were merged. References to each plan are included, to clarify the origins of each strategy.

Strategy Statuses:

Each Strategy is given a qualitative status ranging from "not started" to "complete." The purpose of this system is to enable consistent progress tracking across Strategies that vary widely in type. A legend can be found below.

Not Started (0% of Actions complete): No implementation actions within this strategy have started.

Early Stages (<25% of Actions complete): Some work has started, but collectively, fewer than 25% of Implementation Actions for the Strategy are complete. For example, if the Strategy has 4 Implementation Actions and 0.5 of an Action is complete, the Strategy status would show 0.5/4 = 12%.

Started (>25% of Actions complete): At least 25% of Implementation Actions are complete for this strategy, but less than 50%. For example, if the strategy has 4 Implementation Actions, at least 1 of them is complete.

Steady Progress (>50% of Actions complete): At least 50% of Implementation Actions are complete for this strategy, but less than 75%. For example, if the strategy has 4 Implementation Actions, at least 2 of them are complete.

Significant Progress (>75% complete): At least 75% of Implementation Actions in this strategy are complete, but less than 100%. For example, if the strategy has 4 Implementation Actions, at least 3 of them are complete.

Complete (100% of Actions complete): All Implementation Actions in this strategy are complete. For example, if the strategy has 4 Implementation Actions, all 4 of them are complete (or fully active, for a program).

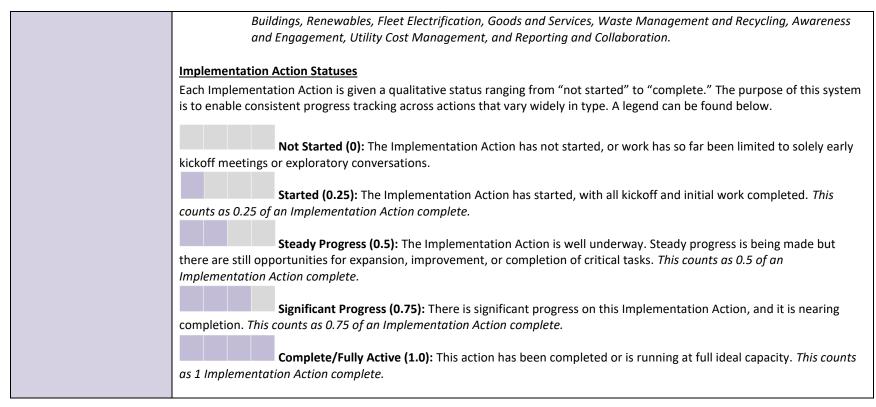
IMPLEMENTATION ACTION (IA):

Implementation Actions are the smallest scale of progress tracking.
Implementation Actions are specific actions that the county is taking to accomplish a *Strategy*. Most strategies have multiple Implementation Actions.

Implementation Action Numbers and Descriptions:

There are Implementation Actions for each Strategy. These Implementation Actions are compiled from the three climate plans. Each of these climate plans had their own naming and numbering system. For clarity in this compiled version, there was a need to assign a fresh numbering system, while also maintaining a connection to the original plans. Therefore, the Implementation Actions for each Strategy start with #1. To maintain a reference to the original climate plans and their numbering systems, the original details are linked after each new Action number. For example:

- ACTION 1: Resilient Fairfax | IAP.4a: Example action description for action 1.
 - This example action would have originated from the Resilient Fairfax Plan. The Resilient Fairfax plan organized strategies into four pillars: IAP = Integrated Action Planning. RIB = Resilient Infrastructure and Buildings. CRC = Climate-Ready Communities. AE: Adaptive Environments.
- <u>ACTION 2: CECAP Implementation Plan | BEE.16, ES.12, T.21, NR.11, W.17:</u> Example action description for action 2.
 - This example action would have originated from the CECAP Implementation Plan. The CECAP Implementation
 Plan had the following categories: BEE= Building Energy and Efficiency; ES = Energy Supply; T = Transportation; NR = Natural Resources; W = Waste.
- ACTION 3: OES | Awareness and Engagement: Example action description for action 3.
 - o This example action would have originated from the Operational Energy Strategy (OES). The OES has 11 focus areas: Greenhouse Gas Emissions Reductions, Energy Use and Efficiency, Water Use and Efficiency, Green



The status of strategies & actions should not be misinterpreted as being equivalent to outcome metrics. For example, if the county were to achieve 2 out of 4 Implementation Actions for promotion of solar incentives, that would be 50% of the actions for that strategy, but that would not mean that 50% of the county is now operating on solar energy. For clarity, metrics are tracked separately and can be found in the "Outcomes: Targets and Metrics" section of the Executive Summary.

Find a Key Program

The table below summarizes where to find select **key programs that are often of interest to the public**. Many additional programs and topics are also covered in the detailed updates below. To find a specific strategy from one of the county's climate plans, please see **Appendix A: Find a Strategy**.

Table 3: Where to Find Key Programs

Key Programs (A-Z)	Group	Strategy #
Carbon Free Fairfax	Group 3: Community Services, Education, Engagement, Incentives	Strategy 38
Charge Up Fairfax	Group 3: Community Services, Education, Engagement, Incentives	Strategy 32
C-PACE	Group 3: Community Services, Education, Engagement, Incentives	Strategy 30
Conserve Kit Program	Group 3: Community Services, Education, Engagement, Incentives	Strategy 29
Cooling Centers	Group 3: Community Services, Education, Engagement, Incentives	Strategy 35
Energy Conservation Assistance Program	Group 3: Community Services, Education, Engagement, Incentives	Strategy 29
Electric Vehicle (EV) Incentives	Group 3: Community Services, Education, Engagement, Incentives	Strategy 32
Get2Green	Group 3: Community Services, Education, Engagement, Incentives	Strategies 37, 38
Green Building Recognition Program	Group 3: Community Services, Education, Engagement, Incentives	Strategy 29
Green Business Partners	Group 3: Community Services, Education, Engagement, Incentives	Strategy 41
HomeWise	Group 3: Community Services, Education, Engagement, Incentives	Strategy 29
Legislative Program	Group 1: Coordination, Funding, Legislative, State-level action	Strategies 16-20
Resilience Hubs	Group 3: Community Services, Education, Engagement, Incentives	Strategy 36
Solar incentives	Group 3: Community Services, Education, Engagement, Incentives	Strategy 31
Solar on government buildings	Group 5: Government Facilities and Ops	Strategy 56
Thermal Camera Loan Program	Group 3: Community Services, Education, Engagement, Incentives	Strategy 29
Tree Programs	Group 4: Natural Resources	Strategy 44

Summary of Progress

Summary of Progress by Roll-up Only Figure 14: Summary of Progress at the "Roll-up" Level

Groups	What We're Doing: "Roll-Ups" of Strategies	RF	CECAP	OES	Roll-up Status	Roll-up Status Bar
Group 1	Interagency & Regional Collaboration, Staff Capacity Building, Strategic Plan	✓	✓	✓	Steady Progress	
Coordination,	Federal, State, and Other Funding Opportunities	✓	✓	✓	Started	
Funding, Legislation	Adaptation Action Area Implementation	✓			Started	
Legislation	Legislative Proposals and Advocacy	✓	✓		Started	
Group 2	Flood Risk Reduction	✓			Started	
Development	Comprehensive Plan	✓	✓		Started	
Codes, Plans, Policies	Urban Design Guidance	✓			Started	
Folicies	County Codes & Zoning Ordinance	✓	✓		Steady Progress	
Group 3	Incentives for Communities	✓	✓		Steady Progress	
Community Aid,	Aid and Risk Reduction for Communities	✓			Steady Progress	
Education, Engagement,	Education, Workforce Development	✓	✓		Started	
Incentives	Community-Led Pilot Programs, Partners, Champions		✓		Started	
Group 4	Consolidated Natural Resources Management Plan Process	✓	✓		Early Stage	
Natural Resources	Tree Programs	✓	✓		Started	
	Surveying & Protection of Natural Areas	✓	✓		Started	
	Nature-Based Restorations and Green Infrastructure	✓	✓		Started	
Group 5: Facilities	County Facilities: Energy, Water, Green Buildings, Utilities		✓	✓	Started	
& Operations	Resilience for County Facilities and External Infrastructure	✓			Early Stage	
	Fleet and Transit		✓	✓	Started	
	Zero Waste and Sustainable Purchasing and Procurement		✓	✓	Started	
Group 6 Data and	Data and Map Updates	✓	✓	✓	Steady Progress	
Research	Climate-Related Research	✓			Started	

Details: Group 1 Strategies – (Coordination, Funding, Legislation)





















































Strategies in Group 1 are focused on climate-related coordination, funding, and legislation. In addition to serving as a way to sort strategies, "Group 1" is also one of the six staff working groups of the Interagency Climate Team, which focuses on implementing Group 1 strategies. Due to the nature of the topics of Group 1, all agencies in the Interagency Climate Team are represented in Group 1. (Group 1 meetings are "all hands" meetings.) The following agencies are represented on the Interagency Climate Team and Group 1: Community Services Board (CSB); Department of Economic Initiatives (DEI), Department of Emergency Management and Security (DEMS); Department of Family Services (DFS); Department of Information Technology (DIT); Department of Management and Budget (DMB); Department of Planning and Development (DPD)-Planning Division (PD), Zoning Administration Division (ZAD), and Community Revitalization Section (CRS); Department of Procurement and Material Management (DPMM); Department of Public Safety Communications (DPSC); Department of Public Works and Environmental Services (DPWES) - Stormwater (including Urban Forestry), Wastewater, Solid Waste, and Capital Facilities; Department of Vehicle Services (DVS); Economic Development Authority (EDA); Fairfax County Department of Transportation (FCDOT); Fairfax County Health Department (FCHD); Fairfax County Park Authority (FCPA); Fairfax County Public Library (FCPL); Fairfax County Public Schools (FCPS) and Get2Green; Facilities Management Division (FMD); Housing and Community Development (HCD); Land Development Services (LDS); McLean Community Center (MCC); Neighborhood and Community Services (NCS); Northern Virginia Soil and Water Conservation District (NVSWCD); Office of the County Attorney (OCA); Office of Environmental and Energy Coordination (OEEC); One Fairfax/ Chief Equity Officer's Office; Office of Public Affairs (OPA); and Reston Community Center (RCC). OEEC facilitates the Interagency Climate Team, including Group 1.

Strategies in Group 1 are sorted into the following "roll-ups":

- Interagency and Regional Coordination and Capacity Building (including the Strategic Plan)
- Federal, State, County, and other Funding Opportunities
- **Adaptation Action Area Implementation**
- **Legislative and Other State-Level Proposals and Advocacy**

The section below details progress made and the statuses of each Strategy Roll-up, Strategy, and Implementation Action for Group 1.

Roll-up Status	Roll-up					
Steady Progress 17.5 of 28 Actions Done (63%)	Roll up: Interagency, Regional	Coordinat	ion, and Ca	pacity Buildin	g on Climate	
Strategy Status	★ Strategy¹	Groups	Completion	Resilient Fairfax	CECAP IP	OES
Significant Progress	1. Establish a Long-term Interagency Collaboration System for Resilience	1	2024 for initial actions	IAP.4a	n/a	n/a
4.25 of 5 Actions Done (85%)						

Resilient Fairfax | IAP.4a: Establish a Long-term Interagency Collaboration System for Resilience

Lead: OEEC. Partners: DCC, DEI, DEMS, DFS, DIT, DMB, DPD, DPSC, DPWES, FCDOT, FCPA, FCPL, FCPS, FMD, HCD, FCHD, LDS, NCS, NVRC, NVSWCD, One Fairfax, UFMD. Timeline: Shovel Ready. Cost: \$ (\$0-\$100k). Existing Staff: Yes. Description: Interagency collaboration is foundational to climate resilience planning and implementation and is promoted with Fairfax County by OEEC. OEEC was created to lead interagency environmental coordination, including climate resilience. OEEC also leads the county's climate-related coordination with regional, state, and federal entities. Throughout development of this Resilient Fairfax plan, the Resilient Fairfax Planning Team, comprised of 20 county departments, coordinated closely with OEEC to inform project deliverables, including the technical analyses, strategies, and the compiled Resilient Fairfax plan. Continued interagency collaboration during the implementation phase is critical to the success of Resilient Fairfax because climate resilience efforts are interdisciplinary and crosscutting across many departments. This strategy involves the establishment of a system for long-term climate resilience coordination, capacity building, and project alignment across all relevant county departments. The collaboration system should be structured in a way that is helpful, convenient, and streamlined for participating departments.

Action Status Actions



ACTION 1: Resilient Fairfax | IAP.4a | Identify county departments who should be involved in climate resilience collaboration long-term, led by OEEC. Designate a climate champion within each department.

STATUS NOTES: To implement the county's three climate plans simultaneously, OEEC has created an "Interagency Climate Team" composed of over 150 staff from over 25 county and county-adjacent departments and agencies. These agencies include CSB, DEI, DEMS, DFS, DIT-GIS, DMB, DPD-CRS, DPD-PD, DPD-ZAD, DPMM, DPSC, DPWES-STW, WW, DPWES-SWM, DPWES-CAP, DPWES-BDCD, DPWES-UFMD, DVS, EDA, FCDOT,

 $^{^{\}mathrm{1}}$ Strategies with a star were identified as priority strategies in their respective plans.

FCHD, FCPA, FCPL, FCPS, FMD, HCD, LDS, MCC, NCS, NVRC, NVSWCD, OCA, OEEC, One Fairfax, OPA, and RCC. This Interagency Climate Team is organized into six groups. Group 1 is an "all hands" group, with representatives from all agencies; Group 1 meetings are used for discussions that are relevant to all agencies, such as funding and capacity building. Group 2 is focused on updates to development codes, policies, and plans. Group 3 is focused on enhancements to community services, education, engagement, and incentives. Group 4 is focused on management and protection of natural resources. Group 5 is focused on county facilities and operations. Group 6 is focused on climate-related data, progress tracking, and research.

Complete (1 Action Done) ACTION 2: Resilient Fairfax | IAP.4a | Identify non-county infrastructure management and resilience-related entities who should continue to be involved in the county's climate resilience implementation collaboration and data sharing long term.

STATUS NOTES: In addition to the team of county staff described above, OEEC facilitates two external advisory groups: an Infrastructure Advisory Group (IAG) and a Community Advisory Group (CAG). The CAG and IAG each have over 25 entities. The CAG has new members, including the Disability Services Board and Health Care Advisory Board

Complete

ACTION 3: Resilient Fairfax | IAP.4a | Create a clear and user-friendly system for long-term collaboration. This system could include periodic Resilience Work Group meetings, information sharing protocols, a schedule for updates, or other options.

(1 Action Done)

STATUS NOTES: A highly organized system has been created for the Interagency Climate Team and its associated groups. To enable shared ownership and leadership of the six groups, OEEC has obtained co-chairs from other agencies. An Interagency Microsoft Teams site has been developed with channels, folders, files, meeting recordings, and materials for each group, to enable collaboration between departments working on the same strategies.



Action Done)

ACTION 4: Resilient Fairfax | IAP.4a | Establish a process for clear coordination of interagency resilience projects, policy and plan updates, resilience-related grant opportunities (IAP.3b), and capacity building. This process should include different "levels" of engagement, including more regular collaboration between agencies that are particularly imperative to the community's climate resilience and have expressed interest in closer collaboration, including but not limited to FCHD, NCS, LDS, FCPA, and DPWES.

STATUS NOTES: This action has made significant progress through the Interagency Climate Team and its associated groups.



ACTION 5: Resilient Fairfax | IAP.4a | Conduct yearly evaluations of the collaboration system and adjust as needed to improve coordination efforts.

Done)

STATUS NOTES: OEEC is currently evaluating the collaboration system and seeking opportunities for improvement.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	2. Update the Strategic Plan to Enhance	1	твр	IAP.1b	n/a	n/a
Not Started	Climate Resilience					
0 of 1 Actions						
Done (0%)						

Action Status

Actions



(0)

ACTION 1: Resilient Fairfax | IAP.1b | Pursue potential additions to the countywide Strategic Plan to enhance climate resilience during the anticipated regular update cycle.

STATUS NOTES: The county's first-ever countywide Strategic Plan (2021) did include climate resilience strategies. However, there are opportunities for greater specificity. The Department of Management and Budget is updating the Strategic Plan sections one-by-one, as the data dashboards for each are completed. The Environment and Energy section of the Strategic Plan has not yet been scheduled for an update but is estimated to take place in 2024 or 2025. The Office of Environmental and Energy Coordination is a member of DMB's Strategic Planning teams, and the two agencies have merged their data meetings to ensure the Strategic Plan is aligned with the county's climate plans.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	3. Complete the Climate Health Plan	1	TBD	IAP.1c	n/a	n/a
Started						
0.25 of 1 Action						
Done (25%)						

Action Status

Actions



(~0.25 of Action

Done)

ACTION 1: Resilient Fairfax | IAP.1c | Complete the Climate Health Plan, including considerations for resident and worker safety in extreme climate conditions such as extreme heat.

STATUS NOTES: The Health Department is relaunching its Climate Health Program aimed at developing whole-community preparedness and resilience against the health impacts of climate change, which was paused during the COVID-19 pandemic emergency response. The program's goals are to increase awareness and mitigation of health-related climate hazards, to reduce the negative health impacts of climate change on Fairfax Health District residents, and to enhance their ability to prepare for and adapt to these impacts. The program is led by a Climate Health Program Coordinator, hired in July 2023, who participates in Interagency Climate Team meetings for Groups 2 and 3. OEEC and the Health Department are coordinating to align the Climate Health Program with ongoing county efforts including Resilient Fairfax and CECAP.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Significant Progress 0.75 of 1 Action Done (75%)	4. Coordinate Hazard Mitigation and Emergency Management Planning with Climate Resilience Planning	1	Continuous	IAP.1d	n/a	n/a

Action Status

Actions



(~0.75 of

Action Done)

<u>ACTION 1: Resilient Fairfax | IAP.1d</u> | Continue coordination between OEEC and DEMS to ensure alignment between hazard mitigation/ emergency management plan updates and climate resilience plan updates.

STATUS NOTES: OEEC and DEMS have been coordinating regularly to ensure that plans and initiatives are aligned and updated for climate considerations, such as the extreme temperature centers/ extreme heat guidance, Hazard Mitigation Plan, Emergency Operations Plan, and more. OEEC participated actively in the update of the regional Hazard Mitigation Plan, ensuring that climate change and climate resilience were included. OEEC also participated in DEMS' update of the Emergency Operations Plan and has been added as a cooperating agency to ESF-12. Additionally, both OEEC and DEMS participate in regional efforts such as the Military Installation Resilience Review (MIRR) effort led by NVRC.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	5. Interagency Collaboration on	1	Continuous	n/a	n/a	15
Significant	Emissions and Waste Reduction					
Progress						
3.25 of 4 Actions						
Done (81%)						

Action Status

Actions



ACTION 12: OES | Awareness and Engagement: Target: Hold at least four employee events per year.

2023
(1 Action Done)

STATUS NOTES: Fairfax Employees for Environmental Excellence (FEEE), which includes over 90 members from 28 agencies and departments, met this target of at least four employee events in 2023, including the following: 1) a webinar on home energy efficiency and Dominion Energy's Energy Conservation Program, attended by about 80 county employees; 2) a virtual Earth Day fair, attended by about 40 employees, which featured presentations from seven county agencies on ways to be more sustainable at home and in the office; 3) a gardening event, where over

² This progress report combines and organizes duplicative actions from all three climate plans. Therefore, the numbering of the actions may differ from the numbering in the original plans. For example, "Action 4" listed here is "Action 6" in the Awareness and Engagement section of the OES. All actions from all plans are accounted for.

20 employees weeded and planted native plants at the Herrity Plaza Gardens; 4) a litter cleanup event where employees collected 250 pounds of trash at Carney Park; and 5) a litter cleanup event where employees collected 320 pounds of trash at the Meadows of Centreville.

Complete for 2023

(1 Action Done)

<u>ACTION 2: OES | Awareness and Engagement: Plan events and special initiatives, such as Earth Day Fairs, the FEEE Litter Challenge and the employee Compost Program.</u>

STATUS NOTES: In addition to the events listed in Action 1 above, in 2023, FEEE continued to hold monthly meetings, through which county employees learn about and discuss ways to be more sustainable at work and at home. FEEE also continued to implement its employee composting pilot program at seven government facilities across the county. All FEEE events and special initiatives are open to the county workforce, regardless of membership.



<u>ACTION 3: OES | Awareness and Engagement:</u> Publicize efficiency, conservation, and sustainability actions in the workplace. Provide content on a regular basis to communications channels like NewsLink, newsletters, and the FEEE FairfaxNet blog available to employees.

STATUS NOTES: OEEC and fellow environmental agencies have regularly publicized these actions and provided content in the channels listed above.



(~0.25 of Action Done)

<u>ACTION 4: OES | Awareness and Engagement:</u> Designate champions within departments or facilities who will foster communication and encourage efficiency and conservation.

STATUS NOTES: Group 5 (Facilities and Operations) of the Interagency Climate Team includes representatives from 18 agencies. (*Please see the Group 5 section for more detail*). One of the intentions of this group is to encourage energy efficiency and conservation in county government facilities, among other initiatives. In addition to Group 5, Fairfax Employees for Environmental Excellence (FEEE) includes employees who are passionate about sustainability initiatives, even if their primary role is unrelated to sustainability or county operations. The Zero Waste Program also kicked off the Zero Waste Champions in June 2023, which consists of at least one liaison within each county and schools' department to drive cultural change through coordination, education, and measurement of progress.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Significant Progress 0.75 of 1 Action Done (75%)	6. Regional Transportation Coordination for Emissions Reduction	1	Continuous	n/a	T.14	n/a

Action Status

Actions



ACTION 1: CECAP Implementation Plan | T.14: Work with state and regional partners to invest in public transit improvements to increase access through the expansion of current and creation of new public transit routes.

STATUS NOTES: FCDOT continually works with state and regional partners including VDOT, MWCOG, DPRT, NVRC, NVTA, WMATA, and others to ensure a well-connected multi-modal transportation system. FCDOT's website provides additional information on their programs and projects. Additionally, OEEC coordinates regularly with public transit partners through their external Infrastructure Advisory Group (IAG), and through direct coordination with individual transit agencies.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 0.5 of 1 Action Done (50%)	7. Regional Transportation Coordination for Resilience	1	Continuous	RIB.2c	n/a	n/a

Action Status

Actions



ACTION 1: Resilient Fairfax | RIB.2c: Advocate and Partner with Transportation Agencies to Support Transportation Resilience: Support transportation infrastructure managers such as WMATA, VDOT, FCDOT and others to advocate for climate adaptive measures for transportation infrastructure, including roadways and public transit. Resilience measures may include flood mitigation upgrades, energy resilience retrofits, shaded transit stops, green bus stops seating, cool pavements, or alternate paving materials.

STATUS NOTES: County staff coordinate with transportation infrastructure managers at several levels of government for transportation resilience. For example, staff are participating in MWCOG's Transportation Resilience Improvement Plan (TRIP), which helps to prioritize transportation resilience projects for funding. OEEC has also ensured that rail and transit partners are aware of grant opportunities. OEEC staff have also gathered 911 and VDOT 511 data on roadway closures and swift water rescues to help prioritize transportation improvement projects. VDOT has released a new Resilience Plan for state transportation and is currently studying flood resilience for roadways. Additionally, OEEC meets periodically with WMATA to advocate and support upgrades to their transportation resilience. However, there is room for improvement through more regular and systematic inclusion of (and participation by) FCDOT, DPWES, and DEMS in this regional resilience coordination.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	8. Regional Energy and Water	All	Continuous	RIB.2a	n/a	Pg. 17
Steady Progress	Coordination					
3.5 of 6 Actions						
Done (58%)						

Action Status

Actions



<u>ACTION 1</u>: <u>Operational Energy Strategy | Reporting and Collaboration | Page 17</u>: Continue to seek opportunities to collaborate regionally on energy and water challenges and to promote resulting achievements.

2023
(1 Action Done)

<u>STATUS NOTES</u>: County staff participate in opportunities to collaborate regionally on energy and water challenges and achievements. Examples include the Better Climate Challenge, 50001 Ready, and groups led by MWCOG and NVRC.



ACTION 2: Operational Energy Strategy | Reporting and Collaboration | Page 17: Participate in regional task forces

Complete for 2023 (1 Action Done)

STATUS NOTES: OEEC staff participate in regional groups such as VESPN, VEPGA, SSDN, and numerous regional task forces led by MWCOG and NVRC.



Steady Progress (~0.5 of Action Done) ACTION 3: Resilient Fairfax | RIB.2a, 1: Continue coordination with the State Corporation Commission to support statewide and regional efforts to improve energy resilience through distributed energy resources, undergrounding, improved grid reliability, and islanding capabilities while maintaining energy affordability.

STATUS NOTES: (This strategy is for coordination on infrastructure outside of direct county control. For energy resilience for county facilities, please see Strategy 63, which can be found in Group 5). OEEC maintains awareness of SCC activity concerning statewide and regional energy topics. There is opportunity to engage more on energy resilience topics.



Progress (~0.75 of Action Done) ACTION 4: Resilient Fairfax | RIB.2a, 2: Continue coordination with energy utilities, including Dominion Energy, NOVEC, Washington Gas, and Columbia Gas, to support consideration of climate hazards in new and/or upgraded energy infrastructure, and to advocate for continued energy resilience enhancements. Where applicable, advocate for strategies such as undergrounding and energy infrastructure hardening.

STATUS NOTES: (This strategy is for coordination on infrastructure outside of direct county control. For energy resilience for county facilities, please see Strategy 63, which can be found in Group 5). OEEC coordinates with Dominion Energy, NOVEC, and Washington Gas, in addition to telecommunications providers to support climate resilience-related upgrades to energy and telecommunications infrastructure. Each of these entities is part of the Infrastructure Advisory Group (IAG).



Done)

ACTION 5: Resilient Fairfax | RIB.2a, 3: Identify opportunities for implementation of distributed energy resources, such as renewables (i.e.solar), back-up power, and energy storage. Identify priority locations for siting distributed energy resources, with consideration for vulnerable populations, community-serving facilities, emergency operation centers, and other critical facilities. As use of distributed energy matures, monitor the community for opportunities for microgrid applications for greater redundancy.

STATUS NOTES: (This strategy is for coordination on infrastructure outside of direct county control. For energy resilience for county facilities, please see Strategy 63, which can be found in Group 5). The county government has limited authority for siting Distributed Energy Resources outside of county property, but remains in contact with those who have such authority.



(0)

ACTION 6: Resilient Fairfax | RIB.2a, 4: Evaluate options for development of an Energy Assurance Plan, either at the county or state level, to enhance preparedness for climate hazard events and improve energy resilience.

STATUS NOTES: To date, an Energy Assurance Plan has not been a prioritized action item authorized by the Board of Supervisors.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS

Resilient Fairfax | RIB.1c: Enhance Energy Resilience of County Facilities

Please see Strategy 63- Enhance Energy Resilience of County Facilities and Buildings, which can be found in Group 5.

OES | Renewables, 4: Geothermal and energy storage

Please see Strategy 57 – Other Renewables and Resource Recovered Gas, which can be found in Group 5.

Resilient Fairfax | RIB.2c: Advocate and Partner with Transportation Agencies to Support Transportation Resilience

Please see Strategy 7 – Regional Transportation Coordination for Resilience, which can be found in Group 1.

CECAP Implementation Plan | T.14: Safe Adoption of Batteries for Energy Storage (Building Code)

Please see Strategy 16 – State-level Actions for the Building Code, which can be found in Group 1.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 0.5 of 1 Action Done (50%)	9. Build County Staff Capacity on Climate Resilience Planning and Implementation	All	Continuous	IAP.4b	n/a	n/a
Action Status	Actions					



(~0.5 of Action

Done)

ACTION 1: Resilient Fairfax | IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects.

STATUS NOTES: Several interagency staff trainings have been held on climate mitigation and resilience, including customized trainings for the following entities: Land Development Services (LDS), Department of Emergency Management and Security (DEMS), Disability Services Board, Planning Commission, Health and Human Services agencies, Health Care Advisory Board, Fairfax Employees for Environmental Excellence (FEEE), Fairfax Environmental Engagement Team (FEET), ULI Leadership Institute, Leadership Fairfax Institute, Health Department of Family Services (DFS), Zoning Evaluation Division (ZED), County Communicators, and One Fairfax. However, there remains an opportunity to train staff on climate resilience in a way that is more customized for their day-to-day work, and to ensure that the takeaways from the training courses are meaningfully incorporated into the operations of other agencies.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 3.75 of 7 Actions Done (54%)	10. Staff Training on Emissions Reduction, Efficiency, Waste	All	Continuous	n/a	BEE.19	p. 15, 17

Action Status

Actions



Complete for 2023

(1 Action Done)

Started (~0.25 of Action Done)



<u>ACTION 1: CECAP Implementation Plan | BEE.19: Code Training Academy:</u> Continue to support Code Training Academy and other training opportunities to ensure staff are up to date on new and upcoming technologies and code compliance pertaining to energy efficiency.

<u>STATUS NOTES:</u> The county's LDS has a proactive training program "Code Training Academy" which includes the most up-to-date technologies and code compliance pertaining to energy efficiency. The training will be updated with any building code revisions at the state level.

<u>ACTION 2: OES | Awareness and Engagement, 3: Educate staff responsible for purchasing decisions on the benefits of energy- and water-efficient goods and services.</u>

<u>STATUS NOTES:</u> The county, particularly the Department of Procurement and Material Management (DPMM) educates staff responsible for purchasing decisions on sustainability. A Sustainable Procurement policy is currently under development.

<u>ACTION 3: OES | Awareness and Engagement, 4: Sponsor lunch-and-learns on a range of efficiency and conservation topics to enhance employee awareness and to encourage action.</u>

STATUS NOTES: Fairfax Employees for Environmental Excellence (FEEE) hosted several learning opportunities in 2023 focused on ways employees could adopt energy efficiency, conservation, and other climate actions at home and at work. In February 2023, it co-hosted a webinar with Dominion Energy titled "Make Your Home More Energy Efficient with Dominion Energy's Energy Conservation Programs." In April 2023, it hosted a Virtual Earth Day Fair, where representatives from various county agencies presented ways employees could reduce their

greenhouse gas emissions across the energy, transportation, waste, and natural resource sectors. FEEE also devotes time during its monthly meetings for similar learning opportunities. For example, in May 2023, the county's Zero Waste Coordinator presented to the group on Fairfax County's Zero Waste Plan and ways employees could take action.

ACTION 4: OES | Awareness and Engagement, 5: Establish reward and recognition programs to motivate behavior change.

Started (~0.25 of Action Done) STATUS NOTES: FEEE has previously hosted challenges, including a Sustainability Challenge and Litter Challenge, to encourage behavior change among county employees, with the top participants receiving prizes. FEEE is currently exploring ways to encourage energy efficiency and conservation as well as other climate actions, in order to establish relevant reward and recognition programs in 2024.



ACTION 5: OES | Awareness and Engagement, 7: Increase employee awareness of opportunities for source reduction, reuse, and recycling.

Steady Progress (~0.5 of Action Done) <u>STATUS NOTES:</u> The Zero Waste Program kicked off the Zero Waste Champions in June 2023, which consists of at least one liaison within each county and schools' department to drive cultural change through coordination, education, and measurement of progress.



<u>ACTION 6: OES | Awareness and Engagement, 8: Publicize county policies and procedural memoranda that pertain to energy or water use or sustainability in the work environment.</u>

Started (~0.25 of Action Done) STATUS NOTES: The county has established policies and procedures that are largely implemented by those who *build* and *maintain* county buildings, to ensure that buildings are meeting the goals of the Operational Energy Strategy. Additionally, FMD has an "Energy Policy" focused on space temperature setpoints. These policies enable all staff to automatically participate in energy and water use savings by using more sustainable facilities. There are few known policies or memoranda that are directed towards the *behaviors* of general staff in the work environment. However, there is a Procedural Memorandum (No. 02-15) that was sent to Department Heads on March 2023 for Employee Charging of Privately-Owned Electric Vehicles (DVS - PM No. 02-15 Employee Charging of Privately-Owned Electric Vehicles at County-Owned Facilities.pdf - All Documents (sharepoint.com). There are also small examples such as signs in entryways that direct staff to save energy by using rotating doors rather than conventional doors.



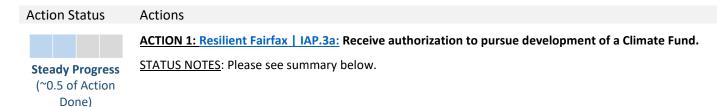
ACTION 7: OES | Reporting and Collaboration (Page 17), Action 5: Participate in educational conferences and other public events.

Steady Progress (~0.5 of Action Done) <u>STATUS NOTES</u>: Staff participate in numerous educational conferences and other public events, both for staff education and for community education. For 2023, these events included but are not limited to the <u>VAEEC Energizing Efficiency Campaign & Leadership Awards</u>, Green Build, Resilient Viginia, APA Virginia, Southeast Sustainability Directors Network Annual Meeting, and others.

Roll-up Status	Roll-up					
Started 5.75 of 15 Actions Done (38%)	Roll-Up: Federal, State, County, and Other Funding Opportunities					
Strategy Status	★ Strategy³	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	11. County Climate Fund for Resilience	All	2027	IAP.3a	n/a	n/a
Started						
1.25 of 5 Actions						
Done (25%)						

Resilient Fairfax | IAP.3a: Develop a County Climate Fund.

Lead: DMB, OEEC. Partners: DEI, DEMS, DPWES, FCPA, NVSWCD, OCA, One Fairfax, UFMD. Timeline: Medium-Term (2-5 years). Cost: \$\$ (\$100k-\$500k). Existing Staff: Partial. Description: This strategy seeks to develop a county-level Climate Fund to mobilize financial resources and provide a dedicated funding source for county-led climate adaptation and resilience projects. The proposed Climate Fund would support implementation of Resilient Fairfax strategies and provide an identified funding source to be leveraged as a local match for federal, state, and other resilience related grants. The fund would not be county department specific, but rather available to all county departments who are implementing resilience related projects. The fund would promote implementation of projects that lessen the impact of climate change on Fairfax County's communities, with prioritization of more vulnerable communities. Development of a Climate Fund would need to consider startup capital, funding sources, and fund structure. The Climate Fund could leverage public funding to support Resilient Fairfax goals, fostering a more resilient community, economy, and environment. (Please see Resilient Fairfax Plan for more detail).



 $^{^{\}rm 3}$ Strategies with a star were identified as priority strategies in their respective plans.



Steady Progress (~0.5 of Action Done) ACTION 2: Resilient Fairfax | IAP.3a: Conduct research on Climate Fund practices, structures, mechanisms, legal considerations, and other factors, for applicability to Fairfax County. Explore options for development of a county Climate Fund for county investment in climate adaptation and mitigation projects, with priority consideration for more vulnerable communities.

ACTION 3: Resilient Fairfax | IAP.3a: Identify and compile list of potential grant funding opportunities for which the Climate Fund could

STATUS NOTES: Please see summary below.

Started (~0.25 of Action Done) STATUS NOTES: Please see summary below.

provide a local match. This action item should be coordinated with Strategy IAP.3b.



Not Started (0)

ACTION 4: Resilient Fairfax | IAP.3a: In coordination with the development of AAAs (Strategy CRC.1b) updates to the county CIP process (RIB.1a), and flood risk reduction planning (CRC.3a), identify project needs and level of funding required for project implementation. Projects nominated for Climate Fund investment may be larger in scope than those funded through the Environmental Improvement Program (EIP).

STATUS NOTES: Please see summary below.



Not Started (0)

ACTION 5: Resilient Fairfax | IAP.3a: Establish ranking criteria that will guide prioritization and selection of resilience projects to be funded through the Climate Fund. Criteria should consider factors including but not limited to: vulnerable populations, risk of climate hazard, scale of funding needed, and available grant funds.

STATUS NOTES: Please see summary below.

STATUS NOTES SUMMARY FOR ALL STRATEGY 11/IAP.3A ACTIONS: Staff have recommended a change in approach for this strategy to the Board of Supervisors. The Green Bank is an ongoing intensive effort with a similar goal of providing a funding source for climate initiatives. Therefore, it would be a more efficient use of resources to leverage Green Bank funding for both resilience and emissions reduction activities, rather than creating a separate, similar funding entity for resilience alone. However, there are current legal limitations in the Virginia Code on the use of Green Banks. As written, Green Banks serve the purpose of funding emissions reduction activities, such as energy efficiency and renewable energy projects, rather than resilience activities. There are certain resilience activities that may qualify for Green Bank funding because they provide emissions reduction co-benefits. Examples of these projects include cool roofs (which can help with both urban heat island reduction and energy efficiency) and solar with battery back-up power (which can provide both power resilience and renewable energy). Other resilience activities, such as flood risk reduction, do not serve any emissions reduction purpose and would be currently ineligible for Green Bank funding. The OEEC and OCA have coordinated on this issue and have recommended the following: Staff will continue focusing on the development of a Green Bank. Using existing legislative authority, staff will pursue resilience projects that provide emissions-related cobenefits and therefore would be eligible for Green Bank funding. In future years, if it is demonstrated that additional legislative authority is needed to enable Green Bank funding of initiatives such as flood risk reduction, staff will recommend a small legislative change for consideration by the Board of Supervisors Legislative Committee (and subsequently the Virginia General Assembly) to enable Green Banks to fund both emissions reduction and resilience projects. Actions 1, 2, and 3 listed above have been partially completed as part of the Green Bank initiative. Separately from the Green Bank/ County Climate fund initiative, funding has been allocated in the County Budget for various

climate initiatives, including but not limited to the funding shown within Fund 30015. (For the Green Bank for Emissions Reduction, please see Strategy 12 below).

Strategy Status	★ Strategy ⁴	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	12. Green Bank for Emissions	All	Continuous	n/a	BEE.6, BEE.8, ES.2, ES.7, T.11	n/a
Started	Reduction					
0.5 of 2 Actions						
Done (25%)						

Action Status





Steady Progress

(~0.5 of Action Done) ACTION 1: (ESTABLISHMENT OF GREEN BANK)⁵ CECAP Implementation Plan | BEE.6, ES.7, T.11: Establish and support a clean-energy financing entity (i.e. Green Bank) to increase access to financial capital for adoption of energy efficiency, renewable energy, and electrification technologies by residents and businesses (...), for adoption of EVs, EVSE, and other low- and zero-emissions transportation technology by residents and businesses.

STATUS NOTES: In August 2022, a feasibility analysis for the creation of a clean energy financing entity (a "Fairfax Green Bank") was completed. Stakeholder engagement has been conducted and is on-going with financial entities, service providers, housing agencies, and neighboring locality staff. Staff brought a draft ordinance to establish the Green Bank to the BOS in July 2023, without resolution as of December 2023. Staff continue to explore opportunities to leverage federal funds from the Inflation Reduction Act and other sources to create a clearinghouse of information on all aspects of clean energy, and leverage public and private funds as a catalyst and accelerator for projects throughout the community.



Not Started (0)

ACTION 2: (USE OF GREEN BANK)⁶: CECAP Implementation Plan | BEE.8, ES.2: (...) Staff will continually monitor and research appropriate places to introduce incentive programs to enhance the construction and renovation of high-efficiency buildings and work to connect building owners, organizations, or associations with existing (...) or new (Fairfax Green Bank) incentive programs (...). Staff will support accelerated electric grid transportation beyond the renewable energy requirements set forth in the VCEA. The county acts within its authority to support accelerated grid transformation. For example, the implementation of a financing program like the Fairfax Green Bank may facilitate private sector investments in energy efficiency and renewable energy at the local or state level. (...).

STATUS NOTES: The use of the Green Bank will begin once the Green Bank has been established.

⁴ Strategies with a star were identified as priority strategies in their respective plans.

⁵ These items in the CECAP Implementation Plan (BEE.6, ES.7, T.11), as originally written included many topics. Additionally, the text between them was somewhat duplicative. For clarity and streamlined tracking of progress, Green Bank relevant action text from multiple items has been included in the Green Bank section, and other topics are placed in applicable categories.

⁶ These items in the CECAP Implementation Plan (BEE.8, ES.2) as originally written included many topics. Additionally, the text between them was somewhat duplicative. For clarity and streamlined tracking of progress, Green Bank relevant action text from multiple items has been included in the Green Bank section, and other topics are placed in applicable categories.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 4 of 6 Actions Done (67%)	13. Pursue Federal and State Funding Opportunities for Resilience and Emissions Reduction	All	2024 for initial actions	IAP.3b	ES.2, T.12	p. 12

Action Status

Actions



(1 Action Done)

ACTION 1: Resilient Fairfax | IAP.3b,: Create an updated and consolidated database of all climate resilience-related federal and state funding opportunities, shared with all relevant departments. Example funding opportunities may include but are not limited to: Community Development Block Grant Programs (CDBG), Community Flood Preparedness Fund Grant Program (CFPF), the Flood Mitigation Assistance (FMA) Grant Program, Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Assistance (HMA), Infrastructure Investment and Jobs Act, American Rescue Plan, National Coastal Resilience Fund (NCRF), National Coastal Wetlands Conservation Grant, Safeguarding Tomorrow Through Ongoing Risk Mitigation (STORM) grants, and Virginia Coastal Zone Management Program, among others.

STATUS NOTES: OEEC has compiled grant tracking into a master Tracker for interagency, coordinated tracking and pursuit of climate-related grants (both resilience and emissions reduction): ALL Funding & Grants Tracker.xlsx.



Significant Progress (~0.75 of Action Done) ACTION 2: Resilient Fairfax | IAP.3b: Establish a process for coordinated tracking and prioritization of resilience-related grant opportunities, proposals submitted, funding awarded, and projects conducted. The process should include clear identification of lead and support agencies for each grant and/or funding opportunity. The lead department for each grant will be determined based on the topic. For example, DPWES will lead stormwater related grants, and FCHD will lead health-related grants. The process should identify "best fit" grant opportunities that both align with county priorities and likelihood of success.

STATUS NOTES: OEEC has established a process for coordinated tracking and prioritization of resilience-related grants, through the Funding Tracker and Interagency Climate Teams. However, there is still opportunity for improvement and more active use of these tools by other agencies.



ACTION 3: Resilient Fairfax | IAP.3b: Assess and identify need for dedicated staff to support grant tracking, proposals, and active grant management.

STATUS NOTES: Staff have assessed and identified the need for dedicated staff for this purpose, and are pursuing options, including potential consultant support.



Action Done)

ACTION 4: Resilient Fairfax | IAP.3b, Action 4: Apply for available and appropriate federal and state funding opportunities for resilience.

Steady Progress

(~0.5 of Action Done)

STATUS NOTES: Staff of various county agencies have applied for numerous federal and state funding opportunities relating to resilience, with mixed success. For example, DPWES was awarded 4 Community Flood Preparedness Fund grants. OEEC applied for a \$1 million EPA EJG2G grant for a Resilience Hub, in collaboration with Faith Alliance for Climate Solutions, NVSWCD, Virginia Climate Center (GMU), and Rising Hope Mission Church. Unfortunately, the county was not awarded this EPA funding. However, staff are pursuing additional opportunities. (*This action is for grants relating to resilience. For emissions reduction-related grants, please see other actions below*).

Started (~0.25 of Action

Done)

ACTION 5: CECAP Implementation Plan | ES.2 (Federal Funding for Electric Grid): Support accelerated electric grid transformation beyond the renewable energy requirements set forth in the VCEA. (...) The county will pursue funding opportunities provided by the Inflation Reduction Act (...).

STATUS NOTES: Fairfax County is tracking and pursuing federal and state funding opportunities that will accelerate the deployment of clean energy technologies, including several opportunities that have emerged from the Inflation Reduction Act and the Bipartisan Infrastructure Law. In April 2023, the county submitted a Pre-Award Information Sheet to the U.S. Department of Energy to participate in its Energy Efficiency and Conservation Block Grant Program (EECBG). The county is now finalizing its EECBG application, which will allow for the use of over \$960,000 in formula funding to develop and install renewable energy technologies and implement energy efficiency and conservation strategies; the county intends to utilize EECBG funding to advance both operational and community-wide greenhouse gas reduction goals.

In addition, the county is coordinating with regional and state partners on the EPA's Climate Pollution Reduction Grants Program (CPRG), to develop and implement greenhouse gas emissions reduction strategies, such as measures to accelerate the deployment of clean and renewable energy. MWCOG is coordinating both planning and implementation grants under the CPRG program on behalf of the Washington Metropolitan Statistical Area. County staff are represented on MWCOG's CPRG Steering and Technical Committee, formed in November 2023. The county is also coordinating with the Virginia Department of Environmental Quality (VDEQ), which is leading CPRG efforts for the state of Virginia.

Significant
Progress
(~0.75 of
Action Done)

ACTION 6: CECAP Implementation Plan | T.12; Operational Energy Strategy | Fleet Electrification: Apply for grant funding for county fleet vehicles when possible. Explore and take advantage of available grant funding opportunities to lower the cost of EV purchases and the purchase and installation of EV supply equipment (EVSE), along with other alternative transportation initiatives.

STATUS NOTES: The county is tracking and applying to numerous federal and state funding programs that support adoption of low- and zero-emission vehicles for both the county fleet and community programs. Examples include the National Electric Vehicle Infrastructure (NEVI) Formula Program, the Virginia Electric Vehicle Infrastructure Deployment from VDOT, Discretionary Grant Program for Charging and Fueling Infrastructure (CFI) from USDOT (the county applied as a sub to MWCOG, but was not awarded), and the Clean School Bus Program (EPA). In November 2022, the OEEC applied for grant funding to support Charge Up Fairfax through the DOE's Vehicle Technologies Office Program Wide Funding Opportunity Announcement. Additionally, the Fairfax County Department of Transportation applied for nearly \$8.9 million in regional funding from the Northern Virginia Transportation Commission (NVTC) to finance multiple bus routes and bike sharing stations.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	14. Other Funding	All	Continuous	IAP.3c, IAP.3d	n/a	n/a
Not Started						
0 of 2 Actions Done (0%)						

Action Status

Actions



(0)

ACTION 1: Resilient Fairfax | IAP.3c: Identify funding to support long-term data collection, analysis, and management.

<u>STATUS NOTES</u>: This was not a prioritized item for 2023. Discussions with GMU have been held to pursue possible future collaborations that could provide funding opportunities for data collection. *Please see Strategy 77 – Climate-related Research, which can be found in Group 6.*



ACTION 2: Resilient Fairfax | IAP.3d: Identify additional funding opportunities including regional coordination, public-private partnerships, and cost-share programs to support resilience.

STATUS NOTES: This was not a prioritized item for 2023.

Roll-up Status	Roll-up					
Started 1 of 4 Actions Done (25%)	Roll-up: Adaptation Action Areas					
Strategy Status	Strategy ⁷	Groups	Completion	Resilient Fairfax	CECAP IP	OES
	15. Adaptation Action Areas	All	2024	CRC.1a	n/a	n/a
Started	Implementation					
1 of 4 Actions						
Done (25%)						

⁷ Strategies with a star were identified as priority strategies in their respective plans.

Resilient Fairfax | CRC.1a: Develop Adaptation Action Areas Where Resilience Action is Prioritized (Page 57-58)

Lead: OEEC. Partners: DEI, DEMS, DFS, DPD, DPWES, FCDOT, FCHD, FCPA, HCD, LDS, NCS, NVSWCD, OCA, One Fairfax, UFMD. Timeline: Medium-term (2-5 years). Cost: \$\$ (\$100k - \$500k). Existing Staff: Partial. Description: Adaptation Action Areas (AAAs) are a land-use planning and policy tool that can be used to guide and prioritize climate adaptation implementation. AAAs may be used to identify, map, and establish locations of greatest need within Fairfax County where the county will take resilience action first. Development of the AAAs will be informed by complete analysis and technical reports, including the Resilient Fairfax Vulnerability and Risk Assessment, the Climate Projections Report, the Audit of Existing Policies, Plans, and Programs, the county's flood risk reduction efforts, and the NASA Develop Urban Heat Island Effect Study. These reports, along with the best available science, will inform the mapping of AAAs and include consideration for: flood-prone areas, Urban Heat Islands, population vulnerability (such as the One Fairfax Vulnerability Index, as pictured below), and low adaptive capacity, among other factors. Development of AAAs provides a comprehensive and cohesive approach for the county to effectively implement resilience related policies, programs, and projects.

Action Status

Actions



ACTION 1: Resilient Fairfax | CRC.1a: Identify and map potential AAAs based on climate risk and the One Fairfax Vulnerability Index. AAA considerations could include but are not limited to: flood-prone areas, Urban Heat Islands, population vulnerability, and low adaptive capacity.

(~0.75 of Action Done)

<u>STATUS NOTES:</u> Much of the mapping needed for AAAs was completed as part of the Resilient Fairfax planning process. OEEC is actively working with IT-GIS staff and One Fairfax staff to refine and finalize the AAA maps.



ACTION 2: <u>Resilient Fairfax | CRC.1a</u>: Draft options for the incorporation of AAAs. Options could include but are not limited to: using AAAs during the Capital Improvement Program process to prioritize implementation of resilience projects, using AAAs to prioritize funding of Resilient Fairfax implementation, and to prioritize resilience aid and/or incentives, among others.

Started (~0.25 of Action Done)

<u>STATUS NOTES</u>: The Interagency Climate Team has been exploring the best way to implement or use AAAs in Fairfax County (e.g., to prioritize infrastructure upgrades, public services, community engagement, as a Zoning Overlay, etc.). Staff have interviewed Norfolk, VA staff to gather insights on their implementation of a Zoning resilience overlay.



(0)

ACTION 3: Resilient Fairfax | CRC.1a: Present options for incorporation of AAAs for BOS approval and receive authorization to incorporate AAAs.

<u>S1</u>

STATUS NOTES: This stage has not yet been reached.

Not Started

ACTION 4: Resilient Fairfax | CRC.1a: Prioritize implementation and engagement in AAAs. Consider piloting resilience approaches in AAAs that can be scaled up community wide.

Not Started (0)

<u>STATUS NOTES:</u> This stage has not yet been reached. However, engagement is occurring in prioritized One Fairfax areas, which are very similar to the AAA locations.

