OFFICE OF
Environmental and
Energy Coordination
FAIRFAX COUNTY

2024

CLIMATE ACTION PROGRESS AND HIGHLIGHTS



Foreword



John Morrill, Director
OEEC

"Together, we have advanced innovative projects and programs, secured substantial funding, and increased community engagement to bolster climate action initiatives."

Dear Fairfax County Community,

I am pleased to present the 2024 Climate Action Progress and Highlights for the Office of Environmental and Energy Coordination (OEEC). This report encapsulates the strides Fairfax County has made in our collective journey towards sustainability, energy efficiency, and climate resilience. Our achievements this past year, recognized through multiple awards and significant project completions, underscore our steadfast commitment to creating a greener, healthier, and more sustainable community for all.

The past year has been marked by exceptional collaboration across various county departments, dedicated effort from our staff, and robust community engagement. Together, the county has advanced innovative projects and programs and secured substantial funding. Our comprehensive approach, integrating updated development codes, enhanced public services, and strategic natural resource management, has set a strong foundation for continued progress.

We remain focused on the path ahead. The challenges posed by climate change demand ongoing dedication and proactive measures. With the continued support of our community, partners, and dedicated county staff, I am confident that Fairfax County will continue to lead by example, ensuring a sustainable future for generations to come.

Thank you for your support.



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Our Year in Numbers

$41.6 million

in grant funding awarded for climate action

1,557

approved service requests for Cooling Assistance program

$900K+

worth of efficiency upgrades by Energy Conservation Assistance Program participants

1,800+

sign ups to Solarize and Switch Together (Solar Switch) programs

16

communities in Charge Up Fairfax program

51

Green Business Partners and Allies

Introduction


Fairfax County Government Center

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 Community-wide Energy and Climate Action Plan (CECAP), the Operational Energy Strategy (OES), and Resilient Fairfax.

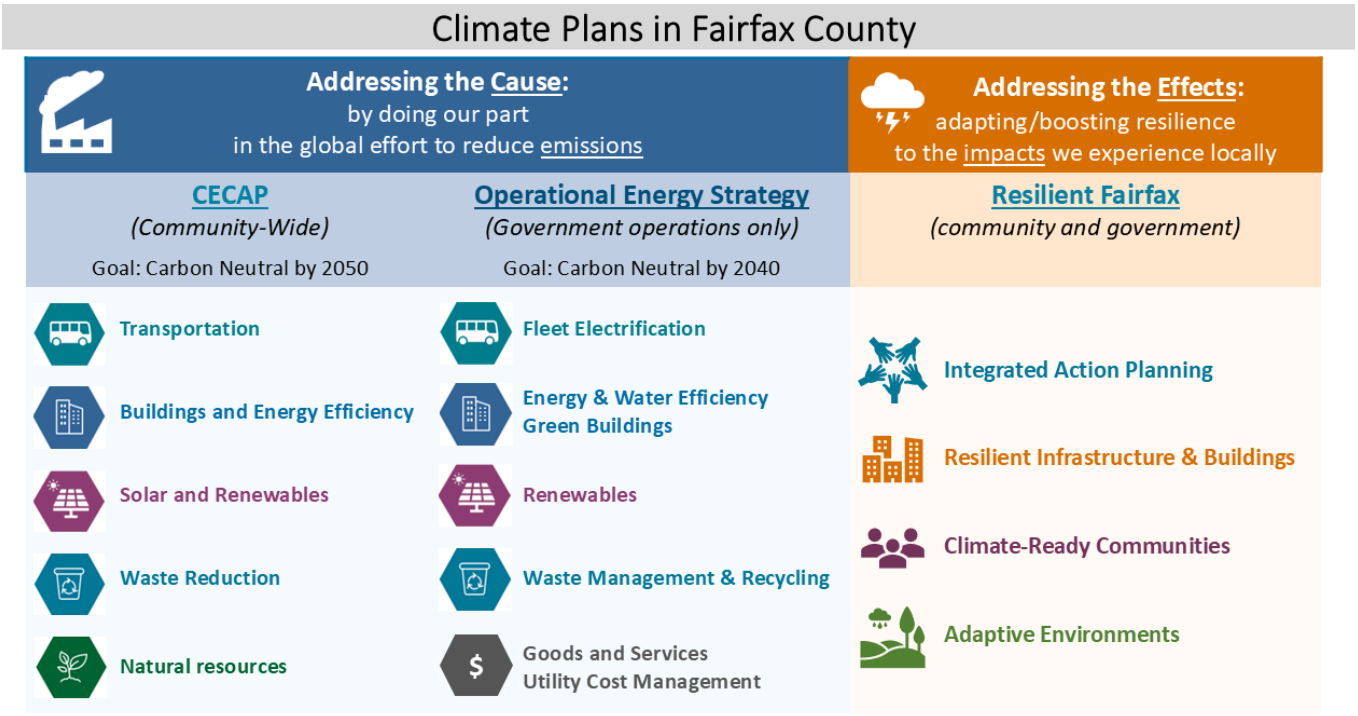


Figure 1: Climate plans and major topics within each plan

As summarized in Figure 1, CECAP and 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.