Roll-up Status

Roll-up

Early Stage 3 of 12 Actions Done (25%) Roll up: Legislative and State-Level Proposals and Advocacy

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started	16. State-Level Actions for the Building Code	All		RIB.2b	BEE.2, BEE.23, ES.9	p. 10
1.25 of 4 Actions						
Done (31%)						

Action Status

Actions



ACTION 1: (RESILIENCE UPDATES): Resilient Fairfax | RIB.2b: Continue advocating for updates to the Virginia Statewide Building Code to enhance resilience to climate hazards for new buildings.

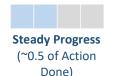
Started (~0.25 of Action Done)

STATUS NOTES: OEEC staff coordinated in 2023 with LDS Building Code staff to advocate for resiliency enhancements. Building Code updates were discussed in the Group 2 meetings. LDS staff testify at the Virginia hearing for Building Code updates. However, most topics of such testimonies to date have been focused on topics other than resilience. There is a need to better incorporate resilience in the future.



Steady Progress (~0.5 of Action Done) ACTION 2: (ENERGY EFFICENCY UPDATES): Operational Energy Strategy | Green Buildings, Action 7: Advocate for strengthened Virginia energy and building code requirements. CECAP Implementation Plan | BEE.2: The county (through LDS), as well as FACS and the Sierra Club, will continue their efforts to work with the VA Dept of Housing and Community Development (DHCD) and its Board (BHCD) to obtain their endorsement of the IEEC for statewide adoption, which is required prior to the Governor's approval. The county will continue its outreach to partners in the building industry for support of IEEC. These include the Northern VA Building Industry Association (NVBIA), the Home Builders Association of Virginia (HBAV), the Virginia Association of Counties (VACo), and the VA Building and Code Officials Association (VBCOA). (...).

STATUS NOTES: LDS, OEEC, and other county entities advocate for energy efficiency updates to the building code. LDS continues to work in partnership with the Responsible Energy Codes Alliance and the Energy Efficient Codes Coalition. Both are working for full IEEC adoption in VA.



ACTION 3: (AUTHORITY UPDATES) CECAP Implementation Plan | BEE.23: Consider, and, where appropriate, develop and advance legislative proposals to provide Fairfax County with greater authority over building construction, renovations, and operations, particularly regarding energy codes, energy performance standards, and energy use benchmarking and disclosure requirements.

STATUS NOTES: Staff continually monitor the legislative landscape to identify the need and opportunity to advance regulatory changes in pursuit of the county's building and energy goals. Where appropriate, staff develop legislative proposals, including requests for additional delegated authority from the state, for consideration and advancement by the Board of Supervisor's Legislative Committee. In the 2023 Legislative Program, the County BOS supported modernization of state building codes by adopting the IgCC and full provisions of the IEEC, and the provision of more flexibility for localities to increase energy efficiency and improve resilience to climate change impacts by adopting stronger local standards and implementing energy efficiency and utilization of disclosure/benchmarking. LDS continues to work in partnership with the Responsible Energy Codes Alliance and the Energy Efficient Codes Coalition. Both are working for full IEEC adoption in VA.



(0)

ACTION 4: (BATTERY STORAGE UPDATES): CECAP Implementation Plan | ES.9: Support and facilitate the safe adoption of batteries for energy storage for public and private use, which may include amending building codes to accommodate battery storage.

STATUS NOTES: The action requires further study, technological advancement of batteries (particularly sized for residential use), and adoption of new legislation authorizing the county to amend its building codes. While Dominion Energy has a battery pilot project to support the regional grid and goals of the 2018 Grid Transformation and Security Act, the costs for local battery storage are high along with space needed to accommodate the physical size of the battery. The timeframe for this action may occur earlier depending on revisions to applicable building and energy codes and technological advancements. The county will continue to monitor legislative changes that may facilitate adoption of batteries for energy storage.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	17. State-Level Actions for Solar,	All	Continuous	n/a	BEE.24, ES.5, ES.16, ES.17,	n/a
Started	Renewables, and Energy Efficiency					
0.75 of 4 Actions						
Done (19%)						

Action Status

Actions



Done)

ACTION 1: CECAP Implementation Plan | BEE.24: Support the use and expansion of state and utility-sponsored programs to implement energy efficiency and conservation projects and improvements, including but not limited to those applicable or available as a result of the Grid Transformation and Security Act of 2018 and the Virginia Clean Economy Act.

STATUS NOTES: The Virginia Department of Energy tracks progress on implementation of the Virginia Clean Economy Act related to clean energy and workforce development. The county monitors and supports the expansion of state and utility sponsored programs through the

legislative process and participation in relevant organizations like the Virginia Energy Purchasing Governmental Association (VEPGA) and the Virginia Association of Counties.

Not Started

<u>ACTION 2: CECAP Implementation Plan | ES.5</u>: Promote the development of community solar projects by revising policies and regulations where necessary or providing financial incentives where appropriate.

Not Started (0)

<u>STATUS NOTES</u>: Dominion operates a 'community solar' program that is expensive and limited in scope. Current state-enabling legislation (utility regulations) limits other community solar in Virginia (i.e., true Community Solar is currently unavailable in Virginia due to utility regulations). The county monitors legislative actions to evaluate further feasibility to promote community solar projects.



ACTION 3: CECAP Implementation Plan | ES.16: Consider and, where appropriate, develop and advance legislative proposals to provide Fairfax County with greater authority with respect to on-site renewable energy production, such as greater flexibility regarding community solar programs and the authority to incentivize renewable energy generation and battery storage projects.

Started (~0.25 of Action Done)

STATUS NOTES: Staff continually monitor the legislative landscape to identify the need and opportunity to advance regulatory changes in pursuit of the county's CECAP and OES goals. Where appropriate, staff develop legislative proposals, including requests for additional delegated authority from the state, for consideration and advancement by the Board of Supervisor's Legislative Committee. Fairfax County's 2023 Legislative Program included support for the elimination of caps and other barriers to renewable energy programs, such as shared solar; however, no progress was made in this arena during the 2023 General Assembly session.



ACTION 4: CECAP Implementation Plan | ES.17: Support the use and expansion of state and utility-sponsored programs to increase the amount of renewable energy in the electric grid, including but not limited to those applicable or available as a result of the Regional Greenhouse Gas Initiative (RGGI).

Started (~0.25 of Action Done)

STATUS NOTES: RGGI is a multi-state regional cap and trade program designed to reduce GHG emissions from the power sector. Revenue from the program is reinvested in local energy efficiency and flood mitigation programs. Since Virginia joined RGGI in 2020, Fairfax County has received over \$15.4 million worth of benefits. In July of 2023, the state published its regulation to repeal Virginia's participation in RGGI by the end of 2023; however, a legal challenge to this regulation, headed by the Southern Environmental Law Center, has been filed in the Circuit Court of Floyd County, Virginia. The Fairfax County BOS has expressed its support that Virginia remains in RGGI.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	18. State-Level Actions for Natural	All	Continuous	n/a	NR.14	n/a
Steady Progress	Resources					
0.5 of 1 Actions						
Done (50%)						

Action Status

Actions



Done)

ACTION 1: CECAP Implementation Plan | NR.14: Consider, and where appropriate, develop and advance legislative proposals to provide Fairfax County with greater authority to protect green spaces and trees.

STATUS NOTES: Staff monitor and analyze state and federal legislation to protect and enhance natural resources and elevate pertinent legislation for Board discussion and action. In instances where legislative changes are needed to advance the county's natural resource goals, staff identify and develop legislative proposals for consideration by the Board of Supervisor's Legislative Committee. In the 2023 Legislative Program, the County BOS supported the conservation of open space and environmentally sensitive areas, to protect vital ecological resources and the environment, enhance natural resilience, provide health and recreational opportunities, and improve quality of life. In addition, the BOS supported increased local flexibility and authority on tree preservation and other critical measures to address the impacts of climate change. In the 2023 General Assembly, the county had a legislative initiative, which was ultimately successful, pertaining to the removal of illegal signs in the right-of-way. HB1587 (Sullivan) provides authority for Fairfax County to use contractors to remove these signs, improving transportation safety and the appearance of green spaces and roads in the county. The county also supported SB1091 (Ebbin), which was passed by the General Assembly and expands the allowable use of grants from a local Stormwater Management Fund to include joint flooding mitigation projects of condominium owners.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	19. State-Level Actions for	All	Continuous	n/a	T.6, T.13	n/a
Steady Progress	Transportation					
0.5 of 2 Actions						
Done (25%)						

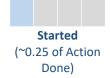
Action Status

Actions



Started (~0.25 of Action Done) ACTION 1: CECAP Implementation Plan | T.6 : Continue to support Clean Car standards and to pursue opportunities for better fuel economy.

STATUS NOTES: The Virginia Department of Environmental Quality (DEQ) implements the Clean Cars Virginia Bill (HB1965) of 2021 that aims to reduce tailpipe pollution through the sale of EVs and other clean vehicle technologies. The legislation directs DEQ to develop and the State Air Pollution Control Board to adopt a low emissions vehicle (LEV) and zero emissions vehicle (ZEV) program for motor vehicles beginning with model year 2025. The State Air Pollution Control Board adopted an implementing regulation on December 2, 2021, which will go into effect shortly after January 1, 2024. In the 2023 General Assembly, several bills were introduced in an attempt to repeal Virginia's participation in the Clean Cars program; however, all bills were ultimately defeated. The Board's Legislative Committee expressed its opposition to such bills, including HB1378 (Wilt). The county will continue to track progress and explore more opportunities to continuously improve fuel economy.



ACTION 2: CECAP Implementation Plan | T.13: Legislation for vehicle electrification incentives: Consider, and where appropriate, develop and advance legislative proposals to provide Fairfax County with greater authority to address transportation and vehicle electrification matters, including the authority to establish incentives or requirements regarding EV adoption.

STATUS NOTES: Staff monitor and analyze state and federal legislation to advance the adoption of EVs and elevate pertinent legislation for Board discussion and action. In instances where legislative changes are needed, staff identify and develop legislative proposals for consideration by the Board of Supervisor's Legislative Committee. In the 2023 Legislative Program, the County BOS supported incentives, funding, and rebates for new and used EVs as well as incentives and the reduction of barriers for installations of EV charging infrastructure. In the 2023 General Assembly, several bills were introduced that would have expanded EV charging infrastructure throughout Virginia, including SB1312 (Boysko), although none were successful. The BOS supported SB1312, which would have allowed any locality by ordinance to require EV stations as part of subdivision or site plan approval for a development containing commercial, industrial, or multifamily residential uses with a density of seven residential dwelling units per acre or greater.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	20. State-Level Actions for Waste	All	Continuous	n/a	W.19	n/a
Not Started						
0 of 1 Action						
Done (0%)						

Action Status

Actions



<u>CECAP Implementation Plan | W.19:</u> Consider and, where appropriate, develop and advance legislative proposals to provide Fairfax County with greater authority to address waste matters, such as more extensive oversight of private haulers, the authority to establish recycling incentives or requirements, and the authority to regulate or ban single-use plastics and other items that contribute to waste and pollution.

STATUS NOTES: Staff will monitor and advocate for legislative authority at the local level, and monitor and support state and federal legislation to improve waste reduction and management.

Details: Group 2 Strategies – (Development Codes, Policies, and Plans)























Strategies in Group 2 are focused on climate-related updates to county development codes, policies, and plans such as the Comprehensive Plan, Zoning Ordinance, Public Facilities Manual, and other development-related codes. In addition to serving as a way to sort strategies, "Group 2" is also one of the six staff working groups of the Interagency Climate Team, with a focus on implementing Group 2 strategies. The following agencies are represented on the Interagency Climate Team - Group 2: Department of Emergency Management and Security (DEMS);

Department of Planning and Development (DPD)- Planning Division (PD), Zoning Administration Division (ZAD), and Community Revitalization Section (CRS); Department of Public Works and Environmental Services (DPWES) – Stormwater (including Urban Forestry); Fairfax County Department of Transportation (FCDOT); Fairfax County Health Department (FCHD); Fairfax County Park Authority (FCPA); Housing and Community Development (HCD); Land Development Services (LDS); Northern Virginia Soil and Water Conservation District (NVSWCD); Office of the County Attorney (OCA); Office of Environmental and Energy Coordination (OEEC); and One Fairfax/ Chief Equity Officer's Office. OEEC and DPD co-facilitate Group 2. The section below details progress made and the statuses of each Strategy Roll-up, Strategy, and Implementation Action for Group 2.

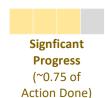
Roll-up Status ⁸	Roll-up
	Roll-up: Flood Risk Reduction Plan
Started	
2.5 of 6 Actions	
Done (42%)	

Strategy Status	Strategy ⁹	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started 2.5 of 6 Actions	21. Pursue and Implement a Flood Risk Reduction Plan for the Fairfax County Community	2 (Lead), 3, 5	2027	CRC.3a, (CRC.2a), (IAP.2c), (IAP.2d), (RIB.1a), (RIB.1b), (AE-all)	n/a	n/a
Done (42%)						

Resilient Fairfax | CRC.3a: Pursue and Implement a Flood-Risk Reduction Plan for the Fairfax County Community.

Lead: DPWES, LDS. **Partners:** DCC, DEMS, DPD, FCPA, OEEC, One Fairfax. **Timeline for completion:** Medium Term (2-5 years). **Cost:** \$500k-\$1 million. **Existing staff:** Partial. **Climate hazards addressed:** Precipitation; Coastal Flooding. **Description:** This strategy aligns with and advances the "Flood Risk Reduction Plan" recently initiated by DPWES. This strategy is focused on reducing flooding risk that threatens the health, safety, and welfare of county residents in their neighborhoods. (For flooding of county government facilities, please see Strategy 62 – Enhance Flood Resilience of County Government Buildings (RIB.1b)). The Fairfax County community experiences multiple types of flooding, including urban, inland, riverine, and coastal flooding, each of which requires a customized approach. Additionally, flood risk reduction requires action for both new and existing development. Any changes made to county policies and standards apply only to new development or re-development (See Strategy 61 – Update Capital Improvement Program Process to Include Climate Resilience Considerations (RIB.1a)). For existing neighborhoods with flooding issues, retroactive physical capital improvement projects may be needed. Across all approaches, projected climate conditions and impacts should be factored into flood risk reduction efforts.

Action Status Actions



<u>ACTION 1: Resilient Fairfax | CRC.3a, Action 1:</u> Initiate plan. Complete project initiation tasks, including establishment of: an interagency workgroup, flood risk reduction approach, community engagement and equity approach, benchmarking against other jurisdictions, and draft levels of service.

<u>STATUS NOTES</u>: Most items in this action have been completed by DPWES. DPWES will be presenting to the Board of Supervisors on these items in Spring 2024.

⁸ In this instance, the strategy is large enough that it is the only strategy within the "strategy roll-up," so the status bars are the same for both.

⁹ Strategies with a star were identified as priority strategies in their respective plans.



Done)

<u>ACTION 2: Resilient Fairfax | CRC.3a, Action 2:</u> Complete detailed analysis on existing and future flooding levels. Quantify and categorize existing and future flooding issues in the county. For future flooding, utilize the latest accepted climate projections.

<u>STATUS NOTES</u>: DPWES has completed an analysis of existing and future flooding levels, both as part of this effort and prior. Existing and future flooding issues have been quantified. Modeling of future flooding is currently ongoing. Future conditions will include analysis of projected climate change.

Started (~0.25 of Action Done) ACTION 3: Resilient Fairfax | CRC.3a, Action 3: Complete detailed analysis on existing flood-related policies, standards, and processes, building upon work completed through the Resilient Fairfax Audit and update regularly. Consider a lens of future climate projections.

STATUS NOTES: OEEC is continuing to coordinate actively with DPWES and LDS on their flood modeling and flood risk reduction, ensuring that our flood modeling considers climatic change. DPWES and LDS are currently leading the interagency effort and a consultant contract.

Not started

<u>ACTION 4: Resilient Fairfax | CRC.3a, Action 4:</u> Draft flood risk reduction recommendations, including potential updates to county polices, design standards and guidelines, ordinances, processes, and capital projects (see Strategy CRC.3c).

started (0)

STATUS NOTES: This item will start once the preceding analyses are complete.



ACTION 5: Resilient Fairfax | CRC.3a, Action 5: Identify and prioritize capital projects for flood alleviation. The identification of areas in need of flood alleviation capital projects may be facilitated through the Adaptation Action Area process (see Strategy CRC.1a). The prioritization of capital projects may be facilitated through a revised Capital Improvement Program (CIP) process (See Strategy RIB.1a).

Steady Progress (~0.5 of Action Done)

STATUS NOTES: DPWES has been identifying and prioritizing capital projects for flood alleviation for many years prior to Resilient Fairfax and this Flood Risk Reduction Plan. That identification and prioritization of projects has continued and partially fulfills the purpose of this strategy. The action is marked as having achieved two rather than four bars because prioritization of projects that includes consideration of climate change still needs to occur, once the analyses are complete.



ACTION 6: Resilient Fairfax | CRC.3a, Action 6: If applicable and approved by the BOS, implement approved updates.

Steady Progress (~0.5 of Action Done) STATUS NOTES: DPWES regularly implements flood risk reduction capital projects. For a full list of currently ongoing stormwater improvement projects, please see this link: DPWES Projects | Public Works and Environmental Services (fairfaxcounty.gov)

These actions are listed for reference, as they are related to flood risk reduction.

OTHER RELATED ACTIONS:

Resilient Fairfax | CRC.2a: Provide Community Aid and Services to Alleviate Resilience Needs

Please see Strategy 35 – Community Aid and Services to Alleviate Resilience Needs, which can be found in Group 3.

Resilient Fairfax | IAP.2c: Create Consolidated Database of Flood-Prone Areas

Please see Strategy 75 – Data on Flooding and Hazards, which can be found in Group 6.

Please see their respective Groups for detail.

Resilient Fairfax | IAP.2d: Continue to Collect Rainfall Data

Please see Strategy 75 – Data on Flooding and Hazards, which can be found in Group 6.

Resilient Fairfax | RIB.1a: Update Capital Improvement Program Process to Include Climate Resilience Considerations.

Please see Strategy 61 – Update the Capital Improvement Program Process, which can be found in Group 5.

Resilient Fairfax | RIB.1b: Enhance Flood Resilience of County Government Buildings and Other Facilities

Please see Strategy 62 – Enhance Flood Resilience of County Government Buildings, which can be found in Group 5.

Resilient Fairfax | AE: (All Adaptive Environment Strategies)

Please see Strategies 43 – 50, which can be found in Group 4.

Roll-up Status	Roll-up						
	Roll-up: Comprehensive Plan Amendments for Climate						
Started 3.75 of 13 Actions Done (29%)							
Strategy Status	Strategy ¹⁰	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>	
	22. Comprehensive Plan Amendments	2 (Lead),	2027	IAP.1a	n/a	n/a	
Started	for Resilience	4, 6					
0.5 of 3 Actions							
Done (17%)							

Resilient Fairfax | IAP.1a: Inventory and Update the Comprehensive Plan to Enhance Resilience.

Lead: OEEC, DPD. **Partners:** DEMS, DOT, DPWES, EDA, FCHD, FCPA, LDS, NCS. **Timeline:** Long-term (5-8 years from 2022). **Cost:** \$ (\$0k-\$100k). **Existing Staff:** Yes. **Description:** (...) This strategy includes analysis, recommendation formation, and potential updates to Comprehensive Plan elements pertaining to climate resilience. This strategy will build upon work completed through the <u>Resilient Fairfax Audit</u> process. Potential updates could pertain to critical public service facilities, land use patterns, floodplains, wetlands and shorelines, Urban Heat Islands, and stronger protection for Resource Protection Areas, among others. All amendment processes require Board of Supervisors authorization. Comprehensive Plan amendments relating to resilience should be coordinated with other Comprehensive Plan amendments, such as those associated with CECAP.

 $^{^{10}}$ Strategies with a star were identified as priority strategies in their respective plans.

Action Status

Actions



Done)

ACTION 1: Resilient Fairfax | IAP.1a DPD, in coordination with OEEC and other partner agencies, will develop specific draft recommendations for amended or added text in the Environment Element of the Policy Plan to enhance the county's climate resiliency. In drafting these recommendations, DPD will seek input from advisory groups, Boards, Authorities, and Commissions (BACS), the Planning Commission, the public, and other key stakeholders.

STATUS NOTES: DPD and its partner agencies, including OEEC, have launched the Comprehensive Plan amendment process to incorporate considerations related to both resilience and emissions reduction. The update of the Comprehensive Plan Public Facilities Policy Plan is nearing completion. Updates to numerous additional sections of the Comprehensive Plan Policy Plan were authorized for amendment processes in December 2022. The Resilient Fairfax Audit of Existing Policies, Plans, and Programs was completed during the Resilient Fairfax planning process, helping to identify gaps. Additionally, OEEC has provided an Environmental Policy Plan mark-up with recommended changes.



Done)

ACTION 2: Resilient Fairfax | IAP.1a As authorized by the Board, staff will develop amendments to the Comprehensive Plan. OEEC will lead outreach efforts associated with any (climate-related) Comprehensive Plan amendments and will assist with technical climate resilience-related details. DPD will lead the Comprehensive Plan amendment processes.

<u>STATUS NOTES</u>: The Policy Plan amendment was authorized in December 2022. Since authorization, staff have been conducting research, establishing a timeline, and preparing an outreach plan.



ACTION 3: Resilient Fairfax | IAP.1a: DPD, in coordination with partner agencies, will identify specific sections that may have subsequent amendments to enhance the county's climate resilience. The future phased identification will expand upon the work completed through the Resilient Fairfax Audit process. Sections "relevant to climate resilience" may include but are not limited to those related to public facilities, human service facilities, transportation, or other critical facilities, land use that may mitigate Urban Heat Island effect and/or flooding, floodplains, wetlands, shorelines, Environmental Quality Corridors, Resource Protection Areas, trees, green infrastructure, and impervious cover. The process will also identify specific county departments and/or other partner agencies responsible for each of the Comprehensive Plan sections.

STATUS NOTES: This is a future phase that will be informed by the Policy Plan amendment.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	23.Comprehensive Plan Amendments	2 (Lead)	2027	n/a	BEE.3, NR.10,	n/a
Started	for Energy Efficiency and Green					
0.75 of 2 Actions	Buildings					
Done (38%)						

Action Status

Actions



Done)

<u>ACTION 1: CECAP Implementation Plan | BEE.3</u>: Build and retrofit privately-owned buildings to high-efficiency performance standards and strive for carbon-neutrality and net zero emissions.

STATUS NOTES: Entitlement Process: DPD negotiates with developers during the entitlement process to ensure green building standards are being addressed in accordance with the Policy Plan of the Comprehensive Plan for new development, redevelopment, and adaptive reuse proposals. Given this ongoing system, this action is marked as "steady progress" (2 bars), rather than only "started" (1 bar). Policy Updates: Consideration of updates to the Policy Plan were authorized in December of 2022 and are ongoing. This amendment process includes the review of the Comprehensive Plan sustainable development policies to enhance the existing emphasis on energy efficiency. Any Policy Plan updates would apply to development proposals requiring a Comprehensive Plan amendment and/or zoning action, countywide.



ACTION 2: CECAP Implementation Plan | NR.10, 11: Update the Comprehensive Plan (...) in regard to energy efficiency/green buildings, (....) to be in alignment with CECAP and RF climate goals.

Started (~0.25 of Action Done)

STATUS NOTES: Prior to CECAP, the county implemented numerous Comprehensive Plan amendments regarding energy efficiency and green buildings, which are actively enforced currently during the development review process. Staff are currently reviewing existing Comprehensive Plan policies in the areas of energy efficiency and green buildings. Once this review is completed, if there are areas where the policies can be strengthened or improved or where climate change can be integrated, these updates will occur as part of the Policy Plan amendment effort.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started	24. Comprehensive Plan Amendments for Natural Resources	2 (Lead), 4, 6	2027	n/a	NR.5, NR.10	n/a
1.25 of 4 Actions						
Done (31%)						

Action Status

Actions



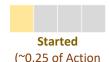
(~0.75 of Action Done)

ACTION 1: CECAP Implementation Plan | NR.5¹²: Create a cross-disciplinary policy evaluation county staff team to analyze existing programs and policies regarding natural resources and climate change to create a comprehensive climate approach.

<u>STATUS NOTES</u>: Interagency Climate Teams Group 2 (Development Codes, Policies, and Plans) and Group 4 (Natural Resources) are designed to serve this purpose, in addition to other interagency stakeholder engagements conducted by DPD.

¹¹ These implementation actions as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.

¹² This implementation action as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.



Done)

ACTION 2: CECAP Implementation Plan | NR.5¹³ As part of this recommendation, specific policies for tree canopy and site development will be evaluated, in addition to other natural resources-related policies. The specific policies noted for review include such items as the Comprehensive Plan (...). Specific recommendations on plan or policy updates (e.g., Comprehensive Plan amendments), will result from this review. (...)

<u>STATUS NOTES:</u> Consideration of updates to the Comprehensive Plan Policy Plan were authorized in December of 2022 and are ongoing. This amendment process includes the natural resource topics listed in this action.



Started (~0.25 of Action Done) ACTION 3: CECAP Implementation Plan | NR.10, 14 Update the Comprehensive Plan (...) in regard to ... sustainable development and land use, and natural resources, to be in alignment with CECAP and RF climate goals. Staff will review existing Comprehensive Plan policies...in these areas: (...) sustainable development and land use, natural resources, including trees, streams, green spaces, soil.

<u>STATUS NOTES:</u> Consideration of updates to the Comprehensive Plan Policy Plan were authorized in December of 2022 and are ongoing. This amendment process includes the land use and natural resource topics listed in this action.



(0)

<u>ACTION 4</u>: Once this review is completed, if there are areas where the policies can be strengthened or improved or where climate change can be integrated, staff will seek Board authorization to update the policies.

STATUS NOTES: These recommendations will be identified as part of the Policy Plan amendment effort.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

Please see Strategy 43 - Consolidated Natural Resource Management Plan for related actions.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	25. Comprehensive Plan Amendments	2 (Lead),	2027	(RIB.2c)	NR.10, T.4, T.16, T.18, T.19	n/a
Started	for Transportation	4, 5				
1.25 of 4 Actions						
Done (31%)						

Action Status

Actions

¹³ This implementation action as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.

¹⁴ These implementation actions as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.



ACTION 1: CECAP Implementation Plan | T.16: Work with state and regional partners to further develop and implement programs to expand, improve, maintain, and promote active transportation infrastructure and options like walking and biking.

STATUS NOTES: ActiveFairfax: Fairfax County is updating and combining the Bicycle Master Plan and the Countywide Trails Plan into the ActiveFairfax Transportation Plan. The plan, scheduled to be completed by the fall of 2024, will establish a vision and roadmap for implementation of safe, convenient, and enjoyable streets and trails in Fairfax County. Safe Streets for All: The Safe Streets for All program, adopted by the Board on May 10, 2022, also supports active transportation and is awaiting funding. The program recommendations propose a framework of education, policy, planning, and programmatic and design strategies.



Started (~0.25 of Action Done) ACTION 2: CECAP Implementation Plan | NR.10, T.18¹⁵: Update the Comprehensive Plan (...) in regard to (...) transportation including EVSE, sustainable development and land use, (...), to be in alignment with CECAP and RF climate goals. CECAP Implementation Plan | T.4: Evaluate Comprehensive Plan, zoning, and land development ordinances to support, incentivize or require the installation of EV-ready charging infrastructure in new buildings and in the right-of-way (on-street parking).

STATUS NOTES: FCDOT has begun the update of the Transportation section of the Policy Plan. The processes to amend the Comprehensive Plan Policy Plan (including Transportation) were authorized in December 2022. Staff are reviewing existing Comprehensive Plan policies in areas including electric vehicles, public transportation, sustainable development, and land use to recommend possible amendments, in alignment with the county's climate plans.



Started (~0.25 of Action Done) ACTION 3: CECAP Implementation Plan | T.19: Leverage and strengthen, as need, the Comprehensive Plan environmental policies and related ordinances to minimize the impact of transportation projects on native trees and natural areas (EQCs, RPAs, Occoquan Watershed).

STATUS NOTES: The processes to amend the Comprehensive Plan Policy Plan (including Transportation and the Environmental Policy Plan) were authorized in December 2022. Staff are reviewing the Comprehensive Plan policies and related ordinances to determine how best to integrate CECAP and Resilient Fairfax recommendations. All amendments to County Codes, policies, and plans require Board of Supervisors authorization.

Not started

(0)

<u>ACTION 4: CECAP Implementation Plan | NR.10, T.18, cont.</u>: Once this review is completed, if there are areas where the policies can be strengthened or improved or where climate change can be integrated, staff will seek Board authorization to update the policies.

STATUS NOTES: This is a future phase which will be informed by the Policy Plan amendment effort.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

Resilient Fairfax | RIB.2c: Advocate and Partner with Transportation Agencies to Support Transportation Resilience

Please see Strategy 7 – Regional Transportation Coordination for Resilience, which can be found in Group 1.

¹⁵ These implementation actions as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.

Roll-up 16	Roll-up					
Started 0.75 of 4 Actions Done (19%)	Roll-up: Urban Design Guidel	ine Updates	for Climate	e		
Strategy Status	Strategy ¹⁷	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started 0.75 of 4 Actions Done (19%)	26. Heat Resilient Urban Design, Development, Upgrades, and Practices	2	2026	CRC.3b	n/a	n/a

Resilient Fairfax | CRC.3b: Encourage Heat-Resilient Design, Development, Upgrades, and Practices.

Lead: DPD-CRS (added since the plan was written), LDS, OEEC. Partners: DEMS, DPD, FCDOT, FCHD, FCPA, NCS, OCA, UFMD. Timeline: Medium-Term (2-5 years). Cost: \$\$ (\$100k-\$500k). Existing Staff: Partial. Description: Extreme heat is a pressing issue with increasing impacts on both public health and infrastructure. This strategy is focused on encouraging new and existing development to consider heat-mitigation measures, including nature-based solutions, in their design, construction, or redevelopment, and operations and maintenance. Guidance materials, potential incentive programs, and integration of heat-related climate risk into development review processes can mitigate the impact of extreme heat to residents, particularly more vulnerable populations. A comprehensive approach can better prepare neighborhoods for more extreme and frequent heat conditions. (Please see Resilient Fairfax Plan pages 67-68 for more detail).

Action Status

Actions



ACTION 1 (IDENTIFY COOLING MEASURES): Resilient Fairfax | CRC.3b: Complete detailed analysis to identify a suite of applicable cooling measures for priority heat islands as identified by the Resilient Fairfax planning process and NASA Develop's Urban Heat Island assessment. Example cooling measures could include but are not limited to cool roofs and cool pavements, targeted tree canopy, green infrastructure, and green space for evapotranspiration, building and site orientation for heat mitigation, heat-mitigating building materials and efficiency, among others.

STATUS NOTES: This action is currently occurring.

¹⁶ In this instance, the strategy is large enough that it is the only strategy within the "strategy roll-up," so the status bars are the same for both.

¹⁷ Strategies with a star were identified as priority strategies in their respective plans.



Done)

<u>ACTION 2 (IDENTIFY STANDARDS TO UPDATE): Resilient Fairfax | CRC.3b:</u> Complete detailed analysis of existing standards and processes. Identify opportunities to update existing standards and processes to consider heat mitigation. Examples include heat-specific updates to urban design guidelines (...) and guidelines relating to trees and impervious coverage limitations.

STATUS NOTES: OEEC has added the Community Revitalization Section (CRS) of the Department of Planning and Development (DPD) to the Interagency Climate Team, for coordination on heat-resilient design. As of Fall 2023, DPD-CRS has launched their process to update Volume I of the Urban Design Guidelines, to include urban heat island reduction strategies such as cooler material recommendations. These strategies are being actively discussed in Group 2 meetings.

Scheduled to

start (0) ACTION 3 (DEVELOP GUIDELINES): Resilient Fairfax | CRC.3b: Develop design guidelines that are a practical reference for planners, building developers, and other stakeholders with influence in design/construction of projects in Fairfax County. (...) The design guidelines will provide guidance on how to evaluate the building or site/landscape for heat vulnerabilities and offer guidance/considerations on cooling measures and opportunities to enhance resilience. Guidelines should support the use of native plantings when feasible and effective. These guidelines can build on the use of Urban Design Guidelines for Commercial Revitalization District and Areas and certain Mixed-use Centers as designated on the Fairfax County Comprehensive Plan including the Tysons Urban Center and the Reston Station Areas.

STATUS NOTES: This item is scheduled to start in 2024.

Scheduled to start (0) ACTION 4 (FINANCING AND INCENTIVES): Resilient Fairfax | CRC.3b, Action 4: Identify additional financing or incentive options. Highlight and align with existing financing and incentive programs that can be used for heat mitigation retrofits or cooling measures, such as C-PACE (see Strategy CRC.1d) or potential green infrastructure incentive programs (see Strategy AE.2a).

STATUS NOTES: This is a future item.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

CECAP Implementation Plan | NR.8: Promote green infrastructure in development projects.

Please see Strategy 46 - Green Infrastructure, which can be found in Group 4.

Roll-up Status	Roll-up					
	Roll-up: County Code and Zoning Ordinance Updates					
Started						
6.75 of 14 Actions						
Done (48%)						
Charles and Charles	Strategy ¹⁸	Groups	Completion	Resilient Fairfax	CECAP IP	OES
Strategy Status	Strategy	Groups	Completion	Resilient Fairtax	CECAP IP	<u>OES</u>
	27. Resilience: Zoning Ordinance and	2 (Lead), 4, 5, 6	2027	CRC.3c, CRC.3d	BEE.5, (NR.8), (NR.5)	N/A
Started	Other County Code Amendments					
2.25 of 7 Actions						
Done (32%)						

Resilient Fairfax | CRC.3c: Pursue Amendments to the Zoning Ordinance and Other County Code Chapters to Enhance Community Resilience. Lead: DPD, DPWES, LDS, OEEC. Partners: DCC, DEMS, FCHD, FCPA, NCS, OCA, UFMD. Timeline: Long-term (5-8 years). Cost: \$\$ (\$100k - \$500k). Existing Staff: Partial.

Description: There are several County Codes that guide development and land use in Fairfax County, including the Zoning Ordinance, Stormwater Management Ordinance, Chesapeake Bay Preservation Ordinance, Tree Conservation Ordinance, and the Subdivision Ordinance, among others. Incorporating resilience into these County Codes helps ensure that new development can withstand a changing climate. This strategy pursues potential amendments to the Zoning Ordinance and other County Code Chapters to enhance climate resilience. The strategy will build upon opportunities identified in the Resilient Fairfax Audit.

This strategy connects to other strategies in the Implementation Roadmap, such as potential updates to the Comprehensive Plan (IAP.1a), the Countywide Strategy Plan (IAP.1b), the Flood Risk Reduction Plan (CRC.3a), Heat Resilient Design Guidelines (CRC.3b), the Public Facilities Manual (CRC.3d), the Capital Improvement Program (RIB.1a), and the potential Consolidated Natural Resources Management Plan (AE.1a). Amendments to County Code associated with Resilient Fairfax will be aligned with other ongoing, scheduled, considered, and planned amendments. (Please see Resilient Fairfax Plan pages 67-68).

Resilient Fairfax | CRC.3d: Update the Public Facilities Manual.

Action Status /

Actions



ACTION 1: Resilient Fairfax | CRC.3c: OEEC will identify regulatory document sections that are relevant to climate hazard resilience and identify opportunities to address resiliency. Topics may include but are not limited to limitations on impervious coverage and pavement, parking requirements ("Parking Reimagined"), density and open space, tidal flooding setbacks, stormwater and floodplain regulations, environmental site assessments, landscaping requirements (including trees), land use definitions for resilience-related uses, and energy production and storage. Amendments will be aligned with amendments from related initiatives such as the Flood Risk Reduction Plan (CRC.3a), CECAP, and Fairfax Green Initiatives.

 $^{^{\}rm 18}$ Strategies with a star were identified as priority strategies in their respective plans.

STATUS NOTES: OEEC has preliminarily identified document sections that are relevant to climate resilience, including the topics listed in the text above, and is conducting research on those items, in coordination with appropriate agencies including DPD, DPWES, and LDS.

Started (~0.25 of Action Done)

ACTION 2: Resilient Fairfax | CRC.3c: Lead and partner agencies, in coordination with OEEC, will aid in the analysis of identified regulatory changes. Specifically, LDS will aid any amendments related to site plans, parking, floodplain requirements, and landscaping and screening provisions. DPWES will aid in any amendments relating to floodplains and flood mitigation. The Urban Forest Management Division will aid in any amendments relating to trees.

STATUS NOTES: This action has been started for certain amendments relating to climate resilience. For example, an interagency effort led by DPWES and LDS for the Flood Risk Reduction Plan is currently evaluating options for design standard updates, including consideration of climate-related changes to precipitation. Additionally, LDS is leading amendments to the Chesapeake Bay Preservation Ordinance relating to sea level rise and adaptation to climate change in Resource Protection Areas (RPAs), in accordance with legislation from the Virginia General Assembly. Further, LDS is leading updates to the Floodplain Ordinance.

Started (~0.25 of Action Done)

ACTION 3: Resilient Fairfax | CRC.3c: Lead and partner agencies, in coordination with OEEC, will bring any proposed amendment topics to the Board for consideration. If supported, the amendments will be added to the agency's work program.

STATUS NOTES: This item has been started for certain amendments relating to climate resilience. For example, the topic of climate is included in the Zoning Administration Division's work program and is part of ongoing amendment topic work by DPWES and LDS.

Started

(~0.25 of Action Done)

ACTION 4: Resilient Fairfax | CRC.3c: As authorized by the Board, develop amendments to the relevant documents. All proposed amendments will be drafted and revised in coordination with applicable stakeholder groups, Boards, Authorities, and Commissions (BACS), and the public.

STATUS NOTES: This item has been started for certain amendments relating to climate resilience. For example, the Landscaping and Screening Amendment, led by the Zoning Administration Division (ZAD), included climate resilience topics. This amendment was drafted and revised in coordination with applicable stakeholder groups, BACs, and the public. Other amendments, such as those relating to flood risk reduction, are currently ongoing.

Started (~0.25 of Action

Done)

ACTION 5: Resilient Fairfax | CRC.3c: Agencies will proceed through the amendment process, to include outreach, draft amendments, and public hearings.

STATUS NOTES: This item has been started for certain amendments relating to climate resilience. For example, DPD-ZAD led an interagency effort for the Zoning Ordinance Amendment for Landscaping and Screening. Other amendments, such as those relating to flood risk reduction, are currently ongoing.



ACTION 6: Resilient Fairfax | CRC.3d: Pursue updates to the Public Facilities Manual to consider climate projections and enhance resilience. This strategy may occur concurrently with the County Code and plan amendments depending on the breadth and scope. Please see Strategy **CRC.3c** (Strategy 27 in this Progress Report).

Started (~0.25 of Action Done) <u>STATUS NOTES</u>: This item has been started. For example, an interagency team is currently in documenting tree species that are more resilient to climatic hazards and shifts in climate zones, for possible incorporation into the "Environmental Tolerances" of the Tree tables in the Public Facilities Manual.



Steady Progress (~0.5 of Action Done) ACTION 7: CECAP Implementation Plan | BEE.5: Incorporate biophilic and regenerative design principles such as green roofs into the construction or renovation of buildings to improve occupant health and comfort and provide co-benefits including improved air quality, stormwater management, and reductions to heat island effect areas.

STATUS NOTES: Stormwater Management: This action is partially implemented through the existing stormwater management program and land development process. Green roofs are permitted as an option to meet stormwater management requirements as part of the site development/ redevelopment process. Entitlement Process: The county continues to work with developers through the entitlement process to adopt green infrastructure as part of development and redevelopment. Public Facilities Manual: Additional biophilic and regenerative design principles may be considered in future years as updates to the (Public Facilities Manual) are pursued.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

<u>CECAP Implementation Plan | NR.8</u>: Promote green infrastructure in development projects.

Please see Strategy 46 - Green Infrastructure, which can be found in Group 4.

<u>CECAP Implementation Plan | NR.5</u>: Create a cross-disciplinary policy evaluation county staff team to analyze existing programs and policies regarding natural resources and climate change to create a comprehensive climate approach.

Please see Strategy 43 - Consolidated Natural Resource Management Plan, which can be found in Group 4. Please also see Strategy 24-Comprehensive Plan Amendments for Natural Resources, which can be found in Group 2.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 4.5 of 7 Actions Done (64%)	28. Emissions Reduction: Zoning Ordinance and Other County Code Amendments	2	Continuous	n/a	BEE.4, (ES.11), NR.10, T.3, T.4, T.5, T.17, T.18	

Action Status

Actions



Steady Progress (~0.5 of Action Done) <u>ACTION 1: CECAP Implementation Plan | BEE.4</u>: Encourage adaptive reuse of existing buildings, particularly vacant buildings.

<u>STATUS NOTES</u>: <u>Adaptive Reuse Program</u>: The county's <u>Adaptive Reuse Program</u> promotes the reuse of existing buildings (constructed prior to 2000) by providing incentives, guidance, and a reduced review timeframe. LDS will work to further develop the program in the future to incentivize high-performance energy efficiency of building reuse and electrification. *Economic Incentive Program (EIP)*: The BOS adopted the

<u>EIP</u> in 2020 to encourage redevelopment in six designated Economic Incentive Areas. The 10-year real estate tax break has resulted in several building renovations and adaptive reuse. DPD staff continue to promote the EIP and explore more opportunities for renovation/adaptive reuse of existing buildings.

Started (~0.25 of Action

Done)

ACTION 2: CECAP Implementation Plan | NR.10, T.18: Update the... Zoning Ordinance and associated codes and policies... in regard to energy efficiency/green buildings, transportation including EVSE, sustainable development and land use, and natural resources, to be in alignment with CECAP and RF climate goals.

STATUS NOTES: Prior to CECAP, the county implemented numerous County Codes about the topics listed above. Staff are reviewing the Zoning Ordinance and all county policies related to development in these areas: energy efficiency and green buildings, electric vehicles and public transportation, sustainable development and land use, natural resources, including trees, streams, green spaces, soil. Once this review is completed, if there are areas where the policies can be strengthened or improved or where climate change can be integrated, staff will seek Board authorization to update the policies and/or the Zoning Ordinance.

Signficant Progress (~0.75 of Action ACTION 3: CECAP Implementation Plan | T.3: Streamline existing permitting and inspection processes for EV infrastructure and consider fee reductions or waivers.

STATUS NOTES: In September 2022, the Board of Supervisors adopted a policy to temporarily waive the fees associated with the installation of electric vehicle charging stations (EVCS). The updated policy and additional information on installing EVCS are available on the LDS EVCS permits website. (For spreading the word on this and other EV incentives, please see Strategy 32, which can be found in Group 3).

Stoody Progress

Done)

ACTION 4: CECAP Implementation Plan | T.4: Evaluate (...) zoning, and land development ordinances to support, incentivize or require the installation of EV-ready charging infrastructure in new buildings and in the right-of-way (on-street parking).

Steady Progress (~0.5 of Action Done)

STATUS NOTES: The Zoning Ordinance was updated in 2021 to include revisions to further support the installation of EVCS. All amendments to County Codes, policies, and plans require Board of Supervisors authorization. The Parking Reimagined project includes provisions for EVCS in private and public developments. This Zoning Ordinance amendment was adopted by the Board of Supervisors in September 2023 and goes into effect as of January 1, 2024.

Steady Progress (~0.5 of Action ACTION 5: CECAP Implementation Plan | T.5: Implement equity requirements for EV parking design, including those regarding accessibility.

Done)

<u>STATUS NOTES</u>: Accessibility is required by the county's current <u>parking design standards and regulations</u> related to the Americans with Disabilities Act. Additional requirements to support EV charging are included in the Parking Reimagined initiative.

Complete/ Fully Active (1 Action Done) ACTION 6: CECAP Implementation Plan | T.17: Promote bicycle usage by installing more bike racks and bike sharing facilities in commercial areas and transit stations.

<u>STATUS NOTES</u>: The county requires and includes bicycle parking for commercial areas and transit stations. (*For promotion of bike share incentives, please see Strategy 33, which can be found in Group 3*).



ACTION 7: CECAP Implementation Plan | ES.11: Maintain and extend county practices that reduce costs related to solar installation, such as the permit fee waiver and the solar energy equipment tax exemption. (For promotion of solar incentives, please Strategy 31, which can be found in Group 3).

<u>STATUS NOTES</u>: The county has an existing solar permit fee waiver, solar energy equipment tax exemption, and Zoning flexibility for solar panel height.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

CECAP Implementation Plan | **NR.8**: **Promote green infrastructure in development projects.**

Please see Strategy 46 – Green Infrastructure, which can be found in Group 4.

Resilient Fairfax | RIB.2b: Advocate for Resilience Updates to the Building Code; CECAP Implementation Plan | BEE.2: Support and advocate for the strengthening of building energy codes in local development projects; CECAP Implementation Plan | BEE.23: Legislation for greater authority over energy codes; CECAP Implementation Plan | ES.9: Support and facilitate the safe adoption of batteries for energy storage for public and private use, which may include amending building codes to accommodate battery storage.

Please see Strategy 16 - State-level Actions for the Building Code, which can be found in Group 1.

CECAP Implementation Plan | **NR.14**: Legislation for green space protection:

Please see Strategy 14 - State-level Actions for Natural Resources - which can be found in Group 1.

<u>Details: Group 3 Strategies – (Community Services, Education, Engagement, Incentives)</u>













































Strategies in Group 3 are focused on climate-related community services, education, engagement, and incentives. In addition to serving as a way to sort strategies, "Group 3" is also one of the six staff working groups of the Interagency Climate Team, with a focus on implementing Group 3 strategies. The following agencies are represented in Group 3: Community Services Board (CSB); Department of Economic Initiatives (DEI), Department of Emergency Management and Security (DEMS); Department of Family Services (DFS); Department of Management and Budget (DMB); Department of Public Safety Communications (DPSC); Department of Public Works and Environmental Services (DPWES) – Stormwater (including Urban Forestry), Wastewater, Solid Waste; Economic Development Authority (EDA); Fairfax County Department of Transportation (FCDOT); Fairfax County Health Department (FCHD); Fairfax County Park Authority (FCPA); Fairfax County Public Library (FCPL); Fairfax County Public Schools (FCPS) and Get2Green; Housing and Community Development (HCD); McLean Community Center (MCC); Neighborhood and Community Services (NCS); Northern Virginia Soil and Water Conservation District (NVSWCD); Office of Environmental and Energy Coordination (OEEC); One Fairfax/ Chief Equity Officer's Office; Office of Public Affairs (OPA); and Reston Community Center (RCC). OEEC and FCPS Get2Green co-facilitate Group 3. The section below details progress made and the statuses of each Strategy Roll-up, Strategy, and Implementation Action for Group 3.

Roll-up Status	Roll-up					
Steady Progress 12 of 23 Actions Done (52%)	Roll-up: Incentives for Commu	ınities				
Strategy Status	Strategy ¹⁹	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 3 of 5 Actions Done (60%)	29. Incentives for Buildings and Energy Efficiency: County-led Programs	3	Continuous	n/a	BEE.1, BEE.3, BEE.11,	n/a

Action Status

Actions



ACTION 1: (GREEN BUILDING RECOGNITION PROGRAM): CECAP Implementation Plan | BEE.3

Steady Progress (~0.5 of Action Done) STATUS NOTES: LDS has created a Green Building Priority Plan Review process to incentivize high energy efficient and performing buildings. LDS provides an annual report on the number of green buildings and solar permits issued in the Environmental Outlook report. There are potential opportunities to expand awareness of this program and ensure it is achieving the intended purpose of incentivizing green buildings that would have otherwise been standard construction.



ACTION 2: (CONSERVE ENERGY KIT PROGRAM): CECAP Implementation Plan | BEE.1

Significant Progress (~0.75 of Action Done) <u>STATUS NOTES</u>: Fairfax County libraries launched the Conserve Kit in 2022 which provides county residents with basic tools and supplies to help address energy efficiency in their homes. As of November 2023, there have been 583 total check-outs of Conserve Kits from the library since the program started (365 to date in 2023). There is potential to expand awareness of this program.



ACTION 3: (THERMAL CAMERA LOAN PROGRAM): CECAP Implementation Plan | BEE.1

Significant Progress

<u>STATUS NOTES:</u> Fairfax County libraries launched the Thermal Camera Loan Program in 2017 for both Android and Apple smartphones, to enable community members to visually see the areas of their home that need better weatherization. As of November 2023, thermal cameras have been checked out by 3,548 residents (511 to date in 2023). There is potential to expand awareness of this program.

 $^{^{\}rm 19}$ Strategies with a star were identified as priority strategies in their respective plans.

(~0.75 of Action Done)



ACTION 4: (HOMEWISE): CECAP Implementation Plan | BEE.11

Steady Progress (~0.5 of Action Done) STATUS NOTES: The county's HomeWise program focuses on educating and empowering residents to make changes that reduce energy use, water use, and associated costs in their homes. The program tables at community events and offers educational sessions by request. Attendees at events or educational sessions are provided with free home efficiency kits and are offered hands-on demonstrations of how to install the items in the kits. The kits contain window weatherstripping, door sweeps, LED light bulbs, faucet aerators, and socket sealers. As of November 2023, HomeWise has handed out 864 kits (341 in 2023 to date). HomeWise was originally envisioned as a program to provide hands-on small-scale upgrades to low and moderate-income residences for energy and water efficiency. However, the Covid-19 pandemic caused the program to pivot to focus more on educational community outreach and kit distribution. Given the presence of multiple similar programs, it may be logical to adjust the program in the future.



ACTION 5: (ENERGY CONSERVATION ASSISTANCE PROGRAM): CECAP Implementation Plan | BEE.11

Steady Progress (~0.5 of Action Done) STATUS NOTES: Fairfax County OEEC and the Northern Virginia Soil and Water Conservation District (NVSWCD) in 2023 teamed up to expand NVSWCD's existing Energy Conservation Assistance Program. This program provides an increase in the cost-share reimbursement grants and expanded list of eligible projects to incentivize community-based organizations to include HOAs, COAs, non-profit organizations and places of worship implement projects to increase energy efficiency and resiliency of buildings and their use of renewable energy.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

CECAP Implementation Plan | BEE.6, BEE.8, ES.2, ES.7, T.11: (GREEN BANK):

Please see Strategy 12 – Green Bank for Emissions Reduction, which can be found in Group 1.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started 2.5 of 6 Actions Done (42%)	30. Incentives for Buildings and Energy Efficiency: Promotion of External Programs	3 (Lead), 2, 5	Continuous	CRC.1d,	BEE.7, BEE.8, BEE.9, BEE.10, BEE.11, BEE.13, ES.8	

Action Status

Actions



(1 Action Done)

<u>ACTION 1 (C-PACE ESTABLISHMENT): CECAP Implementation Plan | BEE.7, ES.8</u>: Support Property Assessed Clean Energy (PACE) financing programs that assist property owners in upgrading their buildings with renewable energy systems in addition to energy efficiency and water management systems.

STATUS NOTES: The Fairfax County Commercial Property Assessed Clean Energy (C-PACE) program was launched in 2020 following ordinance adoption in 2019 by the BOS. The C-PACE program is designed to provide private funding to commercial building owners in Fairfax County for energy-saving, water-saving, and resilience projects. In June 2023, the BOS amended the C-PACE ordinance to allow the county to opt into the statewide C-PACE program. The amendment also added a two-year lookback clause to allow the financing of eligible projects that were completed up to two years ago.



Started (~0.25 of Action Done) ACTION 2 (C-PACE OUTREACH): Resilient Fairfax | CRC.1d; CECAP Implementation Plan | BEE.8²⁰: Enhance Commercial Property Assessed Clean Energy (C-PACE) Program Outreach and Technical Assistance.

STATUS NOTES: C-PACE is administered and marketed by the Virginia PACE Authority. County staff have been coordinating with Virginia PACE to pursue the most effective marketing and awareness strategies for C-PACE, including outreach to bankers and lenders to ensure C-PACE is among the financial incentives offered by them. Staff will continually monitor and research appropriate places to connect building owners, organizations, or associations to C-PACE.



Started (~0.25 of Action Done) ACTION 3: (PROMOTE ESCO AND EAAS PROVIDERS): CECAP Implementation Plan | BEE.9: Encourage and facilitate the provision of energy efficiency products and services by energy service companies (ESCOs), energy-as-a-service (EaaS) providers, and others to reduce costs to customers.

<u>STATUS NOTES</u>: OEEC staff have begun to promote ESCOs and EaaS providers through the Climate Champions – Non-profit/ Faith sector pilot with Faith Alliance for Climate Solutions. Through the initiative, places of worship are encouraged and incentivized to use ESCO and other energy audit and retrofit services to enhance energy efficiency. (*This item is about incentives. For education and outreach beyond incentive promotion, please see Strategies 37 - 42*).



Started (~0.25 of Action Done) ACTION 4: (PROMOTE LEAP AND CHP): CECAP Implementation Plan | BEE.11: Develop and fund energy audit or assessment programs to identify opportunities to reduce energy use and to provide incentives to implement energy efficiency and electrification recommendations.(...) Promote external energy efficiency opportunities such as programs through LEAP (Local Energy Alliance Program) and Community Housing Partners (CHP).

STATUS NOTES: The county has begun promoting external energy efficiency opportunities such as programs through LEAP (Local Energy Alliance Program) and Community Housing Partners (CHP). LEAP and CHP Energy Solutions are providers of Dominion Energy's Income and Age Quality (IAQ) Home Improvement and EnergyShare weatherization programs. (For education and outreach beyond incentive promotion, please see Strategies 37 - 42).

²⁰ This item in the CECAP Implementation Plan as originally written included many topics. For clearer tracking of progress, the text relevant to C-PACE is listed here, and items relevant to other programs are listed in their respective programs.



Done)

ACTION 5: (PROMOTE UTILITY-LED PROGRAMS): CECAP Implementation Plan | BEE.10: Promote and leverage ratepayer-funded utility programs that provide energy efficiency incentives to residents and businesses. CECAP Implementation Plan | BEE.11: Develop and fund energy audit or assessment programs to identify opportunities to reduce energy use and to provide incentives to implement energy efficiency and electrification recommendations. CECAP Implementation Plan | BEE.13: Use demand management practices to reduce demand for electricity or natural gas during peak periods.

<u>STATUS NOTES:</u> Staff promote ratepayer-funded utility programs through education and outreach programs like Carbon-Free Fairfax. Example incentive programs offered by Dominion Energy include Smart Cooling and Control Your Heating and Cooling, Office Energy Efficiency Program, and Smart Savings by Washington Gas. These programs from utilities include programs for demand-side management (DSM) for both residential and commercial customers to reward customers for reducing their energy use (e.g., Smart Thermostat). These include specific energy efficiency programs for income and age qualifying customers. (*For education and outreach beyond incentive promotion, please see Strategies 37 - 42*).



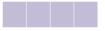
Started (~0.25 of Action Done) ACTION 6: (PROMOTE FEDERAL INCENTIVES): CECAP Implementation Plan | BEE.8: Establish incentive programs as permitted by existing authority regarding the construction of high-efficiency buildings and the renovation of existing buildings, including the implementation of energy efficiency and electrification measures.

<u>STATUS NOTES:</u> County staff are actively monitoring incentives that may become available with funding through federal grants such as the Inflation Reduction Act, or incentive programs in other localities that are proving effective. Staff will continually monitor and research appropriate places to introduce incentive programs to enhance the construction and renovation of high-efficiency buildings and work to connect building owners, organizations, or associations with incentive programs. (*For education and outreach beyond incentive promotion, please see Strategies 37 - 42*).

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	31. Incentives for Solar and Other	3 (Lead), 2, 5	Continuous	n/a	ES.2, ES.4, (<i>ES.5</i>), ES.6,	
Steady Progress	Renewables				ES.10, ES.11,	
2.25 of 4 Actions						
(56%)						

Action Status

Actions



ACTION 1 (SOLAR PERMIT FEE WAIVER & TAX EXEMPTION): CECAP Implementation Plan | ES.11: Maintain and extend county practices that reduce costs related to solar installation, such as the permit fee waiver and the solar energy equipment tax exemption.

Fully Active (1 Action Done)

<u>STATUS NOTES</u>: The county currently waives permit fees for solar installation and provides solar energy equipment tax exemptions at the local level.



Significant Progress (~0.75 of Action Done) ACTION 2: (GROUP PURCHASE SOLAR PROGRAMS): CECAP Implementation Plan | ES.4: Encourage and facilitate group purchases of renewable energy systems to home and businesses to reduce the costs of those systems to the customer.

STATUS NOTES: Fairfax County continues to promote Local Energy Alliance Program (LEAP)'s annual Solarize campaign that provides access to preapproved solar installers who install solar systems at a bulk discount for homes, non-profits, or businesses. To date, the Solarize program has resulted in the installation of solar panels at 425 homes in Fairfax County. Additionally, Fairfax County promotes Solar United Neighbors, a national nonprofit that offers the opportunity for competitive pricing on solar panels and the new Capital Area Solar Switch co-op provides residents with information, technical assistance, and direct access to qualified installers. To date, Capital Area Solar Switch has facilitated the installation of solar panels for 10 homes in Fairfax County. The establishment of a VPPA in 2023-2024 by the county may further facilitate group purchases of renewable energy. (For education and outreach about solar beyond incentive promotion, please see Strategies 37 - 42).



ACTION 3: (PROMOTE SOLAR RECs): CECAP Implementation Plan | ES.6: Encourage the purchase and use of renewable energy certificates (RECs) as a method to incentivize the installation of renewable electricity-generating systems in the private sector.

Started (~0.25 of Action Done)

STATUS NOTES: OEEC published a news article on RECS in August 2023: Renewable Energy Credits 101: Green Energy for Renters and Homeowners | Office of Environmental and Energy Coordination (fairfaxcounty.gov). Additionally, OEEC discusses RECS with Green Business Partners. (For education and outreach beyond incentive promotion, please see Strategies 37 - 42).



ACTION 4: (PROMOTE FEDERAL SOLAR INCENTIVES): CECAP Implementation Plan | ES.2: Support accelerated electric grid transformation beyond the renewable energy requirements set forth in the VCEA. CECAP Implementation Plan | ES.10: Support continuation of federal tax credits for solar installations and support proposed state tax credits.

Started (~0.25 of Action Done)

<u>STATUS NOTES</u>: The county acts within its authority to support accelerated grid transformation. The county continues to support and promote tax credits for solar installations, including those associated with the federal Inflation Reduction Act of 2022. (For education and outreach beyond incentive promotion, please see Strategies 37 - 42).

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

CECAP Implementation Plan | ES.5: Legislative authority for community solar.

Please see Strategy 17 – State-level Actions for Solar, Renewables, and Energy Efficiency, which can be found in Group 1.

CECAP Implementation Plan | BEE.6, BEE.8, ES.2, ES.7, T.11: Green Bank.

Please see Strategy 12 – Green Bank for Emissions Reduction, which can be found in Group 1.

(Actions Relating to Education and Outreach on Climate)

Please see Strategies 37-42.

Strategy Status	★ Strategy ²¹	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	32. Incentives for Transportation: Electric Vehicles	3 (Lead), 5	Continuous	n/a	T.1, T.2, T.3, (<i>T.13</i>). <i>BEE</i> .10,	n/a
Steady Progress						
2 of 4 Actions						
Done (50%)						

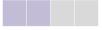
Action Status

Actions



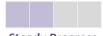
Steady Progress (~0.5 of Action Done) ACTION 1: (CHARGE UP FAIRFAX): CECAP Implementation Plan | T.2: Encourage EV adoption by partnering with homeowner and condominium associations to facilitate and provide incentives for the installation of shared EV charging stations.

STATUS NOTES: On March 9, 2023, after a period of detailed research, contractor and procurement logistics, and program development, OEEC launched the Charge Up Fairfax pilot program. Charge Up Fairfax helps community associations, like homeowner associations, condominium associations, and cluster communities, access charging for electric vehicles (EVs). The program supports community associations in identifying and overcoming challenges, both technical and financial, to on-site EV charging for residents and their guests. As of January 2024, OEEC is working with 10 communities in the pilot program and plans to launch the program fully in spring 2024. The county has promoted Charge Up in several avenues including the county's Consumer Connection program, an on-demand Charge Up Fairfax Webinar, OEEC's newsletter, social media, direct outreach to over 60 communities, distributed promo kits to all supervisor offices, through media inquiries, a published article, and several earned media stories.



Steady Progress (~0.5 of Action Done) ACTION 2: (EV PERMITTING): CECAP Implementation Plan | T.3: Streamline existing permitting and inspection processes for EV infrastructure and consider fee reductions or waivers.

STATUS NOTES: In September 2022, the Board of Supervisors adopted a policy to temporarily waive the fees associated with the installation of electric vehicle charging stations (EVCS). The updated policy and additional information on installing EVCS are available on the LDS EVCS permits website. The BOS is considering whether to extend this policy. (Group 3 spreads the word on this incentive. For policy updates to the incentive itself, please see Strategy 28 – Emissions Reduction: Zoning Ordinance and Other County Code Updates, which can be found in Group 2.).



Steady Progress (~0.5 of Action Done) ACTION 3: (PROMOTE UTILITY PROGRAMS FOR EVs): CECAP Implementation Plan | BEE.10²²: Promote and leverage ratepayer-funded utility programs (...).

<u>STATUS NOTES:</u> Dominion Energy has <u>incentive programs</u> for residential and non-residential EV charging stations. Fairfax County promotes these and other utility-led incentive programs. (*For education and outreach about EVs beyond incentive promotion, please see Strategy 38 – Education on Emissions Reduction*).

²¹ Strategies with a star were identified as priority strategies in their respective plans.

²² This implementation actions as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.



Steady Progress

(~0.5 of Action Done)

ACTION 4: (PROMOTE TAX INCENTIVES FOR EVS): CECAP Implementation Plan | T.1²³: Continue and expand public outreach regarding (...) federal and state tax incentives regarding EVs and EVSE (...).

<u>STATUS NOTES</u>: OEEC's Carbon Free Fairfax program provides resources, webinars, and campaigns promoting EV adoption including information on tax incentives. (*For education and outreach about EVs beyond incentive promotion, please see Strategy 38 – Education on Emissions Reduction*).

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

CECAP Implementation Plan | T.13: Legislative authority for EV incentives.

Please see Strategy 19 - State-level actions for Transportation, which can be found in Group 1.

CECAP Implementation Plan | BEE.6, BEE.8, ES.2, ES.7, T.11: Green Bank

Please see Strategy 12 – Green Bank for Emissions Reduction, which can be found in Group 1.

CECAP Implementation Plan | T.3, T.4, T.5, T.18, : (Various permitting processes and policies for EVs)

Please see Strategy 28 – Emissions Reduction: Zoning Ordinance and Other County Code Updates, which can be found in Group 2.

<u>CECAP Implementation Plan | T.1:</u> Public outreach and engagement regarding transportation topics, including federal and state tax incentives regarding EVs and EVSE (...)

Please see Strategy 38 – Education on Emissions Reduction.

Strategy Status	★ Strategy ²⁴	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	33. Incentives for Transportation:	3 (Lead), 2, 5	Continuous	n/a	T.1, T.17,	
Steady Progress	Bicycling and Pedestrian Incentives					
1 of 2 Actions						
Done (50%)						

Action Status

Actions



ACTION 1: (BIKE RACKS AND BIKE SHARING): CECAP Implementation Plan | T.17: Promote bicycle usage by installing more bike racks and bike sharing facilities in commercial areas and transit stations.

<u>STATUS NOTES:</u> The county promotes, requires, and includes bicycle parking for commercial areas and transit stations. FCDOT implements bicycle parking through the rezoning process and during site planning. A link to the <u>interactive map of bike rack locations in Fairfax County</u> is

²³ This implementation actions as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.

²⁴ Strategies with a star were identified as priority strategies in their respective plans.

(~0.75 of Action Done)

also available on their website. Secure bike rooms are available at several Metrorail Stations and Park & Ride locations, and FCDOT offers periodic promotional membership discounts. FCDOT has installed Capital Bikeshare throughout the county with 77 stations currently in Merrifield, Reston, and Tysons. In 2024, more than a dozen new stations will be installed around the Franconia/Springfield, Innovation, and Huntington Metro Stations. (This action is about incentives. For education and outreach about active transportation, please see Strategy 38 – Education on Emissions Reduction).



ACTION 2: CECAP Implementation Plan | T.1²⁵: Continue and expand public outreach regarding (...) biking, walking, and micromobility options.

Started (~0.25 of Action Done)

<u>STATUS NOTES:</u> FCDOT continues to promote all commuter options including biking and walking to residents and employers within Fairfax County via outreach and education on the County's transit routes as well as its bikeways and trails system. These options are promoted as primary commute options or as viable first-last mile modes to support their primary choices of commuting. There are opportunities to expand awareness of these incentives. (*This action is about incentives. For education and outreach about active transportation, please see Strategy 38 – Education on Emissions Reduction*).

Strategy Status	Strategy ²⁶	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	34. Incentives for Transportation:	3 (Lead), 5	Continuous	n/a	T.1, T.15	n/a
Steady Progress	Transit					
1.25 of 2 Actions						
Done (63%)						

Action Status

Actions



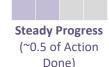
Significant Progress (~0.75 of Action Done) ACTION 1: REDUCED FARES: CECAP Implementation Plan | T.15: Create reduced or no-fare programs for disadvantaged categories (e.g., low-income, seniors, and students, as well as 3-, 5-, or 12-month transit passes at discounted prices to incentivize public transit ridership.

STATUS NOTES: The Fairfax Connector transit system provides discounts to seniors, people with disabilities, and free service to high school and middle school students. In April 2023, Fairfax Connector launched a board-approved pilot half-fare program for low household income passengers that is paid for with grant funding awarded by the Virginia Department of Rail and Public Transportation (DRPT). FCDOT is working with NCS and OPEH to help ensure the program reaches low-income County residents. TOPS card users automatically qualify. The pilot program is slated to end on July 31, 2026. Information on Fairfax Connector current fares and policies are available on their website. FCDOT staff

²⁵ This implementation actions as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.

²⁶ Strategies with a star were identified as priority strategies in their respective plans.

presented to the <u>Board's Transportation Committee in September 2022</u> in regard to free bus fares for all riders. The Board will continue to study this issue and determine what may be appropriate for the county.



ACTION 2: PROMOTION OF TRANSIT INCENTIVES: CECAP Implementation Plan | T.1²⁷: Continue and expand public outreach and engagement regarding (...) incentives regarding (...) public transit and commuter options and services (...).

STATUS NOTES: FCDOT continually promotes public transit and commuter options within the County and provides incentives through implementation of transit and commuter benefits programs through its employer outreach efforts. Since 2014, FCDOT's "SmartBenefits" Plu\$50" [read: Plus 50] incentive program has been used to encourage businesses to establish transit subsidies by providing a pre-loaded \$50 SmarTrip® card as an incentive to each of their staff that registers for that company's program.

Additionally, OEEC has a sustainable transportation page that promotes the county's public transit and commuter service programs here: <u>Sustainable Transportation | Office of Environmental and Energy Coordination (fairfaxcounty.gov)</u>. (*This item is about incentives. For education and outreach beyond incentive promotion, please see Strategy 38 – Education on Emissions Reduction*).

Roll-up Status	Roll-up					
Started 6.25 of 13 Actions Done (48%)	Roll-up: Aid and Risk-Reducti	on Services	for Commu	nities		
Strategy Status	Strategy ²⁸	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	35. Community Aid and Services to Alleviate Resilience Needs	3	Continuous	CRC.2a, CRC.2d	n/a	n/a
Steady Progress						
4.25 of 7 Actions Done (64%)						

Resilient Fairfax | CRC.2a: Provide Community Aid and Services to Alleviate Resilience Needs

Lead: OEEC (Facilitator). **Partners:** CSB, DEMS, DFS, DHCD, DPWES, FCHD, FCPA, FCPS, NCS, NVSWCD, One Fairfax. **Timeline:** Ongoing. **Cost:** \$\$ (\$100k - \$500k). **Existing Staff:** Partial. **Description:** Vulnerable populations will be disproportionately impacted by climate change. There are many existing county resources

²⁷ This implementation action as originally written covered multiple topics. For clearer progress tracking, each topic has been extracted and placed in its applicable strategy group.

²⁸ Strategies with a star were identified as priority strategies in their respective plans.

that can help. However, many residents are unaware of these resources, do not know how to request services, or are hesitant to access aid. Populations experiencing homelessness may be especially exposed and in need of aid. This strategy focuses on community engagement to better connect residents to existing resilience-related support and resources, and to continue the identification of unmet needs. Meaningful engagement should center on traditionally under-served populations, expanding the work of Equity Impact Plans and One Fairfax. This strategy includes identification of community-based partners and community-specific needs, identification of pressing needs, and enhancing and streamlining access to aid from multiple county departments. This strategy will support improved preparedness and resilience of the county's more vulnerable populations. (For education and guidance, please see strategy CRC.2b). (Please see Resilient Fairfax Plan pages 61-62 for more detail).

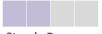
Action Status

Actions²⁹



Significant Progress (~0.75 of Action Done) ACTION 1 (ESTABLISH WORKING GROUP): Resilient Fairfax | CRC.2a: Launch an implementation group responsible for this program. The group should leverage partners from the Resilient Fairfax planning process, and should include county agencies, community-based organizations, and community leaders who hold existing trust with vulnerable populations in Fairfax County.

STATUS NOTES: This action item is fulfilled in two ways. For county agencies, Group 3 of the Interagency Climate team is composed of all agencies who provide relevant services and aid to the population. In addition to Group 3, there is an external Community Advisory Group (CAG) that is composed of residents of each Supervisor District, non-profit organizations, advocacy organizations, and other community leaders. This action item is listed as "significant progress" (3 bars) rather than "complete/active" (4 bars) because there is still room for improvement in maximizing the potential of these groups.



Steady Progress (~0.5 of Action Done) ACTION 2 (ESTABLISH INCLUSIVE ENGAGEMENT PROGRAM): Resilient Fairfax | CRC.2a: Work collaboratively to develop a climate resilience community engagement program, using the county's Inclusive Community Engagement Framework (ICEF). Identify how best to connect neighborhoods, residents, outdoor workers, and other vulnerable groups with existing county aid and resources. Work with community leaders, CSB, NCS, DFS, DEMS, FCHD, OPEH, NCS, and others to help ensure that awareness of available county aid is equitably reaching communities of color and low-income, older adult, unhoused, disabled, outdoor workers, and other under-served residents.

STATUS NOTES: The Resilient Fairfax planning and implementation processes have both involved intensive community engagement (e.g., the Community Advisory Group) with a foundation in equitable engagement, in alignment with One Fairfax. Additionally, the Extreme Heat Stakeholders Workgroup's engagement of community members experiencing homelessness was centered on equitable engagement. There are continued opportunities for this engagement, and creation of a formal engagement program using the ICEF.



Significant Progress (~0.75 of Action Done) ACTION 3 (IDENTIFY TOP FLOODING-RELATED NEEDS): Resilient Fairfax | CRC.2a: Building upon the results of the Vulnerability and Risk Assessment and concurrent county initiatives such as the Flood Risk Reduction Plan (Strategy CRC.3a), identify specific, pressing climate-related needs of the county's vulnerable neighborhoods, such as areas of recurrent flooding.

STATUS NOTES: The county's top flooding vulnerabilities, locations of most severe flooding, causes of flooding issues, and change in flooding due to climate change are well documented through multiple analyses, including analyses done by DPWES and those associated with Resilient Fairfax (see Resilient Fairfax Vulnerability and Risk Assessment, Resilient Fairfax Interactive Map Viewer, ANALYZING FLOOD RISK IN FAIRFAX

²⁹ The actions listed here have been edited slightly from their original version in the Resilient Fairfax plan for greater clarity. No content has been removed.

<u>COUNTY (arcgis.com)</u>. Currently, an interagency team led by DPWES and LDS are modeling precipitation change in climate, (which includes climate projection data from Resilient Fairfax and MARISA), and what that means for stormwater design and policy. (*This action is about assessing community needs. For the Flood Risk Reduction Plan and related land use policies, please see Strategy 21, which can be found in Group 2.*)

Significant
Progress
(~0.75 of Action
Done)

ACTION 4 (IDENTIFY TOP HEAT-RELATED NEEDS): Resilient Fairfax | CRC.2a: Building upon the results of the Vulnerability and Risk Assessment and concurrent county initiatives such as the Heat Emergency Workgroup, identify specific, pressing climate-related needs of the county's vulnerable neighborhoods, such as areas of extreme heat exposure.

STATUS NOTES: The Resilient Fairfax Vulnerability and Risk Assessment, NASA Develop Urban Heat Island Analysis, Resilient Fairfax Interactive Map Viewer, and stakeholder engagement conducted during the Resilient Fairfax planning process identified specific heat-related needs, projections, and areas of top heat exposure in Fairfax County. Building upon this work, an extreme heat stakeholder's workgroup, composed of county staff, homeless service providers, faith community leaders and advocates, conducted a survey of unsheltered residents about their needs during extreme heat conditions. The workgroup developed recommendations to enhance the county's response in four areas: communications and outreach, transportation, county infrastructure and response, and supplies and distribution. (This action is about identification of needs. For information about meeting those needs, please see the action below).



Significant Progress (~0.75 of Action Done) ACTION 5 (ACCESS TO HEAT-RELATED SERVICES): Resilient Fairfax | CRC.2a: Streamline and facilitate access to existing climate hazard-related resources and assistance from numerous departments such as: air conditioning assistance during extreme temperatures (DFS), energy efficiency and other building improvements for enhanced resiliency (HCD, OEEC), cooling centers and other sites that serve as places to stay cool (NCS, DEMS), and/or health and human services that can also enhance resilience to climate hazard effects (CSB, DFS, FCHD, NCS). Produce easy-to-understand, multi-lingual guides to help residents understand what aid is available and how to access it. Provide centralized physical and virtual locations for climate hazard related resources. Resilience hubs (Strategy CRC.1b) could potentially serve this purpose.

STATUS NOTES: OEEC is working with Interagency Climate Team Group 3 (Community Services, Education, Engagement, and Incentives) to streamline and facilitate access to existing extreme heat-related services. Air conditioning assistance (DFS Energy Assistance): DFS received 1,450 applications for Cooling Assistance in 2023. Cooling Centers: Protocols and services for Cooling Centers were significantly enhanced in 2023. In the Spring of 2023, a robust public outreach campaign was launched to encourage unsheltered residents to sign up for Fairfax Alerts and inform them about available county resources. One of the communications and outreach strategies was to designate 47 facilities as cooling centers. Free transportation was provided to cooling centers and supplies were distributed at these centers for residents in need. A cooling center finder application was developed to include a searchable, interactive mapping application to locate public facilities available for anyone to visit during extreme heat emergency days. A short video was created to help individuals use the application to locate cooling centers within Fairfax County. Information about the cooling centers were included in a NewsCenter article, Webpage, flyers in eight languages, as well as Fairfax Alerts. More than 27,000 total supplies were distributed at 62 county cooling centers and community partner sites. Additionally, Cooling Centers now include flyers letting community members know about other services, including those offered by DFS. Multi-lingual quides of services: There existing flyers with information on extreme heat resources and on DFS programs. An ongoing Group 3 task is to create a guide to all heat-related services in an easy-to-understand format.



Steady Progress (~0.5 of Action Done) <u>ACTION 6 (HEAT WARNING SYSTEM): Resilient Fairfax | CRC.2d:</u> Expand Heat Warning System: Promote early warning system to warn community members of upcoming heat events. Explore tiered warning system approach for heat. Promote and leverage existing Fairfax Alerts, National Weather Service, and other warning systems.

STATUS NOTES: Surveys of community members, including those experiencing homelessness, have confirmed that the vast majority own cellular phones and receive heat emergency warnings. In addition to National Weather Service warnings, Fairfax Alerts provides warnings to community members. However, there are currently discussions in the climate, weather, and emergency preparedness communities about the need to better message the severe danger of extreme heat. One proposal (worldwide) is to potentially name extreme heat events in a similar way that hurricanes are named, given the higher mortality rate of extreme heat events.



Started (~0.25 of Action Done)) ACTION 7 (ACCESS TO FLOODING & STORM-RELATED SERVICES): Resilient Fairfax | CRC.2a: Streamline and facilitate access to existing climate hazard-related resources and assistance from numerous departments such as: flood mitigation assistance (DPWES), energy resilience for frequent power outages, relocation for repetitive loss properties (DPWES), and/or health and human services that can also enhance resilience to climate hazard effects (CSB, DFS, FCHD, NCS). Produce easy-to-understand, multi-lingual guides to help residents understand what aid is available and how to access it. Provide centralized physical and virtual locations for climate hazard related resources. Resilience hubs (Strategy CRC.1b) could potentially serve this purpose.

STATUS NOTES: Several county agencies currently provide and promote flooding and storm-related services. However, many of these services and presentations are on a request-only basis. There is a lower-than-ideal level of awareness among residents of the services that are available, especially among socioeconomically vulnerable residents. There are opportunities to expand promotion and awareness of these services. Interagency Climate Team – Group 3 is collaborating across agencies to expand this awareness of and access to flooding and storm-related services. (This action is about <u>services</u> for residents. For information about the Flood Risk Reduction Plan and related land use policies, please see Strategy 21, which can be found in Group 2.)

Strategy Status	★ Strategy³0	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	36. Resilience Hubs	3, 5	2027	CRC.1b	n/a	n/a
Started						
2 of 6 Actions						
Done (33%)						

Resilient Fairfax | CRC.1b: Pursue Development of a Network of Resilience Hubs in Climate-Vulnerable Areas of the County

Lead: OEEC. Partners: DEMS, DFS, DPD, DPSC, DPWES, FCHD, FCPA, FCPA, FMD, GIS, HCD, LDS, NCS, OCA, One Fairfax. Timeline: Medium-term (2-5 years). Cost: \$\$\$ (\$500k - \$1 million). Existing Staff: Partial. 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 training, 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 connections and enhanced capacity to adapt and respond to climate related events. (Please see Resilient Fairfax Plan pages 59-60 for more detail).

Action Status

Actions



(~0.75 of Action Done)

ACTION 1 (IDENTIFY AREAS OF GREATEST NEED): Resilient Fairfax | CRC.1b: 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.

STATUS NOTES: Locations in Fairfax County with greatest need and benefit for Resilience Hubs have been mapped based on heat vulnerability, flood vulnerability, and socioeconomic vulnerability. An interagency team is working to finalize the maps.



Done)

ACTION 2: (INVENTORY FACILITIES): Resilient Fairfax | CRC.1b: 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.

³⁰ Strategies with a star were identified as priority strategies in their respective plans.

STATUS NOTES: OEEC has compiled a list of potential Resilience Hub sites based on numerous criteria and is coordinating Resilience Hub considerations with Capital Facilities and ESCO work, along with other initiatives, such as Cooling Center initiatives and the "Solar Sanctuaries" initiative led by faith communities.



Started (~0.25 of Action Done) ACTION 3: (SITE ANALYSES): Resilient Fairfax | CRC.1b: 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.

<u>STATUS NOTES</u>: This action item was initiated in support of OEEC's EPA grant application for Resilience Hub funding, which was denied. OEEC is pursuing alternative methods of implementation, such as through the ESCO process. The ESCO process also involves intensive site analyses.



Started (~0.25 of Action Done) ACTION 4: (OUTREACH): Resilient Fairfax | CRC.1b: 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.

STATUS NOTES: OEEC is in close collaboration with faith communities on the Resilience Hub/ Solar Sanctuaries initiative, particularly through partnership with Faith Alliance for Climate Solutions. Numerous faith communities have been identified as potential Resilience Hubs/ Solar Sanctuaries.



Started (~0.25 of Action Done) ACTION 5 (PILOT SITE): Resilient Fairfax | CRC.1b: Identify a pilot resilience hub location and work with facility managers and community partners to build out community resilience offerings.

STATUS NOTES: In 2023, the Office of Environmental and Energy Coordination (OEEC) and partners Northern Virginia Soil and Water Conservation District, Virginia Climate Center (GMU), Faith Alliance for Climate Solutions, and Rising Hope Mission Church applied for a \$1 million EPA grant to pursue three pilot Resilience Hubs in Fairfax County. As part of the application process, significant analyses and preparation were conducted. Unfortunately, Fairfax County was not awarded EPA funding. As of late 2023, staff are now exploring alternative sources of funding for a pilot resilience hub. Several different entities have expressed interest or a willingness to be part of a Resilience Hub pilot, including FCPA's Rec Centers, Faith Alliance for Climate Solutions member facilities, or facilities that are being upgraded anyway as part of the ESCO process.



Not Started (0)

ACTION 6 (NETWORK OF HUBS): Resilient Fairfax | CRC.1b: 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.

STATUS NOTES: This is a future item.

Roll-up Status			
Started			
6.75 of 17			
Actions Done			
(40%)			

Roll-up

Roll-up: Education and Workforce Development for Communities

Strategy Status	★ Strategy ³¹	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	37. Education on Climate Resilience,	3	2027	CRC.2b	n/a	n/a
Started	General					
2.75 of 7 Actions						
Done (39%)						

Resilient Fairfax | CRC.2b: Launch a Climate Resilience Education and Guidance Program

Lead: OEEC. Partners: DCC, DEMS, DFS, DPWES, FCPA, FCPS, FCHD, HCD, LDS, NCS, NVRC, NVSWCD, One Fairfax. Timeline: Medium-Term (2-5 years). Cost: \$\$ (\$100k - \$500k). Existing Staff: Partial. Description: To be successful, climate adaptation and resilience strategies require local community awareness, understanding, buy-in, and participation. Climate resilience education for the community should include guidance documents and resources for various climate-related topics such as emergency preparedness, flood mitigation, natural resource resilience, and energy resilience, among others. Education may include resources on introductory concepts of climate change, such as background on climate science and impacts on public health and safety. All educational materials will be customized for the intended audience, and their needs, to ensure materials are translated, relatable, relevant, understandable, and accessible (Please see Resilient Fairfax Plan pages 63-64 for more detail).

Action Status

Actions



Significant Progress (~0.75 of Action Done) ACTION 1: (ENGAGE KEY PARTNERS): Resilient Fairfax | CRC.2b: Identify and engage key partners for a climate resilience education campaign, including local schools (Get2Green), community-based and environmental organizations, county departments, libraries, homeowners' associations, and other partners with existing community education programs such as OPA, FCPA, NCS, DEMS, DPWES, and NVSWCD. Engage with community leaders and residents to increase understanding and tailor educational materials to specific community needs.

STATUS NOTES: For internal county agency coordination, Group 3 of the Interagency Climate Team serves this purpose, among other community-focused tasks. The Fairfax Environmental Engagement Team (FEET) also serves this purpose. Group 3 and FEET are coordinated with one another, with FEET serving as a de facto "sub-group" of Group 3. For coordination with external entities such as non-profits and community groups, the external Community Advisory Group (CAG) serves this purpose.

³¹ Strategies with a star were identified as priority strategies in their respective plans.



Done)

ACTION 2 (CLIMATE 101 EDUCATIONAL MATERIALS): Resilient Fairfax | CRC.2b: Develop and deliver Climate Change 101 educational materials to Fairfax County staff and residents to provide background on climate science, climate hazards, climate mitigation, climate adaptation and resilience, and climate impacts on public health and safety.

<u>STATUS NOTES</u>: OEEC and partner county agencies have provided a range of climate-related educational materials through multiple avenues including trainings, newsletters, handouts, webpages, social media, tabling events, and more Specific examples produced in 2023 include the following:

- (For training of county staff on resilience, please see Strategy 9, which can be found in Group 1).
- OEEC's monthly newsletters (Environmental, Climate, and Energy updates), which has over 1,000 subscribers.
- OEEC's Personal Climate Action presentation for both staff and residents.
- OEEC's <u>Climate Action Checklist for Residents</u>, a user-friendly checklist of actions that community members can take to enhance their resilience and reduce their emissions, complete with links to resources and incentives for each action.
- OEEC's Climate Action Dashboard, which includes data and educational content on resilience, such as temperature trends, flooding information, storm data, resilience-related maps, vulnerability information, and natural resource resilience facts, among other topics.
- OEEC and Channel 16's <u>video</u> about Resilient Fairfax
- OEEC and Channel 16's podcast episode about Resilient Fairfax

Leveraging Group 3 of the Interagency Climate Team and an existing interagency education-focused group Fairfax Environmental Education Team (FEET), OEEC is currently coordinating various agencies for improved coordination on climate-related education.



ACTION 3: (COMMUNITY MEETINGS): Resilient Fairfax | CRC.2b: Host a series of interagency, informational meetings in accessible neighborhood locations throughout the county. Leveraging existing programs and resources from DEMS, DPWES, and other agencies.

Steady Progress (~0.5 of Action Done)

STATUS NOTES: OEEC hosted dozens of community meetings during the Resilient Fairfax planning process and has continued to provide educational presentations to a range of community groups about climate resilience. Webinars and Lunch-and-Learns, hosted by various county agencies. Examples include OEEC and DEMS' Webinar on Extreme Heat Resilience in June 2023 and DPWES and DEMS' Flood Awareness Lunch and Learn: Understanding Your Flood Risk in March 2023.



ACTION 4: (FLOOD RESILIENCE GUIDANCE): Resilient Fairfax | CRC.2b: Develop and promote existing guidance for flood safety and resilience measures, such as elevating structures or equipment, wetproofing, dry proofing, flood insurance, and small-scale green infrastructure for property owners and operators/landlords. Any assistance will be in alignment with applicable laws and policy.

Steady Progress (~0.5 of Action Done)

STATUS NOTES: DPWES has existing guidance that covers some of these items. Please see Flood Information | Public Works and Environmental Services (fairfaxcounty.gov). The Interagency Climate Team is working to create consolidated flooding-related resilience guidance, inclusive of information from all relevant agencies.



Started (~0.25 of Action Done) ACTION 5 (HEAT RESILIENCE GUIDANCE): Resilient Fairfax | CRC.2b: Develop and promote guidance on heat safety, such as safe thresholds for outdoor workers, outdoor activities, and youth sports, guidance for those experiencing homelessness during extreme heat, and heat resilience retrofits, such as cool roofs, cool pavements, trees, building orientation and design, and energy efficiency.

<u>STATUS NOTES:</u> DEMS has existing guidance that covers some of these items, such as general safety tips during extreme heat. OEEC has started compiling heat resilience guidance to cover the other items listed in the action above.



Started (~0.25 of Action Done) ACTION 6 (WIND, STORM, AND ENERGY RESILIENCE GUIDANCE): Resilient Fairfax | CRC.2b: Develop and promote existing guidance for severe storm, wind, and energy resilience (power outage prevention) retrofits, such as solar plus storage, back-up power, infrastructure hardening, tree trimming to prevent tree falls on power lines, and pre-storm actions.

<u>STATUS NOTES</u>: DEMS has existing guidance that covers some of these items, such as general storm preparedness. OEEC has started compiling storm resilience guidance to cover the other items listed in the action above.



ACTION 7: (AGRICULTURAL RESILIENCE GUIDANCE): Resilient Fairfax | CRC.2b: Connect local farmers and landowners to education and funding opportunities for regenerative and resilient agricultural practices.

Scheduled to Start (0)

<u>STATUS NOTES:</u> OEEC is coordinating with NVSWCD, who have an existing working group focused on climate resilience for agriculture and food systems in Fairfax County. (For regenerative agriculture, please see Group 4).

Strategy Status	★ Strategy ³²	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	38. Education on Emissions	3	Continuous	n/a	BEE.1, ES.1, ES.2, T.1, W.2,	n/a
Steady Progress	Reduction				W.3	
2.75 of 5 Actions						
Done (55%)						

Action Status

Actions



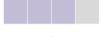
Done)

ACTION 1: (CARBON FREE FAIRFAX): CECAP Implementation Plan | BEE.1, ES.1: Develop and implement a broad-based community (...) education campaign to reduce greenhouse gas emissions (i.e., take climate action).

STATUS NOTES: <u>Carbon Free Fairfax</u>: Carbon-Free Fairfax is the public education and outreach component to advance CECAP goals and strategies across all sectors. OEEC has developed resources and events under the Carbon-Free Fairfax umbrella, including information on energy audits, actions to reduce energy use at home, going solar, switching to an electric vehicle, and adopting other sustainable forms of

³² Strategies with a star were identified as priority strategies in their respective plans.

transportation. These education campaigns have included webinars, informational materials in multiple languages, checklists, social media campaigns, and videos.



Significant Progress (~0.75 of Action Done) ACTION 2: (GET 2 GREEN): CECAP Implementation Plan | BEE.1, ES.1: Develop and implement a broad-based community (...) education campaign to reduce greenhouse gas emissions (i.e., take climate action). (...) Fairfax County Public Schools Get2Green Program: Continue and expand equitable access to environmental stewardship opportunities for FCPS students and staff with the goal of reducing environmental impact and developing students as ethical and global citizens.

STATUS NOTES: Get2Green: The Fairfax County Public Schools Get2Green Program was formed in 2009 and its website https://get2green.fcps.edu launched in 2016. It is the environmental stewardship program for public schools. In 2023, the program was significantly expanded, with the addition of 1 Educational Specialist, 1 School Support Specialist, and 4 Resource Teachers on the Get2Green team. In addition to team expansion, there are over 270 Get2Green Leaders in all 200 schools across the division. Each school was permitted to choose between 1-3 Leaders that will be compensated for their time. Each school is required to complete an audit of environmental stewardship within their school building or campus. As a result of the audit data the Leaders and students will design an action plan that will take place in the spring semester. The Leaders must complete professional development, covering a range of topics from winter crops to energy and waste reduction. Get2Green staff are coordinating with other county agencies through Interagency Climate Team groups. There may be an opportunity to leverage other community resources to enhance program operation (e.g., Eco-Schools, Eco-Teams).



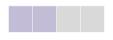
Steady Progress (~0.5 of Action Done) ACTION 3 (TRANSPORTATION EDUCATION): CECAP Implementation Plan | T.1: Continue and expand public outreach and engagement regarding transportation topics, including federal and state tax incentives regarding EVs and EVSE, public transit and commuter options and services, and biking, walking, and micro-mobility options.

STATUS NOTES: Fairfax County Department of Transportation (FCDOT) provides numerous education and outreach activities to promote public transportation and alternative commuting options. FCDOT also engages the community in developing plans and implementing programs. FCDOT is leading the Active Fairfax Plan, focused on improving and expanding the pedestrian and bike networks throughout the county. Extensive public outreach is a major component of this planning effort. OEEC's Carbon Free Fairfax program promotes alternative and public transportation through website content and information materials in multiple languages. In addition, it provides resources, webinars and information promoting EV adoption highlighting the available incentives. (This item is about education. For incentives, please see Strategy 32).



Steady Progress (~0.5 of Action Done) ACTION 4 (RENEWABLE ENERGY EDUCATION): CECAP Implementation Plan | ES.2: Support accelerated electric grid transformation beyond the renewable energy requirements set forth in the VCEA. The county will (...) support renewable energy installations through (...) expanded education and outreach.

STATUS NOTES: Fairfax County continues to promote the Local Energy Alliance Program (LEAP's) annual Solarize Virginia campaign that provides access to preapproved solar installers who install solar systems at a bulk discount for homeowners, nonprofits, or business owners. Additionally, the county promoted Solar United Neighbors' Capital Area Solar Switch program which also offers residents information, technical assistance, and direct access to qualified solar installers. OEEC co-hosted an informational webinar for each program in summer 2023 and produced a series of videos addressing common myths about solar energy and featuring testimonials from Fairfax County residents who have gone solar. OEEC also created informational resources on solar energy in multiple languages. (This item is about education. For incentives, please see Strategy 31, Actions 1-4).



Steady Progress (~0.5 of Action Done) ACTION 5 (WASTE EDUCATION): CECAP Implementation Plan | W.2: Continue the development and delivery of community outreach and education for 5Rs (Refuse, Reduce, Reuse, Repurpose, Recycle), as well as potential avenues for county support of individual actions regarding 5Rs, including targeted languages. CECAP Implementation Plan | W.3: Continue and expand a broad-based community outreach and education campaign (on waste reduction).

<u>STATUS NOTES:</u> DPWES staff have continued their waste reduction education and outreach activities with an emphasis on messaging that is consistent with CECAP implementation and will evaluate opportunities to expand education in target languages.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

<u>Operational Energy Strategy | Reporting and Collaboration: Action 2:</u> Maintain and update county webpages highlighting accomplishments in emissions reductions, energy efficiency, and conservation.

Please see Strategy 73 – Tracking of Emissions Reduction Progress, which can be found in Group 6.

(Actions Relating to Incentives for Energy Efficiency, Renewable Energy and Transportation)

Please see Strategies 29-34.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	39. Education on Natural Resources	3	Continuous	n/a	NR.1, NR.2, BEE.5	n/a
Started	(both resilience & emissions reduction)					
0.5 of 2 Actions						
Done (25%)						

Action Status

otion otatas .



Steady Progress (~0.5 of Action Done) Actions

ACTION 1: EDUCATION ON CLIMATE BENEFITS OF GREEN SPACES AND TREES: CECAP Implementation Plan | NR.1: Continue development and delivery of public outreach/ education campaigns on the benefits of green spaces and trees ("NR 101"), expanding program to more advanced topics. CECAP Implementation Plan | NR.2: Continue and expand a broad-based community outreach and education campaign to reduce greenhouse gas emissions.

STATUS NOTES: The many education programs from NVSWCD, DPWES-Urban Forestry, Fairfax County Park Authority (ParkTakes and Nature Center Programs), and other community outreach programs have continued. There are opportunities for interagency collaboration to add more climate-specific content to natural resource education.

Scheduled to Start (0) ACTION 2: EDUCATION ON REGENERATIVE DESIGN: CECAP Implementation Plan | BEE.5: Incorporate biophilic and regenerative design principles such as green roofs into the construction or renovation of buildings to improve occupant health and comfort and provide cobenefits including improved air quality, stormwater management, and reductions to heat island effect areas (education component).

<u>STATUS NOTES:</u> The DCEX of Planning and Development has reached out to Terreform, a national firm focused on biophilic and regenerative design principles, to explore education opportunities. (*This action is about education. For green infrastructure implementation, please see Strategy 46 (Green Infrastructure), in Group 4 (Natural Resources*).

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	40. Workforce Development &	3 (Lead), <i>5</i>	Continuous	CRC.2c	BEE.15, BEE.18	n/a
Started	Business Start-ups					
0.75 of 3 Actions	'					
Done (25%)						

Action Status

Actions



Started (~0.25 of Action Done) <u>ACTION 1: Support Resilience-Related Workforce Development:</u> <u>Resilient Fairfax | CRC.2c:</u> Pursue workforce development initiatives to develop resilience-related construction and contracting skillsets, such as pervious paver installation, solar-plus-storage installation, green infrastructure installation, and other skillsets.

STATUS NOTES: Fairfax County, in partnership with the Water Environment Federation (WEF), DC Water and other national jurisdictions, crafted the National Green Infrastructure Certification Program (NGICP). The program targets maintenance personnel who work specifically on green infrastructure and sets national certification standards for the construction, inspection, and maintenance of GI. The NGICP targets the following types of GI facilities: bioretention, permeable pavement, rainwater harvesting, rooftop stormwater management, dry wells, and wetlands. There are opportunities to expand workforce development opportunities in other resilience-related topics such as solar-plus-storage, cool roofs, cool pavements, wind-resilient structures, and more.



Started (~0.25 of Action Done) ACTION 2: Support Energy and Electrification Workforce Development: CECAP Implementation Plan | BEE.18: To expand the skilled workforce needed to provide energy and electrification services locally, support the establishment or strengthening of job training programs through community colleges, non-profit organizations, trade unions, or apprenticeships.

STATUS NOTES: The county has conducted some initial research on the institutions and organizations that address workforce needs, including in energy-related fields, and explored ways to partner with them. DEI and DFS (Department of Family Services) are spearheading a new Work-Based Learning program, which will explore opportunities for skill-building, potentially in the green economy. The EDA is a partner in this effort. Further, the EDA supports the CECAP Implementation Plan through eNewsletters to the business community, a jobs board site, workinnorthernvirginia.com, providing career opportunities, including renewable energy; and by recruiting clean energy related businesses to Fairfax County. Additional opportunities to address training gaps and how to best address them to expand the workforce to provide energy and electrification services locally will be explored with EDA and other non-profits or trade unions in future years.



Started (~0.25 of Action Done) ACTION 3: SUPPORT CLEAN ENERGY BUSINESS INCUBATION: CECAP Implementation Plan | BEE.15 : Partner with local educational institutions, such as George Mason University, and neighboring jurisdictions to cultivate and support innovative, incubator or start-up businesses that provide services in the clean energy sector.

STATUS NOTES: (For Green Business Partners, please see Strategy 41). The Fairfax County Innovation Challenge Carbon Neutral Pitch and Pilot occurred in October 2022 with Smart City Works (501(c)(3)). Applicants were urged to propose products or services that either improve energy efficiency, increase the use of renewable electricity, or advance the use of electric vehicles. The winner, a firm providing a web-based estimation of clean energy options for any building identified by an address, is being considered by OEEC for implementation as a pilot project in Fairfax County. If determined suitable, the firm's product may be piloted in 2024. The county also initiated the first electric/autonomous vehicle (AV) for public use in Virginia. The AV Relay launched in October 2020 and ended in 2023. This was an extensive cooperative effort with other government agencies: Virginia Tech Research Council (VTRC), the Department of Rail and Public Transit (DRPT), and VDOT, as well as private businesses: Dominion Energy and Easy Mile. DEI and OEEC will continue outreach efforts with local educational institutions (GMU, NOVA, FCPS, etc.) to cultivate and support innovative incubator and start-ups in the clean-energy sector. Examples include reaching out to the GMU Institute for a Sustainable Earth: https://ise.gmu.edu/researchthemes/#climate and FCPS's Innovators' Fund, aimed at connecting the business community with student-led innovative ideas.

Roll-up Status	Roll-up					
	Roll-up: Community-led Pilot P	Programs, P	artners, an	d Champions	S	
Strategy Status	Strategy ³³ 41. Green Business Partners and Other	Groups 3 (Lead)	Completion Continuous	Resilient Fairfax	CECAP IP BEE.12, BEE.14, BEE.16,	OES n/a

Action Status

Started 1.5 of 4 Actions Done (38%)

Actions

Business Engagement



Complete (1 Action Done) ACTION 1 (RE-ESTABLISH GREEEN BUSINESS PARTNERS): CECAP Implementation Plan | BEE.14: Develop (...) partnerships between the county and its business communities to encourage and facilitate climate-oriented business practices and mentorships.

STATUS NOTES: The county substantially revitalized the Green Business Partners Program with a new webpage, application, program structure and benefits in 2023 to encourage and elevate sustainable businesses in the county. The program launch included a Green Business Partners Forum in March 2023 with 70 participants, 46 unique business and 23 other organizations to include local government, non-profits, and academia. The Forum was extensively marketed to ensure strong participation, and included involvement from DEI, EDA, Smart City Works, and business leaders such as B.F. Saul Company Hospitality Group, Hilton, Mars, River-Sea Chocolates, Freddie Mac, and Cox Communications.



Started (~0.25 of Action Done) ACTION 2 (IDENTIFY AND CELEBRATE BUSINESS INDUSTRY CLIMATE CHAMPIONS): CECAP Implementation Plan | BEE.16, ES.12, T.21, NR.11,

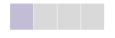
<u>W.17</u>: Identify and recognize (...) business Climate Champions that accelerate implementation of actions to meet CECAP goals. (...) Identify and celebrate local (...) businesses who take meaningful climate action and inspire those around them to do the same. (...) Initiate structured discussions in roundtable format meetings with (...) businesses. (...)

STATUS NOTES: Leaders in the Green Business Partners Program are recognized as climate champions within the Fairfax County business community. There is a total membership of 18 businesses (8 Leaders and 10 Members) and 5 Allies as of 12/31/2023 representing a diverse mix of business size and sectors. Staff recommended a change in approach where the Climate Champions Pilot with the hospitality industry will be a part of the Green Business Partners Program. OEEC is collaborating with Channel 16 to produce Leader Spotlight videos that will be showcased on the GBP website; 2 videos are complete and another in production. OEEC is collaborating with the hospitality industry, including Visit Fairfax,

ES.12, NR.11, T.21, W.17

³³ Strategies with a star were identified as priority strategies in their respective plans.

to explore opportunities for an industry-specific pilot in 2024 as part of the Climate Champions (See BEE.17) and will begin work in earnest in the 3rd quarter for FY24.