The Resilient Fairfax plan, in contrast, is focused on boosting resilience to the effects of climate change or addressing vulnerabilities to climatic hazards that we experience locally such as increasing extreme heat, severe storms and flooding.

The Resilient Fairfax plan applies to both the general population and county government. The plan defines goals, strategies, and implementation actions organized under four pillars: Integrated Action Planning, Climate Ready Communities, Resilient Infrastructure and Buildings, and Adaptive Environments.

This report is a snapshot of progress on the implementation of all three climate plans in Fairfax County for 2024. It complements the Climate Action Dashboard and resources for residents, organizations, and businesses available on the Office of Environmental and Energy Coordination website. OEEC also publishes a monthly e-newsletter featuring highlights and success stories from the county's climate action initiatives.

How the Plans are Implemented

CECAP and the CECAP Implementation Plan were accepted by the Board of Supervisors (BOS) in September 2021 and December 2022, respectively. OES was adopted by the BOS in July 2021. Resilient Fairfax was adopted by the BOS in November 2022. For greatest efficiency, the county is implementing all three plans in a streamlined and consolidated manner.

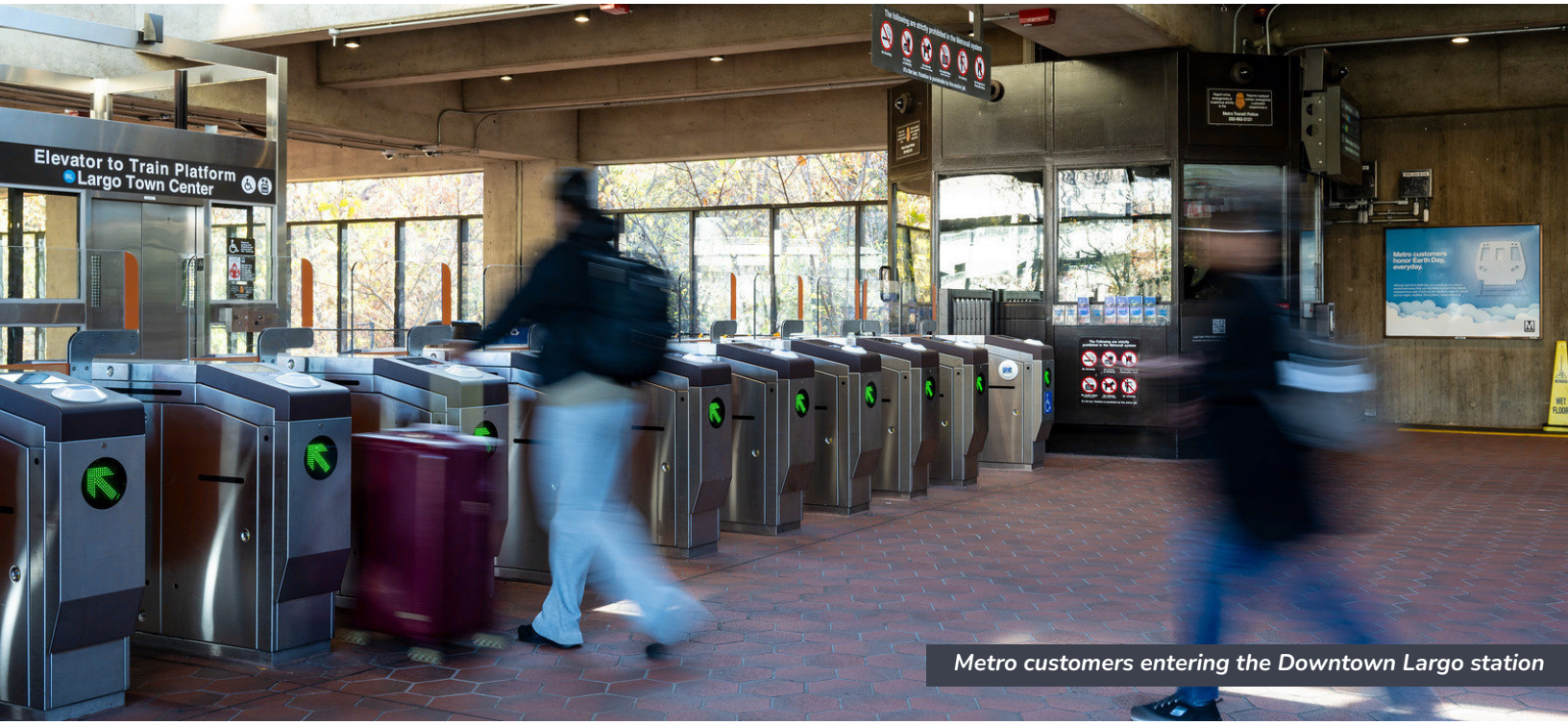


Figure 2: Organization of climate plan strategies into groups for implementation

As summarized in Figure 2, strategies from all three plans were compiled and then sorted by topic area. Six strategy groups emerged.