ACTION 3 (EXPAND & SUSTAIN GREEN BUSINESS PARTNERS): CECAP Implementation Plan | BEE.14: (...) sustain partnerships between the county and its business communities to encourage and facilitate climate-oriented business practices and mentorships.

Started
(~0.25 of Action
Done)

STATUS NOTES: This action tracks the membership of the Green Business Partners and activities to expand and sustain membership. Since launching the program on 3/31/2023, The membership total for the Green Business Partner Program since launching on 3/31/2023, 18 Members and Leaders have joined the program in addition to gaining 5 Allies. Implementation of program benefits include: educational resources, a membership-only webpage, two webinars (30 participants, excludes webinar support staff), bi-monthly e-newsletter, on-line membership directory, and production of 2 completed Leader Spotlight Videos and 1 in production in collaboration with Channel 16. Staff are seeking consultant support to further grow membership and develop program benefits to also include the Climate Champions Hospitality Sector Pilot.



Not Started (0) ACTION 4 (ENCOURAGE ENERGY EFFICIENCY THROUGH GREEN BUSINESS PARTNERS): CECAP Implementation Plan | BEE.12: Encourage building commissioning, recommissioning, and retro-commissioning to ensure that buildings operate as designed and with optimal energy efficiency. (...) Explore opportunities to educate the (...) private sector (...). For example, LDS may publish information in their technical bulletins, while OEEC will include outreach and education in the future through the re-launched 2023 Green Business Partners (GBP) (BEE.14). The GBP provides an opportunity to connect with existing industry organizations. (e.g., Building Owners and Managers Association (BOMA), Apt. and Office Building Association of Metropolitan Washington, NAIOP, etc.).

STATUS NOTES: Exploration of this action is targeted for 2025-2030.

Strategy Status	★ Strategy³⁴	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	42. Climate Champions and other	3 (Lead)	Continuous	n/a	BEE.16, BEE.17, ES.2, ES.12,	n/a
Started	Community-Led Pilot Programs (other				ES.13, NR.11, NR.12, T.20,	
1 of 3 Actions	than business sector)				T.21, W.16, W.17	
Done (33%)						

Action Status

Actions



Started

ACTION 1: (INDIVIDUAL CLIMATE CHAMPIONS): CECAP Implementation Plan | BEE.16, ES.12, T.21, NR.11, W.17: Identify and recognize (...) individual, (...) Climate Champions that accelerate implementation of actions to meet CECAP goals. Guided by community-led actions, the county will identify and celebrate local leaders, individuals, (...) who take meaningful climate action and inspire those around them to do the same. (...) Recommendations may include a pilot program (see BEE.17), development of program adoption guidance, promotion, or

³⁴ Strategies with a star were identified as priority strategies in their respective plans.

(~0.25 of Action Done)

marketing campaigns to facilitate broader adoption of climate actions. The county may catalyze and facilitate implementation where appropriate to further the community and business champion-led efforts.

STATUS NOTES: Individual climate champions have been recognized in 2023 through a series of videos highlighting residents who have taken actions such as installing solar panels or purchasing electric vehicles. Additionally, OEEC has provided a Climate Action Checklist for residents, to encourage residents to commit to becoming individual "Climate Champions" by taking actions on the list. The list includes resources and links to incentives to help residents achieve the actions. Individuals are also recognized for their climate action and environmental stewardship through the annual Environmental Excellence Awards which are administered by the Environmental Quality Advisory Council with assistance from OEEC.

Started (~0.25 of Action Done) ACTION 2: (ORGANIZATIONAL CLIMATE CHAMPIONS): CECAP Implementation Plan | BEE.16, ES.12, T.21, NR.11, W.17: Identify and recognize (...) organization Climate Champions that accelerate implementation of actions to meet CECAP goals. Guided by community-led actions, the county will identify and celebrate local (...) organizations who take meaningful climate action and inspire those around them to do the same. The county will initiate structured discussions in roundtable format meetings with community-based environmental groups (...) to identify climate champions to begin to connect with and identify climate champions. Roundtable participants may self-identify climate actions and behaviors within their sector and how to advance a climate-neutral Fairfax County within the (...) non-profit organizations. (...)

Recommendations may include a pilot program (see BEE.17), development of program adoption guidance, promotion, or marketing campaigns to facilitate broader adoption of climate actions. The county may catalyze and facilitate implementation where appropriate to further the community (...) champion-led efforts.

STATUS NOTES: In 2023, organizational Climate Champions focused on the non-profit pilot with Faith Alliance for Climate Solutions that has a milestone of securing commitments from places of worship to complete or state interest in completing an energy audit. HOAs are another category of organizational climate champions that may be recognized through the ECAP or Charge-Up Fairfax Program (see Strategy 31, Action 1). Through the Climate Champions Non-profit Pilot, FACS and OEEC (through the ECAP) has identified over 20 places of worship planning or interested to take climate action through the Pilot/ECAP/Dominion Energy programs. A non-profit roundtable is deferred until 2024 to coordinate with other county efforts such as the Inter-Agency Community Service, Aid, Engagement, Incentives team, county agencies and non-profits working Bailey's Crossroad, WISH).

Steady Progress (~0.5 of Action

Done)

ACTION 3: (COMMUNITY-LED PILOT PROGRAMS): CECAP Implementation Plan | BEE.17, ES.13, NR.12, T.20, W.16, : Support community-led pilot programs to accelerate implementation of climate action in support of CECAP goals and increase investments in renewable energy, energy efficiency, (...) natural resource protection and management activities, (...) zero waste and waste reduction and management activities (...) and reduce greenhouse gas emissions overall. Organizations in Fairfax County may bring forward community-led pilot programs to accelerate implementation of CECAP goals and ideally support multiple climate and energy sectors (energy efficiency, energy supply, transportation, waste, and natural resources). The county may collaborate on pilot programs in support of implementation efforts. CECAP Implementation Plan | ES.2 : Support accelerated electric grid transformation beyond the renewable energy requirements set forth in the VCEA. For example, (...) with Climate Champions and climate-action pilots. The county will pursue funding opportunities provided by the Inflation Reduction Act to support renewable energy installations through (...) partnerships with NGOS, pilot programs, (...).

<u>STATUS NOTES:</u> Two community-led pilot programs were initiated in 2023. OEEC has been working in close partnership with Faith Alliance for Climate Solutions (FACS) on a climate champions pilot for the faith-based/ non-profit sector. This partnership with FACS focused on two of their

five climate campaigns (i.e., Solar Sanctuaries, Creation Care Kitchens), while FACS is pursing development of their other campaigns to address EVs and greening sacred spaces, and food waste (se Action3 above for additional details). A second pilot program with the Hospitality sector was initiated in Q2 FY24 with work starting in earnest with consultant support in early 2024.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

For Business Climate Champions, please see Strategy 41 – Green Business Partners.

Details: Group 4 Strategies – (Natural Resources)

















Strategies in Group 4 are focused on climate-related natural resources topics. In addition to serving as a way to sort strategies, "Group 4" is also one of the six staff working groups of the Interagency Climate Team, with a focus on implementing Group 4 strategies. The following agencies are represented on the Interagency Climate Team - Group 4: Department of Planning and Development (DPD)- Planning Division (PD), Zoning Administration Division (ZAD), and Community Revitalization Section (CRS); Department of Public Works and Environmental Services (DPWES) Stormwater (including Urban Forestry); Fairfax County Park Authority (FCPA); Fairfax County Public Schools (FCPS) and Get2Green; Land Development Services (LDS); Northern Virginia Soil and Water Conservation District (NVSWCD); Office of Environmental and Energy Coordination (OEEC); and One Fairfax/ Chief Equity Officer's Office. OEEC and FCPA co-facilitate Group 4. The section below details progress made and the statuses of each Strategy Roll-up, Strategy, and Implementation Action for Group 4.

Roll-up							
Roll-up: Consolidated Natural Resource Management Plan							
Strategy ³⁷ Groups Completion Resilient Fairfax CECAP IP OES							
43. Develop a Consolidated Natural Resource Management Plan	4 (Lead), 2,	2030	AE.1a	NR.5	n/a		
	Roll-up: Consolidated Natural **Strategy** 43. Develop a Consolidated Natural	Roll-up: Consolidated Natural Resource N Strategy ³⁷ Groups 43. Develop a Consolidated Natural 4 (Lead), 2,	Roll-up: Consolidated Natural Resource Management Strategy ³⁷ Groups Completion 43. Develop a Consolidated Natural 4 (Lead), 2, 2030	Roll-up: Consolidated Natural Resource Management Plan Strategy ³⁷ Groups Completion Resilient Fairfax 43. Develop a Consolidated Natural 4 (Lead), 2, 2030 AE.1a	Roll-up: Consolidated Natural Resource Management Plan Strategy ³⁷ Groups Completion Resilient Fairfax CECAP IP 43. Develop a Consolidated Natural 4 (Lead), 2, 2030 AE.1a NR.5		

Resilient Fairfax | AE.1a: Develop a Consolidated Natural Resources Management Plan

A consolidated natural resources management plan will allow the county to more comprehensively plan for and manage its numerous natural resources, including tree canopies and forests, parkland and conserved land, stream corridors and valleys, water bodies, shorelines, wetlands, green infrastructure, critical habitats, and other natural resources. Currently, these natural resources are managed and planned in numerous separate processes, policies, and programs, which renders it difficult for the county to manage our natural resources as an interconnected, integrated, and overarching system. Climate change impacts, such as changing precipitation patterns and increasing temperatures, will affect ecological systems' integrity and ability to provide ecosystem services. A comprehensive natural resources management plan will enable the county to plan with a systems-level approach, include climate change projections into planning and management decisions, and identify needed measures to improve ecosystem resilience. This strategy will fold together the county's existing natural resource management related plans, including those managed by DPD, FCPA, NVSWCD, DPWES Urban Forestry Division, and other applicable departments. The natural resources management plan should cover all of Fairfax's natural assets, consider climate change impacts to the resources and biodiversity, include invasive species management and consideration of climate-resilient species, identify measures to mitigate risk, and develop management actions to increase resource resilience. The natural resources management plan will provide clear guidance to county staff that manage natural resource assets. Guidance from the natural resources management plan should be integrated into applicable county plans and ordinances to facilitate implementation.

Action Status Actions

³⁵ In this instance, there is only one strategy" within the "strategy roll-up," so the status bars are the same for both.

³⁶ Strategy and Action statuses should not be misinterpreted as outcome metrics. For example, achieving 1 out of 3 tree-related actions from the climate plans does not mean that the county has 33% tree canopy coverage. For clarity, strategy progress and metric progress are tracked separately. For outcome metrics, please see the "Outcomes: Key Targets and Metrics" section of this report.

³⁷ Strategies with a star were identified as priority strategies in their respective plans.



Started (~0.25 of Action Done) ACTION 1: (WORKING GROUP): Resilient Fairfax | AE.1a: Following authorization by applicable Boards (Board of Supervisors, Park Authority Board, and NVSWCD Board), create a working group inclusive of all county departments and entities that oversee and manage the existing natural resource plans and/or enforce related natural resource policies and ordinances. CECAP Implementation Plan | NR.5: Create a cross-disciplinary Policy Evaluation county staff team to analyze existing programs and policies regarding natural resources and climate change to create a comprehensive climate approach.

STATUS NOTES: Interagency Climate Team – Group 4 (Natural Resources) is the working group that has been created to work on the Consolidated Natural Resources Management Plan, among other tasks. A sub-group is being formed to focus on the CNRMP specifically. Group 4 is composed of the following agencies: OEEC, DPD-PD, DPD-ZAD, DPWES, DPWES-STW, DPWES-UFMD, FCPA, FCPS, LDS, NVSWCD, One Fairfax. OEEC and FCPA co-chair Group 4. Authorization by applicable boards for this specific strategy has not yet been obtained. However, the BOS adopted the Resilient Fairfax Plan and accepted the CECAP Implementation Plan, which each contain a strategy for the Consolidated Natural Resources Management Plan.



Started (~0.25 of Action Done) ACTION 2: (IDENTIFICATION OF PLANS AND POLICIES) Resilient Fairfax | AE.1a: Building upon the Resilient Fairfax Audit and VRA, identify A. applicable existing natural resource-related plans that should be consolidated into and updated through a Consolidated Natural Resources Management Plan, B. related natural resource policies and ordinances that need to be aligned with such plans, such as the Chesapeake Bay Preservation Ordinance, the Tree Conservation Ordinance, Wetlands Zoning Ordinance, and others, and C. new plan sections that should potentially be added, such as a Shoreline Management Plan. CECAP Implementation Plan | NR.5: (...) As part of this recommendation, specific policies for tree canopy and site development will be evaluated, in addition to other natural resources-related policies. The specific policies noted for review include such items as the Comprehensive Plan, the Zoning Ordinance, the Tree Ordinance, the Public Facilities Manual, and other transportation and natural resources plans.

STATUS NOTES: Fairfax County has many natural resources-related policies and programs that are currently being updated through interagency coordination, such as stormwater planning efforts, street tree incentives, changes to the landscaping and screening zoning requirements, and other similar projects. The upcoming review of the Environment Element of the Policy Plan is also focused on this topic. However, the county has not yet undertaken a consolidated alignment of all natural resource related policies and plans to align these efforts, and to add a climate focus. The Resilient Fairfax Audit of Existing Policies, Plans, and Programs serves as a starting point for this identification of policies and plans that would be involved. Agencies in Group 4 have identified additional natural resource policies and plans. Plans and policies that would need to be aligned in a Consolidated Natural Resource Management Planning process include but are not limited to: the Chesapeake Bay Preservation Ordinance, the Comprehensive Plan, Natural Resource Management Plans from FCPA, the Public Facilities Manual, the PROSA Strategy from FCPA, transportation plans, the Tree Conservation Ordinance, Urban Design Guidelines, Wetlands Zoning Ordinance, relevant sections of the Zoning Ordinance,



Scheduled to Start

ACTION 3 (WORK PLAN): Resilient Fairfax | AE.1a: Create a work plan for creation of the Consolidated Natural Resource Management Plan, including schedule, tasks, responsibilities (including leads for each section), coordination system, and budget. CECAP Implementation Plan | NR.5: (...) In the first half of 2023, OEEC will work with other lead agencies to determine a scope for this Policy Evaluation staff team, determine members of the team, and set a meeting schedule and deliverables.

(Less than 0.25 of Action Done)

<u>STATUS NOTES:</u> In 2023, OEEC is working with other lead agencies to determine a scope for this Policy Evaluation staff team. Group 4 has discussed approaches to the CNRMP, and as of November 2023, are taking a poll to decide between two overarching approaches.

Not started (Less than 0.25 of Action Done) ACTION 4 (DRAFT CNRMP): Develop a draft consolidated Natural Resource Management Plan that folds together existing county natural resource management plans, incorporates climate change projections and consideration for climate change impacts, and identifies measures needed to protect and enhance ecosystem resilience. Align this plan with related County Code updates (CRC.3c), plan updates (IAP.1a, IAP.1c), Adaptation Action Areas (CRC.1a), the Flood Risk Reduction Plan (CRC.3a), and other natural resource strategies (AE.1b-d, AE.2a-f). Specific policies for tree canopy and site development will be evaluated, in addition to other natural resources-related policies.³⁸

STATUS NOTES: This is a future stage.



Not started (Less than 0.25 of Action Done) <u>ACTION 5 (FINAL CNRMP):</u> Lead and partner agencies will bring the draft plan forward through the public hearing process, including outreach and public hearings prior to Board consideration of adoption. Relevant entities such as the Wetlands Board, the Chesapeake Bay Exception Review Committee, the Tree Commission, EQAC, and others will be consulted.

STATUS NOTES: This is a future stage.

³⁸ The italicized text in this action item is from the CECAP Implementation Plan (NR.5), while the rest of the text is from Resilient Fairfax AE.1a. To reduce duplicative tracking of nearly identical actions, they are consolidated here.

Roll-up Status 39	Roll-Up					
	Roll-up: Tree Programs					
Started 1.0 of 3 Actions Done (33%)						
Strategy Status Bar ⁴⁰	★ Strategy ⁴¹	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started	44. Tree Planting and Reforestation	4	Continuous	CRC.1c, AE.1d, AE.2c	(NR.1), NR.3, NR.4, (NR.7)	N/A
1.0 of 3 Actions						

Actions



Steady Progress (~0.50 of Action Done) ACTION 1: Resilient Fairfax | CRC.1c: Expand Targeted Tree Plantings: Build upon existing Urban Forest Management Division tree planting efforts to expand targeted tree plantings. Prioritize neighborhoods with high vulnerability as determined by One Fairfax, the Vulnerability and Risk Assessment, and Adaptation Action Area mapping (CRC.1a). Resilient Fairfax | AE.2c: Support Continued Urban Reforestation: Aid with Urban Heat Island effect and flooding impacts through urban reforestation projects, expanding upon existing initiatives by the Urban Forestry Management Division. Explore tree planting programs that plant, maintain, and replace loss of mature trees in residential neighborhoods, using the One Fairfax lens. CECAP Implementation Plan | NR.3: Promote and coordinate tree planting events on public and private properties, including financial assistance.

STATUS NOTES: The county is making steady progress on this action. The Urban Forest Management Division has been working in partnership with Casey Trees to plant trees in areas that are prioritized according to equity data from One Fairfax. A pilot project was completed to plant trees along the Route 1 corridor. Additionally, the Tree Preservation and Planting Fund (TPPF) supports efforts to preserve, manage, and plant new trees. The fund can be used by governmental and non-profit entities for urban forestry projects on public properties or commonly owned space. More broadly, there are over 20 tree planting programs in Fairfax County, led by both county agencies and non-profits. According to the Tree Commission Survey on Tree Plantings, 16,000 trees were planted in 2023. Additionally, FCPA has continued to implement the Invasive Management Area (IMA) Program, a community-based program designed to reduce invasive plants in county parks. Approximately 20,000 to

³⁹ In this instance, the strategy is large enough that it is the only strategy within the "strategy roll-up," so the status bars are the same for both.

⁴⁰ Strategy and Action statuses should not be misinterpreted as outcome metrics. For example, achieving 1 out of 3 tree-related actions from the climate plans does not mean that the county has 33% tree canopy coverage. For clarity, strategy progress and metric progress are tracked separately. For outcome metrics, please see the "Outcomes: Key Targets and Metrics" section of this report.

⁴¹ Strategies with a star were identified as priority strategies in their respective plans.

22.000 trained volunteers have contributed between 67,000 and 80,000 hours of service annually since the program's inception in 2005, improving over 1,000 acres of parkland.

<u>ACTION 2: CECAP Implementation Plan | NR.4</u>: Create a new program to partner with HOAs and nonprofit organizations to promote tree planting and native plants.

Started (~0.25 of Action Done)

<u>STATUS NOTES:</u> There are several existing programs that promote tree planting in the county. Fairfax County is exploring ways to fill the gaps and streamline these programs for the greatest tree planting success. The Urban Forest Management Division (UFMD) is targeting tree planting in vulnerable areas following a successful pilot project to plant trees along the Route 1 corridor.



<u>ACTION 3: Resilient Fairfax | AE.1d: Integrate Climate Change Considerations into Urban Forestry Program:</u> Consider future climate conditions to support long term tree health, including consideration for tree selection, required maintenance, and planting processes.

Started (~0.25 of Action Done)

STATUS NOTES: The Resilient Trees Matrix provides resilience considerations for tree selection. The matrix provides information about tree species found in Fairfax County and scores them based on their resilient qualities and environmental benefits. Species considerations include: climate hardiness zones; adaptability scores; northward species shifts based on projected climate scenarios; resistance to storms, flooding, heat, and drought; and environmental tolerances and preferences. The draft matrix is expected to be finished December 2023 and will be reviewed by UFMD and LDS.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

<u>CECAP Implementation Plan | NR.1</u>: Continue development and delivery of public outreach/ education campaigns on the benefits of green spaces and trees ("NR 101"), expanding program to more advanced topics.

Please see Strategy 39 – Education on Natural Resources, which can be found in Group 3.

Resilient Fairfax | IAP.2f: Continue to Collect Tree Canopy Data. Regularly update the tree canopy data layer to support strategic and equitable tree planting. CECAP Implementation Plan | NR.7: Continue monitoring, measuring, and tracking changes in tree canopy over time. Please see Strategy 74 - Data on Natural Resources, which can be found in Group 6.

Roll-up Status ⁴²	Roll-up							
	Roll-up: Surveying and Protection of Natural Areas							
Early Stage 1.25 of 7 Actions Done (18%)								
Strategy Status	★ Strategy ⁴³	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>		
	45. Survey and Protect Areas that	4, 2	2030	AE.1b, AE.1c	NR.6	N/A		
Early Stage 1.25 of 7	Provide Natural Resilience Benefits							
Actions Done (18%)								

Resilient Fairfax | AE.1b: Survey and Protect Areas that Provide Natural Resilience Benefits

Healthy natural lands and environmentally sensitive areas are critical to the long-term resilience of Fairfax County. These areas, such as wetlands, critical habitats, biodiverse land, natural shorelines, and healthy stream corridors, can reduce our climate vulnerabilities and enhance resilience in several ways. They can serve as natural barriers against severe storms, absorb excess flood waters and storm surge energy, protect downstream communities, reduce erosion, mitigate against extreme heat, and support the biodiversity of ecosystems threatened by climate change, among other benefits. These areas and natural resources provide many additional co-benefits, such as water quality protection and protection of areas with historical, archaeological, or recreational significance. This strategy involves the surveying, mapping, prioritization, and conservation of natural areas that currently lack sufficient protection.

Action Status	Actions
	ACTION 1: Resilient Fairfax AE.1b: Identify and secure additional staff capacity and/or consultant support needed to implement this strategy.
Started (~0.25 of Action Done)	<u>STATUS NOTES:</u> This action has started. The Interagency Climate Team – Group 4 (Natural Resources) has started discussions on how to allocate relevant GIS and natural resource surveying staff from various departments and agencies to this strategy. Certain staff have preliminarily expressed interest in participating in a subgroup of Group 4 for this purpose.
	ACTION 2: Resilient Fairfax AE.1b: Leverage the Consolidated Natural Resources Management Plan (Strategy AE1.a) and other applicable plans as a starting point for identification of environmentally sensitive areas that could be candidates for more stringent protection. To

⁴² In this instance, there is only one "strategy" within the "strategy roll-up," so the status bars are the same for both.

⁴³ Strategies with a star were identified as priority strategies in their respective plans.

Started (~0.25 of Action

Done)

thoroughly analyze these candidate areas, complete field surveys of public land to verify and document lands that naturally enhance climate resilience, contain sensitive and/or rare habitats, and areas with extensive invasive species in need of management. Consider leveraging existing GIS data, such as tree canopy cover and land use type, to inform field survey work. Partner with state and federal agencies, as applicable, to coordinate survey work and data collection. Build off existing and ongoing surveys and documentation from FCPA and NVRC.

<u>STATUS NOTES:</u> This action was started prior to Resilient Fairfax. There are ongoing natural resource and sensitive land surveys being conducted by Fairfax County Park Authority and the Department of Public Works and Environmental Services that can serve the needs of this action. Group 4 of the interagency climate team is looking to combine the results of these land surveys if possible.

Started (~0.25 of Action Done)

ACTION 3: Resilient Fairfax | AE.1b: Informed by data collection under this strategy as well as available county data, create an updated GIS database of natural areas in need of stronger protections for climate resilience, including lands with sensitive and/or rare habitat and species and high-quality natural resources areas.

STATUS NOTES: This action has started. There are numerous GIS layers relating to natural areas in need of protection, maintained by various agencies for various purposes. Group 4 of the interagency climate team is working to combine these efforts and create an authoritative GIS layer for land protection that is relevant to and used by multiple agencies. There is also a need to ensure that climate resilience is factored into these GIS analyses.

Started (~0.25 of Action Done)

<u>ACTION 4: Resilient Fairfax | AE.1b:</u> Based upon the field surveys, GIS database, and Resilient Fairfax Vulnerability and Risk Assessment, identify land prioritized for conservation easements, Natural Area Preserve designation, or other protective status to enhance or preserve natural climate resilience.

STATUS NOTES: This action was started prior to Resilient Fairfax, and for slightly different but related purposes. There are lands prioritized by various agencies for various protections, which enhances climate resilience even if not the original intent. However, there is a need to consolidate and update this prioritization process, to ensure that agencies are in alignment on the land that should be preserved, and to ensure that climate resilience is factored into the prioritization.

Started (~0.25 of Action Done)

ACTION 5: Resilient Fairfax | AE.1b: Explore strategic partnerships, grant opportunities and/or financing opportunities for conservation and protection of identified environmentally sensitive areas, including but not limited to: tidal and freshwater wetlands, intermittent streams, shorelines, and habitat for key species. Partners in this effort may include, but are not limited to: Department of Defense, National Park Service, Northern Virginia Regional Parks, Northern Virginia Conservation Trust, and Virginia Department of Conservation and Recreation.

STATUS NOTES: There are areas of land throughout the county that are already protected through easements (including conservation trust easements), Agricultural and Forestal District provisions, Resource Protection Area (RPA) and floodplain protections, and park land. However, there is a need to align and assess the combined results of these efforts, and to see where gaps exist.



ACTION 6: Resilient Fairfax | AE.1c: Update the provisions for conservation easements to include potential canopy credit as well as resources needed to maintain or improve the condition of the resource in perpetuity.

Not started

STATUS NOTES: This is a future action.

(Less than 0.25 of Action Done)



<u>ACTION 7: CECAP Implementation Plan | NR.6</u>: Develop and deliver competitions for preservation of green space. Staff will explore options to develop and deliver competitions for green space preservation.

Not started (Less than 0.25 of Action Done)

STATUS NOTES: This is a future action.

Roll-up Status	Roll-up							
	Roll-up: Nature-based Restorations and Green Infrastructure							
Started 4.25 of 12 Actions Done (35%)								
Strategy Status 44	★ Strategy ⁴⁵	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>		
Started 2.75 of 6 Actions Done (46%)	46. Green Infrastructure for Climate Resilience and Co-Benefits	4, 2, 5	2027	AE.2a	BEE.5, NR.8			

Resilient Fairfax | AE.2a: Pursue Green Infrastructure Projects that Provide Climate Resilience Benefits

"Green infrastructure" refers to systems that use a combination of ecologically based and engineered solutions to support heat mitigation, water quality, stormwater management, and numerous other co-benefits. Green infrastructure can range from structural projects, such as bioretention ponds, bioswales, permeable pavements, and green roofs, to non-structural green infrastructure, such as tree conservation, floodable parks, and green spaces. Strategic implementation of green infrastructure projects can support the county's broader flood mitigation efforts through localized retention of stormwater, as well as providing localized cooling and other community benefits. The county has numerous initiatives, pilots, and policies that relate to the goals of green infrastructure. This strategy would expand upon existing efforts to support implementation of green infrastructure for resilience benefits. Departmental leads for specific green infrastructure (GI) projects may depend on the project type, as follows: DPWES: for GI within stormwater management projects, capital

⁴⁴ Strategy and Action statuses should not be misinterpreted as outcome metrics. For example, achieving 1 out of 3 tree-related actions from the climate plans does not mean that the county has 33% tree canopy coverage. For clarity, strategy progress and metric progress are tracked separately. For outcome metrics, please see the "Outcomes: Key Targets and Metrics" section of this report.

⁴⁵ Strategies with a star were identified as priority strategies in their respective plans.

facilities, tree planting, invasive species management, and maintenance. FCDOT: for GI within transportation projects and plans. NVSWCD: Small-scale GI for residents and other private properties. DPD: For GI in plan review, code, and compliance. (Please see Resilient Fairfax Plan pages 84-85 for more detail).

Action Status

Actions



ACTION 1: Resilient Fairfax | AE.2a: Identify areas that are: heat vulnerable, flood-prone, and/or areas where green infrastructure would provide additional community and resilience benefits.

Progress (~0.75 of Action Done)

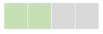
STATUS NOTES: Areas that are heat-vulnerable, flood-prone, or that would otherwise benefit from green infrastructure were largely identified during the Resilient Fairfax <u>Vulnerability and Risk Assessment</u> process and can be seen in the <u>Resilient Fairfax Interactive Map Viewer</u>. There are opportunities to refine these large-scale assessments for specific green infrastructure opportunities.



ACTION 2: Resilient Fairfax | AE.2a: Model green infrastructure in identified areas to determine if the project will provide the assumed benefit(s).

Started (~0.25 of Action Done)

STATUS NOTES: The Department of Public Works and Environmental Services (DPWES) and the Northern Virginia Soil and Water Conservation District (NVSWCD) each evaluate green infrastructure projects for their potential benefits. There are opportunities to further connect these evaluations to climate resilience considerations, and to advance the modeling.



ACTION 3: Resilient Fairfax | AE.2a: Integrate structural green infrastructure projects into county CIP process and support prioritization of green infrastructure projects in identified areas. Prioritize native and/or climate-resilient plants when feasible and effective.

Steady Progress (~0.50 of Action Done)

STATUS NOTES: Many CIP projects incorporate green infrastructure to meet stormwater regulatory requirements.

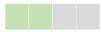


Steady Progress (~0.50 of Action

Done)

ACTION 4: CECAP Implementation Plan | NR.8: Promote green infrastructure in development projects. Resilient Fairfax | AE.2a: Explore policies to support green infrastructure implementation, including but not limited to: incentive programs, de-paving programs, and limits on impervious surfaces. CECAP Implementation Plan | BEE.5: Incorporate biophilic and regenerative design principles such as green roofs into the construction or renovation of buildings to improve occupant health and comfort and provide co-benefits including improved air quality, stormwater management, and reductions to heat island effect areas.

STATUS NOTES: Stormwater Management: This action is partially implemented through the existing stormwater management program and land development process. Green roofs are permitted as an option to meet stormwater management requirements as part of the site development/redevelopment process. Entitlement Process: The county will continue to work with developers through the entitlement process to adopt green infrastructure as part of development and redevelopment. Public Facilities Manual: Additional biophilic and regenerative design principles may be considered in future years as updates to the (Public Facilities Manual) are pursued. Policy Amendments: Staff will, as part of the Policy Evaluation Team noted in NR.5, evaluate how best to promote green infrastructure in development projects.



ACTION 5: Resilient Fairfax | AE.2a: Develop and promote guidance for small-scale green infrastructure projects, such as tree plantings or rain gardens, that can be implemented on-site by local businesses, commercial and industrial properties, and homeowners to support heat Steady Progress (~0.50 of Action Done) mitigation, local retention of stormwater, and other resilience benefits. Promote and expand awareness of existing green infrastructure programs, workshops, and assistance provided by entities such as NVSWCD.

STATUS NOTES: NVSWCD provides green infrastructure assistance (e.g. the Conservation Assistance Program) and workshops (e.g. Rain Barrel Workshops). There are opportunities to better promote these offerings and to provide more guidance relating to resilience. The DCEX of Planning and Development reached out to Terreform, a national firm focused on biophilic and regenerative design principles, to explore education opportunities

Started

(~0.25 of Action

Done)

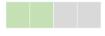
ACTION 6: Resilient Fairfax | AE.2a: Support community greening programs to encourage reduction of impervious spaces and expansion of green spaces in communities, prioritizing native and/or climate-resilient plants when feasible and effective. Develop maintenance programs for green spaces. Engage with community groups, volunteers, and students.

<u>STATUS NOTES:</u> The county engages in numerous "greening" programs that are at least partially related to this strategy, including tree planting programs (see Strategy 44), programs such as Watch the Green Grow, FCPS' Get2Green, and NVSWCD's CAP program.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	47. Stream Restorations	4, 5	Continuous	AE.2b	n/a	n/a
Steady Progress						
0.5 of 1 Action						
Done (50%)						

Action Status

Actions



Steady Progress (~0.5 of Action Done) ACTION 1: Resilient Fairfax | AE.2b: Support Continued Stream Corridor Restoration. Continue and expand the county's stream corridor restoration opportunities, leveraging best available science and best practices in habitat restoration. Include inventories of existing habitat quality and design for ecological lift as part of the project selection and design process.

STATUS NOTES: DPWES has continually conducted stream restorations, leveraging best available science and best practices in habitat restoration to improve water quality and strive to achieve ecological lift. Since 2010, DPWES completed approximately 62 stream restoration projects with a total length of 19 miles.

St	trategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>

	48. Explore Living Shoreline	4, 2	Continuous	AE.2d	n/a	n/a
Early Stages	Opportunities					
0.25 of 3 Actions						
Done (8%)						

Actions



ACTION 1: Resilient Fairfax | AE.2d: Aid in reducing coastal flooding risks through living shorelines projects.

Started (~ 0.25 of Action Done) STATUS NOTES: The Virginia General Assembly updated Virginia Code § 28.2-104.1 to require (rather than merely encourage) Living Shorelines rather than hardened infrastructure shoreline protection solutions. The text reads "the Commission shall permit only living shoreline approaches to shoreline management unless the best available science shows that such approaches are not suitable. If the best available science shows that a living shoreline approach is not suitable, the Commission shall require the applicant to incorporate, to the maximum extent possible, elements of living shoreline approaches into permitted projects." Living shoreline projects undergo a permit review process established and implemented by the Commission of Marine Resources, the Virginia Department of Conservation and Recreation, the Department of Environmental Quality, the local Wetlands Board (staffed by DPD), technical assistance from the Virginia Institute of Marine Science (VIMS). There are opportunities to better educate shoreline landowners of these requirements and processes to ensure higher rates of living shoreline implementation.



ACTION 2: Resilient Fairfax | AE.2d: Pursue potential development of a Shoreline Management Plan, as a component of the Consolidated Natural Resources Management Plan (see Strategy AE.1a).

Not started (Less than 0.25 of Action Done)

STATUS NOTES: This is a future action.



ACTION 3: Resilient Fairfax | AE.2d: Leverage existing living shorelines pilot projects for educational purposes.

Not started (Less than 0.25 of Action Done) STATUS NOTES: This is a future action.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 0.5 of 1 Action Done (50%)	49. Wetland and Floodplain Restorations	4	Continuous	AE.2e		

Actions



ACTION 1: Restore Wetlands and Floodplains Resilient Fairfax | AE.2e: Aid in reduction of flooding risk through wetland and floodplain restoration.

Steady Progress (~0.50 of Action Done)

STATUS NOTES: DPWES and Fairfax County Park Authority are both conducting multiple wetland, floodplain, and meadow restorations. (See the information on DPWES projects here, and FCPA projects here. For example, in 2023, FCPA approved partial funding to support the restoration of six acres of meadows at Cub Run Stream Valley Park and 12 acres at Laurel Hill Par. The restoration will restore native plant communities and ecosystem functions. In addition, DPWES includes the assessment and restoration of the riparian corridor which includes the floodplain and associated wetlands as part of their stream restoration projects.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	50. Regenerative Agriculture	4, 3	Continuous	AE.2f	n/a	n/a
Started						
0.25 of 1						
Action Done						
(25%)						

Action Status

Actions



ACTION 1: Explore Regenerative Agriculture Opportunities: Resilient Fairfax | AE.2f: Engage local farmers, community gardeners, and food advocates, and aid in agricultural resilience to climate hazards.

Started (~0.25 of Action Done)

STATUS NOTES: The Office of Environmental and Energy Coordination (OEEC) is coordinating with Northern Virginia Soil and Water Conservation District (NVSWCD), who have an existing working group focused on climate resilience for agriculture and food systems in Fairfax County. OEEC did include limited considerations of agricultural vulnerabilities and resilience in the Resilient Fairfax Vulnerability and Risk Assessment and Resilient Fairfax plan, but there is a need to scale up efforts on this topic. The group is exploring ways to partner on regenerative agriculture opportunities. (For education and guidance rather than projects, please see Strategy 37 – Education on Climate Resilience, which can be found in Group 3).

<u>Details: Group 5 Strategies – (Facilities and Government Operations)</u>

































Strategies in Group 5 are focused on climate-related actions for county government facilities and operations. "Group 5" is also one of the staff working groups of the Interagency Climate Team, with a focus on implementing Group 5 strategies. The following agencies are represented in Group 5: Community Services Board (CSB)- Facilities; Department of Emergency Management and Security (DEMS)-Continuity of Operations; Department of Management and Budget (DMB); Department of Planning and Development (DPD)— Planning Division, Public Facilities; Department of Procurement and Material Management (DPMM); Department of Public Works and Environmental Services (DPWES)—
Stormwater, Wastewater, and Capital Facilities; Department of Vehicle Services (DVS), Fairfax County Department of Transportation (FCDOT)—
Capital Projects and Operations Division, Transit Services, and Transportation Design Division; Fairfax County Park Authority (FCPA); Fairfax County Public Library (FCPL)—Facilities; Fairfax County Public Schools (FCPS), Facilities Management Division (FMD), Housing and Community Development (HCD), McLean Community Center—Facilities (MCC), Neighborhood and Community Services (NCS), Office of Environmental and Energy Coordination (OEEC), and Reston Community Center (RCC). OEEC and DPWES co-chair Group 5. Group 5 meets quarterly, in the following months: February, May, August, and November. Sub-groups on specific topic areas and projects meet more often. The following sections describe the status of roll-ups, strategies, and actions from the county's three climate plans that fall under the purview of Group 5.

Overarching Goals for Emissions Reduction in County Facilities

The county has established the following overarching **goals** and **targets** for emissions reduction in county facilities. Progress towards these goals can be found in the "Outcomes: Key Targets and Metrics" section of this document.

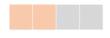
- OES | Greenhouse Gas Emissions Reduction, GOAL: Significantly reduce greenhouse gas emissions in county facilities and operations.
- OES | Greenhouse Gas Emissions Reduction, TARGET 1: Reduce emissions 50% by 2030, as compared to the FY 2018 baseline.
- OES | Greenhouse Gas Emissions Reduction, TARGET 2: Be energy carbon neutral by 2040, as compared to the FY 2018 baseline.
- OES | Energy Use & Efficiency, GOAL: Reduce electricity and natural gas in existing county facilities and operations.
- OES | Energy Use & Efficiency, TARGET 1: Decrease energy use 25% by 2030, as compared to the FY 2018 baseline.
- OES | Energy Use & Efficiency, TARGET 2: Decrease energy use 50% by 2040, as compared to the FY 2018 baseline.
- <u>CECAP Implementation Plan | BEE.20</u>: With respect to county facilities, meet or exceed the goals and targets set forth in Fairfax County's Operational Energy Strategy.

Roll-up Status	Roll-up							
Started 16.3 of 42 Actions Done (39%)	Roll-up: County Facilities: Ener	gy, Water, (Green Buil	ding, Utilities				
Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>		
	51. Whole Building Energy Audits,	5	2040	n/a	BEE.9	p. 8		

Started
1.75 of 4
Actions Done (44%)⁴⁶
Retrofits, and Retro-commissioning

Action Status

Actions



ACTION 1 (ENERGY AUDITS): OES | Energy Use & Efficiency 2: Perform facility energy audits on a routine basis to identify efficiency opportunities.

Steady Progress

(~0.5 of Action Done) STATUS NOTES: OEEC is performing facility energy audits on a routine basis. To date, a total of 21 energy audits have occurred since the adoption of OES. In 2023, 8 energy audits were performed. The energy audits have been performed by the county's ESCO contractor, and while the program has been successful thus far, we will need to accelerate the pace of audits to achieve OES targets. See Action 2 for more information.



Started (~0.25 of Action Done) ACTION 2 (DEEP ENERGY RETROFITS/ESCO): OES | Energy Use & Efficiency 3: Pursue deep energy retrofits of existing facilities using a whole-building scope of work instead of multiple incremental retrofits of isolated systems over time. Use energy-saving performance contracts when feasible. CECAP Implementation Plan | BEE.9: Encourage and facilitate the provision of energy efficiency products and services by energy service companies (ESCOs), energy-as-a-service (EaaS) providers, and others to reduce costs to customers.

STATUS NOTES: The county is performing deep energy retrofits on a routine basis through the ESCO contract. To date, a total of 3 buildings have been retrofitted through the ESCO contract. In 2023, 2 more projects are under construction, with one to be completed by December 2023 and the other by July 2024. While non-ESCO energy efficiency projects, routine equipment replacements, the installation of solar PV, and other efforts will help decrease energy use of the county government building portfolio, deep energy retrofits through the ESCO program is a key component to reaching a 25% building energy use reduction by 2030 (an OES target). While we have several successful projects under our belt (several of which have building energy savings exceeding 25%), the program will need to be significantly accelerated in the next few years

⁴⁶ The **status** of strategies & actions should not be misinterpreted as being equivalent to outcome metrics. For example, energy audits may have a status of 2 out of 4 bars, because work has been steadily occurring, so it is beyond "started" (1 bar). However, this does not mean that 50% of buildings have been audited. For **metrics**, please see the "Outcomes: Targets and Metrics" section.

to meet the 2030 target. There are approximately 350 county government buildings, and energy efficiency projects have been implemented at 53 buildings from FY19 to FY23 (the first year after the FY18 OES baseline). At this rate (~10-11 buildings per year), we would complete projects at about 127 buildings, or 36% of the total portfolio. Therefore, we need to audit more buildings, turn more of the audits into real projects, and implement more high impact ECMs at each building. OEEC is analyzing the effectiveness and trajectory of the program and will report back findings and recommendations in 2024.



ACTION 3 (ENERGY EFFICIENCY PROJECTS): OES | Energy Use & Efficiency 4: Where whole-building approaches to deep energy retrofits are not feasible, implement cost-effective energy efficiency projects on building systems.

Significant
Progress
(~0.75 of Action
Done)

STATUS NOTES: Lighting upgrades to LED and HVAC system upgrades are occurring on a routine basis, portfolio wide. It should be noted that lighting upgrades to LED typically only reduce building energy consumption by 5-10%, and HVAC upgrades could be similar or even less, depending on the type of equipment. While these projects are important, the fact that these figures fall short of 25% (25% being aligned with the 2030 building energy reduction target) underscores the imperative for deep energy retrofits.



ACTION 4 (RETROCOMMISSIONING): OES | Energy Use & Efficiency 9: Implement a retro-commissioning program for whole-building tune-ups with a further goal of continuous commissioning for the largest county buildings.

Started (~0.25 of Action Done)

<u>STATUS NOTES</u>: Initial discussions with key stakeholders have occurred which have identified opportunities and challenges. Further discussions will take place in 2024 with a goal to stand up a retro-commissioning and/or continuous commissioning program in the coming years.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 2 of 4 Actions Done (50%) ⁴⁷	52. Equipment Replacement and Upgrades	5	Continuous	n/a	BEE.22	p. 8

Action Status

Actions



ACTION 1: OES | Energy Use & Efficiency 5: When replacing heating, ventilation, and cooling (HVAC) equipment, right-size the mechanical equipment for actual building loads, rather than simple like-for-like replacement. Specify high-efficiency equipment to the extent possible.

Steady Progress (~0.5 of Action Done)

<u>STATUS NOTES</u>: There is a strong emphasis on right-sizing mechanical equipment during capital replacement projects. Projects solely for individual equipment replacements are largely, but not always, budget-constrained, limiting the opportunities for significant efficiency gains.

⁴⁷ The **status** of strategies & actions should not be misinterpreted as being equivalent to outcome metrics. For example, energy audits may have a status of 2 out of 4 bars, because work has been steadily occurring, so it is beyond "started" (1 bar). However, this does not mean that 50% of buildings have been audited. For **metrics**, please see the "Outcomes: Targets and Metrics" section.



<u>ACTION 2: OES | Energy Use & Efficiency 6:</u> Be alert to opportunities to replace fossil-fuel heating and water heating equipment with efficient electric alternatives, where possible.

Started (~0.25 of Action Done)

STATUS NOTES: For major renovation projects, HVAC systems are evaluated to achieve NZE, electric-source heating systems, and LEED certification goals defined in the OES and Sustainable Development Policy. Ground-source heat pump systems are under construction at Spring Hill Rec Center and the Original Mount Vernon High School. Electrification for individual equipment replacement projects has not seen as much progress.



ACTION 3: OES | Energy Use & Efficiency 10: For replacement equipment and motors, specify ENERGY STAR rated equipment and NEMA Premium motors where available.

Fully Active (1 Action Done)

STATUS NOTES: NEMA Premium Efficiency motors are the standard specification



ACTION 4: CECAP Implementation Plan | REF 22: Reduce and manage

Started (~0.25 of Action Done) ACTION 4: CECAP Implementation Plan | BEE.22: Reduce and manage fugitive emissions of hydrofluorocarbons (HFCs), whose global warming potential (GWP) may be hundreds to thousands of times greater than carbon dioxide, by supporting the transition of refrigerants with high GWP to low-GWP alternatives.

STATUS NOTES: The lead departments (FMD, DPWES, FCPA, FCHRA) are collaborating to assess, determine and report on the process necessary to accomplish this item by 2030. The departments are investigating market options, timelines and resource needs to purchase HVAC equipment with non-HFC refrigerants. However, FCPA notes that replacement options are currently not widely available to the domestic U.S. market. On new construction and major renovation projects, Capital Facilities is investigating options for use of non-HFC refrigerants, their availability, and timelines for phase-out by 2030. The departments will continue to properly dispose of HFC refrigerants under the DPWES-Solid Waste Management program.

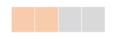
Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 1.0 of 2 Actions Done (50%) ⁴⁸	53. Optimization and Energy Management Systems	5	Continuous after 2021	n/a	n/a	p. 8
Action Status	Actions					

⁴⁸ The **status** of strategies & actions should not be misinterpreted as being equivalent to outcome metrics. For example, energy audits may have a status of 2 out of 4 bars, because work has been steadily occurring, so it is beyond "started" (1 bar). However, this does not mean that 50% of buildings have been audited. For **metrics**, please see the "Outcomes: Targets and Metrics" section.



Steady Progress (~0.5 of Action Done) ACTION 1: OES | Energy Use & Efficiency 7: Optimize facility and equipment performance through systematic practices that maintain efficiency in existing equipment.

STATUS NOTES: FMD performs regular maintenance on most major equipment, with more focus on equipment and systems that have been causing the most operational issues, and more focus on equipment in critical facilities to ensure minimal to no operational disruptions. Standing up a Retro-commissioning and/or Monitoring-Based Commissioning (also known as Continuous Commissioning) could provide more insights into equipment efficiency improvement operations. .



Steady Progress (~0.5 of Action Done) ACTION 2: OES | Energy Use & Efficiency 8: Use energy management systems and automated controls to optimize whole-system performance for energy savings and occupant comfort.

STATUS NOTES: The team works effectively to resolve building system issues as they arise and has the technical expertise to implement controls changes that increase energy efficiency, but the team lacks staffing and resources to truly optimize buildings across the large portfolio. Standing up a Retro-commissioning and/or Monitoring-Based Commissioning (also known as Continuous Commissioning) would provide significant assistance to the BAS team in the collective effort to optimize energy efficiency and occupant comfort and reduce operational anomalies and downtime. A continuous commissioning program is in the conceptual phases of development.

Resilient Fairfax
n/a
n/a

Overarching Goals for Green Buildings in County Facilities

The county has established the following overarching **goals** and **targets** for green buildings in county facilities. Progress towards these goals can be found in the "Outcomes: Key Targets and Metrics" section of this document. The sections below describe the status of actions that help the count reach these higher-level goals and targets.

- OES | Green Buildings, GOAL: Ensure that new construction and major renovations of county facilities are energy- and water-efficient.
- OES | Green Buildings, TARGET 1: For facilities with an occupied area greater than 10,000 square feet: All new construction and major renovations beginning planning and design in 2021 (and after) meet NZE standards unless the Board of Supervisors is advised prior to the 30% design phase as to why the project cannot meet the NZE standard. LEED Gold plus 50% more efficient than baseline is the minimum certification.
- OES | Green Buildings, TARGET 2: For facilities with an occupied area greater than 10,000 square feet: All new facility construction, additions, and major renovations (a) beginning design in FY 2022 or later are electric-ready and (b) beginning design in FY 2024 or later use only electric equipment and appliances, unless no alternative can be identified.

Actions



Significant Progress (~0.75 of Action Done) ACTION 1 (DESIGN): OES | Green Buildings, 1: Coordinate among agencies to ensure that the lifetime energy and water use of a new building or major renovation is minimized by design. This includes intentional building orientation and massing to consider energy loads, as well as high-efficiency building envelopes and appropriately sized energy-efficient mechanical systems.

<u>STATUS NOTES:</u> Net-zero energy, all-electric, and LEED Gold certification including 50% energy improvement over the baseline is the minimum requirement for new construction and major renovations greater than 10,000 square feet, the most stringent of a series of escalating requirements which started for projects entering design and planning in FY21. Capital Facilities Building Design and Construction Division (BDCD) has incorporated these requirements into its design standards, and in several years when the projects in design today have completed construction, we will see nearly all new buildings achieve net zero energy and full electrification.

Initially after the 2021 OES adoption, BDCD designed and built solar-ready buildings, but over the last year or so has started to include solar PV in project scope, whether simultaneously with the building itself or after the building is complete as a change order under the General Contractor's scope. There is now a more emphatic shift to holistic high-performance building design which not only incorporates solar PV, but also optimizes building energy efficiency through sound net zero energy design.



Significant
Progress
(~0.75 of Action

<u>ACTION 2 (ELECTRIFICATION):</u> <u>OES | Green Buildings, 2:</u> For major renovations, convert fossil fuel systems to electric equivalents unless impracticable.

STATUS NOTES: Major renovation projects aim to achieve the same Green Building targets as new construction projects. Capital Facilities is on track to achieve NZE status, electric-ready or fully electric, and LEED Gold + 50% savings as applicable for in-progress major renovation projects. One example is the Original Mount Vernon High School renovation, which includes a geothermal heat pump system, replacing the existing natural gas-sourced heating system.



Done)

Fully Active (1.0 Action Done)

ACTION 3: (CERTIFICATIONS): OES | Green Buildings, 4: Attain high-efficiency building certifications. Where appropriate, design for LEED Platinum and pursue the Designed to Earn ENERGY STAR certifications. Keep apprised of and consider pursuing LEED Zero certifications.

STATUS NOTES: The Board strengthened its Sustainable Development Policy for county facilities by replacing the 2020 update with a Net Zero Energy (NZE) standard for new construction and major renovations and providing for building electrification in the updated 2021 OES. All new construction and major renovations of county (excluding FCPS) buildings and facilities will meet the OES criteria. As of November 2023, county government facilities portfolio includes the following: 43 total LEED certified buildings. 1 LEED Platinum, 18 LEED Gold, 24 LEED Silver, 1 LEED Certified.



Not Started (0)

<u>ACTION 4 (EMBODIED CARBON):</u> <u>OES | Green Buildings, 5:</u> Seek to reduce or eliminate embodied carbon in building construction or renovation, including considering changes in concrete specifications for lower-embodied carbon.

STATUS NOTES: This is a future consideration.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

OES | Green Buildings, Action 6: EV charging infrastructure: (Please see Strategy 67 – Charging Infrastructure and Parking).

OES | Green Buildings, Action 3: Renewables, general: (Please see Strategy 56 – Solar for County Government, and Strategy 57 – Other Renewables and Resource Recovered Gas).

OES | Green Buildings, Action 7: Virginia Building Code: (Please see Strategy 16 – State-level Actions for the Building Code, which can be found in Group 1).

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	55. Streetlight Conversion	5	2024	n/a	BEE.21	n/a
Significant						
Progress						
0.75 of 1 Action						
Done (75%)						

Action Status

Actions



Done)

ACTION 1: CECAP Implementation Plan | BEE.21: Continue the transition of streetlight and outdoor-lighting stock from older technologies, such as high pressure sodium vapor and metal halide, to LED technologies.

STATUS NOTES: The county has a 5-year LED street light conversion plan. The goal is to convert more than 56,000 existing mercury vapor, high-pressure sodium, and metal halide fixtures to LED streetlights. As of June 2023, nearly 64% (36,000) of the streetlights have been converted with another 10,000 in Dominion Energy's queue to convert. The conversion to LED will reduce 32.4 pounds of carbon dioxide emissions annually with additional co-benefits. The program is in its fifth and final year but will continue into 2024 as Dominion Energy completes the final upgrades. The FY2023 Carryover Review package includes \$1.8 million of additional funds for this program.

Strategy Status	Strategy ⁴⁹	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	56. Solar for County Government	5	2040	n/a	n/a	p. 11
Started						
1.5 of 6 Actions						
Done (25%)						

⁴⁹ Strategies with a star were identified as priority strategies in their respective plans.

Overarching Goals for Solar on County Facilities

The county has established the following overarching **goals** and **targets** for solar on county facilities. Progress towards these goals can be found in the "Outcomes: Key Targets and Metrics" section of this document. The sections below describe the status of actions that help the count reach these higher-level goals and targets.

- OES | Renewables, GOAL: Reduce GHG emissions and electricity costs by generating and using renewable sources of energy.
- OES | Renewables, TARGET 1: Produce 25% of county electricity from renewable energy generation by 2030, using FY 2018 energy use as the baseline.
- <u>CECAP Implementation Plan | ES.14</u>: With respect to county facilities and sites, meet or exceed the goals and targets set forth in the Fairfax County Operational Energy Strategy (...) regarding the goals and targets pertaining to renewables and undertake the actions listed in each of the focus areas.
- OES | Renewables, TARGET 2: Produce 50% of county electricity from renewable energy generation by 2050, using FY 2018 energy use as the baseline.

Action Status

Actions



ACTION 1: (RENEWABLES, GENERAL): OES | Green Buildings 3: Incorporate renewable energy systems, such as rooftop solar panels, into design for new construction and major renovations.

Significant Progress (~0.75 of Action Done)

STATUS NOTES: All new construction and major renovation Capital Facilities projects are considering the inclusion of solar photovoltaic (PV) systems. During design or construction, it is determined whether the PV system will be installed by a solar subcontractor to the General Contractor during construction or installed after substantial completion of the project by a Solar Power Purchase Agreement vendor or our Energy Services Company contractor. As more new projects begin development and design, solar is being included more as an integral feature, with planning and budgeting inclusive of solar from the beginning of projects.



Started (~0.25 of Action Done) ACTION 2: (SOLAR PVS ON BUILDINGS): OES | Renewables 1: Install solar photovoltaic systems at county facilities, using power purchase agreements or county capital funds as appropriate for the size and setting of each site. Direct on-site use of renewable energy systems is a key component of net zero energy consumption.

STATUS NOTES: In 2023 the first solar PV installations at Fairfax County Government buildings were completed: Reston Fire Station, Woodlawn Fire Station, Sully Community Center, Woodlands Stewardship Education Center, and the Housing and Community Development Pender Building. At the fire stations and Pender Building, solar was procured via the county's Energy Services Company (ESCO) contract, and at Sully Community Center and Woodlands Stewardship Education Center solar was installed under a General Contractor during construction of those buildings. 9 additional solar projects are scheduled for completion in 2024, with even more coming in 2025. Finally, in January 2024, 5 Power Purchase Agreements (PPAs) were signed, enabling larger-scale solar projects at additional buildings that are currently under construction.



Started (~0.25 of Action Done) ACTION 3: (SOLAR ON BROWNFIELDS): CECAP Implementation Plan | ES.18: Promote solar PV projects on publicly managed brownfields (e.g., closed quarries, landfills), to optimize their use and provide sites for renewable energy production.

STATUS NOTES: In September 2022, the county signed a lease and power purchase agreement with a firm to install a 5 MW solar facility on the I-95 Landfill. In 2023, the vendor will complete final due diligence on the site and negotiate an interconnection agreement with Dominion. An

interagency team led by DPWES Solid Waste is working to finalize the details of this arrangement between the county, Dominion Energy, and the vendor, Sun Tribe Solar. If these final terms are satisfactory, construction could begin in 2024 with operation soon thereafter.



Started (~0.25 of Action Done) ACTION 4: (CONTRACTUAL SOLAR): OES | Renewables 2: Procure high-quality renewable electricity through contractual agreements. Such agreements should provide additionality of renewable power, even if physical electrons are not delivered to Fairfax. CECAP Implementation Plan | ES.3: Explore and support expanded retail and wholesale options as pathways to increase renewable energy availability.

STATUS NOTES: Please see Action 3, above.



ACTION 5: (PARTNERSHIPS): OES | Renewables 3: Participate in joint initiatives with public- and/or private-sector partners that encourage innovation, including opportunities for renewable energy projects on privately-owned property for county benefit.

Not Started (0)

STATUS NOTES: There are significant ongoing public private partnerships for solar in the region, such as the Dulles Solar and Storage project at Dulles International Airport. However, those projects do not directly benefit county government buildings. Therefore, this action for the purposes of the Operational Energy Strategy is listed as "not started."



ACTION 6: (DEMONSTRATION PROJECTS): Operational Energy Strategy | Renewables 7: Develop demonstration projects that can be viewed by the public.

Not Started (0)

STATUS NOTES: The I-95 Landfill 5 MW PPA project could be a good demonstration project, although logistics would need to be determined. There also have been initial discussions about installing displays (TVs) in entrance lobbies showing real-time energy production of solar PV at the building.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

CECAP Implementation Plan | **ES.16**: Legislation for greater authority for on-site renewables:

Please see Strategy 17 – State-level Actions for Solar, Renewables, and Energy Efficiency, which can be found in Group 1.

CECAP Implementation Plan | ES.17: Support RGGI legislation.

Please see Strategy 17 – State-level Actions for Solar, Renewables, and Energy Efficiency, which can be found in Group 1.

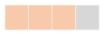
Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	57. Other Renewables and Resource	5	2040	n/a	ES.15	p. 11
Steady Progress	Recovered Gas					
1 of 2 Actions						
Done (50%)						

Actions



ACTION 1: (GEOTHERMAL AND ENERGY STORAGE): OES | Renewables, 4: Identify opportunities to implement alternative renewable energy technologies on county government property, such as geothermal energy and energy storage.

Started (~0.25 of Action Done) <u>STATUS NOTES</u>: Several agencies are in the research phase for energy storage at their facilities, but these technologies remain largely cost-prohibitive.



Significant Progress (~0.75 of Action Done)

ACTION 2: (LANDFILL GAS): OES | Renewables, 5: Continue recovering landfill gas from the county's closed landfills and using the gas for heating, industrial purposes, or to generate electricity that is sold back to the grid. CECAP Implementation Plan | ES.15: Continue existing county initiatives that use resource-recovered gas (i.e., biogas created from decomposed organic matter) and remain open to new uses of such gas.

STATUS NOTES: DPWES operates two Municipal Solid Waste landfill facilities, I-66, and I-95, that have landfill gas recovery systems. The gas collected from these systems is used to fuel engines that generate electricity. The volume of recovered gas is decreasing over time, especially at the closed I-66 landfill site, and due to much of the county's waste being diverted for incineration at the Covanta waste-to-energy plant. However, DPWES continues to review methods and emerging technology to improve the gas collection system.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

OES | Renewables, 6: Pursue resource recovery at wastewater treatment plants to lower total net energy consumption and GHG emissions at these facilities.

Please see Strategy 59 – Wastewater Management Practices for Climate, which can be found in Group 5.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	58. Water Use and Efficiency for	5	Continuous	n/a	n/a	p.9
Started	County Facilities					
2 of 9 Actions						
Done (22%)						

Overarching Goals for Water Use and Efficiency

The county has established the following overarching goals and targets for water use and efficiency in county government facilities. Progress towards these goals can be found in the "Outcomes: Key Targets and Metrics" section of this document. The sections below describe the status of actions that help the count reach these higher-level goals and targets.

- OES | Water Use & Efficiency, GOAL: Reduce water use in county facilities and operations.
- OES | Water Use & Efficiency, TARGET: Reduce water usage 20% of all new construction or major renovations.

Action Status Actions



ACTION 1 (MONITORING): OES | Water Use & Efficiency, 1: Monitor and analyze water use and equipment performance. Review utility bills and other available data to identify areas of opportunity.

Started (~0.25 of Action Done)

<u>STATUS NOTES</u>: Water consumption data is tracked and aggregated for the entire county government portfolio in the EnergyCAP platform. The recent emphasis has been on energy management, so water use has not been closely analyzed. Water efficiency is included in energy audits by the county's ESCO contractor, however.



ACTION 2 (AUDIT): OES | Water Use & Efficiency, 2: Routinely audit and assess existing building stock for water efficiency opportunities.

Started (~0.25 of Action Done) <u>STATUS NOTES</u>: Water consumption data is tracked and aggregated for the entire county government portfolio in the EnergyCAP platform, which could be used as a starting point for identifying water efficiency opportunities. The recent emphasis has been on energy management, so water use has not been closely analyzed. Water efficiency is included in energy audits by the county's ESCO contractor, however.



<u>ACTION 3 (OPTIMIZATION)</u>: <u>OES | Water Use & Efficiency, 3:</u> Engage in commissioning, preventative maintenance, and other practices to optimize cooling tower and other equipment performance.

Started (~0.25 of Action Done)

<u>STATUS NOTES</u>: Agencies who operate and maintain county government facilities perform commissioning, preventative maintenance, and other practices to optimize water use, but OEEC should review these practices to identify areas for improvement.



ACTION 4 (WATER-EFFICIENT FIXTURES): OES | Water Use & Efficiency, 4: Identify and implement cost-effective water efficiency projects, including installation of water-efficient fixtures and systems.

Steady Progress (~0.5 of Action Done)

<u>STATUS NOTES</u>: Capital Facilities BDCD design guidelines set EPA WaterSense fixtures as the design standard for new construction and major renovations. OEEC should review building maintenance policies for replacement fixtures in existing buildings.



ACTION 5 (CONTROL SYSTEMS): OES | Water Use & Efficiency, 5: Expand use of control systems to maximize water efficiency and ensure appropriate programming and maintenance.

Started (~0.25 of Action Done)

<u>STATUS NOTES</u>: Water control systems are utilized at some county facilities, but OEEC should review facilities for opportunities to add these systems or improve upon existing systems.



ACTION 6 (NATURAL LANDSCAPING): OES | Water Use & Efficiency, 6: Incorporate natural landscaping with native vegetation to minimize irrigation needs. Install web-based irrigation control systems where appropriate.

Started (~0.25 of Action Done)

STATUS NOTES: Natural landscaping is now part of the Sustainable Development Policy for Capital Projects.



ACTION 7 (LEAK DETECTION): OES | Water Use & Efficiency, 7: Install leak detection sensors in facilities at higher risk of water loss or damage.

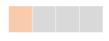
Not Started (0)

STATUS NOTES: OEEC should review county policies for installing leak detection systems in facilities.



ACTION 8 (EXCEED CODE): OES | Water Use & Efficiency, 8: Exceed Virginia Code requirements when replacing equipment and fixtures.

Not Started (0) STATUS NOTES: OEEC should review county policies for efficiency requirements for plumbing and other water using equipment replacements.



<u>ACTION 9 (NEW TECHNOLOGIES):</u> <u>OES | Water Use & Efficiency, 10:</u> Routinely evaluate new technologies that can reduce water consumption.

Started (~0.25 of Action Done) <u>STATUS NOTES</u>: Water efficiency opportunities are identified during building energy audits, so contractors play a role in identifying new watersaving technologies. OEEC should being to routinely evaluate new technologies and provide recommendations to Capital Facilities BDCD and agencies responsible for operating and maintaining county facilities, as necessary.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	59. Wastewater Management	5		n/a	W.11	p. 9
Steady Progress	Practices for Climate					
1.25 of 2 Actions						
Done (63%)						

Actions



Significant Progress (~0.75 of Action Done) ACTION 1: (RECLAIMED WASTEWATER): OES | Water Use & Efficiency, 9: Noman Cole: Continue to explore additional opportunities to use reclaimed wastewater from the Noman M. Cole Jr. Pollution Control Plant. CECAP Implementation Plan | W.11: Continue successful county waste management activities, including the reuse of treated wastewater for irrigation and wastewater process cooling (...)

STATUS NOTES: The Purple Pipe Club, the county's water reuse system, was constructed in 2010 by a combination of federal and state grants and county funds. On average, approximately 1 million gallons per day of treated wastewater is reused for irrigation and cooling water purposes. This improves the water quality in receiving streams by preventing the discharge of associated nitrogen and phosphorus to Gunston Cove and ultimately Chesapeake Bay. In addition, it saves our drinking water resources by avoiding potable water for cooling and irrigation purposes. As part of the ongoing Wastewater Utility Management Plan, the county is exploring other potential uses of the reuse water.



Steady Progress (~0.5 of Action Done) ACTION 2: (WASTEWATER RESOURCE RECOVERY and GHG EMISSIONS REDUCTION): OES | Renewables, 6: Pursue resource recovery at wastewater treatment plants to lower total net energy consumption and GHG emissions at these facilities.

STATUS NOTES: "resource recovery" and "energy recovery" in the context of wastewater treatment plants refer to energy production via solids processing using thermal hydrolysis, pyrolysis, gasification, and hydrothermal. Noman Cole does not currently do this, but Blue Plains does. However, the stated purpose of this action is to "lower total net energy consumption and GHG emissions at these facilities." Noman M. Cole Pollution Control Plant has applied several strategies and achieved a reduction of 25% of GHGs per capita since 2018. Additionally, Noman Cole's partners use resource recovery or energy recovery.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	60. Utility Cost Management and	5		n/a	n/a	p. 16
Started	Coordination with Energy Utilities					
2.5 of 8 Actions						
Done (31%)						

Action Status

Actions

N/A (Goal)

OES | Utility Cost Management, GOAL: Manage electric or other utility service and load to achieve cost savings.



Start (0) ACTION 1: (Utility transformer size): OES | Utility Cost Management, 1: Coordinate among agencies when preparing load letters and letter supplements to ensure that utility transformers are appropriately sized for the facilities they will serve.

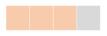
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STATUS NOTES: OEEC is going to begin coordinating with Capital Facilities on this item in 2024.



ACTION 2: (Rate Schedules) OES | Utility Cost Management, 2: Coordinate among agencies regarding rate schedule selection.

Started (~0.25 of Action Done) <u>STATUS NOTES</u>: OEEC has begun to coordinate with Capital Facilities and the primary electric utility to understand the process of rate schedule selection.



ACTION 3: (Metering): OES | Utility Cost Management, 3: Coordinate among agencies to ensure appropriate metering, including functionality, type, number and opportunities for sub-metering.

Significant Progress (~0.75 of Action Done)

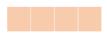
<u>STATUS NOTES:</u> Agencies responsible for operating and maintaining county buildings have metering requirements. OEEC should review these requirements and policies periodically for awareness and to identify potential opportunities for improvement.



ACTION 4: (Demand Management): OES | Utility Cost Management, 4: For accounts with demand changes, implement programs to minimize peak charges. Manage electricity use to minimize peak demand charges and reset billing ratchets, where possible. Use the facility's demand profile to help develop a strategy for reducing peak use.

Scheduled to Start (0)

STATUS NOTES: In 2024, OEEC will begin to look for demand management opportunities as it regains access to electric interval data for county buildings. This will be included in a larger effort to develop standard practices for Utility Cost Management.



ACTION 5 (Bill Audits): OES | Utility Cost Management, 5: Use bill audits to ensure that utility bills received are correct. Periodically review utility bills for possible cost savings. Use rate comparisons to evaluate the cost of service under alternate rate schedules.

Fully Active (1.0 Action Done)

<u>STATUS NOTES:</u> This is carried out at the agency level, but OEEC's EnergyCAP administrator performs this as needed. The primary electric utility provides rate comparison reports annual, per the VEPGA contract.



ACTION 6 (Renegotiate): OES | Utility Cost Management, 6: Renegotiate contract demand and/or contract dollar minimum with the electric utility in the event of a permanent load reduction.

Started

(~0.25 of Action Done)

<u>STATUS NOTES</u>: Thus far this has been done after energy audits by the ESCO contractor on behalf of the county, but a more comprehensive review of demand charges portfolio-wide will be included in Utility Cost Management standard practices, to be developed by OEEC in 2024.



ACTION 7 (Sewer Meters): OES | Utility Cost Management, 7: Sewer meters: Install meters for sewer credit on cooling towers and irrigation systems where appropriate.

Started (~0.25 of Action Done)

<u>STATUS NOTES:</u> Water submetering for sewer credit has been implemented at some county facilities. This is checked for applicability during energy audits of county buildings. However, OEEC will include this as an item to check on a portfolio scale as it develops standard practices.



ACTION 8 (Quarterly Review): OES | Utility Cost Management, TARGET: Quarterly review of utility cost management best practices by OEEC.

Scheduled to Start (0) STATUS NOTES: OEEC is developing standard practices for Utility Cost Management in 2024.

Roll-up Status	Roll-up	Roll-up						
	Roll-up: Resilience for County Government Facilities and External Infrastructure							
Early Stages 1 of 13 Actions Done (8%)								
Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>		
Early Stages 0.5 of 5 Actions Done (10%)	61. Update Capital Improvement Program Process to Include Climate Resilience Considerations	5	2027	RIB.1a	n/a	n/a		

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. Description: The Capital Improvement Program (CIP) is Fairfax County's five-year roadmap for creating, maintaining, and funding present and future capital infrastructure requirements. The CIP guides the investment in and planning of capital projects. Climate hazards such as increasingly severe flooding, extreme heat, and severe storms can impact the lifespan, function, and maintenance costs of capital facilities. Additionally, capital projects that address climate vulnerabilities may be increasingly needed. This strategy promotes revisions to the CIP evaluation and project prioritization process to better integrate climate resilience into infrastructure planning and development. The intended results of this strategy are to A. ensure that capital facilities planned now can withstand future climatic conditions, and B. prioritize resilience-related capital projects, (such as stormwater infrastructure upgrades) that

address top vulnerabilities. Prioritization of these considerations will help the county ensure the long-term safety and resiliency of the Fairfax County community.

Action Status

Actions



Started (~0.25 of Action Done) ACTION 1: Resilient Fairfax | RIB.1a, Action 1: Review the existing CIP process to identify revisions needed to embed consideration of: climate change projections, potential risks from climate hazards, and resilience enhancements for the county's infrastructure and facilities. Resilience enhancements should consider ways a project could enhance overall community resilience. Explore screening criteria and identify selection criteria for projects that support the county's resilience goals. Identify pathways to prioritize implementation and funding for climate resilience projects.

STATUS NOTES: These processes will be reviewed in alignment with the Flood Risk Reduction efforts led by DPWES. (Please see Strategy 21, which can be found in Group 2).



Started (~0.25 of Action Done) ACTION 2: Resilient Fairfax | RIB.1a, Action 2: Build a project list of identified resilience projects, including those identified in the Flood Risk Reduction plan and the Hazard Mitigation Plan. Integrate One Fairfax and build upon the completed analysis of the Vulnerability and Risk Assessment to prioritize projects that support the needs of vulnerable populations and/or address top climate risks to the county.

STATUS NOTES: There are numerous Capital Improvement projects that relate either directly or indirectly to resilience, including FCDOT projects on heavily flooded roadways (e.g., Old Courthouse Road and Besley Road 3-span bridge and Burke Road triple barrel box culvert), and DPWES' Stormwater Improvement Program projects. Additionally, the Richmond Highway Bus Rapid Transit project has considered climate resilience for both stormwater management and Urban Heat Island reduction and DPWES has begun to use Envision (a rating system that considers resilience) in select projects. However, there is a need to better align these projects with climate resilience and the future projections identified in Resilient Fairfax.



<u>ACTION 3</u>: <u>Resilient Fairfax | RIB.1a, Action 3</u>: Partner with staff responsible for capital improvement evaluation, project management, and implementation to draft proposed revisions.

Not Started (0)

<u>STATUS NOTES</u>: While ample general communication has occurred between departments on this topic, this action has not formally started for the purpose of updating the CIP prioritization process.



(0)

Not Started

ACTION 4: Resilient Fairfax | RIB.1a, Action 4: Proceed through revision and approval processes to encourage capital projects that mitigate risk and build resilience to future projected extreme heat, heavy precipitation, coastal flooding, and severe storms. Coordinate with the department responsible for asset management or use in advance of project approval to ensure there are no adverse impacts.

-u

<u>STATUS NOTES</u>: The formal process of revising the CIP prioritization process has not started.



<u>ACTION 5</u>: <u>Resilient Fairfax | RIB.1a, Action 5</u>: Monitor and evaluate CIP implementation results and project outcomes. Adjust process and/or prioritization criteria if needed.

Not Started (0)

STATUS NOTES: This is a future stage.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

Resilient Fairfax | CRC.3a: Flood Risk Reduction Plan

Please see Strategy 21 – Flood Risk Reduction Plan, which can be found in Group 2.

Resilient Fairfax | RIB.2c: Advocate and Partner with Transportation Agencies to Support Transportation Resilience

Please see Strategy 7 – Regional Transportation Coordination for Resilience, which can be found in Group 1.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Early Stages 0.25 of 5 Actions	62. Enhance Flood Resilience of County Government Buildings and Other Facilities	5	2027	RIB.1b	n/a	n/a
Done (5%)						

Lead: OEEC (Facilitator). Partners: DEMS, DPWES, FCPA, FCPS, FMD, HCD, and other departments as relevant to specific facilities. Timeline: Medium-term (2-5 years). Cost: \$\$ (\$100k - \$500k). Existing Staff: Partial. Description: Fairfax County's local government buildings should be flood-resilient to ensure continuity of public services and long-term durability during more frequent flooding events. The county has implemented best practice flood resilience measures for certain county facilities. Other existing facilities may need flood resilience enhancements and protection. This strategy would include prioritization of local government facilities that are flood-vulnerable, interagency collaboration to address those vulnerabilities, and improvements to county processes for reporting and tracking such issues long-term. Flood resilience actions could include but are not limited to: elevating or relocating critical infrastructure, flood proofing measures, stormwater management improvements, and improving accessibility.

Action Status

Actions



Done)

<u>ACTION 1:</u> <u>Resilient Fairfax | RIB.1b, Action 1:</u> Building upon preliminary work conducted during the Resilient Fairfax process, complete an inventory of county buildings and facilities with current and potential future flooding vulnerabilities.

STATUS NOTES: During the planning process, staff from the 20-agency planning team informed OEEC of existing county building vulnerabilities based on a survey of staff. DPWES investigated the buildings that were reported, and provided feedback, which are stored in an OEEC spreadsheet. Because these insights were based on the knowledge of staff who happened to participate, there is a need for a more comprehensive inventory of buildings that are vulnerable. OEEC reached out to DEMS-COOP, Finance-Risk Management, DIT-GIS, HCD, FCPA, and FCPS for updated lists of county facilities to use for the inventory. OEEC created a compiled list of county facilities based on the lists

provided and coordinated with DIT-GIS to create a consolidated county facilities layer for the first time. OEEC staff are working to obtain interagency buy-in to conduct the inventory for flooding vulnerabilities described in this action.

ACTION 2: Resilient Fairfax | RIB.1b, Action 2: Categorize building vulnerabilities for appropriate resolution. Example categories could include: those requiring routine maintenance only (FMD, FCPA, FCPS, HCD), those requiring significant capital improvements (agencies' Capital Facilities entities), and those requiring stormwater management improvements on site (DPWES - Stormwater).

Not Started (0)

STATUS NOTES: This action depends on the preceding action and has not started.



ACTION 3: Resilient Fairfax | RIB.1b, Action 3: Prioritize buildings and facilities for flood resilience upgrades for implementation through appropriate avenues, such as maintenance work orders or the CIP. CIP upgrades should be coordinated with Strategy RIB.1a.

include DEMS, FMD, DPWES, FCPA, FCPS, HCD, and designated facilities managers. Clarify roles, responsibilities, and standard procedures.

Not Started (0)

STATUS NOTES: This action depends on the preceding action and has not started.



ACTION 4: Resilient Fairfax | RIB.1b, Action 4: Review current processes for internal county reporting of flooding issues and/or damage to county buildings. Reporting should include both repetitive small-scale flooding and larger-scale flooding events. This process review should

(0)

Identify opportunities for streamlining, consolidated reporting, and improved data collection consistency.

STATUS NOTES: This action depends on the preceding action and has not started.



ACTION 5: Resilient Fairfax | RIB.1b, Action 5: Incorporate findings into facility reporting and improvement processes. Educate staff to provide improved understanding and use of proper reporting systems for each flooding type. These reporting systems may include the Emergency Data Gathering Repository (EDGR), DPWES service requests, and facility maintenance requests.

Not Started (0)

STATUS NOTES: This action depends on the preceding action and has not started.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

<u>Resilient Fairfax | RIB.2c:</u> Advocate and Partner with Transportation Agencies to Support Transportation Resilience Please see Strategy 7 – Regional Transportation Coordination for Resilience, which can be found in Group 1.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	63. Enhance Energy Resilience for	5	Continuous	RIB.1c	n/a	n/a
Started	County Facilities					
0.25 of 1 Action						
Done (25%)						

Actions

Started (~0.25 of Action Done) ACTION 1: Resilient Fairfax | RIB.1c: Enhance the energy resilience of county-owned facilities, particularly new facilities, through strategies such as increasing the availability of on-site back-up power (prioritizing clean power when feasible), elevating equipment, hardening infrastructure, creating energy redundancy, and establishing back-up communications. Coordinate with OEEC's ESCO work.

STATUS NOTES: Several county agencies, including OEEC, DPWES-Capital Facilities, FMD, DEMS, and FCPA participate in the identification of opportunities for renewable energy and back-up power for county-owned facilities. However, there are opportunities to better incorporate long-term resilience considerations, in addition to the current considerations of emissions reduction. During the Resilient Fairfax planning process, staff from the interagency planning team informed OEEC of existing county building vulnerabilities, including buildings with repeated power outage issues. Because these insights were based on the knowledge of staff and not on building surveys, there is a need for a more comprehensive inventory of buildings that are vulnerable. Additionally, OEEC requested data from DEMS-COOP on the percentage of facilities that have back-up generators; that percentage is approximately 5%. Many of those back-up generators are not sufficient to power the building in case of an outage. Further, OEEC is exploring the potential of using existing ESCO processes and/or existing FMD and DPWES Capital Facilities processes to include energy resilience considerations that complement the existing energy efficiency-focused upgrades. (For example, cool roofs serve both resilience and energy efficiency purposes). Note: in the future, this action may be broken into multiple smaller steps for clearer progress reporting.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

OES | Renewables, 4: Geothermal and energy storage

Please see Strategy 57 – Other Renewables and Resource Recovered Gas.

Resilient Fairfax | RIB.2a: Advocate and Partner for Energy Resilience

Please see Strategy 8 – Regional Energy and Water Coordination, which can be found in Group 1.

Resilient Fairfax | RIB.2c: Advocate and Partner with Transportation Agencies to Support Transportation Resilience

Please see Strategy 7 – Regional Transportation Coordination for Resilience.

CECAP Implementation Plan | T.14: Safe Adoption of Batteries for Energy Storage (Building Code)

Please see Strategy 16 – State-level Actions for the Building Code, which can be found in Group 1.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	64. Enhance Heat Resilience for County Facilities and External Infrastructure	5	Continuous	RIB.1d	n/a	n/a
Not Started						
0 of 1 Actions						
Done (0%)						

Actions



ACTION 1: Resilient Fairfax | RIB.1d: Include consideration of heat mitigation techniques for new and renovated county facilities, such as heat-resilient trees and shading, energy efficiency and ventilation, cool roofs, passive cooling, and heat-resilient building orientation and materials. Pursue these updates through the CIP process (Strategy RIB.1a) or through resilience-related updates to the Sustainable Development Policy for Capital Projects, as appropriate.

STATUS NOTES: OEEC has started exploring options to add considerations for heat resilience for county facilities, as part of the ESCO process.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

Resilient Fairfax | RIB.2c: Advocate and Partner with Transportation Agencies to Support Transportation Resilience Please see Strategy 7 – Regional Transportation Coordination for Resilience, which can be found in Group 1.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Not Started 0 of 1 Actions Done (0%)	65. Update Procurement Practices for Resilience	5	TBD	RIB.1e	n/a	n/a

infrastructure implementation, wetland restoration, and solar plus storage design and construction.

ACTION 1: Resilient Fairfax | RIB.1e: Project scope descriptions for county procurement and Architecture/Engineering contracts should maximize the inclusion of construction methods and design elements that maximize resilience, such as porous material installation, green

Action Status

Actions



710113

STATUS NOTES: This was not a prioritized item for 2023.

Not Started

Roll-up Status	Roll-up					
Started 3 of 9 Actions Done (33%)	Roll-up: Fleet and Transit					
Strategy Status ⁵⁰	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started 1.25 of 5 Actions Done (25%)	66. Electric Fleet Vehicles	5 (Lead), 2 (Support)	2035	n/a	T.7, T.8, T.9, W.8	Pg. 12

Overarching Goals for Fleet Electrification

The county has established the following overarching **goals** and **targets** for fleet electrification. Progress towards these goals can be found in the "**Outcomes: Key Targets and Metrics**" section of this document. The sections below describe the status of **actions** that help the count reach these higher-level goals and targets.

- OES | Fleet Electrification, GOAL: Minimize use of petroleum-based transportation fuels, primarily through electrification.
- OES | Fleet Electrification, TARGET 2: Fleet Electrification Target: County buses and fleet vehicles will be electric or a non-carbon emitting alternative by 2035. By 2035, 99% of Connector bus fleet miles traveled will be with non-carbon emitting vehicles.
- OES | Fleet Electrification, TARGET 3: Diesel bus phase-out: No diesel buses will be purchased after FY2024 without further Board discussion.

Action Status Actions



(~0.25 of Action Done)

ACTION 1: (CREATE A PLAN): OES | Fleet Electrification, TARGET 1: By 2030, develop a plan to use 100% non-carbon emitting fuels for county fleet vehicles. For non-bus fleet vehicles that may not have non-carbon emitting alternatives, develop a plan to mitigate emissions.

<u>STATUS NOTES</u>: FCDOT staff are preparing a Transition Plan to chart the path from diesel buses to zero emissions. For non-bus fleet vehicles that may not have non-carbon emitting alternatives, the county is developing a plan to mitigate emissions. In 2024, OEEC will coordinate with FCDOT and DVS review and assess county vehicle electrification as it relates to the 2035 goal of 100% electrification.

⁵⁰ Note: The status of <u>strategies/action items</u> should not be misinterpreted as equivalent to a percentage of the <u>goal or metric</u> achieved. For example, 25% of action items may be complete, but only 1% of the fleet may be electrified. For this reason, strategy progress and metric progress have been separated for clarity. For targets and metrics, please see the targets and metrics section of this report.



Started (~0.25 of Action Done) ACTION 2: (COST CALCULATIONS): OES | Fleet Electrification, Action 4: Consider the social cost of carbon when evaluating costs for county fleet vehicles.

<u>STATUS NOTES</u>: Both FCDOT and DVS strive for economically responsible environmental stewardship by working increased fuel efficiency and reduced emissions and petroleum consumption characteristics into vehicle specifications.

Started (~0.25 of Action Done) ACTION 3: (PASSENGER FLEET TRANSITION): OES | Fleet Electrification, Action 1: Continue to reduce reliance on petroleum-based fuels by accelerating the fleet transition to zero- and low-emission vehicles. OES | Fleet Electrification, Action 3: Ensure fleet vehicle replacement strategies are consistent with fleet electrification targets. CECAP Implementation Plan | T.7: Continue adding EVs to the existing county fleet of passenger vehicles.

<u>STATUS NOTES</u>: As plug-in hybrid and electric vehicle models continue to come to market, DVS continues to procure them in place of traditional gasoline-powered vehicles, as appropriate. As of December 2023, the county fleet includes a total of 306 low-emissions vehicles in the fleet, including 83 electric vehicles (EVs) and 223 hybrid vehicles. There is still a lot of work to be done; these 306 vehicles make up 2% of the county's total fleet. There is some resistance by departments who use fleet vehicles to accept low-emissions options when their vehicles are replaced.



ACTION 4 (BUS FLEET TRANSITION): CECAP Implementation Plan | T.9: Evaluate ways to accelerate and continue to transition the county's transit bus fleet from diesel to electric or other zero-emission vehicles.

Started (~0.25 of Action Done) STATUS NOTES: The county's OES sets ambitious goals and targets to transition the county buses and fleet vehicles to electric or a non-carbon emitting alternative by 2035. The county is systematically retiring the oldest buses each year and has an ongoing mid-life rehabilitation program for the bus fleet to ensure optimal performance. FCDOT is initiating a pilot program to determine performance of zero emission vehicles and working to identify alternative financing including grant opportunities to purchase zero emission buses and to fund required infrastructure. Phase I of the Zero Emission Bus (ZEB) pilot program began on September 28, 2023, and includes eight electric buses. Phase II of the pilot program is planned for 2024 with additional buses planned for 2025.

Started

ACTION 5 (HEAVY DUTY VEHICLE TRANSITION): CECAP Implementation Plan | T.8, W.8: When feasible, consider electrifying medium- and heavy-duty fleet vehicles (e.g., trash haulers, shuttles, street sweepers, transit, school buses) and off-road equipment (e.g., mowers, forklifts).

(~0.25 of Action Done)

STATUS NOTES: Specifications for new, heavy-duty trucks favor the cleanest diesel engines by utilizing the latest emissions control technologies and right-sizing engine displacement. DVS was recently awarded a grant for an EV box truck. In 2021, the vehicle permit fee was waived for non-diesel (including EV) vehicles. On August 25, 2023 Fairfax County leaders gathered at the Newington Collections Facility in Lorton to unveil the Department of Public Works and Environmental Services' first electric trash truck. The vehicle began pick-up of residential and yard waste on some routes on August 28. DPWES is currently piloting two EV collection vehicles and will be able to share lessons learned to decide on future expansion of EV collection vehicles. The county lacks the statutory authority to impose its own vehicle emissions standards. This is a state (DEQ) function.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

OES | Fleet Electrification, Action 6: Apply for grant funding for county fleet vehicles when possible.

Please see Strategy 13 – Federal and State Funding, which can be found in Group 1.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	67. Charging Infrastructure and	5 (Lead),	2035	n/a	T.10,	Pg. 12
Started	Parking	2 (Support)				
1.25 of 3 Actions						
Done (42%)						

Action Status

Actions



(~0.5 of Action Done)

ACTION 1: (CHARGING INFRASTRUCTURE): OES | Fleet Electrification, Action 2: Install necessary charging infrastructure for county fleet vehicles. Deploy infrastructure needed to support EVs and other alternative-fueled vehicles. Where possible, ensure charging infrastructure can serve both county and school operations. CECAP Implementation Plan | T.10: Continue installing EV supply equipment (EVSE) at county buildings, facilities, and parking lots for use by both the public and employees.

STATUS NOTES: In support of the county's OES targets, an electric vehicle charging stations program was initiated to fund the installation of EVSE at county government facilities. In addition to helping the county fulfill its own fleet electrification goals, the proliferation of EVSE at county facilities is intended to increase charger availability for community members and promote the widespread adoption of EVs. Starting in 2021, county staff began installing ChargePoint Level 2 EVSE at county government locations pursuant to a multi-year plan. Level 2 EVSE can fully charge most EVs in four to eight hours. As of the end of 2023, 106 Level 2 charging stations have been installed at county facilities, with more scheduled for installation in the remainder of CY 2024 and beyond.



(~0.25 of Action Done)

ACTION 2 (PARKING): OES | Fleet Electrification, Action 5: Reserve parking for hybrids and EVs at county government buildings.

STATUS NOTES: There are parking spots reserved for EV charging at certain county government buildings and additional chargers are planned to be installed. (See action 1). OEEC should review county policies regarding reserved parking for low-emitting vehicles at county government buildings.



(~0.5 of Action Done)

ACTION 3 (EV CHARGING AT NEW COUNTY BUILDINGS): OES | Green Buildings, Action 6: Coordinate among agencies to ensure that electric vehicle (EV) charging infrastructure is provided at new and renovated facilities where fleet and/or public vehicle EV charging is appropriate and desirable.

STATUS NOTES: All new construction and major renovation projects are designed and constructed to be EV-ready (except where impracticable).

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	68. Reduce Travel	5 (Lead),	Continuous	n/a	n/a	p. 12
Steady Progress		3, 1 (Support)				
0.5 of 1 Action						
Done (50%)						

Actions



ACTION 1: (REDUCE TRAVEL TIME): OES | Fleet Electrification, Action 7: Where feasible, implement scheduling and routing practices that reduce vehicle travel time. Use video conferencing solutions that reduce the need for vehicle travel, where practicable.

Steady Progress (~0.5 of Action Done)

<u>STATUS NOTES</u>: During the Covid-19 pandemic, most Fairfax County employees transitioned to virtual or hybrid work, creating significant (albeit unintended) progress on this goal. Post pandemic, workers have returned to the office, but certain agencies have continued a hybrid work schedule, which notably reduces emissions from commuting.

Roll-up Status	Roll-up						
Started 8.75 of 28 Actions Done (31%)	Roll-up: Zero Waste and Sustainable Purchasing and Procurement						
Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>	
	69. Sustainable Procurement	5		n/a	W.15	p. 13	
Started							
2.5 of 9 Actions							
Done (28%)							

Overarching Goals for Sustainable Procurement

The county has established the following overarching **goals** and **targets** for sustainable purchasing and procurement in county government operations. Progress towards these goals can be found in the "**Outcomes: Key Targets and Metrics**" section of this document. The sections below describe the status of **actions** that help the count reach these higher-level goals and targets.

- OES | Goods and Services, GOAL: Encourage and increase the purchase of environmentally preferable products and services.
- OES | Goods and Services, TARGET: Review purchases and develop a sustainable purchasing program.
- <u>CECAP Implementation Plan | W.15:</u> With respect to county operations, pursue the goals and targets set forth in the Operational Energy Strategy (...) regarding (...) recycling and procurement (...)

<u>STATUS NOTES</u>, <u>OVERALL</u>: Staff will continue to implement the Sustainable Procurement Program. In addition to coordinating the countywide Zero Waste program (Strategy 70 below) which prioritizes Reduction and Reuse across all departments and agencies, DPMM pursues the following three efforts.

- 1. The Supply Chain Corporate Social Responsibility (CSR) program: This program monitors the sustainability performance (including climate action, waste, human rights, and equity) of our mission critical suppliers in their own operations. DPMM has continued to bring major contractors into the CSR program and evaluate the county's Supply Chain Corporate CSR performance. Over 100 major contractors have participated, representing over \$340 million in annual spending. See progress here.
- 2. The Scope 3 Greenhouse Gas Analysis: this study, launched in August 2023 aims to estimate the greenhouse gas impacts of the County's purchased goods and services and other categories "outside our facility walls". The goal is to understand which purchasing categories represent the highest emissions and to obtain insight into how much influence we might have over those emissions. The analysis will help staff to prioritize sustainable procurement efforts where most impactful.
- 3. The Sustainable Procurement Policy: this environmental and social responsibility policy is currently in development and is partially informed by yeah findings from the CSR program and the Scope 3 analysis, Zero Waste program priorities (reducing and reusing), and the One Fairfax policy.

While DPMM oversees the above programs, actual purchasing decisions and the implementation of sustainable procurement are at the department level.

In addition, DPMM continues to manage a robust surplus equipment program that includes reusing, reselling, or recycling e-waste and other hard-to-recycle items.

Action Status

Actions

ACTION 1: CSR: OES | Goods and Services, 1: Continue to evaluate and improve the county's Supply Chain Corporate Social Responsibility (CSR) performance.

Steady Progress (~0.5 of Action Done)

ACTION 2: Purchasing for waste reduction: OES | Goods and Services, 2: In furtherance of the Zero Waste target set forth in the Waste Management and Recycling focus area, undertake a review of purchasing to ensure an understanding of what is being purchased and used, especially paper supplies and other items that can be recycled.

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.



Started (~0.25 of Action Done) <u>ACTION 3: Embodied carbon: OES | Goods and Services, 3:</u> Leverage the county's purchasing power to decarbonize the supply chains associated with purchased products by adopting embodied carbon procurement policies to source low-carbon products and engage suppliers in targeting a net-zero supply chain.

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.



ACTION 4: Carbon-neutral products: OES | Goods and Services, 4: When evaluating products, include carbon and efficiency as considerations. Seek out products that are carbon-neutral or carbon-negative.

Started

STATUS NOTES: See "STATUS NOTES, OVERALL" section above. In addition:

(~0.25 of Action Done)

Electric lawn equipment: As of August 2023, the Park Authority (FCPA) is set to replace 55 gas-powered leaf blowers – over half its supply – with battery-powered devices across its area maintenance shops. The Department of Public Works and Environmental Services (DPWES) expects to be 50% electric on its leaf blowers and trimmers by end of the current fiscal year.



ACTION 5: ENERGY STAR: OES | Goods and Services, 5: Require that all major appliances, such as refrigerators and televisions, are ENERGY STAR-certified or equivalent, unless it can be shown that an energy-efficient option is not available.

Started (~0.25 of Action Done)

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.



<u>ACTION 6: Discourage single use</u>: <u>OES | Goods and Services, 6:</u> Promote the use and purchase of products and services that reduce negative environmental effects on employees, the community, and the environment. Discourage the purchase of single-use products wherever possible.

Started (~0.25 of Action Done)

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.



ACTION 7: Contractors: OES | Goods and Services, 7: Require contractors to use environmentally preferable and sustainable products and practices in performing services for Fairfax County Government, where practicable.

Started (~0.25 of Action Done)

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.



ACTION 8: Recycled content: OES | Goods and Services, 8: Purchase products that include recycled content or are made of materials that can be recycled, are durable, conserve energy and resources and have the fewest toxic compounds.

Started (~0.25 of Action Done)

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.



Started (~0.25 of Action Done) ACTION 9: Suppliers: OES | Goods and Services, 9: Purchase from suppliers that reuse, take back and/or recycle the product purchased.

STATUS NOTES: See "STATUS NOTES, OVERALL" section above.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	70. Zero Waste and Waste Reduction	5	2030	n/a	W.14, W.15	14
Started	for County Government Operations					
3.75 of 10 Actions						
Done (38%)						

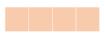
Overarching Goals for Zero Waste and Waste Reduction for County Government Operations

The county has established the following overarching goals and targets for zero waste in county government operations. Progress towards these goals can be found in the "Outcomes: Key Targets and Metrics" section of this document. The sections below describe the status of actions that help the count reach these higher-level goals and targets.

- OES | Waste Management and Recycling, GOAL: Pursue and promote sustainable consumption that significantly minimizes waste in county government operations.
- OES | Waste Management and Recycling, TARGET 1: Be Zero Waste by 2030. CECAP Implementation Plan | W.14: Implement the Zero Waste Plan and litter reduction efforts, inclusive of all OES recommendations in the Waste Management and Recycling Focus Area of OES.
- OES | Waste Management and Recycling, TARGET 2: Encourage composting among county government workers and students.
- <u>CECAP Implementation Plan | W.15:</u> With respect to county operations, pursue the goals and targets set forth in the Operational Energy Strategy (...) regarding waste management and recycling (...)

Action Status

Actions



Complete (1 Action Done) ACTION 1: (PLAN FOR ZERO WASTE): OES | Waste Management and Recycling, 1: Create a plan for county government and schools to achieve Zero Waste by 2030, including the establishment of a central implementation team and funding mechanisms to support all county and school agencies in Zero Waste efforts.

STATUS NOTES: The Zero Waste Plan for County Operations has been adopted by the Board of Supervisors and is being implemented. This plan has two Zero Waste goals for Fairfax County Government and Fairfax County Public Schools operations: diverting 90% of waste away from landfills or incinerators and decreasing the total amount of waste generated by 25%.



Steady Progress (~0.5 of Action Done) ACTION 2: (CULTURE): OES | Waste Management and Recycling, 2: Foster a culture of sustainability by engaging individuals to pursue Zero Waste through collaboration, education, and outreach.

STATUS NOTES: The Zero Waste Champions Network was launched in June 2023, with 1-2 representatives from each County department. Champions serve as the liaison between their department and the Zero Waste Team. The Action Plan and Annual Report were launched in September of 2023. The plans and reports will be used to assist departments in their efforts towards Zero Waste as well as gauge progress. The Zero Waste Champions Toolkit was developed, and contains online guides, education, and other resources to assist County employees in their Zero Waste initiatives.



Started (~0.25 of Action Done) <u>ACTION 3: (CONSUMPTION): OES | Waste Management and Recycling, 3:</u> Reduce consumption to only that which is necessary. Phase out single-use products and packaging wherever possible.

STATUS NOTES: Reduce and reuse programs are in the early stages of development. One example of a recent reusable foodware program is the Zero Waste Party Pack, launched in October 2023. Three party packs are available to County employees to use at County hosted events, in replacement of the use of disposable options. Additionally, Zero Waste Champions are encouraged to develop department-based reduction and reuse programs to address single-use, with some departments having already begun.



Started (~0.25 of Action Done) ACTION 4: (CIRCULAR ECONOMY): OES | Waste Management and Recycling, 4: Support a circular economy by purchasing more durable, reusable, repairable, and recyclable materials that are produced sustainably and adopting closed-loop systems.

<u>STATUS NOTES:</u> Purchasing guidance and a sustainable procurement policy are in development. Procurement systems have been updated to prompt departments to consider environmental impacts in their purchasing requests.

ACTION 5: (VALUE): OES | Waste Management and Recycling, 5: Once products and packaging can no longer serve their intended purposes, treat materials and valuable resources rather than waste by recycling, composting, or devising new uses for them. Pursue regional initiatives



Steady Progress (~0.5 of Action Done)

STATUS NOTES: This action is occurring.

where appropriate.

Started (~0.25 of Action Done) ACTION 6 (SUPPORT TRANSITION): OES | Waste Management and Recycling, 6: Explore the development and implementation of new policies, programs, and facility upgrades to support the transition to Zero Waste.

<u>STATUS NOTES</u>: Facility upgrades such as water bottle filling stations and air-hand dryers are in progress. New programs and policies are in the early stages of development across County departments.



ACTION 7: (AUDITS): OES | Waste Management and Recycling, 7: Periodically conduct trash and recycling audits.

Steady Progress

STATUS NOTES: Baseline waste audits for select County facilities and FCPS locations were completed in July and October 2023.

(~0.5 of Action Done))



ACTION 8: (COMPOSTING): OES | Waste Management and Recycling, 8: Expand County composting operations.

Started (~0.25 of Action Done) STATUS NOTES: In August 2023, the Solid Waste Management Program, Department of Procurement & Material Management, and Facilities Management Department successfully piloted a three-bin system for trash, recycling, and composting in their kitchenettes and the Government Center Cafeteria. The county Zero Waste Team expanded the program to other departments by installing bins and posting informational signage for the waste diversion program. Additionally, the county government has begun a Compost Outpost program that will be finishing soon and will provide lessons learned to Fairfax County Schools, and the Park Authority.



ACTION 9 (CDD): OES | Waste Management and Recycling, 9: Develop and implement a recycling program for construction/demolition debris (CDD).

(~0.25 of Action Done)

<u>STATUS NOTES:</u> This action has started with tentative discussions for county construction projects, but the program has not been established yet.



(0)

ACTION 10 (RENEWABLES FOR WASTE): OES | Waste Management and Recycling, 10: Use renewable energy in support of waste process applications.

STATUS NOTES: This is a future action.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
	71. Zero Waste and Waste Reduction	5, 3	TBD	n/a	W.1, W.4, W.5, W.7, W.9,	n/a
Started	for the <u>Community</u>				W.10, W.11, W.12, W.13, (W.19)	
2.5 of 9 Actions					(00.13)	
Done (28%)						

Action Status

Actions



ACTION 1: CECAP Implementation Plan | W.1: Prioritize source reduction and reuse, followed by recycling and composting.

Steady Progress (~0.5 of Action Done) STATUS NOTES: This is an overarching goal for the sector, encouraging the continuation of existing county programs, while looking for new ways to engage the community, businesses, and waste haulers. Staff continue to support reduction and reuse in the community through the Plastic Bag Tax. Staff oversee applications for litter prevention and cleanup projects funded by revenue from the Plastic Bag Tax, implemented in 2022. In its first calendar year of implementation, the bag tax generated \$2.3 million in revenue. Revenue is allocated to environmental cleanup programs, pollution and litter mitigation programs, educational programs on environmental waste reduction, and the provision of reusable

bags to recipients of Supplemental Nutrition Assistance Program (SNAP) and Women, Infants, and Children Program (WIC) benefits. Clean Fairfax Council, a local non-profit, reports a reduction in plastic bags found at litter monitoring sites since the tax went into effect, including a 64 percent reduction at high density residential sites.



Steady Progress (~0.5 of Action Done)

ACTION 2: CECAP Implementation Plan | W.4: Divert food and yard waste by establishing and expanding different types of composting programs.

STATUS NOTES: There are two permanent composting/food waste drop off sites for the community (the I-66 Transfer Station and I-95 Landfill Complex) and five pilot sites. DPWES will be updating the county's Solid Waste Management Plan starting in early 2023 which will include food scraps as a focal topic for planning and discussions with the community. DPWES is also working on piloting a small, onsite food scraps composting operation at the I-66 Transfer Station called the "Compost Outpost" which is anticipated to be constructed in 2023. Yard waste collection and recycling is required by code for single-family homes and townhouses. Additionally, in summer 2023 the Fairfax County Park Authority (FCPA) expanded the composting initiative to 10 farmer's markets across the county following a successful 2022 composting pilot campaign So far in 2023, the program has collected over 40,000 pounds of food waste that otherwise might have ended up in a landfill. Funding from OEEC' s Zero Waste Fund supported this year's food scrap collection and composting effort at the Farmers Markets. Revenue from the Plastic Bag Tax will sustain these efforts in the 2024 season.



Started (~0.25 of Action Done)

ACTION 3: CECAP Implementation Plan | W.5: Use lessons learned from the government-focused Zero Waste program to work with the community members to create community-focused Zero Waste programs.

STATUS NOTES: The Board approved the Zero Waste Plan for county and school operations in November 2021. Since then, a multi-departmental team has been working on its implementation. As part of that implementation, staff will look for opportunities to expand lessons learned from internal operations to community-focused efforts. In addition, DPWES will be undergoing a review of the Solid Waste Management Plan beginning in 2024 and as part of this process will be engaging the public to discuss Zero Waste, among other strategies



(0)

ACTION 4: CECAP Implementation Plan | W.7: Improve existing curbside waste pick-up models, including the potential for county action to coordinate pick-ups with county and private haulers and ways to optimize pickup frequency.

STATUS NOTES: Staff will research potential options to improve curbside pick-up. The Solid Waste Management Plan will be reviewed and updated beginning in 2024 and will address these types of questions.



ACTION 5: CECAP Implementation Plan | W.9: Explore ways to ensure that waste contracts align with best practices and best available technology for reducing emissions.

STATUS NOTES: Staff will examine potential options to improve waste contracts. The Solid Waste Management Plan will be reviewed and updated beginning in 2024 and will include these types of questions. Program details will be addressed in a future implementation program.



ACTION 6: CECAP Implementation Plan | W.10: Continue monetary penalties for recycling violations, and consider potential expansion.

(~0.25 of Action Done)

<u>STATUS NOTES:</u> Current enforcement processes include monetary penalties, but prosecution and due process are labor-intensive and limited to civil penalties by Virginia statute. Stricter and more expansive enforcement will need further study to determine resource requirements.



Significant
Progress
(~0.75 of Action
Done)

ACTION 7: CECAP Implementation Plan | W.11: Continue successful county waste management activities, including (...) Purple Can Club.

<u>STATUS NOTES:</u> The Purple Can Club for glass recycling began in October 2019 when glass was no longer accepted with curbside recycling. Glass recycling containers are located throughout the county as well as the I-66 Transfer Station and the I-95 Landfill Complex. The program may be expanded in the future.



Started (~0.25 of Action Done) ACTION 8: CECAP Implementation Plan | W.12: Follow up on the concrete recycling pilot program at the I-95 Landfill by seeking additional opportunities to recycle construction and/or demolition debris.

<u>STATUS NOTES:</u> Staff will evaluate potential options for recycling concrete and other types of construction debris. Program details will be addressed in a future implementation program.

Not Started (0) ACTION 9: CECAP Implementation Plan | W.13: Evaluate legal, operational and equity issues associated with a "pay as you throw" disposal model, a model in which customers pay a rate that reflects the amount of service they use.

STATUS NOTES: Staff will examine potential options for "pay as you throw" disposal. The Solid Waste Management Plan will be reviewed and updated beginning in 2024 and will include these types of questions. Program details will be addressed in a future implementation program.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

<u>CECAP Implementation Plan | W.19:</u> Legislation for greater authority on solid waste: Please see Strategy 20- State-level Actions for Waste, which can be found in Group 1.

<u>Details: Group 6 Strategies – (Data and Research)</u>















Strategies in Group 6 are focused on climate-related data and research. In addition to serving as a way to sort strategies, "Group 6" is also one of the six staff working groups of the Interagency Climate Team, with a focus on implementing Group 6 strategies. For greatest efficiency, an existing data-focused interagency group led by the Department of Management and Budget (DMB) for Strategic Plan data is being used for Group 6 meetings. (Climate is an agenda item on these meetings, in lieu of creating a separate duplicative meeting series). All agencies are involved in data and metrics. However, the following agencies are represented regularly on the Interagency Climate Team - Group 6 for frequent climate data and research coordination: Department of Information Technology (DIT); Department of Management and Budget (DMB); Department of Public Works and Environmental Services (DPWES); Fairfax County Health Department (FCHD); Office of Environmental and Energy Coordination (OEEC); One Fairfax/ Chief Equity Officer's Office. DMB facilitates the data group meetings, and OEEC facilitates interagency coordination for climate-related data and research. The section below details progress made and the statuses of each Strategy Roll-up, Strategy, and Implementation Action for Group 6.

Roll-up Status	Roll-up								
Steady Progress 9.5 of 15 Actions Done (63%)	Roll-up: Data and Map Updates								
Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>			
	72. Tracking of Resilience Progress	6	2025	IAP.2a	n/a	n/a			
Significant									
Progress 2.25 of 3 Actions									
Done (75%)									

Action Status

Actions



Done)

Progress (~0.75 of Action ACTION 1: Progress Tracking System: Resilient Fairfax | IAP.2a, Action 1: Building from the Key Performance Indicators and tracking tool developed through the Resilient Fairfax plan, design a monitoring and evaluation process, schedule, and tracking system to track implementation progress over time.

STATUS NOTES: A Climate Planning Progress Tracker (Excel version) and this Progress Report document were created in January, shared with all relevant departments in Microsoft Teams. The Resilience Dashboard was launched on February 28th to highlight key resilience metrics, facts, and actions for the public. An Interagency Climate Team "All Hands" meeting was held March 3rd with 27 county agencies, to ensure all departments were clear on their roles in implementation, and how all the pieces fit together. Group meetings were held throughout 2023 on specific topics to maintain progress and continued tracking.



2023 (1 Action Done) ACTION 2: Annual Progress Report – Resilience: Resilient Fairfax | IAP.2a, Action 2: Develop an annual progress report that documents progress made, key successes, and future needs. Collect data and information from implementation leads on the status of each strategy using the Key Performance Indicators established in the Resilient Fairfax plan. Data requests will be streamlined with other OEEC data requests for efficient use of partners' time and to reduce duplication of requests.

STATUS NOTES: This Progress Report document, in combination with the Climate Action Dashboard and the presentation to the Board of Supervisors Environmental Committee, fulfills this action item.



Steady Progress (~0.5 of Action Done)

ACTION 3: Climate Resilience Index: Resilient Fairfax | IAP.2a, Action 3: Explore development of a climate resilience index that includes resilience-related metrics, such as vulnerable populations, climate hazard exposure, environment, proximity to critical services/facilities, social factors, and built infrastructure.

<u>STATUS NOTES:</u> The <u>Resilient Fairfax Interactive Map Viewer</u> includes each of these items as separate layers that can be overlaid, but they are not necessarily merged as a "climate resilience index." The "Adaptation Action Area" strategy may fulfill this purpose.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Significant Progress 4 of 5 Actions Done (80%)	73. Tracking of Emissions Reduction Progress	6, 5	2050	N/A	BEE.25, ES.19, NR.13, T.22, W.18	p. 17

Action Status

Actions



Significant Progress (~0.75 of Action Done) ACTION 1: Public-Facing Progress and Dashboard: Operational Energy Strategy | Reporting and Collaboration: GOAL: Communicate the county's progress to the Board and the community. Operational Energy Strategy | Reporting and Collaboration: Action 2: Maintain and update county webpages highlighting accomplishments in emissions reductions, energy efficiency, and conservation.

STATUS NOTES: This progress report communicates the county's progress on climate plan implementation to the Board and the community. Additionally, the Climate Action Dashboard was launched on February 28, 2023 to highlight key metrics, facts, and actions about climate and climate plan implementation progress for the public. An updated version of the Dashboard was launched in December 2023. Other OEEC webpages, the newsletter, and regular social media posts describe accomplishments in emissions reduction, energy efficiency, and conservation.



2023 (1 Action Done) ACTION 2: Annual Progress Reports – Emissions Reduction: Operational Energy Strategy | Reporting and Collaboration: TARGET: Progress toward the OES goals and targets will be reported to the public and Board of Supervisors annually. Operational Energy Strategy | Reporting and Collaboration: Action 1: Progress updates: Periodically update the Board and public on progress made in implementing the OES with the parameters of that reporting to be guided by the Board's Environmental Committee.

<u>STATUS NOTES:</u> This document, in combination with the Climate Action Dashboard and the presentation to the Board of Supervisors Environmental Committee, fulfills this action item.



2023
(1 Action Done)

ACTION 3: Energy use data for county facilities: Operational Energy Strategy, page 17: Collect energy use data across the enterprise. Benchmark and analyze this information to monitor facility performance and identify opportunities for energy improvements.

<u>STATUS NOTES:</u> OEEC collects, analyzes, benchmarks, monitors, and publishes energy use data across the enterprise. These data can be seen at this link: (County Government Energy Data | Office of Environmental and Energy Coordination (fairfaxcounty.gov)).



(1 Action Done)

ACTION 4: Waste-to-Energy Data. CECAP Implementation Plan | W.6: Continue providing information on climate impacts from waste-to-energy (WTE) facilities in Fairfax County, consider possible expansion.

STATUS NOTES: The VA DEQ regulates the permits for the WTE facility in Fairfax. All permit data is publicly available from DEQ, and Covanta Fairfax's website has air quality performance data. The reuse/reclaimed water system and its expansion is evaluated as part of planning. Additionally, the Solid Waste Management Program commissioned a waste study (2019) comparing impacts from WTE and landfills. The results were presented to the Environmental Quality Advisory Council (EQAC) and the report is available upon request.



Started (~0.25 of Action Done) ACTION 5: CECAP Implementation Plan | BEE.25, ES.19, NR.13, T.22, W.18: Evaluate progress on the CECAP GHG reduction goals at the 2030 and 2040 milestone periods and determine the actions needed to achieve the overall goal of carbon neutrality by 2050.

STATUS NOTES: Milestone Assessment: An adaptive management approach is used for CECAP implementation, where the impact of an initial set of key actions is the focus of the first stage of implementation. The 2030 and 2040 interim goals serve as milestone periods to evaluate progress and determine what further action is needed. As the lead, OEEC, with support from the departments and agencies involved in CECAP implementation, will review progress to date and provide a synthesis on current actions and their impact to reduce GHG emissions. Coordination with MWCOG, which provides modeling on the county's GHG emissions, will be needed. This milestone is separate from more frequent review and reporting on actions through the Climate Action Dashboard.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
7	74. Data on Natural Resources (Both Resilience and Emissions Reduction)	6, 4	Continuous	IAP.2f	NR.7, NR.9	n/a

Action Status

Actions



Done)

ACTION 1: TREE CANOPY DATA: Resilient Fairfax | IAP.2f: Continue to Collect Tree Canopy Data. Regularly update the tree canopy data layer to support strategic and equitable tree planting. CECAP Implementation Plan | NR.7: Continue monitoring, measuring, and tracking changes in tree canopy over time.

STATUS NOTES: (For metrics showing the county's progress towards achieving tree canopy goals established in the climate plans, please see the "Outcomes: Key Targets and Metrics" section of this report). This action is marked as "significant progress" (or 0.75 out of 1.0), because there are robust activities ongoing, with some room for future upgrades. The Urban Forest Management Division (UFMD) tracks tree canopy and forest quality in alignment with industry standards. This work will continue, and expansion opportunities will be evaluated as they rise. There are multiple sources for tree canopy data. For example, UFMD gathers data on tree canopy coverage from the Chesapeake Bay Program, which is a joint program of the U.S. Geological Survey (USGS), the U.S. Forest Service (USFS), the Chesapeake Conservancy, and the University of

Vermont Spatial Analysis Lab. The most recent tree canopy data is based on 2018 imagery combined with a 2022 land cover database, and shows 55.4% tree canopy coverage in Fairfax County, with 51.9% in forested areas, and 3.2% in non-forested areas. Another source of Tree Canopy data comes from a partnership between Casey Trees and PlanIT Geo, which uses publicly available <u>USDA National Agriculture Imagery Program (NAIP)</u> imagery data, AI technology, and GIS software to classify land use. This source is used to detect changes in urban canopy between 2012-2021, to examine the effectiveness of the Tree Conservation Ordinance. The key takeaway of this study so far is that most of the growth in tree canopy in FArifax County between 2012-2021 was from existing trees growing larger, rather than the planting of new trees.



<u>ACTION 2: PROGRESS MONITORING FOR NATURAL RESOURCES</u>: <u>CECAP Implementation Plan | NR.9:</u> Monitor and evaluate progress on county natural resources sector programs.

<u>STATUS NOTES:</u> There are numerous natural resources sector reporting mechanisms. There is an ongoing effort to consolidate monitoring and tracking of going NR efforts for reporting on the dashboard that will be coordinated by OEEC with data provided by the relevant departments. Workplan updates will be evaluated as implementation efforts get underway and metrics will be developed as data becomes available in the next year.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Started 1.5 of 4 Actions Done (38%	75. Data on Flooding and Hazards	6, 2	Continuous	IAP.2c, IAP.2d, IAP.2e, IAP.2g	n/a	n/a

Action Status

Actions



Steady Progress (~0.5 of Action Done) ACTION 1: Create Consolidated Database of Flood-Prone Areas: Resilient Fairfax | IAP.2c: Consolidate currently separate databases of flood-prone and storm-affected areas to provide comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking.

STATUS NOTES: There are currently several separate databases of flood-prone areas maintained by different agencies. The current Resilient Fairfax Interactive Map Viewer shows flood-prone areas based on a parcel-by-parcel analysis of 10 factors that may make a property susceptible to flooding, including both floodplain and urban flooding considerations. DPWES is currently working on updated mapping of buildings at potential risk of flooding, based on four scenarios rather than the 10 factors, in effort to reduce double counting. DPWES and LDS hired a consultant to model the outcomes of a potential change in stormwater design standards to accommodate changes in precipitation/ shifts in IDF curves. For roadway flooding, data has been gathered from two major sources: 911 data (Fire and Rescue and Police data on road closures and swift water rescues), and 511 data (VDOT road closures compiled by GMU). DEMS' EDGR database tracks flooded buildings but only during emergency situations, and the data is not stored long-term. There are early discussions of combining these data into a consolidated database, but challenges remain due to the differences in data type and methodology.



Done)

ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax | IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should consider effects of impervious surfaces.

STATUS NOTES:

Rain gauges: Rainfall data work, including consolidation of rain gauge networks, is currently ongoing at the regional level, led by NVRC, involving Fairfax County, Alexandria, and Arlington. Using a grant from VA's Community Flood Preparedness Fund, NVRC has contracted AEM to complete an audit of all the rain and flood gauges in the region. By documenting the type, location, and status of all the different weather sensors in the region, we can look for gaps in the network and opportunities to connect the systems that already exist. The audit aims to support regional efforts to prepare for the impacts of climate change. By measuring localized precipitation rates, researchers can begin to look for patterns to use the information to identify problem areas and tailor climate resilient solutions.

<u>IDF curves:</u> OEEC met with MARISA (Mid-Atlantic Research and Integrated Sciences Assessment) to serve as a case study and share best practices for stormwater modeling. DPWES and LDS hired a consultant to model the outcomes of a potential change in stormwater design standards to accommodate changes in precipitation/ shifts in IDF curves.



ACTION 3: Hazard Mitigation Tracking: Resilient Fairfax | IAP.2e: Create a tracking database to record hazard mitigation retrofits and future cost savings and expenditures. Build upon and align with the Hazard Mitigation Plan documentation.

Scheduled to Start (0)

<u>STATUS NOTES</u>: DEMS is scheduled to create such a tracking database in 2024, using PowerApps. They have demonstrated success in creating a similar database for other internal processes.



ACTION 4: Support Updates to LiDAR Data: Resilient Fairfax | IAP.2g: Support regular updates of Fairfax County GIS LiDAR data to facilitate resilience-related GIS analyses.

(~0.5 of Action Done)

<u>STATUS NOTES</u>: All LiDAR data for Fairfax County can be found here: https://lidar-fairfaxcountygis.opendata.arcgis.com/. The IT-GIS department is expecting to receive LiDAR data from the 2022 capture in December 2023.

Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>
Steady Progress 0.5 of 1 of Action Done (50%)	76. Data on Health	6, 3	Continuous	IAP.2h	n/a	n/a
Action Status	Actions					



Steady Progress (~0.5 of Action Done) <u>ACTION 1:</u> <u>Resilient Fairfax | IAP.2h:</u> Collect Climate Change and Vector-Borne Disease Data: Collect data on and map current disease-carrying insect vector populations, and monitoring of vector-borne diseases throughout Fairfax County, considering future conditions on vector populations.

STATUS NOTES: OEEC has been coordinating closely with the Fairfax County Health Department (FCHD) on vector-borne disease data tracking in relation to climate data. FCHD is actively tracking both mosquitos and ticks. OEEC has created graphs of vector-borne disease trends overlaid with heat and precipitation data. OEEC has also connected FCHD with GMU's Virginia Climate Center's researchers, who are also pursuing climate change related vector-borne disease research, for collaborative research and tracking opportunities. OEEC has also successfully connected FCHD with GMU's Virginia Climate Center's researchers, (who are also pursuing climate change related vector-borne disease research) for collaborative research and tracking opportunities.

Roll-up Status	Roll-up							
Early Stages 0.75 of 4 Actions Done (19%) ⁵¹	Roll-up: Climate-Related Ro	esearch						
Strategy Status	Strategy	Groups	Completion	Resilient Fairfax	CECAP IP	<u>OES</u>		
Early Stages 0.75 of 4 Actions Done (19%)	77. Climate-Related Research	6, 3	Continuous	IAP.2b	n/a	n/a		
Action Status	Actions							
Scheduled to Start (0)	ACTION 1: Resilient Fairfax IAP.2b: Support climate-related research and data collection through partnerships with schools () STATUS NOTES: OEEC is collaborating with FCPS Get2Green, the Fairfax Environmental Education Team (FEET), and the broader Interagency Climate Team Group 3 to pursue climate-related science labs and other educational research projects for K-12 schools. ACTION 2: Resilient Fairfax IAP.2b: Support climate-related research and data collection through partnerships with () universities ().							

 $^{^{51}}$ In this instance, there is only one strategy within the "strategy roll-up," so the status bars are the same.

(~0.25 of Action Done)

STATUS NOTES: OEEC is in close coordination with GMU and NVRC and the new Virginia Climate Center, for research and data collection collaboration opportunities. OEEC attended GMU and NVRC's workshop on March 6th and is currently pursuing potential collaboration opportunities relating to the following topics: Urban Heat Islands, vector-borne disease data, Digital Twin modeling, resilience risk modeling, stormwater modeling, and modeling of infrastructure recovery options following natural disasters.

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ACTION 3: Resilient Fairfax | IAP.2b: Support climate-related research and data collection through (...) internship opportunities (...).

Started (~0.25 of Action Done) <u>STATUS NOTES:</u> OEEC hired its first intern from George Mason University in the summer of 2023, to assist with climate-related research and community engagement opportunities.



Started (~0.25 of Action Done) ACTION 4: Resilient Fairfax | IAP.2b: Support climate-related research and data collection through (...) citizens science projects.

<u>STATUS NOTES:</u> OEEC has discussed possible climate-related citizens science projects in coordination with partners such as NVSWCD. NVSWCD and FCPA already provide citizens' science projects that are at least tangentially related to the climate.

Other similar actions are listed here for reference.

OTHER RELATED ACTIONS:

<u>CECAP Implementation Plan | BEE.15</u>: Partner with local educational institutions, such as George Mason University, and neighboring jurisdictions to cultivate and support innovative, incubator or start-up businesses that provide services in the clean energy sector.

Please see Strategy 40 – Workforce Development and Business Start-ups, which can be found in Group 3.

Appendices

Appendix A: Find a Strategy

To implement all three climate plans simultaneously (Resilient Fairfax, Operational Energy Strategy, and CECAP IP), there was a need to "roll up" strategies that were duplicated between plans, and organize strategies from all plans into implementation groups. The tables below show where you can find specific strategies from the original plans. Note: Some actions as originally written in the plans covered multiple topics. For clearer progress tracking, each distinct topic has been separated and placed in its applicable group. For that reason, certain original strategy/ action numbers appear in multiple groups.

Resilient Fairfax Strategies						
	Group 1 – Interagency Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
IAP.1a - Comprehensive Plan		Х				
IAP.1b – Strategic Plan	X					
IAP.1c - Climate Health Plan	X					
IAP.1d – Hazard Mitigation Plans	Х					
IAP.2a – Tracking System						Χ
IAP.2b - Climate Research	<u> </u>	-		-	-	Χ
IAP.2c - Flood-Prone Area Database						Χ
IAP.2d - Rainfall Data						Χ
IAP.2e - Hazard Mitigation Database						Χ
IAP.2f - Tree Canopy Data						Χ
IAP.2g - LiDAR Data						Х
IAP.2h - Vector-Borne Disease Data		-		_	•	Х
IAP.3a – County Climate Fund	Х					
IAP.3b – Federal and State Funding	X					

Resilient Fairfax Strategies	Group 1 –	Group 2 –	Group 3 –	Group 4 –	Group 5 –	Group 6
	Interagency Coordination, Funding, Legislation	Development Codes, Plans, Policies	Community Services, Education, Engagement, Incentives	Natural Resources	Facilities & Operations	- Data
IAP.3c – Funding for Data	X					
IAP.3d – Additional Funding	Χ					
IAP.4a – Interagency Collaboration System	X					
IAP.4b – Staff Capacity	X					
CRC.1a – Adaptation Action Areas	Х					
CRC.1b: Resilience Hubs			X			
CRC.1c: Targeted Tree Plantings	-	-	-	Χ		
CRC.1d: C-PACE			Х			
CRC.2a: Community Aid			X			
CRC.2b: Climate Resilience Education and Guidance			X			
CRC.2c: Resilience Workforce Development			X			
CRC.2d: Heat Warning System			X			
CRC.3a: Flood Risk Reduction Plan	-	Х		-	-	
CRC.3b: Heat-Resilient Design		X				
CRC.3c: Zoning Ordinance and Other County Codes		Х				
CRC.3d: Public Facilities Manual		X				
RIB.1a: Capital Improvement Program Process					Х	
RIB.1b: Flood Resilience of County Facilities					Х	
RIB.1c: Energy Resilience of County Facilities					X	
RIB.1d: Heat Resilience of County Facilities					X	
RIB.1e: Procurement Practices for Resilience					X	
RIB.2a: Partner for Energy Resilience	Χ					
RIB.2b: Resilience in Building Code	Х					
RIB.2c: Partner for Transportation Resilience	X					

Resilient Fairfax Strategies						
	Group 1 – Interagency Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
AE.1a: Consolidated Natural Resources Management Plan	Х					
AE.1b: Survey & Protect Areas				Х		
AE.1c: Conservation Easements	-	-	-	Х		
AE.1d: Climate in Urban Forestry				Х		
AE.2a: Green Infrastructure				Х		
AE.2b: Stream Restoration				Х		
AE.2c: Urban Reforestation				Χ		
AE.2d: Living Shorelines	Х					
AE.2e: Wetlands and Floodplains						
AE.2f: Regenerative Agriculture				Х		

Operational Energy Strategy Focus Areas						
	Group 1 – Interagency Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
Focus Area: Greenhouse Gas Emissions Reduction					X	Х
Focus Area: Energy Use and Efficiency					X	Х
Focus Area: Water Use and Efficiency					X	
Focus Area: Green Buildings	Χ				X	
Focus Area: Renewables					Х	
Focus Area: Fleet Electrification	Х				Х	
Focus Area: Goods and Services					Х	

Operational Energy Strategy Focus Areas						
	Group 1 – Interagency Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
Focus Area: Waste Management and Recycling					X	
Focus Area: Awareness and Engagement	X					
Focus Area: Utility Cost Management					X	
Focus Area: Reporting and Collaboration	X					X

CECAP Implementation Plan Items						
	Group 1 – Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
BEE.1 – Community Outreach & Education			Χ			
BEE.2 – Legislative, Building Codes	X					
BEE.3 – Building Carbon Neutrality		Х	Х			
BEE.4 – Adaptive Reuse of Buildings	-	Х		•	•	-
BEE.5 – Biophilic Design for Buildings		Х	Х	X		
BEE.6 – Green Bank for Energy Efficiency	X					
BEE.7 – C-PACE	X					
BEE.8 – Incentives for Energy Efficiency	X		Х			
BEE.9 – ESCOs and EaaS			Х		Х	
BEE.10 – Utility Programs for Energy Efficiency			Х			
BEE.11 – Energy Audit & Assessment			Х			
BEE.12 – Building Commissioning			Х			
BEE.13 – Demand Management			Х			
BEE.14 – Business Partnerships			Х			

CECAP Implementation Plan Items						
	Group 1 – Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
BEE.15 – Business Incubators			X			
BEE.16 – Climate Champions			Χ			
BEE.17 – Community-led Pilot Programs			X			
BEE.18 – Workforce development for Energy	-	-	Х		-	•
BEE.19 – Code Training Academy	Х					
BEE.20 – County Facilities					X	
BEE.21 – Streetlight conversion					X	
BEE.22 – HFCs and refrigerants					X	
BEE.23 – Legislative – Energy Codes	X					
BEE.24 – State & Utility Programs	Х					
BEE.25 – Evaluate Progress						Х
ES.1 – Community Outreach and Education			Х			
ES.2 – Accelerated grid transformation	Х		Χ			
ES.3 – Retail and wholesale renewables	-	-	-	-	Х	
ES.4 – Group renewable purchases			Х			
ES.5 – Legislative authority for solar	Х		-			
ES.6 – RECs for renewables			Х			
ES.7 – Green Bank	X					
ES.8 – C-PACE			Х			
ES.9 – Legislative – Battery Storage	X				-	-
ES.10 – Federal tax credits for solar			Х			
ES.11 – Solar fee and tax waivers			X			
ES.12 – Climate Champions			Х			
ES.13 – Community-led Pilot Programs			X			
ES.14 – OES goals for renewables					X	

CECAP Implementation Plan Items						
	Group 1 – Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
ES.15 – Resource-recovered gas					Х	
ES.16 – Legislative – energy production	X					
ES.17 – Legislative – RGGI	X					
ES.18 – Solar PV on brownfields					Х	
ES.19 – Evaluate Progress						Х
T.1 – Community outreach on transportation			Х			
T.2 – EV charging at HOAs			X			
T.3 – EV permitting		Х	Х			
T.4 – Land Development ordinances	·	Х				
T.5 – Equity in EV parking design		X				
T.6 – Clean car standards	Х					
T.7 – EVs in county fleet					X	
T.8 – Electric medium & heavy-duty vehicles					Х	
T.9 – Electric buses					Х	
T.10 – EV Supply Equipment	·	-	-	-	Х	
T.11 – Green Bank for EVs	Х					
T.12 – Grant funding for EVs	Х					
T.13 – Legislative for Transportation	Х					
T.14 – Public transit collaboration	Х				•	•
T.15 – Reduced or no fare programs			Х			
T.16 – Active transportation infrastructure	<u> </u>	Х				-
T.17 – Bike racks and bike sharing areas		X	Х			
T.18 – Development Codes for EVs		Х				
T.19 – Protect native trees in transportation		X				
T.20 – Community-led pilot programs			Х			

CECAP Implementation Plan Items						
	Group 1 – Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
T.21 – Climate Champions			X			
T.22 – Evaluate progress						X
W.1 – Reduction, Reuse, Recycling, Composting					X	
W.2 – Outreach and education on 5 Rs	-	•	X		-	•
W.3 – Outreach and education			X			
W.4 – Composting programs					X	
W.5 – Community Zero Waste					X	
W.6 – Waste to Energy Data						Х
W.7 – Improve curbside pick-up					X	
W.8 – Electric trash trucks					X	
W.9 – Waste contracts best practices					X	
W.10 – Recycling violations					X	
W.11 – Wastewater reuse and glass recycling					X	
W.12 – Concrete recycling	-	·	-	-	Х	
W.13 – Evaluate pay as you throw					Х	
W.14 – Zero Waste for Government	-		-	-	Х	
W.15 – OES targets for waste					X	
W.16 – Community-led pilot programs			Х			
W.17 – Climate Champions			Х			
W.18 – Evaluate progress				-		Х
W.19 – Legislative for waste authority	Х					
NR.1 – Outreach and education on natural resources			X	Х		
NR.2 – Outreach and education			Х			
NR.3 – Tree planting events				Х		
NR.4 – Planting with HOAs and nonprofits				Х		

CECAP Implementation Plan Items						
	Group 1 – Coordination, Funding, Legislation	Group 2 – Development Codes, Plans, Policies	Group 3 – Community Services, Education, Engagement, Incentives	Group 4 – Natural Resources	Group 5 – Facilities & Operations	Group 6 - Data
NR.5 – Natural resource policy		Х		X		
NR.6 – Green space competitions				X		
NR.7 – Tracking tree canopy changes				X		X
NR.8 – Green infrastructure in development		X		X		
NR.9 – Monitor progress						Х
NR.10 – Development Code updates		X				
NR.11 – Climate champions			Х			
NR.12 – Community-led pilot programs			Χ			
NR.13 – Evaluate progress		-	-			Х
NR.14- Legislative for green spaces and trees	X					

Appendix B: Spreadsheet Version of Progress Tracker (Groups, Roll-ups, Strategies, Actions)

(Please see attached)

APPENDIX B:	Interag	ency Climate Team - Progress Tracker - Excel Ver	rsion						_		
Groups	Level	Topics	Completion	Resilient Fairfax Strategy #s	CECAP IP Strategy #	<u>OES</u>	# IAs	# IAs compl te	le % IAs complete	Status	Status Bar
Group 1	Roll-up	Interagency, Regional Coordination & Capacity Building	Every year	IAP.1d, IAP.4a, IAP.4b, RIB.2a, RIB.2c	BEE.19, T.14	A&E, R&C	28	17.	5 63%	Steady Progress	
Group 1	Strategy	Interagency Collaboration System for Resilience	Every year	IAP.4a	n/a	n/a	5	4.2	5 85%	Significant Progress	
Group 1	Action	ACTION 1: Resilient Fairfax IAP.4a Identify county departments who should be involved in climate resilience collaboration long-term, led by OEEC. Designate a climate champion within each department.	2023	IAP.4a	n/a	n/a	1		1 100%	6 Complete	
Group 1	Action	ACTION 2: Resilient Fairfax IAP.4a Identify non-county infrastructure management and resilience-related entities who should continue to be involved in the county's climate resilience implementation collaboration and data sharing long term.	2023	IAP.4a	n/a	n/a	1		1 100%	6 Complete	
Group 1	Action	ACTION 3: Resilient Fairfax IAP.4a Create a clear and user-friendly system for long-term collaboration. This system could include periodic Resilience Work Group meetings, information sharing protocols, a schedule for updates, or other options.	2023	IAP.4a	n/a	n/a	1			6 Complete	
Group 1	Action	ACTION 4: Resilient Fairfax IAP.4a Establish a process for clear coordination of interagency resilience projects, policy and plan updates, resilience-related grant opportunities (IAP.3b), and capacity building. This process should include different "levels" of engagement, including more regular collaboration between agencies that are particularly imperative to the community's climate	2024	IAP.4a	n/a	n/a		0.7		6 Significant Progress	
Group 1	Action	ACTION 5: Resilient Fairfax IAP.4a Conduct yearly evaluations of the collaboration system and adjust as needed to improve coordination efforts.	2024	IAP.4a	n/a	n/a	1	0.	.5 50%	6 Steady Progress	
Group 1	Strategy	2. Strategic Plan Updates for Climate Resilience		IAP.1b	n/a	n/a	1		0 0%	Not Started	
Group 1	Action	ACTION 1: Resilient Fairfax IAP.1b Pursue potential additions to the countywide Strategic Plan to enhance climate resilience during the anticipated regular update cycle.		IAP.1b	n/a	n/a	1		0 0%	6 Not Started	
Group 1	Strategy	3. Climate Health Plan		IAP.1c	n/a	n/a	1	0.2	5 25%	Started	
Group 1	Action	ACTION 1: Resilient Fairfax IAP.1c Complete the Climate Health Plan, including considerations for resident and worker safety in extreme climate conditions such as extreme heat.		IAP.1c	n/a	n/a	1	0.2	25 25%	6 Started	
Group 1	Strategy	4. Alignment of Hazard Mitigation & Climate Plans		IAP.1d	n/a	n/a	1			Significant Progress	
Group 1	Action	ACTION 1: Resilient Fairfax IAP.1d Continue coordination between OEEC and DEMS to ensure alignment between hazard mitigation/emergency management plan updates and climate resilience plan updates.		IAP.1d	n/a	n/a	1	0.7	75 75%	6 Significant Progress	
Group 1	Strategy	5. Interagency Collaboration on Emissions and Waste Reduction	Every year	n/a	n/a	A&E	4	3.2	5 81%	Significant Progress	
Group 1	Action	ACTION 1 : OES Awareness and Engagement: Torget: Hold at least four employee events per year.		n/a	n/a	A&E	1			6 Complete	
Group 1	Action	ACTION 2: OES Awareness and Engagement: Plan events and special initiatives, such as Earth Day Fairs, the FEEE Litter Challenge and the employee Compost Program.		n/a	n/a	A&E	1			6 Complete	
Group 1	Action	ACTION 3: OES Awareness and Engagement: Publicize efficiency, conservation, and sustainability actions in the workplace. Provide content on a regular basis to communications channels like NewsLink, newsletters, and the FEEE FairfaxNet blog available to employees.		n/a	n/a	A&E	1			6 Complete	
Group 1	Action	ACTION 4: OES Awareness and Engagement: Designate champions within departments or facilities who will foster communication and encourage efficiency and conservation.		n/a	n/a	A&E	1			6 Started	
Group 1	Strategy	6. Regional Transportation Coordination for Emissions Reduction	Every year	n/a	T.14	n/a	1			Significant Progress	

Group 1	Action	ACTION 1: CECAP Implementation Plan T.14: Work with state and regional partners to invest in public transit improvements to increase access through the expansion of current and creation of new public transit routes.								
		new public durist routes.		n/a	T.14	n/a	1	0.75	75% Significant Progress	
Group 1	Strategy	7. Regional Transportation Coordination for Resilience	Every year	RIB.2c	n/a	n/a	1	0.5	50% Steady Progress	
Group 1	Action	ACTION 1: Resilient Fairfax RIB.2c: Advocate and Partner with Transportation Agencies to Support Transportation Resilience: Support transportation infrastructure managers such as WMATA, VDOT, FCDOT and others to advocate for climate adaptive measures for transportation infrastructure, including roadways and public transit. Resilience measures may include flood mitigation upgrades,		Rib.2c	n/a	n/a	1	0.5	50% Steady Progress	
Group 1	Strategy	8. Regional Energy & Water Coordination	Every year	RIB.2a	n/a	R&C	6	3.5	58% Steady Progress	
Group 1	Action	ACTION 1: Operational Energy Strategy Reporting and Collaboration Page 17: Continue to seek opportunities to collaborate regionally on energy and water challenges and to promote resulting achievements.		n/a	n/a	R&C	1	1	100% Complete	
Group 1	Action	ACTION 2: Operational Energy Strategy Reporting and Collaboration Page 17: Participate in regional task forces.		n/a	n/a	R&C	1	1	100% Complete	
Group 1	Action	ACTION 3: Resilient Fairfax RIB.2a: Continue coordination with the State Corporation Commission to support statewide and regional efforts to improve energy resilience through distributed energy resources, undergrounding, improved grid reliability, and islanding capabilities while maintaining		Rib.2a		n/o				
Group 1	Action	energy affordability. ACTION 4: Resilient Fairfax RIB.2a: Continue coordination with energy utilities, including Dominion Energy, NOVEC, Washington Gas, and Columbia Gas, to support consideration of climate hazards in new and/or upgraded energy infrastructure, and to advocate for continued energy			n/a	n/a	1	0.5	50% Steady Progress	
Group 1	Action	resilience enhancements. Where applicable, advocate for strategies such as undergrounding and ACTION 5: Resilient Fairfax RIB.2a: Identify opportunities for implementation of distributed energy resources, such as renewables (i.e.solar), back-up power, and energy storage. Identify priority locations for siting distributed energy resources, with consideration for vulnerable		Rib.2a	n/a	n/a	1	0.75	75% Significant Progress	
Group 1	Action	populations, community-serving facilities, emergency operation centers, and other critical facilities. ACTION 6: Resilient Fairfax RIB.2a: Evaluate options for development of an Energy Assurance Plan, either at the county or state level, to enhance preparedness for climate hazard events and improve energy resilience.		Rib.2a	n/a	n/a	1	0.25	25% Started	_
		0.01 (17.11)		Rib.2a	n/a	n/a	1	0	0% Not Started	
Group 1	Strategy	9. Staff Training on Resilience	Every year	IAP.4b	n/a	n/a	1	0.5	50% Steady Progress	
Group 1 Group 1	Strategy Action	9. Staff Training on Resilience ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects.	Every year	IAP.4b	n/a	n/a	1		, ,	
		ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to	Every year	•			1 7	0.5	50% Steady Progress	
Group 1	Action	ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects.		IAP.4b	n/a	n/a A&E, R&C	7	3.75	50% Steady Progress 54% Steady Progress	
Group 1	Action	ACTION 1: Resilient Fairfax IAP. 4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects. 10. Staff Training on Emissions Reduction, Efficiency, Waste ACTION 1: CECAP Implementation Plan BEE.19: Code Training Academy: Continue to support Code Training Academy and other training opportunities to ensure staff are up to date on new and		n/a	n/a BEE.19 BEE.19	n/a	1	0.5	50% Steady Progress 54% Steady Progress 100% Complete	
Group 1 Group 1 Group 1	Action Strategy Action	ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects. 10. Staff Training on Emissions Reduction, Efficiency, Waste ACTION 1: CECAP Implementation Plan BEE.19: Code Training Academy: Continue to support Code Training Academy and other training opportunities to ensure staff are up to date on new and upcoming technologies and code compliance pertaining to energy efficiency. ACTION 2: OES Awareness and Engagement, 3: Educate staff responsible for purchasing decisions		n/a n/a	n/a BEE.19 BEE.19	n/a A&E, R&C	1	0.5 3.75 1	50% Steady Progress 54% Steady Progress 100% Complete 25% Started	
Group 1 Group 1 Group 1 Group 1	Action Strategy Action Action	ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects. 10. Staff Training on Emissions Reduction, Efficiency, Waste ACTION 1: CECAP Implementation Plan BEE.19: Code Training Academy: Continue to support Code Training Academy and other training opportunities to ensure staff are up to date on new and upcoming technologies and code compliance pertaining to energy efficiency. ACTION 2: OES Awareness and Engagement, 3: Educate staff responsible for purchasing decisions on the benefits of energy- and water-efficient goods and services. ACTION 3: OES Awareness and Engagement, 4: Sponsor lunch-and-learns on a range of efficiency		n/a	n/a BEE.19 BEE.19	n/a A&E, R&C n/a A&E	1	0.5	50% Steady Progress 54% Steady Progress 100% Complete	
Group 1 Group 1 Group 1 Group 1 Group 1	Action Strategy Action Action	ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects. 10. Staff Training on Emissions Reduction, Efficiency, Waste ACTION 1: CECAP Implementation Plan BEE.19: Code Training Academy: Continue to support Code Training Academy and other training opportunities to ensure staff are up to date on new and upcoming technologies and code compliance pertaining to energy efficiency. ACTION 2: OES Awareness and Engagement, 3: Educate staff responsible for purchasing decisions on the benefits of energy- and water-efficient goods and services. ACTION 3: OES Awareness and Engagement, 4: Sponsor lunch-and-learns on a range of efficiency and conservation topics to enhance employee awareness and to encourage action. ACTION 4: OES Awareness and Engagement, 5: Establish reward and recognition programs to		n/a n/a	n/a BEE.19 BEE.19	n/a A&E, R&C n/a A&E	1	0.5 3.75 1	50% Steady Progress 54% Steady Progress 100% Complete 25% Started	
Group 1 Group 1 Group 1 Group 1 Group 1 Group 1	Action Strategy Action Action Action	ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects. 10. Staff Training on Emissions Reduction, Efficiency, Waste ACTION 1: CECAP Implementation Plan BEE.19: Code Training Academy: Continue to support Code Training Academy and other training opportunities to ensure staff are up to date on new and upcoming technologies and code compliance pertaining to energy efficiency. ACTION 2: OES Awareness and Engagement, 3: Educate staff responsible for purchasing decisions on the benefits of energy- and water-efficient goods and services. ACTION 3: OES Awareness and Engagement, 4: Sponsor lunch-and-learns on a range of efficiency and conservation topics to enhance employee awareness and to encourage action. ACTION 4: OES Awareness and Engagement, 5: Establish reward and recognition programs to motivate behavior change.		n/a n/a n/a	n/a BEE.19 BEE.19 n/a n/a	n/a A&E, R&C n/a A&E A&E	1	0.5 3.75 1 0.25	50% Steady Progress 54% Steady Progress 100% Complete 25% Started	
Group 1	Action Strategy Action Action Action Action Action	ACTION 1: Resilient Fairfax IAP.4b: Provide climate resilience and equity trainings as well as climate-oriented continuity of operations assistance to county staff, customized for relevance to their work. Consider staffing needs for implementation of resilience projects. 10. Staff Training on Emissions Reduction, Efficiency, Waste ACTION 1: CECAP Implementation Plan BEE.19: Code Training Academy: Continue to support Code Training Academy and other training opportunities to ensure staff are up to date on new and upcoming technologies and code compliance pertaining to energy efficiency. ACTION 2: OES Awareness and Engagement, 3: Educate staff responsible for purchasing decisions on the benefits of energy- and water-efficient goods and services. ACTION 3: OES Awareness and Engagement, 4: Sponsor lunch-and-learns on a range of efficiency and conservation topics to enhance employee awareness and to encourage action. ACTION 4: OES Awareness and Engagement, 5: Establish reward and recognition programs to motivate behavior change. ACTION 5: OES Awareness and Engagement, 7: Increase employee awareness of opportunities for source reduction, reuse, and recycling.		n/a n/a n/a n/a	n/a BEE.19 BEE.19 n/a n/a	n/a A&E, R&C n/a A&E A&E A&E	1 1 1 1 1	0.5 3.75 1 0.25	50% Steady Progress 54% Steady Progress 100% Complete 25% Started 25% Started	

Group 1	Roll-up	Federal, State, County, and Other Funding Opportunities	Every year	IAP.3a, IAP.3b, IAP.3c, IAP.3d	BEE.6, BEE.8, ES.2, ES.7, T.11, T.12	FE	15	5.75	38%	Started	
Group 1	Strategy	11. County Climate Fund for Resilience		IAP.3a	n/a	n/a	5			Started	
Group 1	Action	ACTION 1: Resilient Fairfox IAP.3a: Receive authorization to pursue development of a Climate Fund.		IAP.3a	n/a	n/a		0.5	500	Out to December 1	
Group 1	Action	ACTION 2: Resilient Fairfax IAP.3a: Conduct research on Climate Fund practices, structures, mechanisms, legal considerations, and other factors, for applicability to Fairfax County. Explore options for development of a county Climate Fund for county investment in climate adaptation and mitigation projects, with priority consideration for more vulnerable communities.			ii/a	IVa	1	0.5	50%	5 Steady Progress	
Group 1	Action	ACTION 3: Resilient Fairfax IAP.3a: Identify and compile list of potential grant funding opportunities for which the Climate Fund could provide a local match. This action item should be coordinated with Strategy IAP.3b.		IAP.3a	n/a	n/a	1	0.5	50%	5 Steady Progress	
Group 1	Action	ACTION 4: Resilient Fairfax IAP.3a: In coordination with the development of AAAs (Strategy CRC.1b) updates to the county CIP process (RIB.1a), and flood risk reduction planning (CRC.3a), identify project needs and level of funding required for project implementation. Projects nominated for Climate Fund investment may be larger in scope than those funded through the Environmental		IAP.3a	n/a	n/a	1	0.25	25%	s Started	
Group 1	Action	Improvement Program (EIP). ACTION 5: Resilient Fairfax IAP.3a: Establish ranking criteria that will guide prioritization and selection of resilience projects to be funded through the Climate Fund. Criteria should consider factors including but not limited to: vulnerable populations, risk of climate hazard, scale of funding		IAP.3a	n/a	n/a	1	0	0%	6 Not Started	
		needed, and available grant funds		IAP.3a	n/a	n/a	1	0	0%	Not Started	
Group 1	Strategy	12. Green Bank for Emissions Reduction		n/a	BEE.6, BEE.8, ES.2, ES.7, T.11	n/a	2	0.5	25%	Started	
Group 1	Action	ACTION 1: (ESTABLISHMENT OF GREEN BANK) CECAP Implementation Plan BEE.6, ES.7, T.11: Establish and support a clean-energy financing entity (i.e. Green Bank) to increase access to financial capital for adoption of energy efficiency, renewable energy, and electrification technologies by residents and businesses (), for adoption of EVs, EVSE, and other low- and zero-		n/a	BEE.6, ES.7, T.11	n/a	1	0.5		5 Steady Progress	
Group 1	Action	ACTION 2: (USE OF GREEN BANK): CECAP Implementation Plan BEE.8, ES.2: () Staff will continually monitor and research appropriate places to introduce incentive programs to enhance the construction and renovation of high-efficiency buildings and work to connect building owners, organizations, or associations with existing () or new (Fairfax Green Bank) incentive programs		n/a	BEE.8, ES.2	n/a	1	0	0%	Not Started	
Group 1	Strategy	13. Federal and State Funding		IAP.3b	ES.2, T.12	FE	6	4	67%	Steady Progress	
Group 1	Action	ACTION 1: Resilient Fairfox IAP.3b,: Create an updated and consolidated database of all climate resilience-related federal and state funding opportunities, shared with all relevant departments. Example funding opportunities may include but are not limited to: Community Development Block Grant Programs (CDBG), Community Flood Preparedness Fund Grant Program (CPFF), the Flood Mitigation Assistance (FMA) Grant Program, Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Assistance (HMA), Infrastructure Investment and Jobs Act, American Rescue Plan, National Coastal Resilience Fund (NCRF), National Coastal Wetlands Conservation Grant, Safeguarding Tomorrow Through Ongoing Risk Mitigation (STORM) grants, and Virginia Coastal Zone Management Program, among others.									
Group 1	Action	ACTION 2: Resilient Foirfax IAP.3b: Establish a process for coordinated tracking and prioritization of resilience-related grant opportunities, proposals submitted, funding awarded, and projects conducted. The process should include clear identification of lead and support agencies for each grant and/or funding opportunity. The lead department for each grant will be determined based on topic. For example, DPWES will lead stormwater related grants, and FCHD will lead health-related grants. The process should identify "best fit" grant opportunities that both align with county priorities and likelihood of success.		IAP.3b	n/a	n/a	1	1	100%	6 Complete	
Group 1	Action	ACTION 3: Resilient Fairfax IAP.3b: Assess and identify need for dedicated staff to support grant tracking, proposals, and active grant management.		IAP.3b	n/a	n/a	1	0.75	75%	Significant Progress	
Group 1	Action	ACTION 4: Resilient Fairfax IAP.3b, Action 4: Apply for available and appropriate federal and state funding opportunities for resilience.		IAP.3b	n/a	n/a	1	0.75	75%	Significant Progress	
				IAP.3b	n/a	n/a	1	0.5	50%	Steady Progress	

Group 1	Action	ACTION 5: CECAP Implementation Plan ES.2 (Federal Funding for Electric Grid): Support accelerated electric grid transformation beyond the renewable energy requirements set forth in the VCEA. () The county will pursue funding opportunities provided by the Inflation Reduction Act ().		n/a	ES.2	n/a	1	0.25	25% Started	
Group 1	Action	ACTION 6: CECAP Implementation Plan T.12; Operational Energy Strategy Fleet Electrification: Apply for grant funding for county fleet vehicles when possible. Explore and take advantage of available grant funding opportunities to lower the cost of EV purchases and the purchase and installation of EV supply equipment (EVSE), along with other alternative transportation initiatives.			Т.12	FE	-	0.20	20% stantod	
				n/a			1	0.75	75% Significant Progress	
Group 1	Strategy	14. Other Funding		IAP.3c, IAP.3d	n/a	n/a	2	0	0% Not Started	
Group 1	Action	ACTION 1: Resilient Fairfax IAP.3c: Identify funding to support long-term data collection, analysis, and management.	•	440.0	-6					
Group 1	Action	ACTION 2: Resilient Fairfax IAP.3d: Identify additional funding opportunities including regional coordination, public-private partnerships, and cost-share programs to support resilience.		IAP.3c	n/a	n/a	1	0	0% Not Started	
				IAP.3d	n/a	n/a	1	0	0% Not Started	
Group 1	Roll-up	Adaptation Action Area Implementation	~2024	CRC.1a	n/a	n/a	4	1	25% Started	
Group 1	Strategy	15. Develop Adaptation Action Areas Where Resilience Action is Prioritized		CRC.1a	n/a	n/a	4	1	25% Started	
Group 1	Action	ACTION 1: Resilient Fairfax CRC.1a: Identify and map potential AAAs based on climate risk and the One Fairfax Vulnerability Index. AAA considerations could include but are not limited to: flood-prone areas, Urban Heat Islands, population vulnerability, and low adaptive capacity.		CRC.1a	n/a	n/a	1	0.75	75% Significant Progress	
Group 1	Action	ACTION 2: Resilient Fairfax CRC.1a: Draft options for the incorporation of AAAs. Options could include but are not limited to: using AAAs during the Capital Improvement Program process to prioritize implementation of resilience projects, using AAAs to prioritize funding of Resilient Fairfax implementation, and to prioritize resilience aid and/or incentives, among others.		CRC.1a	n/a	n/a	1	0.25	25% Started	
Group 1	Action	ACTION 3: Resilient Fairfax CRC.1a: Present options for incorporation of AAAs for BOS approval and receive authorization to incorporate AAAs.			n/a	n/a				
Group 1	Action	ACTION 4: Resilient Fairfax CRC.1a: Prioritize implementation and engagement in AAAs. Consider piloting resilience approaches in AAAs that can be scaled up community-wide.		CRC.1a	n/a	n/a	1	0	0% Not Started 0% Not Started	
Group 1	Roll-up	Legislative Proposals and Advocacy		RIB.2b	BEE.2, BEE.23, BEE.24, ES.5, ES.9, ES.16, ES.17, NR.14, T.6, T.13, W.19	GB	12	3	25% Started	
Group 1	Strategy	16. State-level Actions for the Building Code		RIB.2b	BEE.2, BEE.23, ES.9	GB		1.25	31% Started	
Group 1	Action	ACTION 1: (RESILIENCE UPDATES): Resilient Fairfax RIB.2b: Continue advocating for updates to the Virginia Statewide Building Code to enhance resilience to climate hazards for new buildings.		DID OF	n/a	n/a		0.05	050/ 00-4-4	
Group 1	Action	ACTION 2: (ENERGY EFFICENCY UPDATES): Operational Energy Strategy Green Buildings, Action 7: Advocate for strengthened Virginia energy and building code requirements. CECAP Implementation Plan BEE.2: The county (through LDS), as well as FACS and the Sierra Club, will continue their efforts to work with the VA Dept of Housing and Community Development (DHCD) and its Board (BHCD) to obtain their endorsement of the IEEC for statewide adoption, which is required prior to the Governor's approval. The county will continue its outreach to partners in the building industry for support of IEEC. These include the Northern VA Building Industry Association (NVBIA), the Home Builders Association of Virginia (HBAV), the Virginia Association of Counties (VACo), and the VA Building and Code Officials Association (VBCOA). ().		RIB.2b	BEE.2	GB	1		25% Started	
Group 1	Action	ACTION 3: (AUTHORITY UPDATES) CECAP Implementation Plan BEE.23: Consider, and, where appropriate, develop and advance legislative proposals to provide Fairfax County with greater authority over building construction, renovations, and operations, particularly regarding energy codes, energy performance standards, and energy use benchmarking and disclosure requirements.		n/a	BEE.23		1	0.5	50% Steady Progress	
				n/a		n/a	1	0.5	50% Steady Progress	

Group 1	I	ACTION 4: (BATTERY STORAGE UPDATES): CECAP Implementation Plan ES.9: Support and									
Group I	Action	facilitate the safe adoption of batteries for energy storage for public and private use, which may include amending building codes to accommodate battery storage.			ES.9						
		include unierality building codes to accommodate buttery storage.		n/a		n/a	1	0	09	% Not Started	
Group 1	Strategy	17. State-level Actions for Solar, Renewables, and Energy Efficiency		n/a	BEE.24, ES.5, ES.16, ES.17	n/a	4	0.75	19%	√ Early Stages	
Group 1		ACTION 1: CECAP Implementation Plan BEE.24 : Support the use and expansion of state and									
	Action	utility-sponsored programs to implement energy efficiency and conservation projects and improvements, including but not limited to those applicable or available as a result of the Grid			BEE.24						
		Transformation and Security Act of 2018 and the Virginia Clean Economy Act.		n/a		n/a	1	0.25	259	% Started	
Group 1		ACTION 2: CECAP Implementation Plan ES.5: Promote the development of community solar									
	Action	projects by revising policies and regulations where necessary or providing financial incentives where appropriate.			ES.5						
				n/a		n/a	1	0	09	% Not Started	
Group 1		ACTION 3: CECAP Implementation Plan ES.16: Consider and, where appropriate, develop and advance legislative proposals to provide Fairfax County with greater authority with respect to on-									
	Action	site renewable energy production, such as greater flexibility regarding community solar programs		n/a	ES.16	n/a	1	0.25	250	% Started	
Croup 1		and the authority to incentivize renewable energy generation and battery storage projects. ACTION 4: CECAP Implementation Plan ES.17: Support the use and expansion of state and utility-		II/a		II/a	1	0.25	25	% Started	
Group 1	Action	$sponsored\ programs\ to\ increase\ the\ amount\ of\ renewable\ energy\ in\ the\ electric\ grid,\ including\ but$			ES.17						
		not limited to those applicable or available as a result of the Regional Greenhouse Gas Initiative (RGGI).		n/a		n/a	1	0.25	25	% Started	
Group 1	Strategy	18. State-level Actions for Natural Resources			NR.14	n/a					
		ACTION 1: CECAP Implementation Plan NR.14: Consider, and where appropriate, develop and		n/a		.,, =	1	0.5	50%	6 Steady Progress	
Group 1	Action	advance legislative proposals to provide Fairfax County with greater authority to protect green			NR.14	n/a					
	Action	spaces and trees		n/a	741.14	11/4	1	0.5	509	% Steady Progress	
Group 1	Charles	19. State-level Actions for Transportation			T.C. T.12	- /-					
	Strategy			n/a	T.6, T.13	n/a	2	0.5	259	% Started	
Group 1		ACTION 1: CECAP Implementation Plan T.6 : Continue to support Clean Car standards and to pursue opportunities for better fuel economy									
	Action	, , , , , , , , , , , , , , , , , , , ,		(-	т.6	n/a		0.05	05/	ov overed	
Group 1		ACTION 2: CECAP Implementation Plan T.13: Legislation for vehicle electrification incentives:		n/a	1.6	n/a	1	0.25	25	% Started	
Group I	Action	Consider, and where appropriate, develop and advance legislative proposals to provide Fairfax									
		County with greater authority to address transportation and vehicle electrification matters, including the authority to establish incentives or requirements regarding EV adoption		n/a	T.13	n/a	1	0.25	25	% Started	
Group 1	Strategy	20. State-level Actions for Waste			W.19	n/a					
		CECAP Implementation Plan W.19: Consider and, where appropriate, develop and advance		n/a			1	0	0%	Not Started	
Group 1	Action	legislative proposals to provide Fairfax County with greater authority to address waste matters,									
	Action	such as more extensive oversight of private haulers, the authority to establish recycling incentives or requirements, and the authority to regulate or ban single-use plastics and other items that		n/a	W.19	n/a	1	0	09	% Not Started	
Group 2		Flood Risk Reduction									
	Roll-up		Every year	CRC.3a	n/a	n/a					
							6	2.5	429	6 Started	
Group 2	Strategy	21. Flood Risk Reduction Plan		CRC.3a	n/a	n/a					
		ACTION 4. Parilling Springer CDC 2. Asting 4. Initiate plan Complete any last initiation Apple					6	2.5	429	% Started	
Group 2	Action	ACTION 1: Resilient Fairfax CRC.3a, Action 1: Initiate plan. Complete project initiation tasks, including establishment of: an interagency workgroup, flood risk reduction approach, community		CRC.3a							
	Action	engagement and equity approach, benchmarking against other jurisdictions, and draft levels of service.		Chc.3u	n/a	n/a	1	0.75	759	% Significant Progress	
Group 2		ACTION 2: Resilient Fairfax CRC.3a, Action 2: Complete detailed analysis on existing and future					_				
Cioup =	Action	flooding levels. Quantify and categorize existing and future flooding issues in the county. For future flooding, utilize the latest accepted climate projections.		CRC.3a							
					n/a	n/a	1	0.5	509	% Steady Progress	
Group 2		ACTION 3: Resilient Fairfax CRC.3a, Action 3: Complete detailed analysis on existing flood-related policies, standards, and processes, building upon work completed through the Resilient Fairfax									
	Action	Audit and update regularly. Consider a lens of future climate projections.		CRC.3a	n/a	n/a		0.05	05/	14 Started	
Croup 2		ACTION 4: Resilient Fairfax CRC.3a, Action 4: Draft flood risk reduction recommendations,			II/a	II/a	1	0.25	25	% Started	
Group 2	Action	including potential updates to county polices, design standards and guidelines, ordinances,		CRC.3a							
		processes, and capital projects (see Strategy CRC.3c).			n/a	n/a	1	0	09	% Not Started	
Group 2		ACTION 5: Resilient Fairfax CRC.3a, Action 5: Identify and prioritize capital projects for flood									
	Action	alleviation. The identification of areas in need of flood alleviation capital projects may be facilitated through the Adaptation Action Area process (see Strategy CRC.1a). The prioritization of capital		CRC.3a							
		projects may be facilitated through a revised Capital Improvement Program (CIP) process (See			n/a	n/a	1	0.5	509	% Steady Progress	

Group 2	Action	ACTION 6: Resilient Fairfax CRC.3a, Action 6: If applicable and approved by the BOS, implement approved updates.		CRC.3a	n/a	n/a	1	0.5	50% Steady Progress	
Group 2	Roll-up	Comprehensive Plan Amendments for Climate	~2026	IAP.1a,	BEE.3, NR.5, NR.10, T.4, T.16, T.18, T.19	n/a	13	3.75	29% Started	
Group 2	Strategy	22. Comprehensive Plan Amendments for Resilience		IAP.1a	n/a	n/a	3	0.5	17% Early Stages	
Group 2	Action	ACTION 1: Resilient Fairfax IAP.1a DPD, in coordination with OEEC and other partner agencies, will develop specific draft recommendations for amended or added text in the Environment Element of the Policy Plan to enhance the county's climate resiliency. In drafting these recommendations, DPD will seek input from advisory groups, Boards, Authorities, and Commissions		IAP.1a	n/a	n/a	1	0.25	25% Started	
Group 2	Action	ACTION 2: Resilient Fairfax IAP.1a As authorized by the Board, staff will develop amendments to the Comprehensive Plan. OEEC will lead outreach efforts associated with any (climate-related) Comprehensive Plan amendments and will assist with technical climate resilience-related details.		IAP.1a	n/a	n/a	1	0.25	25% Started	
Group 2	Action	DPD will lead the Comprehensive Plan amendment processes. ACTION 3: Resilient Fairfax IAP.1a: DPD, in coordination with partner agencies, will identify specific sections that may have subsequent amendments to enhance the county's climate resilience. The future phased identification will expand upon the work completed through the Resilient Fairfax Audit process. Sections "relevant to climate resilience" may include but are not		IAP.1a	n/a	n/a	1	0.25	0% Not Started	
Group 2	Strategy	23. Comprehensive Plan Amendments for Green Buildings and Energy Efficiency		n/a	BEE.3, NR.10,	n/a	2	0.75	38% Started	
Group 2	Action	ACTION 1: CECAP Implementation Plan BEE.3: Build and retrofit privately-owned buildings to high- efficiency performance standards and strive for carbon-neutrality and net zero emissions.		n/a	BEE.3	n/a	1	0.5	50% Steady Progress	
Group 2	Action	ACTION 2: CECAP Implementation Plan NR.10, : Update the Comprehensive Plan () in regard to energy efficiency/green buildings, () to be in alignment with CECAP and RF climate goals.		n/a	NR.10	n/a	1	0.25	25% Started	
Group 2	Strategy	24. Comprehensive Plan Amendments for Natural Resources		n/a	NR.5, NR.10	n/a	4	1.25	31% Started	
Group 2	Action	ACTION 1: CECAP Implementation Plan NR.5: (Please see Group 4- Consolidated Natural Resource Management Plan for related actions). Create a cross-disciplinary policy evaluation county staff team to analyze existing programs and policies regarding natural resources and climate change to create a comprehensive climate approach.		n/a	NR.5	n/a	1	0.75	75% Significant Progress	
Group 2	Action	ACTION 2: CECAP Implementation Plan NR.5 Please see Group 4- Consolidated Natural Resource Management Plan for related actions).: () As part of this recommendation, specific policies for tree canopy and site development will be evaluated, in addition to other natural resources-related policies. The specific policies noted for review include such Items as the Comprehensive Plan ().		n/a	NR.5	n/a	1	0.25	25% Started	
Group 2	Action	ACTION 3: CECAP Implementation Plan NR.10, Update the Comprehensive Plan () in regard to sustainable development and land use, and natural resources, to be in alignment with EECAP and RF climate goals. Staff will review existing Comprehensive Plan policiesin these areas: () sustainable development and land use, natural resources, including trees, streams, green spaces,		n/a	NR.10	n/a	1	0.25	25% Started	
Group 2	Action	ACTION 4: CECAP Implementation Plan NR.10, Once this review is completed, if there are areas where the policies can be strengthened or improved or where climate change can be integrated, staff will seek Board authorization to update the policies.		n/a	NR.10	n/a	1	0	0% Not Started	
Group 2	Strategy	25. Comprehensive Plan Amendments for Transportation		n/a	NR.10, T.4, T.16, T.18, T.19	n/a	4	1.25	31% Started	
Group 2	Action	ACTION 1: CECAP Implementation Plan T.16: Work with state and regional partners to further develop and implement programs to expand, improve, maintain, and promote active transportation infrastructure and options like walking and biking.		n/a	Т.16	n/a	1	0.75	75% Significant Progress	
Group 2	Action	ACTION 2: CECAP Implementation Plan NR.10, T.18: Update the Comprehensive Plan () in regard to () transportation including EVSE, sustainable development and land use, (), to be in alignment with CECAP and RF climate goals. CECAP Implementation Plan T.4: Evaluate Comprehensive Plan, zoning, and land development ordinances to support, incentivize or require the installation of EV-ready charging infrastructure in new buildings and in the right-of-way (onstreet parking).		n/a	T.4, NR.10, T.18	n/a	1	0.25	25% Started	
Group 2	Action	ACTION 3: CECAP Implementation Plan T.19: Leverage and strengthen, as need, the Comprehensive Plan environmental policies and related ordinances to minimize the impact of transportation projects on native trees and natural areas (EQCs, RPAs, Occoquan Watershed).		n/a	т.19	n/a	1	0.25	25% Started	
Group 2	Action	ACTION 4: CECAP Implementation Plan NR.10, T.18, cont.: Once this review is completed, if there are areas where the policies can be strengthened or improved or where climate change can be integrated, staff will seek Board authorization to update the policies.		n/a	NR.10, T.18	n/a	1	0	0% Not Started	

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Group 2	Action	ACTION 4: CECAP Implementation Plan T.4: Evaluate () zoning, and land development ordinances to support, incentivize or require the installation of EV-ready charging infrastructure in new buildings and in the right-of-way (on-street parking).		n/a	T.4	n/a				
Group 2	Action	ACTION 5: CECAP Implementation Plan T.5: Implement equity requirements for EV parking design, including those regarding accessibility		n/a	T.5	n/a	1	0.5	50% Steady Progress	
Group 2	Action	ACTION 6: CECAP Implementation Plan T.17: Promote bicycle usage by installing more bike racks and bike sharing facilities in commercial areas and transit stations.		n/a	T.17	n/a		0.5	50% Steady Progress	
Group 2	Action	ACTION 7: CECAP Implementation Plan ES.11: Maintain and extend county practices that reduce costs related to solar installation, such as the permit fee waiver and the solar energy equipment tax exemption. (For promotion of this incentive, please see Group 3 – Community – Incentives).		n/a	ES.11	n/a	1	1	100% Complete 100% Complete	
Group 3	Roll-up	Incentives for Communities	Every year	CRC.1d	BEE.8, BEE.9, BEE.10, BEE.11, BEE.13, ES.2,	n/a	23	12	52% Steady Progress	
Group 3	Strategy	29. Incentives for Buildings and Energy Efficiency: County Led Programs	Every year	n/a	BEE.1, BEE.3, BEE.11	n/a	5	3	60% Steady Progress	
Group 3	Action	ACTION 1: (GREEN BUILDING RECOGNITION PROGRAM): CECAP Implementation Plan BEE.3		n/a	BEE.3	n/a	1	0.5	50% Steady Progress	
Group 3	Action	ACTION 2: (CONSERVE ENERGY KIT PROGRAM): CECAP Implementation Plan BEE.1		n/a	BEE.1	n/a	1	0.75	75% Significant Progress	
Group 3	Action	ACTION 3: (THERMAL CAMERA LOAN PROGRAM): CECAP Implementation Plan BEE.1		n/a	BEE.1	n/a	1	0.75	75% Significant Progress	
Group 3	Action	ACTION 4: (HOMEWISE): CECAP Implementation Plan BEE.11		n/a	BEE.11	n/a	1	0.5	50% Steady Progress	
Group 3	Action	ACTION 5: (ENERGY CONSERVATION ASSISTANCE PROGRAM): CECAP Implementation Plan BEE.11		n/a	BEE.11	n/a	1	0.5	50% Steady Progress	
Group 3	Strategy	30. Incentives for Buildings and Energy Efficiency: Promotion of External Programs	Every year	CRC.1d	BEE.10, BEE.11, BEE.13,	n/a	6	2.5	42% Started	
Group 3	Action	ACTION 1 (C-PACE ESTABLISHMENT): CECAP Implementation Plan BEE.7, ES.8: Support Property Assessed Clean Energy (PACE) financing programs that assist property		n/a	BEE.7, ES.8	n/a	1	1	100% Complete	
Group 3	Action	ACTION 2 (C-PACE OUTREACH): Resilient Fairfax CRC.1d; CECAP Implementation Plan BEE.8: Enhance Commercial Property Assessed Clean Energy (C-PACE) Program Outreach and Technical Assistance.		CRC.1d	BEE.8	n/a	1	0.25	25% Started	
Group 3	Action	ACTION 3: (PROMOTE ESCO AND EAAS PROVIDERS): CECAP Implementation Plan BEE.9: Encourage and facilitate the provision of energy efficiency products and services by energy service companies (ESCOs), energy-as-a-service (EaaS) providers, and others to reduce costs to customers.		n/a	BEE.9	n/a	1	0.25	25% Started	
Group 3	Action	ACTION 4: (PROMOTE LEAP AND CHP): CECAP Implementation Plan BEE.11: Develop and fund energy audit or assessment programs to identify opportunities to reduce energy use and to provide incentives to implement energy efficiency and electrification recommendations. () Promote external energy efficiency opportunities such as programs through LEAP (Local Energy Alliance Program) and Community Housing Partners (CHP).		n/a	BEE.11	n/a	1	0.25	25% Started	
Group 3	Action	ACTION 5: (PROMOTE UTILITY-LED PROGRAMS): CECAP Implementation Plan BEE.10: Promote and leverage ratepayer-funded utility programs that provide energy efficiency incentives to residents and businesses. CECAP implementation Plan BEE.11: Develop and fund energy audit or assessment programs to identify opportunities to reduce energy use and to provide incentives to implement energy efficiency and electrification recommendations. CECAP Implementation Plan BEE.13: Use demand management practices to reduce demand for electricity or natural gas during peak periods.		n/a	BEE.10, BEE.11, BEE.13	n/a	1	0.5	50% Steady Progress	

Group 3	Action	ACTION 6: (PROMOTE FEDERAL INCENTIVES): CECAP Implementation Plan BEE.8: Establish incentive programs as permitted by existing authority regarding the construction of high-efficiency buildings and the renovation of existing buildings, including the implementation of energy efficiency and electrification measures.		n/a	BEE.8	n/a	1	0.25	25% Started	
Group 3	Strategy	31. Incentives for Solar and Other Renewables	Every year	n/a	ES.2, ES.4, ES.6, ES.10, ES.11,	n/a		2.25	56% Steady Progress	
Group 3	Action	ACTION 1 (SOLAR PERMIT FEE WAIVER & TAX EXEMPTION): CECAP Implementation Plan E5.11: Maintain and extend county practices that reduce costs related to solar installation, such as the permit fee waiver and the solar energy equipment tax exemption.		n/a	E5.11	n/a	1	1	100% Complete	
Group 3	Action	ACTION 2: (GROUP PURCHASE SOLAR PROGRAMS): CECAP Implementation Plan ES.4: Encourage and facilitate group purchases of renewable energy systems to home and businesses to reduce the costs of those systems to the customer.		n/a	ES.4	n/a		0.75	75% Significant Progress	
Group 3	Action	ACTION 3: (PROMOTE SOLAR RECs): CECAP Implementation Plan ES.6: Encourage the purchase and use of renewable energy certificates (RECs) as a method to incentivize the installation of renewable electricity-generating systems in the private sector.		n/a	ES.6	n/a		0.25	25% Started	
Group 3	Action	ACTION 4: (PROMOTE FEDERAL SOLAR INCENTIVES): CECAP Implementation Plan ES.2: Support accelerated electric grid transformation beyond the renewable energy requirements set forth in the VCEA. CECAP Implementation Plan ES.10: Support continuation of federal tax credits for solar installations and support proposed state tax credits		n/a	ES.2, ES.10	n/a	1	0.25	25% Started	
Group 3	Strategy	32. Incentives for Transportation: Electric Vehicle Incentives	Every year	n/a	T.1, T.2, T.3, BEE.10	n/a	4	2	50% Steady Progress	
Group 3	Action	ACTION 1: (CHARGE UP FAIRFAX): CECAP implementation Plan T.2: Encourage EV adoption by partnering with homeowner and condominium associations to facilitate and provide incentives for the installation of shared EV charging stations.		n/a	Т.2	n/a	1	0.5	50% Steady Progress	
Group 3	Action	ACTION 2: (EV PERMITTING): CECAP Implementation Plan \mid T.3: Streamline existing permitting and inspection processes for EV infrastructure and consider fee reductions or waivers.		n/a	т.3	n/a	1	0.5	50% Steady Progress	
Group 3	Action	ACTION 3: (PROMOTE UTILITY PROGRAMS FOR EVs): CECAP Implementation Plan BEE.10 : Promote and leverage ratepayer-funded utility programs ().		n/a	BEE.10	n/a				
Group 3	Action	ACTION 4: (PROMOTE TAX INCENTIVES FOR EVS): CECAP Implementation Plan T.1 : Continue and expand public outreach regarding () federal and state tax incentives regarding EVs and EVSE ().		n/a	7.1	n/a	1	0.5	50% Steady Progress	
Group 3	Strategy	33. Incentives for Transportation: Bicycling and Pedestrian Incentives	Every year	n/a	T.1, T.17	n/a	2	0.5	50% Steady Progress 50% Steady Progress	
Group 3	Action	ACTION 1: (BIKE RACKS AND BIKE SHARING): CECAP Implementation Plan T.17: Promote bicycle usage by installing more bike racks and bike sharing facilities in commercial areas and transit stations.		n/a	T.17	n/a		0.75	75% Significant Progress	
Group 3	Action	ACTION 2: CECAP Implementation Plan \mid T.1 : Continue and expand public outreach regarding \ldots biking, walking, and micromobility options.		n/a	7.1	n/a				
Group 3	Strategy	34. Incentives for Transportation: Transit Incentives	Every year	n/a	T.1, T.15	n/a	2	1.25	25% Started 63% Steady Progress	
Group 3	Action	ACTION 1: REDUCED FARES: CECAP Implementation Plan T.15: Create reduced or no-fare programs for disadvantaged categories (e.g., low-income, seniors, and students, as well as 3-, 5-, or 12-month transit passes at discounted prices to incentivize public transit ridership.		n/a	T.15	n/a				
Group 3	Action	ACTION 2: PROMOTION OF TRANSIT INCENTIVES: CECAP Implementation Plan T.1 : Continue and expand public outreach and engagement regarding () incentives regarding () public transit and commuter options and services ().		n/a	T.1	n/a	1	0.75	75% Significant Progress 50% Steady Progress	
Group 3	Roll-up	Aid and Risk Reduction Services for Communities	Ongoing	CRC.1b, CRC.2a, CRC.2d,	n/a	n/a	13		48% Started	
Group 3	Strategy	35. Community Aid and Services to Alleviate Resilience Needs		CRC.2a, CRC.2d	n/a	n/a		4.25	61% Steady Progress	

Group 3		ACTION 1 (ESTABLISH WORKING GROUP): Resilient Fairfax CRC.2a: Launch an implementation group responsible for this program. The group should leverage partners from the Resilient Fairfax								
·	Action	planning process, and should include county agencies, community-based organizations, and		CRC.2a						
		community leaders who hold existing trust with vulnerable populations in Fairfax County.			n/a	n/a	1	0.75	75% Significant Progress	
Group 2		ACTION 2 (ESTABLISH INCLUSIVE ENGAGEMENT PROGRAM): Resilient Fairfax CRC.2a: Work								
Group 3	A -4:	collaboratively to develop a climate resilience community engagement program, using the county's		CDC 2-						
	Action	Inclusive Community Engagement Framework (ICEF). Identify how best to connect neighborhoods,		CRC.2a						
		residents, outdoor workers, and other vulnerable groups with existing county aid and resources.			n/a	n/a	1	0.5	50% Steady Progress	
Group 3		ACTION 3 (IDENTIFY TOP FLOODING-RELATED NEEDS): Resilient Fairfax CRC.2a: Building upon the								
'	Action	results of the Vulnerability and Risk Assessment and concurrent county initiatives such as the Flood		CRC.2a						
		Risk Reduction Plan (Strategy CRC.3a), identify specific, pressing climate-related needs of the county's vulnerable neighborhoods, such as areas of recurrent flooding.			n/a	n/a	1	0.75	75% Significant Progress	
C 2		ACTION 4 (IDENTIFY TOP HEAT-RELATED NEEDS): Resilient Fairfax CRC.2a: Building upon the								
Group 3		results of the Vulnerability and Risk Assessment and concurrent county initiatives such as the Heat								
	Action	Emergency Workgroup, identify specific, pressing climate-related needs of the county's vulnerable		CRC.2a						
		neighborhoods, such as areas of extreme heat exposure.			n/a	n/a	1	0.75	75% Significant Progress	
Group 3		ACTION 5 (ACCESS TO HEAT-RELATED SERVICES): Resilient Fairfax CRC.2a: Streamline and								
о. от. р о	Action	facilitate access to existing climate hazard-related resources and assistance from numerous		CRC.2a						
		departments such as: air conditioning assistance during extreme temperatures (DFS), energy			n/a	n/a	1	0.75	75% Significant Progress	
		efficiency and other building improvements for enhanced resiliency (HCD, OEEC), cooling centers ACTION 6 (HEAT WARNING SYSTEM): Resilient Fairfax CRC.2d: Expand Heat Warning System:			7,7 G	.,, 0	1	0.75	75% Significant Flogress	
Group 3		Promote early warning system to warn community members of upcoming heat events. Explore								
	Action	tiered warning system approach for heat. Promote and leverage existing Fairfax Alerts, National		CRC.2d						
		Weather Service, and other warning systems.			n/a	n/a	1	0.5	50% Steady Progress	
Group 3		ACTION 7 (ACCESS TO FLOODING & STORM-RELATED SERVICES): Resilient Fairfax CRC.2a:								
C. Cup C	Action	Streamline and facilitate access to existing climate hazard-related resources and assistance from		CRC.2a						
	7.00.0	numerous departments such as: flood mitigation assistance (DPWES), energy resilience for			n/a	n/a	1	0.25	25% Started	
		frequent power outages, relocation for repetitive loss properties (DPWES), and/or health and			II/a	11/4	1	0.25	25% Started	
Group 3	Strategy	36. Resilience Hubs	2027	CRC.1b	n/a	n/a	6	2	33% Started	
		ACTION 1 (IDENTIFY AREAS OF GREATEST NEED): Resilient Fairfax CRC.1b: Identify areas of the					0		33% Started	
Group 3		county where there is the greatest need and greatest benefit for resilience hubs. Utilize data								
	Action	sources such as Resilient Fairfax, One Fairfax data, Adaptation Action Areas, and others to		CRC.1b						
		determine these locations.			n/a	n/a	1	0.75	75% Significant Progress	
Group 3		ACTION 2: (INVENTORY FACILITIES): Resilient Fairfax CRC.1b: Inventory existing network of								
Group 5	Action	centers that could serve as "resilience hubs." Prioritize trusted locations within community, such as		CRC.1b						
	7.00.0	community centers (NCS), recreation centers (FCPA), places of worship, and non-profit facilities			n/a	n/a	1	0.5	E004 Stoody Progress	
_		that provide essential services to the community. Coordinate with DEMs' identification of places to ACTION 3: (SITE ANALYSES): Resilient Fairfax CRC.1b: Compile site information to support			10.0	11/4	1	0.5	50% Steady Progress	
Group 3		evaluation of location for resilience hub. Consider building condition, location, transportation and								
	Action	access, site capacity, key climate hazards impacting that community, planned and/or required		CRC.1b						
		retrofits, typical operations and staffing, and other needs as identified by the community.			n/a	n/a	1	0.25	25% Started	
Group 3		ACTION 4: (OUTREACH): Resilient Fairfax CRC.1b: Conduct outreach to community organizations,								
C. Cup C	Action	nonprofits, faith groups, or other community serving groups in identified areas (CRC.2a) to begin		CRC.1b						
	7100.011	county-community collaboration on the visioning of a resilience hub network in the community.			n/a	n/a	1	0.25	25% Started	
		ACTION 5 (PILOT SITE): Resilient Fairfax CRC.1b: Identify a pilot resilience hub location and work			11/4	11/4	1	0.25	25% Starteu	
Group 3		with facility managers and community partners to build out community resilience offerings.								
	Action	with facility managers and community partiers to baild out community resilience officings.		CRC.1b						
					n/a	n/a	1	0.25	25% Started	
Group 3		ACTION 6 (NETWORK OF HUBS): Resilient Fairfax CRC.1b: Evaluate potential network of resilience								
or oup 3	Action	$hubs, with \ priority\ consideration\ to\ identified\ areas\ in\ CRC. 2a\ and\ in\ collaboration\ with\ community$		CRC.1b						
	71011011	partners. Consider staffing and funding needs for resilience hub implementation. As appropriate,			n/a	n/a	1	0	0% Not Started	
		explore establishing working groups for each resilience hub location					_	Ť	070 Not Started	
Group 3		Education and Workforce Development for Communities			BEE.1, BEE.5, BEE.15,					
	Roll-up			CRC.2b, CRC.2c	BEE.18, ES.1, ES.2, NR.1,	n/a				
					NR.2, T.1, W.2, W.3,		17	6.75	40% Started	
Group 3		37. Education on Climate Resilience, General								
	Strategy			CRC.2b	n/a	n/a				
	Juliacegy					.,				
			2027	,			7	2.75	39% Started	
		ACTION 1: (ENGAGE KEY PARTNERS): Resilient Fairfax CRC.2b: Identify and engage key partners for	2027					2.75	59% Started	
Group 3		, , , , , , , , , , , , , , , , , , , ,								
	Action	a climate resilience education campaign, including local schools (Get2Green), community-based and environmental organizations, county departments, libraries, homeowners' associations, and		CRC.2b						
		and environmental organizations, county departments, libraries, normeowners, associations, and other nartners with existing community adjucation programs such as OPA_FCPA_NCS_DEMS			n/a	n/a	1	0.75	75% Significant Progress	
Group 3		ACTION 2 (CLIMATE 101 EDUCATIONAL MATERIALS): Resilient Fairfax CRC.2b: Develop and deliver								
Group 5	Action	Climate Change 101 educational materials to Fairfax County staff and residents to provide		CRC.2b						
	7.0001	background on climate science, climate hazards, climate mitigation, climate adaptation and			n/a	n/a	1	0.5	50% Steady Progress	
					11/ U	II/ U	1	0.5	50% Steady Progress	
		resilience and climate impacts on nublic health and safety							, , ,	

Group 3	Action	ACTION 3: (COMMUNITY MEETINGS): Resilient Fairfax CRC.2b: Host a series of interagency, informational meetings in accessible neighborhood locations throughout the county. Leveraging existing programs and resources from DEMS, DPWES, and other agencies.		CRC.2b	7/0	26				
Group 3	Action	ACTION 4: (FLOOD RESILIENCE GUIDANCE): Resilient Fairfax CRC.2b: Develop and promote existing guidance for flood safety and resilience measures, such as elevating structures or equipment, wetproofing, dry proofing, flood insurance, and small-scale green infrastructure for		CRC.2b	n/a	n/a	1	0.5	50% Steady Progress	
Group 3	Action	nonatry numers and nonators/landlords. Any sesistance will he in alignment with applicable laws. ACTION 5 (HEAT RESILIENCE GUIDANCE): Resilient Fairfax CRC.2b: Develop and promote guidance on heat safety, such as safe thresholds for outdoor workers, outdoor activities, and youth sports, guidance for those experiencing homelessness during extreme heat, and heat resilience		CRC.2b	n/a	n/a	1	0.5	50% Steady Progress	
Group 3	Action	retrofits, such as coal mofe, coal navements, trees, building orientation and design, and energy ACTION 6 (WIND, STORM, AND ENERGY RESILIENCE GUIDANCE): Resilient Fairfax CRC.2b: Develop and promote existing guidance for severe storm, wind, and energy resilience (power outage prevention) retrofits, such as solar plus storage, back-up power, infrastructure hardening, tree		CRC.2b	n/a	n/a	1	0.25	25% Started	
Group 3	Action	prevenion) returns, sour as source plus storage, bear-up power, initiative failure failure metering, dee trimming for prevent tree falls on nower lines and nes-storm actions. ACTION 7: (AGRICULTURAL RESILIENCE GUIDANCE): Resilient Failfax CRC.2b: Connect local farmers and landowners to education and funding opportunities for regenerative and resilient agricultural practices.		CRC.2b	n/a	n/a	1	0.25	25% Started	
Group 3	Strategy	38. Education on Emissions Reduction	Ongoing	n/a	n/a BEE.1, ES.1, ES.2, T.1,	n/a n/a	5	2.75	0% Not Started	
Group 3	Action	ACTION 1: (CARBON FREE FAIRFAX): CECAP Implementation Plan BEE.1, ES.1: Develop and implement a broad-based community () education campaign to reduce greenhouse gas emissions (i.e., take climate action).		n/a	W.2, W.3 BEE.1, ES.1	n/o			55% Steady Progress	
Group 3	Action	ACTION 2: (GET 2 GREEN): CECAP Implementation Plan BEE.1, ES.1: Develop and implement a broad-based community () education campaign to reduce greenhouse gas emissions (i.e., take climate action). () Fairfax County Public Schools Get2Green Program: Continue and expand equitable access to environmental stewardship opportunities for FCPS students and staff with the goal of reducing environmental impact and developing students as ethical and global citizens.			BEE.1, ES.1	n/a	1	0.5	50% Steady Progress	
Group 3	Action	ACTION 3 (TRANSPORTATION EDUCATION): CECAP Implementation Plan T.1: Continue and expand public outreach and engagement regarding transportation topics, including federal and state tax incentives regarding EVs and EVSE, public transit and commuter options and services, and biking, walking, and micro-mobility options.		n/a n/a	т.1	n/a	1	0.75	75% Significant Progress 50% Steady Progress	
Group 3	Action	ACTION 4 (RENEWABLE ENERGY EDUCATION): CECAP Implementation Plan ES.2: Support accelerated electric grid transformation beyond the renewable energy requirements set forth in the VCEA. The county will () support renewable energy installations through () expanded education and outreach.		n/a	ES.2	n/a	1	0.5	50% Steady Progress	
Group 3	Action	ACTION 5 (WASTE EDUCATION): CECAP Implementation Plan W.2: Continue the development and delivery of community outreach and education for 5Rs (Refuse, Reduce, Reuse, Repurpose, Recycle), as well as potential avenues for county support of individual actions regarding 5Rs, including targeted languages. CECAP Implementation Plan W.3: Continue and expand a broad-based community outreach and education campaign (on waste reduction).		n/a	w.2, w.3	n/a	1	0.5	50% Steady Progress	
Group 3	Strategy	39. Education on Natural Resources		n/a	BEE.5, NR.1, NR.2	n/a	2	0.5	25% Started	
Group 3	Action	ACTION 1: EDUCATION ON CLIMATE BENEFITS OF GREEN SPACES AND TREES: CECAP Implementation Plan NR.1: Continue development and delivery of public outreach/education campaigns on the benefits of green spaces and trees (**NR 101**), expanding program to more advanced topics. CECAP Implementation Plan NR.2: Continue and expand a broad-based		n/a	NR.1, NR.2	n/a	1	0.5	50% Steady Progress	
Group 3	Action	ACTION 2: EDUCATION ON REGENERATIVE DESIGN: CECAP Implementation Plan BEE.5: Incorporate biophilic and regenerative design principles such as green roofs into the construction or renovation of buildings to improve occupant health and comfort and provide co-benefits including improved air quality, stormwater management, and reductions to heat island effect areas.		n/a	BEE.5,	n/a	1	0	0% Not Started	
Group 3	Strategy	40. Workforce Development and Business Start-ups		CRC.2c	BEE.15, BEE.18	n/a	3	0.75	25% Started	
Group 3	Action	ACTION 1: Support Resilience-Related Workforce Development: Resilient Fairfax CRC.2c: Pursue workforce development initiatives to develop resilience-related construction and contracting skillsets, such as pervious paver installation, solar-plus-storage installation, green infrastructure installation, and other skillsets.		CRC.2c	n/a	n/a	1	0.25	25% Started	
Group 3	Action	ACTION 2: Support Energy and Electrification Workforce Development: CECAP Implementation Plan BEE.18: To expand the skilled workforce needed to provide energy and electrification services locally, support the establishment or strengthening of job training programs through community colleges, non-profit organizations, trade unions, or apprenticeships.		n/a	BEE.18	n/a	1	0.25	25% Started	
Group 3	Action	ACTION 3: SUPPORT CLEAN ENERGY BUSINESS INCUBATION: CECAP Implementation Plan BEE.15 : Partner with local educational institutions, such as George Mason University, and neighboring jurisdictions to cultivate and support innovative, incubator or start-up businesses that provide services in the clean energy sector.		n/a	BEE.15	n/a	1	0.25	25% Started	

					BEE.12, BEE.14, BEE.16,					
Group 3	Roll-up	Community-led Pilot Programs, Partners, and Champions		n/a	BEE.17, ES.2, ES.12, ES.13, NR.11, NR.12,	n/a	7	2.5	36% Started	
Group 3	Strategy			n/a	BEE.12, BEE.14, BEE.16, ES.12, NR.11, T.21, W.17	n/a				
		41. Green Business Partners and Other Business Engagement					4	1.5	38% Started	
Group 3	Action	ACTION 1 (RE-ESTABLISH GREEEN BUSINESS PARTNERS): CECAP Implementation Plan BEE.14: Develop () partnerships between the county and its business communities to encourage and facilitate climate-oriented business practices and mentorships.		n/a	BEE.14	n/a	1	1	100% Complete	
Group 3	Action	ACTION 2 (IDENTIFY AND CELEBRATE BUSINESS INDUSTRY CLIMATE CHAMPIONS): CECAP Implementation Plan BEE.16, ES.12, T.21, NR.11, W.17: Identify and recognize () business Climate Champions that accelerate implementation of actions to meet CECAP goals. () Identify and celebrate local () businesses who toke meaningful climate action and inspire those around them to do the same. () Initiate structured discussions in roundtable format meetings with () businesses. ()		n/a	BEE.16, ES.12, T.21, NR.11, W.17	n/a				
Group 3	Action	ACTION 3 (EXPAND & SUSTAIN GREEN BUSINESS PARTNERS): CECAP Implementation Plan BEE.14 : () sustain partnerships between the county and its business communities to encourage and facilitate climate-oriented business practices and mentorships.		n/a	BEE.14	n/a	1	0.25	25% Started 25% Started	
Group 3	Action	ACTION 4 (ENCOURAGE ENERGY EFFICIENCY THROUGH GREEN BUSINESS PARTNERS): CECAP Implementation Plan BEE.12: Encourage building commissioning, recommissioning, and retro-commissioning to ensure that buildings operate as designed and with optimal energy efficiency. () Explore opportunities to educate the () private sector (). For example, LDS may publish information in their technical bulletins, while OEEC will include outreach and education in the future through the re-launched 2023 Green Business Partners (GBP) (BEE.14). The GBP provides an opportunity to connect with existing industry organizations. (e.g., Building Owners and Managers Association (BOMA), Apt. and Office Building Association of Metropolitan Washington, NAIOP, etc.).		n/a	BEE.12, BEE.14	n/a	1	0.25	0% Not Started	
Group 3	Strategy	42. Climate Champions and other community-led Pilot Programs		n/a	ES.12, ES.13, NR.11,	n/a	3	1	33% Started	
Group 3	Action	ACTION 1: (INDIVIDUAL CLIMATE CHAMPIONS): CECAP Implementation Plan BEE.16, ES.12, T.21, NR.11, W.17: Identify and recognize [] individual, [] Climate Champions that accelerate implementation of actions to meet CECAP goals. Guided by community-led actions, the county will identify and celebrate local leaders, individuals, [] who take meaninaful climate action and inspire		n/a	BEE.16, ES.12, T.21, NR.11, W.17	n/a	1	0.25	25% Started	
Group 3	Action	identify and celebrate local reducts, individuals, () who take meaningful climide action and inspire ACTION 2: (ORGANIZATIONAL CLIMATE CHAMPIONS): CECAP Implementation Plan BEE.16, ES.12, T.21, NR.11, W.17: Identify and recognize () organization Climate Champions that accelerate implementation of actions to meet CECAP goals. Guided by community-led actions, the county will identify and celebrate local () organizations who take meaningful climate action and inspire those		n/a	BEE.16, ES.12, T.21, NR.11, W.17	n/a		0.25	25% Started	
Group 3	Action	ACTION 3: (COMMUNITY-LED PILOT PROGRAMS): CECAP Implementation Plan BEE.17, ES.13, NR.12, T.20, W.16; Support community-led pilot programs to accelerate implementation of climate action in support of CECAP goals and increase investments in renewable energy, energy efficiency, () natural resource protection and management activities, () zero waste and waste		n/a	BEE.17, ES.13, NR.12, T.20, W.16	n/a	1	0.5	50% Steady Progress	
Group 4	Roll-up	Consolidated Natural Resources Management Plan Process	~2030	AE.1a	NR.5	n/a	5	0.5	10% Early Stages	
Group 4	Strategy	43. Consolidated Natural Resource Management Plan	2030	AE.1a	NR.5	n/a	5	0.5	10% Early Stages	
Group 4	Action	ACTION 1: (WORKING GROUP): Resilient Fairfax AE.1a: Following authorization by applicable Boards (Board of Supervisors, Park Authority Board, and NVSWCD Board), create a working group inclusive of all county departments and entities that oversee and manage the existing natural resource plans and/or enforce related natural resource policies and ordinances. CECAP Implementation Plan NR.5: Create a cross-disciplinary Policy Evaluation county staff team to analyze existing programs and policies regarding natural resources and climate change to create a comprehensive climate approach.		AE.1a	NR.5	n/a	1	0.25	25% Started	

Group 4	Action	ACTION 2: (IDENTIFICATION OF PLANS AND POLICIES) Resilient Fairfax AE.1a: Building upon the Resilient Fairfax Audit and VRA, identify A. applicable existing natural resource-related plans that should be consolidated into and updated through a Consolidated Natural Resources Management Plan, B. related natural resource policies and ordinances that need to be aligned with such plans, such as the Chesapeake Bay Preservation Ordinance, the Tree Conservation Ordinance, Wetlands Zoning Ordinance, and others, and C. new plan sections that should potentially be added, such as a Shoreline Management Plan. CECAP Implementation Plan NR.5: () As part of this recommendation, specific policies for tree canopy and site development will be evaluated, in addition to other natural resources-related policies. The specific policies noted for review include such items as the Comprehensive Plan, the Zoning Ordinance, the Tree Ordinance, the Public Facilities Manual, and other transportation and natural resources plans.		AE.1a	NR.5	n/a	
Group 4	Action	ACTION 3 (WORK PLAN): Resilient Fairfax AE.1a: Create a work plan for creation of the Consolidated Natural Resource Management Plan, including schedule, tasks, responsibilities (including leads for each section), coordination system, and budget. CECAP Implementation Plan NR.5: () In the first half of 2023, DEEC will work with other lead agencies to determine a scope for ACTION 4 (DRAFT CNRMP): Resilient Fairfax AE.1a: Develop a draft consolidated Natural		AE.1a	NR.6	n/a	1 0.25 25% Started 1 0 0% Not Started
Group 4	Action	Resource Management Plan that folds together existing county natural resource management plans, incorporates climate change projections and consideration for climate change impacts, and identifies measures needed to protect and enhance ecosystem resilience. Align this plan with related County Code updates (CRC.3c), plan updates (IAP.1a, IAP.1b, IAP.1c), Adaptation Action Areas (CRC.1a), the Flood Risk Reduction Plan (CRC.3a), and other natural resource strategies (AE.1b-d, AE.2o-f). Specific policies for tree canopy and site development will be evaluated, in addition to other natural resources-related policies.		AE.1a	NR.7	n/a	
Group 4	Action	ACTION 5 (FINAL CNRMP): Resilient Fairfax AE.1a: Lead and partner agencies will bring the draft plan forward through the public hearing process, including outreach and public hearings prior to Board consideration of adoption. Relevant entities such as the Wetlands Board, the Chesapeake Bay Exception Review Committee, the Tree Commission, EQAC, and others will be consulted		AE.1a	NR.8	n/a	1 0 0% Not Started 1 0 0% Not Started
Group 4	Roll-up	Tree Programs	Every year	CRC.1c, AE.1d, AE.2c,	NR.3, NR.4	n/a	3 1 33% Started
Group 4	Strategy	44. Tree Planting and Reforestation		CRC.1c, AE.1d, AE.2c	NR.3, NR.4,	n/a	3 1 33% Started
Group 4	Action	ACTION 1: Resilient Fairfax CRC.1c: Expand Targeted Tree Plantings: Build upon existing Urban Forest Management Division tree planting efforts to expand targeted tree plantings. Prioritize neighborhoods with high vulnerability as determined by One Fairfax, the Vulnerability and Risk Assessment, and Adaptation Action Area mapping (CRC.1a). Resilient Fairfax AE.2c: Support Continued Urban Reforestation: Aid with Urban Heat Island effect and flooding impacts through urban reforestation projects, expanding upon existing initiatives by the Urban Forestry Management Division. Explore tree planting programs that plant, maintain, and replace loss of mature trees in residential neighborhoods, using the One Fairfax lens. CECAP Implementation Plan NR.3: Promote and coordinate tree planting events on public and private properties, including financial assistance.		CRC.1c, AE.2c	NR.3	n/a	
Group 4	Action	ACTION 2: CECAP Implementation Plan NR.4: Create a new program to partner with HOAs and nonprofit organizations to promote tree planting and native plants.		n/a	NR.4	n/a	1 0.5 50% Steady Progress 1 0.25 25% Started
Group 4	Action	ACTION 3: Resilient Fairfax AE.1d: Integrate Climate Change Considerations into Urban Forestry Program: Consider future climate conditions to support long term tree health, including consideration for tree selection, required maintenance, and planting processes		AE.1d	n/a	n/a	1 0.25 25% Started
Group 4	Roll-up	Surveying & Protection of Natural Areas	~2030	AE.1b, AE.1c	NR.6	n/a	7 1.25 18% Early Stages
				AE.1b, AE.1c	NR.6	n/a	
Group 4	Strategy	45. Survey and Protect Areas that Provide Natural Resilience Benefits		712.10, 712.10			7 1.25 18% Early Stages

Group 4	Action	ACTION 2: Resilient Fairfax AE.1b: Leverage the Consolidated Natural Resources Management Plan (Strategy AE1.a) and other applicable plans as a starting point for identification of environmentally sensitive areas that could be condidates for more stringent protection. To thoroughly analyze these candidate areas, complete field surveys of public land to verify and document lands that naturally enhance climate resilience, contain sensitive and/or rare habitats, and areas with extensive invasive species in need of management. Consider leveraging existing GIS data, such as tree canopy cover and land use type, to inform field survey work. Partner with state and federal agencies, as applicable, to coordinate survey work and data collection. Build off of existing and ongoing surveys and documentation from FCPA and NVRC.		AE.1b	n/a	n/a	1	0.25	25% Started	
Group 4	Action	ACTION 3: Resilient Fairfax AE.1b: Informed by data collection under this strategy as well as available county data, create an updated GIS database of natural areas in need of stronger protections for climate resilience, including lands with sensitive and/or rare habitat and species and high-quality natural resources areas.		AE.1b	n/a	n/a	1	0.25	25% Started	
Group 4	Action	ACTION 4: Resilient Fairfax AE.1b: Based upon the field surveys, GIS database, and Resilient Fairfax Vulnerability and Risk Assessment, identify land prioritized for conservation easements, Natural Area Preserve designation, or other protective status to enhance or preserve natural climate resilience.		AE.1b	n/a	n/a	1		25% Started	
Group 4	Action	ACTION 5: Resilient Fairfax AE.1b: Explore strategic partnerships, grant opportunities and/or financing opportunities for conservation and protection of identified environmentally sensitive areas, including but not limited to: tidal and freshwater wetlands, intermittent streams, shorelines, and habitat for key species. Partners in this effort may include, but are not limited to: Department of Defense, National Park Service, Northern Virginia Regional Parks, Northern Virginia Conservation Trust, and Virginia Department of Conservation and Recreation.		AE.1b	n/a	n/a				
Group 4	Action	ACTION 6: Resilient Fairfax AE.1c: Update the provisions for conservation easements to include potential canopy credit as well as resources needed to maintain or improve the condition of the resource in perpetuity.		AE.1c	n/a	n/a	1	0.25	25% Started 0% Not Started	٠.
Group 4	Action	ACTION 7: CECAP Implementation Plan NR.6: Develop and deliver competitions for preservation of green space. Staff will explore options to develop and deliver competitions for green space preservation.		n/a	NR.6	n/a				
							1	0	0% Not Started	
Group 4	Roll-up	Nature-based Restorations and Green Infrastructure	Every year	AE.2a, AE.2b, AE.2d, AE.2e, AE.2f	BEE.5, NR.8	n/a	12	4.25	0% Not Started 35% Started	
Group 4 Group 4	Roll-up Strategy		Every year	AE.2d, AE.2e,	BEE.5, NR.8 BEE.5, NR.8	n/a n/a				
			Every year	AE.2d, AE.2e, AE.2f	<u>'</u>		12	4.25 2.75	35% Started	
Group 4	Strategy	46. Green Infrastructure Projects that Provide Climate Resilience Benefits ACTION 1: Resilient Fairfax AE.2a: Identify areas that are: heat vulnerable, flood-prone, and/or	Every year	AE.2d, AE.2e, AE.2f AE.2a	BEE.5, NR.8	n/a	12	4.25 2.75	35% Started 46% Started	
Group 4	Strategy	46. Green Infrastructure Projects that Provide Climate Resilience Benefits ACTION 1: Resilient Fairfax AE.2a: Identify areas that are: heat vulnerable, flood-prone, and/or areas where green infrastructure would provide additional community and resilience benefits. ACTION 2: Resilient Fairfax AE.2a: Model green infrastructure in identified areas to determine if	Every year	AE.2d, AE.2e, AE.2f AE.2a	BEE.5, NR.8	n/a	12 6	4.25 2.75	35% Started 46% Started 75% Significant Progress	
Group 4 Group 4 Group 4	Strategy Action Action	46. Green Infrastructure Projects that Provide Climate Resilience Benefits ACTION 1: Resilient Fairfax AE.2a: Identify areas that are: heat vulnerable, flood-prone, and/or areas where green infrastructure would provide additional community and resilience benefits. ACTION 2: Resilient Fairfax AE.2a: Model green infrastructure in identified areas to determine if the project will provide the assumed benefit(s). ACTION 3: Resilient Fairfax AE.2a: Integrate structural green infrastructure projects into county CIP process and support prioritization of green infrastructure projects in identified areas. Prioritize	Every year	AE.2a, AE.2a AE.2a AE.2a AE.2a	BEE.5, NR.8 n/a	n/a n/a	12 6	4.25 2.75 0.75 0.25	35% Started 46% Started 75% Significant Progress 25% Started 50% Steady Progress	
Group 4 Group 4 Group 4 Group 4	Action Action Action	46. Green Infrastructure Projects that Provide Climate Resilience Benefits ACTION 1: Resilient Fairfax A.E.2a: Identify areas that are: heat vulnerable, flood-prone, and/or areas where green infrastructure would provide additional community and resilience benefits. ACTION 2: Resilient Fairfax A.E.2a: Model green infrastructure in identified areas to determine if the project will provide the assumed benefit(s). ACTION 3: Resilient Fairfax A.E.2a: Integrate structural green infrastructure projects into county CIP process and support prioritization of green infrastructure projects in identified areas. Prioritize native and/or climate-resilient plants when feasible and effective. ACTION 4: CECAP Implementation Plan NR.8: Promote green infrastructure in development projects. Resilient Fairfax A.E.2a: Explore policies to support green infrastructure implementation, including but not limited to: incentive programs, de- paving programs, and limits on impervious surfaces. CECAP Implementation Plan B.E.5: Incorporate biophilic and regenerative design principles such as green roofs into the construction or renovation of buildings to improve occupant health and comfort and provide co-benefits including improved air quality, stormwater	Every year	AE.2d, AE.2e, AE.2f AE.2a AE.2a	n/a n/a	n/a n/a n/a	12 6	4.25 2.75 0.75 0.25 0.5	35% Started 46% Started 75% Significant Progress 25% Started	

Group 4	Strategy	47. Stream Restorations	AE.2b	n/a	n/a	1 0.5	50% Steady Progress
Group 4	Action	ACTION 1: Resilient Fairfax AE.2b: Support Continued Stream Corridor Restoration. Continue and expand the county's stream corridor restoration opportunities, leveraging best available science and best practices in habitat restoration. Include inventories of existing habitat quality and design for ecological lift as part of the project selection and design process.	AE.2b	n/a	n/a	1 0.5	50% Steady Progress
Group 4	Strategy	46. Living Shorelines	AE.2d	n/a	n/a	3 0.25	8% Early Stages
Group 4	Action	ACTION 1: Resilient Fairfax AE.2d: Aid in reducing coastal flooding risks through living shorelines projects.	AE.2d	n/a	n/a	1 0.25	25% Started
Group 4	Action	ACTION 2: Resilient Fairfax AE.2d: Pursue potential development of a Shoreline Management Plan, as a component of the Consolidated Natural Resources Management Plan (see Strategy AE.1a).	AE.2d	n/a	n/a	1 0	0% Not Started
Group 4	Action	ACTION 3: Resilient Fairfax AE.2d: Leverage existing living shorelines pilot projects for educational purposes.	AE.2d	n/a	n/a	1 0	0% Not Started
Group 4	Strategy	49. Wetland and Floodplain Restorations	AE.2e	n/a	n/a	1 0.5	50% Steady Progress
Group 4	Action	ACTION 1: Restore Wetlands and Floodplains Resilient Fairfax \mid AE.2e: Aid in reduction of flooding risk through wetland and floodplain restoration.	AE.2e	n/a	n/a	1 0.5	50% Steady Progress
Group 4	Strategy	50. Regenerative Agriculture	AE.2f	n/a	n/a	1 0.25	25% Started
Group 4	Action	ACTION 1: Explore Regenerative Agriculture Opportunities: Resilient Fairfax AE.2f: Engage local farmers, community gardeners, and food advocates, and aid in agricultural resilience to climate hazards.	AE.2f	n/a	n/a	1 0.25	25% Started
Group 5	Roll-up	County Facilities: Energy, Water, Green Buildings, Utilities	n/a	BEE.9, BEE.20, BEE.21, BEE.22, ES.3, ES.14, ES.15, ES.18, W.11	EUE, GB, R, UCM, WUE,	42 16.3	39% Started
Group 5	Strategy	51. Whole Building Energy Audits, Retrofits, and Retro-commissioning	N/A	BEE.9, BEE.20	EUE	4 1.75	44% Started
Group 5	Action	ACTION 1 (ENERGY AUDITS): OES Energy Use & Efficiency, Action 2: Perform facility energy audits on a routine basis to identify efficiency opportunities. CECAP Implementation Plan BEE.20: With respect to county facilities, meet or exceed the goals and targets set forth in Fairfax County's Operational Energy Strategy ()	n/a	n/a	EUE	1 0.5	50% Steady Progress
Group 5	Action	ACTION 2 (DEEP ENERGY RETROFITS/ESCO): OES Energy Use & Efficiency, Action 3: Pursue deep energy retrofits of existing facilities using a whole-building scope of work instead of multiple incremental retrofits of isolated systems over time. Use energy-saving performance contracts when feasible. CECAP Implementation Plan BEE.9: Encourage and facilitate the provision of energy efficiency products and services by energy service companies (ESCOs), energy-as-a-service (EaaS) providers, and others to reduce costs to customers	n/a	BEE.9	EUE	4 005	
Group 5	Action	ACTION 3 (ENERGY EFFICIENCY PROJECTS): OES Energy Use & Efficiency, Action 4: Where whole-building approaches to deep energy retrofits are not feasible, implement cost-effective energy efficiency projects on building systems.	n/a	n/a	EUE	1 0.25 1 0.75	25% Started 75% Significant Progress
Group 5	Action	ACTION 4 (RETROCOMMISSIONING): OES Energy Use & Efficiency, Action 9: Implement a retro- commissioning program for whole-building tune-ups with a further goal of continuous commissioning for the largest county buildings.	n/a	n/a	EUE	1 0.25	25% Started
Group 5	Strategy	52. Equipment Replacement and Upgrades	N/A	BEE.22	EUE	4 2	50% Steady Progress
Group 5	Action	ACTION 1: OES Energy Use & Efficiency, Action 5: When replacing heating, ventilation, and cooling (HVAC) equipment, right-size the mechanical equipment for actual building loads, rather than simple like-for-like replacement. Specify high-efficiency equipment to the extent possible.	n/a	n/a	EUE	1 0.5	50% Steady Progress
Group 5	Action	ACTION 2: OES Energy Use & Efficiency, Action 6: Be alert to opportunities to replace fossil-fuel heating and water heating equipment with efficient electric alternatives, where possible.	n/a	n/a	EUE	1 0.25	25% Started

Group 5	Action	ACTION 3: OES Energy Use & Efficiency, Action 10: For replacement equipment and motors, specify ENERGY STAR rated equipment and NEMA Premium motors where available.	n/a	n/a	EUE		
Group 5	Action	ACTION 4: CECAP Implementation Plan BEE.22: Reduce and manage fugitive emissions of hydrofluorocarbons (HFCs), whose global warming potential (GWP) may be hundreds to thousands of times greater than carbon dioxide, by supporting the transition of refrigerants with high GWP to low-	n/a	BEE.22	n/a	1 1	100% Complete 25% Started
Group 5	Strategy	53. Optimization and Energy Management Systems	N/A	N/A	EUE	2 1	50% Steady Progress
Group 5	Action	ACTION 1: OES Energy Use & Efficiency, Action 7: Optimize facility and equipment performance through systematic practices that maintain efficiency in existing equipment.	n/a	n/a	EUE	1 0.5	50% Steady Progress
Group 5	Action	ACTION 2: OES Energy Use & Efficiency, Action 8: Use energy management systems and automated controls to optimize whole-system performance for energy savings and occupant comfort.	n/a	n/a	EUE	1 0.5	50% Steady Progress
Group 5	Strategy	54. Green Buildings	N/A	N/A	GB	4 2.5	63% Steady Progress
Group 5	Action	ACTION 1 (DESIGN): OES Green Buildings, Action 1: Coordinate among agencies to ensure that the lifetime energy and water use of a new building or major renovation is minimized by design. This includes intentional building orientation and massing to consider energy loads, as well as highericincy building envelopes and appropriately sized energy-efficient mechanical systems.	n/a	n/a	GB	1 0.75	75% Significant Progress
Group 5	Action	ACTION 2 (ELECTRIFICATION): OES Green Buildings, Action 2: For major renovations, convert fossil fuel systems to electric equivalents unless impracticable.	n/a	n/a	GB	1 0.75	75% Significant Progress
Group 5	Action	ACTION 3: (CERTIFICATIONS): OES Green Buildings, Action 4: Attain high-efficiency building certifications. Where appropriate, design for LEED Platinum and pursue the Designed to Earn ENERGY STAR certifications. Keep apprised of and consider pursuing LEED Zero certifications.	n/a	n/a	GB	1 1	100% Complete
Group 5	Action	ACTION 4 (EMBODIED CARBON): OES Green Buildings, Action 5: Seek to reduce or eliminate embodied carbon in building construction or renovation, including considering changes in concrete specifications for lower-embodied carbon.	n/a	n/a	GB	1 0	0% Not Started
Group 5	Strategy	55. Streetlight Conversion	N/A	BEE.21	N/A	1 0.75	75% Significant Progress
Group 5	Action	ACTION 1: CECAP Implementation Plan BEE.21: Continue the transition of streetlight and outdoorlighting stock from older technologies, such as high pressure sodium vapor and metal halide, to LED technologies.	n/a	BEE.21	n/a	1 0.75	75% Significant Progress
Group 5	Strategy	56. Solar for County Government	N/A	ES.3, ES.14, ES.18	GB, R	6 1.5	25% Started
Group 5	Action	ACTION 1: (RENEWABLES, GENERAL): OES Green Buildings, Action 3: Incorporate renewable energy systems, such as rooftop solar panels, into design for new construction and major renovations. CECAP Implementation Plan Es.14: With respect to county facilities and sites, meet or exceed the doals and tardets set forth in the Operational Energy Strategy Treadmind	n/a	ES.14	GB	1 0.75	75% Significant Progress
Group 5	Action	ACTION 2: (SOLAR PVS ON BUILDINGS): OES Renewables 1: Install solar photovoltaic systems at county facilities, using power purchase agreements or county capital funds as appropriate for the size and setting of each site. Direct on-site use of renewable energy systems is a key component of net zero energy consumption	n/a	n/a	R	1 0.25	25% Started
Group 5	Action	ACTION 3: (SOLAR ON BROWNFIELDS): CECAP Implementation Plan ES.18: Promote solar PV projects on publicly managed brownfields (e.g., closed quarries, landfills), to optimize their use and provide sites for renewable energy production.	n/a	ES.18	n/a	1 0.25	25% Started
Group 5	Action	ACTION 4: (CONTRACTUAL SOLAR): OES Renewables 2: Procure high-quality renewable electricity through contractual agreements. Such agreements should provide additionality of renewable power, even if physical electrons are not delivered to Fairfax. CECAP Implementation Plan ES.3: Explore and support expanded retail and wholesale options as pathways to increase renewable energy availability.	n/a	ES.3	R	1 0.25	25% Started
Group 5	Action	ACTION 5: (PARTNERSHIPS): OES Renewables 3: Participate in joint initiatives with public- and/or private-sector partners that encourage innovation, including opportunities for renewable energy projects on privately-owned property for county benefit.	n/a	n/a	R	1 0	0% Not Started
Group 5	Action	ACTION 6: (DEMONSTRATION PROJECTS): Operational Energy Strategy Renewables 7: Develop demonstration projects that can be viewed by the public.	n/a	n/a	R	1 0	0% Not Started

Group 5	Strategy	57. Other renewables and Resource Recovered Gas	N/A	ES.15	R	2	1	50% Steady Progress	
Group 5	Action	ACTION 1: (GEOTHERMAL AND ENERGY STORAGE): OES Renewables, Action 4: Identify opportunities to implement alternative renewable energy technologies on county government property, such as geothermal energy and energy storage.	n/a	n/a	R	1	0.25	25% Started	
Group 5	Action	ACTION 2: (LANDFILL GAS): OES Renewables, 5: Continue recovering landfill gas from the county's closed landfills and using the gas for heating, industrial purposes, or to generate electricity that is sold back to the grid. CECAP Implementation Plan Es.15: Continue existing county initiatives that use resource-recovered gas (i.e., biogas created from decomposed organic matter) and remain open to new uses of such gas.	n/a	ES.15	R	1	0.75	75% Significant Progress	
Group 5	Strategy	58. Water Use and Efficiency	N/A	N/A	WUE	9	2	22% Early Stages	
Group 5	Action	ACTION 1 (MONITORING): OES Water Use & Efficiency, Action 1: Monitor and analyze water use and equipment performance. Review utility bills and other available data to identify areas of opportunity.	n/a	n/a	WUE	1	0.25	25% Started	
Group 5	Action	ACTION 2 (AUDIT): OES Water Use & Efficiency, Action 2: Routinely audit and assess existing building stock for water efficiency opportunities.	n/a	n/a	WUE	1	0.25	25% Started	
Group 5	Action	ACTION 3 (OPTIMIZATION): OES Water Use & Efficiency, Action 3: Engage in commissioning, preventative maintenance, and other practices to optimize cooling tower and other equipment performance.	n/a	n/a	WUE		0.25	25% Started	
Group 5	Action	ACTION 4 (WATER-EFFICIENT FIXTURES): OES Water Use & Efficiency, 4: Identify and implement cost-effective water efficiency projects, including installation of water-efficient fixtures and systems.	n/a	n/a	WUE		0.25	50% Steady Progress	
Group 5	Action	ACTION 5 (CONTROL SYSTEMS): OES Water Use & Efficiency, 5: Expand use of control systems to maximize water efficiency and ensure appropriate programming and maintenance.	n/a	n/a	WUE	1			
Group 5	Action	ACTION 6 (NATURAL LANDSCAPING): OES Water Use & Efficiency, 6: Incorporate natural landscaping with native vegetation to minimize irrigation needs. Install web-based irrigation control systems where appropriate.	n/a	n/a	WUE	1	0.25	25% Started	
Group 5	Action	ACTION 7 (LEAK DETECTION): OES Water Use & Efficiency, 7: Install leak detection sensors in facilities at higher risk of water loss or damage.	n/a	n/a	WUE	1	0.25	25% Started	
Group 5	Action	ACTION 8 (EXCEED CODE): OES Water Use & Efficiency, 8: Exceed Virginia Code requirements when replacing equipment and fixtures.	n/a	n/a	WUE	1	0	0% Not Started	
Group 5	Action	ACTION 9 (NEW TECHNOLOGIES): OES Water Use & Efficiency, 10: Routinely evaluate new technologies that can reduce water consumption.	n/a	n/a	WUE	1	0	0% Not Started	
Group 5	Strategy	59. Wastewater Management Practices for Climate	N/A	W.11	R, WUE	2	1.25	25% Started 63% Steady Progress	
Group 5	Action	ACTION 1: (RECLAIMED WASTEWATER): DES Water Use & Efficiency, 9: Noman Cole: Continue to explore additional opportunities to use reclaimed wastewater from the Noman M. Cole Ir. Pollution Control Plant. CECAP Implementation Plan W.11: Continue successful county waste management activities, including the reuse of treated wastewater for irrigation and wastewater process cooling	n/a	W.11	WUE	1	0.75	75% Significant Progress	
Group 5	Action	ACTION 2: (WASTEWATER RESOURCE RECOVERY and GHG EMISSIONS REDUCTION): OES Renewables, 6: Pursue resource recovery at wastewater treatment plants to lower total net energy consumption and GHG emissions at these facilities.	n/a	n/a	R	1	0.5	50% Steady Progress	
Group 5	Strategy	60. Utility Cost Management and Coordination with Energy Utilities	N/A	N/A	UCM	8	2.5	31% Started	
Group 5	Action	ACTION 1: (Utility transformer size): Operational Energy Strategy Utility Cost Management, 1: Coordinate among agencies when preparing load letters and letter supplements to ensure that utility transformers are appropriately sized for the facilities they will serve.	n/a	n/a	ИСМ	1	0	0% Not Started	
Group 5	Action	ACTION 2: (Rate Schedules) Operational Energy Strategy Utility Cost Management, 2: Coordinate among agencies regarding rate schedule selection.	n/a	n/a	UCM				
						1	0.25	25% Started	

Group 5	Action	ACTION 3: (Metering): Operational Energy Strategy Utility Cost Management, 3: Coordinate among agencies to ensure appropriate metering, including functionality, type, number and opportunities for sub-metering.	n/a	n/a	ИСМ		0.75	TEN CONTRACTOR	
Group 5	Action	ACTION 4: (Demand Management): Operational Energy Strategy Utility Cost Management, 4: For accounts with demand changes, implement programs to minimize peak charges. Manage electricity use to minimize peak demand charges and reset billing ratchets, where possible. Use the facility's demand profile to help develop a strategy for reducing peak use.	n/a	n/a	ИСМ		0.75	75% Significant Progress	
Group 5	Action	ACTION 5 (Bill Audits): Operational Energy Strategy Utility Cost Management, 5: Use bill audits to ensure that utility bills received are correct. Periodically review utility bills for possible cost savings. Use rate comparisons to evaluate the cost of service under alternate rate schedules.	n/a	n/a	UCM	1	0	0% Not Started 100% Complete	
Group 5	Action	ACTION 6 (Renegotiate): Operational Energy Strategy Utility Cost Management, 6: Renegotiate contract demand and/or contract dollar minimum with the electric utility in the event of a permanent load reduction.	n/a	n/a	ИСМ	1	0.25	25% Started	
Group 5	Action	ACTION 7 (Sewer Meters): Operational Energy Strategy Utility Cost Management, 7: Sewer meters: Install meters for sewer credit on cooling towers and irrigation systems where appropriate.	n/a	n/a	UCM		0.25	25% Started	
Group 5	Action	ACTION 8 (Quarterly Review): Operational Energy Strategy Utility Cost Management, TARGET: Quarterly review of utility cost management best practices by OEEC.	n/a	n/a	UCM	1	0	0% Not Started	
Group 5	Roll-up	Resilience for Facilities and External Infrastructure	RIB.1a, RIB.1b, RIB.1c, RIB.1d, RIB.1e	n/a	n/a	13	1	8% Early Stages	
Group 5	Strategy	61. Update Capital Improvement Program Process to Include Climate Resilience Considerations	RIB.1a	n/a	n/a	5	0.5	10% Early Stages	
Group 5	Action	ACTION 1: Resilient Fairfax RIB.1a, Action 1: Review the existing CIP process to identify revisions needed to embed consideration of: climate change projections, potential risks from climate hazards, and resilience enhancements for the county's infrastructure and faculities. Resilience enhancements should consider ways a project could enhance overall community resilience. Explore	RIB.1a	n/a	n/a	1	0.25	25% Started	
Group 5	Action	ACTION 2: Resilient Fairfax RIB.10, Action 2: Build a project list of identified resilience projects, including those identified in the Flood Risk Reduction plan and the Hazard Mitigation Plan. Integrate One Fairfax and build upon the completed analysis of the Vulnerability and Risk Assessment to prioritize projects that support the needs of vulnerable populations and/or address ACTION 3: Resilient Fairfax RIB.10, Action 3: Partner with staff responsible for capital	RIB.1a	n/a	n/a	1	0.25	25% Started	
Group 5	Action	improvement evaluation, project management, and implementation to draft proposed revisions.	7.12.13	n/a	n/a	1	0	0% Not Started	
Group 5	Action	ACTION 4: Resilient Fairfax RIB.1a, Action 4: Proceed through revision and approval processes to encourage capital projects that mitigate risk and build resilience to future projected extreme heat, heavy precipitation, coastal flooding, and severe storms. Coordinate with the department responsible for asset management or use in advance of project approval to ensure there are no	RIB.1a	n/a	n/a	1	0	0% Not Started	
Group 5	Action	ACTION 5: Resilient Fairfax RIB.1a, Action 5: Monitor and evaluate CIP implementation results and project outcomes. Adjust process and/or prioritization criteria if needed.	RIB.1a	n/a	n/a				
Group 5	Strategy	62. Enhance Flood Resilience of County Government Buildings and Other Facilities	RIB.1b	n/a	n/a	5	0.25	0% Not Started 5% Early Stages	
Group 5	Action	ACTION 1: Resilient Fairfax RIB.1b, Action 1: Building upon preliminary work conducted during the Resilient Fairfax process, complete an inventory of county buildings and facilities with current and potential future flooding vulnerabilities.	RIB.1b	n/a	n/a		0.25	25% Started	
Group 5	Action	ACTION 2: Resilient Fairfax RIB.1b, Action 2: Categorize building vulnerabilities for appropriate resolution. Example categories could include: those requiring routine maintenance only (FMD, FCPA, FCPS, HCD), those requiring significant capital improvements (agencies' Capital Facilities entities), and those requiring stormwater management improvements on site (DPWES -	RIB.1b	n/a	n/a	1	0	0% Not Started	
Group 5	Action	ACTION 3: Resilient Fairfax RIB.1b, Action 3: Prioritize buildings and facilities for flood resilience upgrades for implementation through appropriate avenues, such as maintenance work orders or the CIP. CIP upgrades should be coordinated with Strategy RIB.1a.	RIB.1b	n/a	n/a	1	0	0% Not Started	
Group 5	Action	ACTION 4: Resilient Fairfax RIB.1b, Action 4: Review current processes for internal county reporting of flooding issues and/or damage to county buildings. Reporting should include both repetitive small-scale flooding and larger-scale flooding events. This process review should include DEMS, FMD, DPWES, FCPA, FCPS, HCD, and designated facilities managers. Clarify roles,	RIB.1b	n/a	n/a	1	0	0% Not Started	
Group 5	Action	ACTION 5: Resilient Fairfax RIB.1b, Action 5: Incorporate findings into facility reporting and improvement processes. Educate staff to provide improved understanding and use of proper reporting systems for each flooding type. These reporting systems may include the Emergency Data Gathering Repository (EDGR), DPWES service requests, and facility maintenance requests.	RIB.1b	n/a	n/a	1	0	0% Not Started	

									•
Group 5	Strategy	os. Efficience of County Facilities	RIB.1c	n/a	n/a	1	0.25	25% Started	
Group 5	Action	ACTION 1: Resilient Fairfax RIB.1c: Enhance the energy resilience of county-owned facilities, particularly new facilities, through strategies such as increasing the availability of on-site back-up power (prioritizing clean power when feasible), elevating equipment, hardening infrastructure, creating energy redundancy, and establishing back-up communications. Coordinate with OEEC's	RIB.1c	n/a	n/a	1	0.25	25% Started	
Group 5	Strategy	64. Enhance Heat Resilience for County Facilities and External Infrastructure	RIB.1d	n/a	n/a	1	0	0% Not Started	
Group 5	Action	ACTION 1: Resilient Fairfax RIB.1d: Include consideration of heat mitigation techniques for new and renovated county facilities, such as heat-resilient trees and shading, energy efficiency and ventilation, cool roofs, passive cooling, and heat-resilient building orientation and materials. Pursue these updates through the CIP process (Strategy RIB.1a) or through resilience-related updates to	RIB.1d	n/a	n/a	1	0	0% Not Started	
Group 5	Strategy	65. Update Procurement Practices for Resilience	RIB.1e	n/a	n/a	1	0	0% Not Started	
Group 5	Action	ACTION 1: Resilient Fairfax RIB.1e: Project scope descriptions for county procurement and Architecture/Engineering contracts should maximize the inclusion of construction methods and design elements that maximize resilience, such as porous material installation, green infrastructure implementation, wetland restoration, and solar plus storage design and construction.	RIB.1e	n/a	n/a	1	0	0% Not Started	
Group 5	Roll-up	Fleet and Transit	n/a	T.7, T.8, T.9, T.10, W.8,	FE, GB	9	3	33% Started	
Group 5	Strategy	66. Electric Fleet Vehicles	N/A	T.7, T.8, T.9, W.8	FE	5	1.25	25% Started	
Group 5	Action	ACTION 1: (CREATE A PLAN): OES Fleet Electrification, TARGET 1: By 2030, develop a plan to use 100% non-carbon emitting fuels for county fleet vehicles. For non-bus fleet vehicles that may not have non-carbon emitting alternatives, develop a plan to mitigate emissions.	n/a	n/a	FE	1	0.25	25% Started	
Group 5	Action	ACTION 2: (COST CALCULATIONS): OES Fleet Electrification, Action 4: Consider the social cost of carbon when evaluating costs for county fleet vehicles.	n/a	n/a	FE	1	0.25	25% Started	
Group 5	Action	ACTION 3: (PASSENGER FLEET TRANSITION): OES Fleet Electrification, Action 1: Continue to reduce reliance on petroleum-based fuels by accelerating the fleet transition to zero- and low-emission vehicles. OES Fleet Electrification, Action 3: Ensure fleet vehicle replacement strategies are consistent with fleet electrification targets. CECAP Implementation Plan T.7: Continue adding EVs to the existing county fleet of passenger vehicles.	n/a	T.7	n/a	1	0.25	25% Started	
Group 5	Action	ACTION 4 (BUS FLEET TRANSITION): CECAP Implementation Plan T.9: Evaluate ways to accelerate and continue to transition the county's transit bus fleet from diesel to electric or other zero-emission vehicles.	n/a	т.9	n/a	1	0.25	25% Started	
Group 5	Action	ACTION 5 (HEAVY DUTY VEHICLE TRANSITION): CECAP Implementation Plan T.8, W.8: When feasible, consider electrifying medium- and heavy-duty fleet vehicles (e.g., trash haulers, shuttles, street sweepers, transit, school buses) and off-road equipment (e.g., mowers, forklifts). Encourage the use of electric trash and recycling trucks to reduce emissons and local air pollution and explore	n/a	T.8, W.8	n/a	1	0.25	25% Started	
Group 5	Strategy	67. Charging Infrastructure and Parking	N/A	T.10	FE, GB	3	1.25	42% Started	
Group 5	Action	ACTION 1: (CHARGING INFRASTRUCTURE): OES Fleet Electrification, Action 2: Install necessary charging infrastructure for county fleet vehicles. Deploy infrastructure needed to support EVs and other alternative-fueled vehicles. Where possible, ensure charging infrastructure can serve both county and school operations. CECAP Implementation Plan T.10: Continue installing EV supply equipment (EVSE) at county buildings, facilities, and parking lots for use by both the public and employees.	n/a	7.10	FE	1	0.5	50% Steady Progress	
Group 5	Action	ACTION 2 (PARKING): OES Fleet Electrification, Action 5: Reserve parking for hybrids and EVs at county government buildings.	n/a	n/a	FE	1	0.25	25% Started	
Group 5	Action	ACTION 3 (EV CHARGING AT NEW COUNTY BUILDINGS): OES Green Buildings, Action 6: Coordinate among agencies to ensure that electric vehicle (EV) charging infrastructure is provided at new and renovated facilities where fleet and/or public vehicle EV charging is appropriate and desirable.	 n/a	n/a	GB	1	0.5	50% Steady Progress	
Group 5	Strategy	68. Reduce Travel	N/A	n/a	FE	1	0.5	50% Steady Progress	
Group 5	Action	ACTION 1: (REDUCE TRAVEL TIME): OES Fleet Electrification, Action 7: Where feasible, implement scheduling and routing practices that reduce vehicle travel time. Use video conferencing solutions that reduce the need for vehicle travel, where practicable.	n/a	n/a	FE	1	0.5	50% Steady Progress	

				n/a	W.1, W.4, W.5, W.7,					
Group 5	Roll-up	Zero Waste and Sustainable Purchasing and Procurement		.,	W.9, W.10, W.11, W.12, W.13, W.14, W.15	G&S, WMR	28	8.75	31% Started	
		Zero waste and Sustamable Purchasing and Procurement		n/a	w.15		20	0./3	31% Started	
Group 5	Strategy	69. Sustainable Purchasing and Procurement		11/ G		G&S	9	2.5	28% Started	
		ACTION 1: CSR: OES Goods and Services, Action 1: Continue to evaluate and improve the county's								
Group 5	Action	Supply Chain Corporate Social Responsibility (CSR) performance. CECAP Implementation Plan: W.15: With respect to county operations, pursue the goals and targets set forth in Fairfax County's		n/a	W.15	G&S				
•		Operational Energy Strategy () regarding () procurement, (i.e., goods and services) and					1	0.5	50% Steady Progress	
		ACTION 2: Purchasing for waste reduction: OES Goods and Services, Action 2: In furtherance of							, ,	
		the Zero Waste target set forth in the Waste Management and Recycling focus area, undertake a								
Group 5	Action	review of purchasing to ensure an understanding of what is being purchased and used, especially		n/a	W.15	G&S				
		paper supplies and other items that can be recycled. CECAP Implementation Plan: W.15: With						0.05	OFO/ Charted	
		respect to county operations, pursue the goals and targets set forth in Fairfax County's Operational					1	0.25	25% Started	
		ACTION 3: Embodied carbon: OES Goods and Services, Action 3: Leverage the county's purchasing power to decarbonize the supply chains associated with purchased products by								
Group 5	Action	adopting embodied carbon procurement policies to source low-carbon products and engage		n/a	W.15	G&S				
		suppliers in targeting a net-zero supply chain. CECAP Implementation Plan: W.15: With respect to					1	0.25	25% Started	
		ACTION 4: Carbon-neutral products: OES Goods and Services, Action 4: When evaluating								
Group 5	Action	products, include carbon and efficiency as considerations. Seek out products that are carbon-		n/a	W.15	G&S				
Group 3	Action	neutral or carbon-negative. CECAP Implementation Plan: W.15: With respect to county operations,		-7-				0.25	25% Started	
		pursue the goals and targets set forth in Fairfax County's Operational Energy Strategy ()					1	0.25	25% Started	
		ACTION 5: ENERGY STAR: OES Goods and Services, Action 5: Require that all major appliances, such as refrigerators and televisions, are ENERGY STAR-certified or equivalent, unless it can be								
Group 5	Action	shown that an energy-efficient option is not available. CECAP Implementation Plan: W.15: With		n/a	W.15	G&S				
		respect to county operations, pursue the goals and targets set forth in Fairfax County's Operational					1	0.25	25% Started	
		ACTION 6: Discourage single-use: OES Goods and Services, Action 6: Promote the use and								
Group 5	Action	purchase of products and services that reduce negative environmental effects on employees, the		n/a	W.15	G&S				
J. J		community, and the environment. Discourage the purchase of sin-gle-use products wherever					1	0.25	25% Started	
		possible. CECAP Implementation Plan: W.15: With respect to county operations, pursue the goals ACTION 7: Contractors: OES Goods and Services, Action 7: Require contractors to use					-	0.20	20% Started	
Current E	0.45	environmentally preferable and sustainable products and practices in performing services for		,		505				
Group 5	Action	Fairfax County Government, where practicable. CECAP Implementation Plan: W.15: With respect to		n/a	W.15	G&S				
		county operations, pursue the goals and targets set forth in Fairfax County's Operational Energy					1	0.25	25% Started	
		ACTION 8: Recycled content: OES Goods and Services, Action 8: Purchase products that include								
Group 5	Action	recycled content or are made of materials that can be recycled, are durable, conserve energy and resources and have the fewest toxic compounds. CECAP Implementation Plan: W.15: With respect		n/a	W.15	G&S				
•		to county operations, pursue the goals and targets set forth in Fairfax County's Operational Energy					1	0.25	25% Started	
		ACTION 9: Suppliers: OES Goods and Services, Action 9: Purchase from suppliers that reuse, take								
Group E	Action	back and/or recycle the product purchased. CECAP Implementation Plan: W.15: With respect to		n/a	W.15	G&S				
Group 5	Action	county operations, pursue the goals and targets set forth in Fairfax County's Operational Energy		11/4	W.13	G&S				
		Strategy () regarding () procurement, (i.e., goods and services) and undertake the actions listed		,			1	0.25	25% Started	_
Group 5	Strategy		2030	n/a	W.14, W.15	WMR				
C. Cup 5		70. Zero Waste and Waste Reduction for County Government Facilities					10	3.75	38% Started	
		ACTION 1: (PLAN FOR ZERO WASTE): OES Waste Management and Recycling, Action 1: Create a			W.14, W.15					
Group 5	Action	plan for county government and schools to achieve Zero Waste by 2030, including the establishment of a central implementation team and funding mechanisms to support all county		n/a		WMR				
		and school agencies in Zero Waste efforts. CECAP Implementation Plan:					1	1	100% Complete	
		ACTION 2: (CULTURE): OES Waste Management and Recycling, Action 2: Foster a culture of			W.14, W.15					
Group E	Action	sustainability by engaging individuals to pursue Zero Waste through collaboration, education, and		n/a		WMR				
Group 5	Action	outreach. W.14: Implement the Zero Waste Plan (). W.15: With respect to county operations,		nyu		VVIVII				
		pursue the goals and targets set forth in Fairfax County's Operational Energy Strategy ()			W 14 W 15		1	0.5	50% Steady Progress	
		ACTION 3: (CONSUMPTION): OES Waste Management and Recycling, Action 3: Reduce consumption to only that which is necessary. Phase out single-use products and packaging			W.14, W.15					
Group 5	Action	wherever possible. W.14: Implement the Zero Waste Plan (). W.15: With respect to county		n/a		WMR				
		operations, pursue the goals and targets set forth in Fairfax County's Operational Energy Strategy					1	0.25	25% Started	
		ACTION 4: (CIRCULAR ECONOMY): OES Waste Management and Recycling, Action 4: Support a			W.14, W.15					
Group 5	Action	circular economy by purchasing more durable, reusable, repairable, and recyclable materials that		n/a		WMR				
J. Oak J		are produced sustainably and adopting closed-loop systems. W.14: Implement the Zero Waste Plan					1	0.25	25% Started	
		(). W.15: With respect to county operations, pursue the goals and targets set forth in Fairfax ACTION 5: (VALUE): OES Wa ste Management and Recycling, Action 5: Once products and			W.14, W.15		1	0.20	2070 Started	
C F		packaging can no longer serve their intended purposes, treat materials and valuable resources		,	,					
Group 5	Action	rather than waste by recycling, composting, or devising new uses for them. Pursue regional		n/a		WMR				
		initiatives where appropriate. W.14: Implement the Zero Waste Plan (). W.15: With respect to					1	0.5	50% Steady Progress	
		ACTION 6 (SUPPORT TRANSITION): OES Waste Management and Recycling, 6: Explore the			W.14, W.15					
Group 5	Action	development and implementation of new policies, programs, and facility upgrades to support the		n/a		WMR				
		transition to Zero Waste					1	0.25	25% Started	
		ACTION 7: (AUDITS): OES Waste Management and Recycling, 7: Periodically conduct trash and			W.14, W.15		-			
Croup F	A c+: - :-	recycling audits. W.14: Implement the Zero Waste Plan (). W.15: With respect to county		n/a	, .	M/M/D				
	Action			n/a		WMR				
Group 5		operations, pursue the goals and targets set forth in Fairfax County's Operational Energy Strategy								
Group 5		operations, pursue the goals and targets set forth in Fairfax County's Operational Energy Strategy () regarding waste management and recycling ().					1	0.5	50% Steady Progress	

	1	ACTION 8: (COMPOSTING): OES Waste Management and Recycling, 8: Expand county composting		W.14, W.15				_
Group 5	Action	operations. W.14: Implement the Zero Waste Plan (). W.15: With respect to county operations, pursue the goals and targets set forth in Fairfax County's Operational Energy Strategy ()	n/a	·	WMR			
		regarding waste management and recycling ().				1	0.25	25% Started
Craun F	0 -41	ACTION 9 (CDD): OES Waste Management and Recycling, 9: Develop and implement a recycling program for construction/demolition debris (CDD). W.14: Implement the Zero Waste Plan ().	,	W.14, W.15				
Group 5	Action	W.15: With respect to county operations, pursue the goals and targets set forth in Fairfax County's Operational Energy Strategy () regarding waste management and recycling ().	n/a		WMR	1	0.25	25% Started
		ACTION 10 (RENEWABLES FOR WASTE): OES Waste Management and Recycling, 10: Use		W.14, W.15		-	0.20	20% started
Group 5	Action	renewable energy in support of waste process applications. W.14: Implement the Zero Waste Plan (). W.15: With respect to county operations, pursue the goals and targets set forth in Fairfax	n/a		WMR			
		County's Operational Energy Strategy () regarding waste management and recycling ().		W.1, W.4, W.5, W.7,		1	0	0% Not Started
Group 5	Strategy	74. Zone Wester and Wester Dadustion for the Community	n/a	W.9, W.10, W.11, W.12,	n/a		0.5	000/ 00-1-1
		71. Zero Waste and Waste Reduction for the Community ACTION 1: CECAP Implementation Plan W.1: Prioritize source reduction and reuse, followed by		W.1		9	2.5	28% Started
Group 5	Action	recycling and composting.	n/a		n/a			
						1	0.5	50% Steady Progress
C 5	0 -41	ACTION 2: CECAP Implementation Plan W.4: Divert food and yard waste by establishing and expanding different types of composting programs.	,	W.4	,			
Group 5	Action		n/a		n/a	1	0.5	50% Steady Progress
		ACTION 3: CECAP Implementation Plan W.5: Use lessons learned from the government-focused		W.5		_		
Group 5	Action	Zero Waste program to work with the community members to create community-focused Zero Waste programs.	n/a		n/a			
		ACTION 4: CECAP Implementation Plan W.7: Improve existing curbside waste pick-up models,		W.7		1	0.25	25% Started
Group 5	Action	$including\ the\ potential\ for\ county\ action\ to\ coordinate\ pick-ups\ with\ county\ and\ private\ haulers\ and$	n/a		n/a			
		ways to optimize pickup frequency.				1	0	0% Not Started
		ACTION 5: CECAP Implementation Plan W.9: Explore ways to ensure that waste contracts align with best practices and best available technology for reducing emissions.		W.9				
Group 5	Action	3,,	n/a		n/a	1	0	0% Not Started
		ACTION 6: CECAP Implementation Plan W.10: Continue monetary penalties for recycling		W.10		-	Ü	5% Notificated
Group 5	Action	violations, and consider potential expansion.	n/a		n/a			
		ACTION 7: CECAP Implementation Plan W.11: Continue successful county waste management		W.11		1	0.25	25% Started
Group 5	Action	activities, including () Purple Can Club.	n/a	W.11	n/a			
						1	0.75	75% Significant Progress
		ACTION 8: CECAP Implementation Plan W.12: Follow up on the concrete recycling pilot program at the I-95 Landfill by seeking additional opportunities to recycle construction and/or demolition		W.12				
Group 5	Action	debris	n/a		n/a	1	0.25	25% Started
		ACTION 9: CECAP Implementation Plan W.13: Evaluate legal, operational and equity issues		W.13		-	0.20	20% Started
Group 5	Action	associated with a "pay as you throw" disposal model, a model in which customers pay a rate that reflects the amount of service they use.	n/a		n/a			
		· · · · · · · · · · · · · · · · · · ·	IAP.Zd, IAP.ZC,	D55 25 56 40 ND 7		1	0	0% Not Started
Group 6	Roll-up		IAP.2d, IAP.2e,	BEE.25, ES.19, NR.7, NR.9, NR.13, T.22, W.6,	EUE, R&C			
		Data and Map Updates	IAP.2f, IAP.2g,	W.18		15	9.5	63% Steady Progress
Group 6	Strategy	72. Develop a Metrics and Tracking System for Ongoing Assessment of	IAP.2a	n/a	n/a	3	2.25	750/ Circlifficant Burgary
		Climate Progress ACTION 1: Progress Tracking System: Resilient Fairfax IAP.2a, Action 1: Building from the Key				3	2.25	75% Significant Progress
Group 6	Action	Performance Indicators and tracking tool developed through the Resilient Fairfax plan, design a monitoring and evaluation process, schedule, and tracking system to track implementation	IAP.2a	n/a	n/a			
		progress over time.				1	0.75	75% Significant Progress
Croup 6	Action	ACTION 2: Annual Progress Report - Resilience: Resilient Fairfax IAP.2a, Action 2: Develop an annual progress report that documents progress made, key successes, and future needs. Collect	IAP.2a	n/a	2/2			
Group 6	Action	data and information from implementation leads on the status of each strategy using the Key Performance Indicators established in the Resilient Fairfax plan. Data requests will be streamlined	IAP.2U	n/a	n/a	1	1	100% Complete
		ACTION 3: Climate Resilience Index: Resilient Fairfax IAP.2a, Action 3: Explore development of a				=	=	
Group 6	Action	climate resilience index that includes resilience-related metrics, such as vulnerable populations, climate hazard exposure, environment, proximity to critical services/facilities, social factors, and	IAP.2a	n/a	n/a			
		built infrastructure.		BEE.25, ES.19, NR.13,		1	0.5	50% Steady Progress
Group 6	Strategy	73. Tracking of Emisisons Reduction Progress	n/a	T.22, W.6, W.18	EUE, R&C	5	4	80% Significant Progress

Group 6	Action	ACTION 1: Public-Facing Progress and Dashboard: Operational Energy Strategy Reporting and Collaboration: GOAL: Communicate the county's progress to the Board and the community. Operational Energy Strategy Reporting and Collaboration: Action 2: Maintain and update county webpages highlighting accomplishments in emissions reductions, energy efficiency, and conservation		n/a	n/a	R&C	1 0.75	75% Significant Progress	
Group 6	Action	ACTION 2: Annual Progress Reports – Emissions Reduction: Operational Energy Strategy Reporting and Collaboration: TARGET: Progress toward the OES goals and targets will be reported to the public and Board of Supervisors annually. Operational Energy Strategy Reporting and Collaboration: Action 1: Progress updates: Periodically update the Board and public on progress made in implementing the OES with the parameters of that reporting to be guided by the Board's Environmental Committee.		n/a	n/a	R&C	1 1	100% Complete	
Group 6	Action	ACTION 3: Energy use data for county facilities: Operational Energy Strategy Energy Use and Efficiency: Collect energy use data across the enterprise. Benchmark and analyze this information to monitor facility performance and identify opportunities for energy improvements.		n/a	n/a	EUE	1 1	100% Complete	
Group 6	Action	ACTION 4: Waste-to-Energy Data. CECAP Implementation Plan W.6: Continue providing information on climate impacts from waste-to-energy (WTE) facilities in Fairfax County, consider possible expansion.		n/a	W.6	n/a	1 1	100% Complete	
Group 6	Action	ACTION 5: CECAP Implementation Plan BEE.25, ES.19, NR.13, T.22, W.18: Evaluate progress on the CECAP GHG reduction goals at the 2030 and 2040 milestone periods and determine the actions needed to achieve the overall goal of carbon neutrality by 2050.		n/a	BEE.25, ES.19, NR.13, T.22, W.18	n/a	1 0.25	25% Started	
Group 6	Strategy	74. Data on Natural Resources		IAP.2f	NR.7, NR.9	n/a	2 1.25	63% Steady Progress	
Group 6	Action	ACTION 1: TREE CANOPY DATA: Resilient Fairfax IAP.2f: Continue to Collect Tree Canopy Data. Regularly update the tree canopy data layer to support strategic and equitable tree planting. CECAP Implementation Plan NR.7: Continue monitoring, measuring, and tracking changes in tree canopy over time.		IAP.2f	NR.7	n/a	1 0.75	75% Significant Progress	
Group 6	Action	ACTION 2: PROGRESS MONITORING FOR NATURAL RESOURCES: CECAP Implementation Plan NR.9: Monitor and evaluate progress on county natural resources sector programs.		n/a	NR.9	n/a	1 0.5	50% Steady Progress	
Group 6	Strategy	73. Bata on Flooding and Hazards		IAP.2c, IAP.2d, IAP.2e, IAP.2g	n/a	n/a	4 1.5	38% Started	
		ACTION 1: Create Consolidated Database of Flood-Prone Areas: Resilient Fairfax IAP.2c: Consolidate currently separate databases of flood-prone and storm-affected areas to provide							
Group 6	Action	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking.		IAP.2c	n/a	n/a	1 0.5	50% Steady Progress	
Group 6 Group 6	Action Action	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal		IAP.2c	n/a	n/a n/a	1 0.5 1 0.5	50% Steady Progress 50% Steady Progress	
		comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking. ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should							
Group 6	Action	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking. ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should consider effects of impervious surfaces. ACTION 3: Hazard Mitigation Tracking: Resilient Fairfax IAP.2e: Create a tracking database to record hazard mitigation retrofits and future cost savings and expenditures. Build upon and align		IAP.2d	n/a	n/a	1 0.5	50% Steady Progress	
Group 6 Group 6	Action Action	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking. ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should consider effects of impervious surfaces. ACTION 3: Hazard Mitigation Tracking: Resilient Fairfax IAP.2e: Create a tracking database to record hazard mitigation retrafits and future cost savings and expenditures. Build upon and align with the Hazard Mitigation Plan documentation. ACTION 4: Support Updates to LiDAR Data: Resilient Fairfax IAP.2g: Support regular updates of		IAP.2d IAP.2e	n/a	n/a n/a	1 0.5	50% Steady Progress 0% Not Started	
Group 6 Group 6 Group 6	Action Action Action	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking. ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should consider effects of impervious surfaces. ACTION 3: Hazard Mitigation Tracking: Resilient Fairfax IAP.2e: Create a tracking database to record hazard mitigation retrofits and future cost savings and expenditures. Build upon and align with the Hazard Mitigation Plan documentation. ACTION 4: Support Updates to LiDAR Data: Resilient Fairfax IAP.2g: Support regular updates of Fairfax County GIS LiDAR data to facilitate resilience-related GIS analyses.		IAP.2d IAP.2e IAP.2g	n/a n/a	n/a n/a n/a	1 0.5	50% Steady Progress 0% Not Started 50% Steady Progress	
Group 6 Group 6 Group 6 Group 6	Action Action Action Strategy	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking. ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should consider effects of impervious surfaces. ACTION 3: Hazard Mitigation Tracking: Resilient Fairfax IAP.2e: Create a tracking database to record hazard mitigation retrofits and future cost savings and expenditures. Build upon and align with the Hazard Mitigation Plan documentation. ACTION 4: Support Updates to LiDAR Data: Resilient Fairfax IAP.2g: Support regular updates of Fairfax County GIS LiDAR data to facilitate resilience-related GIS analyses. 76. Data on Health ACTION 1: Resilient Fairfax IAP.2h: Collect Climate Change and Vector-Borne Disease Data: Collect data on and map current disease-carrying insect vector populations, and monitoring of vector-borne diseases throughout Fairfax County, considering future conditions on vector	Every year	IAP.2d IAP.2e IAP.2g	n/a n/a n/a	n/a n/a n/a	1 0.5 1 0 1 0.5	50% Steady Progress 0% Not Started 50% Steady Progress 50% Steady Progress	
Group 6 Group 6 Group 6 Group 6	Action Action Action Strategy Action	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking. ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should consider effects of impervious surfaces. ACTION 3: Hazard Mitigation Tracking: Resilient Fairfax IAP.2e: Create a tracking database to record hazard mitigation retrofits and future cost savings and expenditures. Build upon and align with the Hazard Mitigation Plan documentation. ACTION 4: Support Updates to LiDAR Data: Resilient Fairfax IAP.2g: Support regular updates of Fairfax County GIS LiDAR data to facilitate resilience-related GIS analyses. 76. Data on Health ACTION 1: Resilient Fairfax IAP.2h: Collect Climate Change and Vector-Borne Disease Data: Collect data on and map current disease-carrying insect vector populations, and monitoring of vector-borne diseases throughout Fairfax County, considering future conditions on vector populations. Climate-Related Research	Every year	IAP.2d IAP.2e IAP.2g IAP.2h	n/a n/a n/a n/a	n/a n/a n/a n/a	1 0.5 1 0.5 1 0.5 1 0.5	50% Steady Progress 0% Not Started 50% Steady Progress 50% Steady Progress	
Group 6 Group 6 Group 6 Group 6 Group 6 Group 6	Action Action Action Strategy Action Roll-up	comprehensive documentation of vulnerable areas. Pursue potential expansion of internal databases such as the Emergency Data Gathering Repository (EDGR) to enable long-term tracking. ACTION 2: Continue to Collect Rainfall Data: Resilient Fairfax IAP.2d: Collect localized rainfall data and consolidate regional rain gauge networks. Rainfall data collection and analysis should consider effects of impervious surfaces. ACTION 3: Hazard Mitigation Tracking: Resilient Fairfax IAP.2e: Create a tracking database to record hazard mitigation retrofits and future cost savings and expenditures. Build upon and align with the Hazard Mitigation Plan documentation. ACTION 4: Support Updates to LiDAR Data: Resilient Fairfax IAP.2g: Support regular updates of Fairfax County GIS LiDAR data to facilitate resilience-related GIS analyses. 76. Data on Health ACTION 1: Resilient Fairfax IAP.2h: Collect Climate Change and Vector-Borne Disease Data: Collect data on and map current disease-carrying insect vector populations, and monitoring of vector-borne diseases throughout Fairfax County, considering future conditions on vector populations. Climate-Related Research	Every year	IAP.2d IAP.2e IAP.2g IAP.2h IAP.2h	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a	1 0.5 1 0.5 1 0.5 1 0.5 4 0.75	50% Steady Progress 0% Not Started 50% Steady Progress 50% Steady Progress 50% Steady Progress	

Group 6	Action	ACTION 3: Resilient Fairfax IAP-2b: Support climate-related research and data collection through () internship opportunities ().	IAP.2b	n/a	n/a	1 0.25	25% Started	
Group 6	Action	ACTION 4: Resilient Fairfax IAP.2b: Support climate-related research and data collection through () citizens science projects.	IAP.2b	n/a	n/a	1 0.25	25% Started	