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 of the highlights listed in this progress report are implemented by multiple agencies or by agencies other than OEEC.**

Key Targets and Metrics



Metro customers entering the Downtown Largo station

Emissions Reduction Metrics for the Population

Key metrics are being tracked to demonstrate progress towards the overarching goals and targets of the climate action plans.

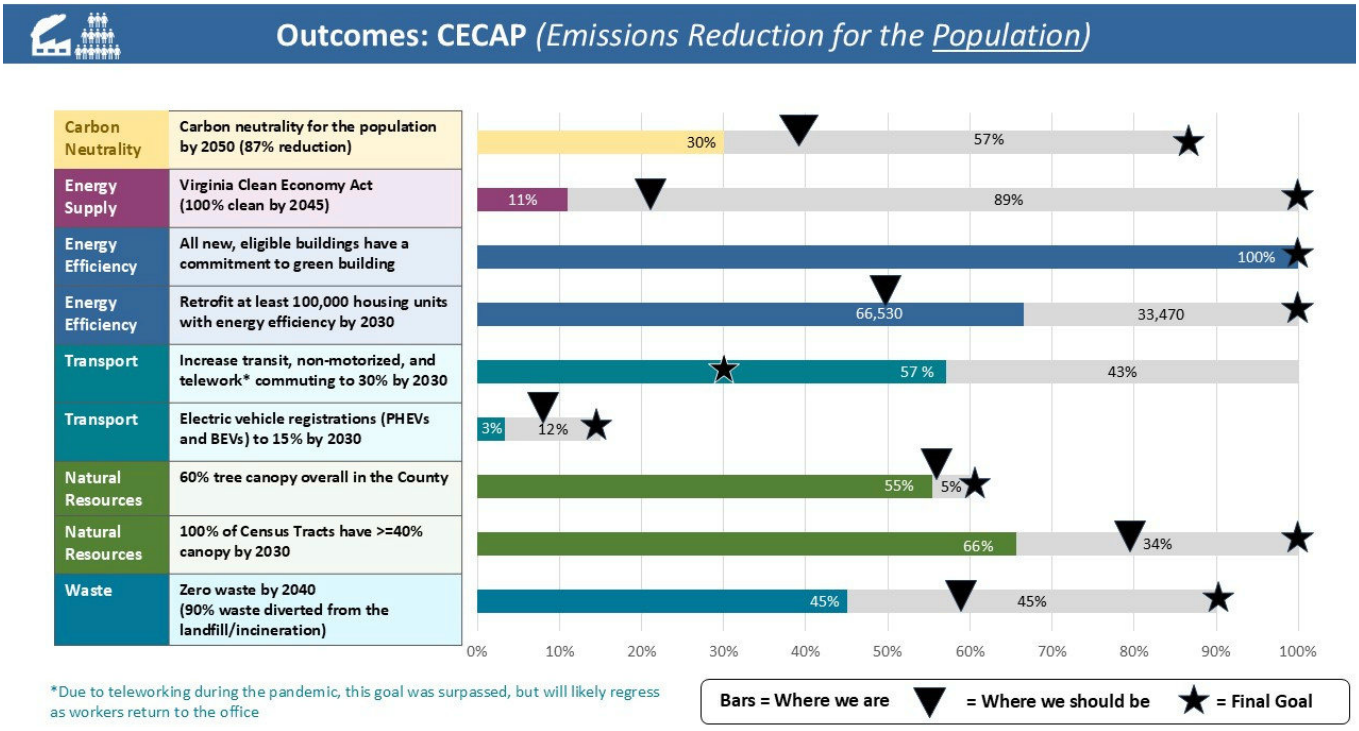


Figure 3: CECAP Goals and Targets

Figure 3 illustrates progress on the outcome metrics for CECAP. These outcome metrics were set by the community during the CECAP planning process. The primary or headline 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 to reach our goal on time. This metric will next be updated by MWCOG with 2023 data that is scheduled to be available in late 2025. The community also set many of the sector-based goals shown below. 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,** CECAP 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**, CECAP 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 (It does not apply to "by-right" development). This goal has been reached through day-to-day implementation of the green building policy. The second buildings sector goal in CECAP is to retrofit at least 100,000 existing housing units with energy efficiency improvements by 2030. There had been steady progress toward this goal, with at least 66,530 known housing units already having made energy efficiency improvements through various county, state, and utility programs.

For the **transportation sector**, CECAP 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 may 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, currently 3.4% 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.

CECAP has two goals for the **natural resources sector**: 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 tree planting programs available throughout Fairfax County to contribute to this effort. 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, 65.7% of census tracts are meeting this coverage goal (note that this number has changed since the last progress report due to changes in measurement methodology). 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 45% 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 through participation in composting and recycling efforts.

For additional information, graphics and metrics, see the Climate Action Dashboard.

Emissions Reduction Metrics for County Government Operations

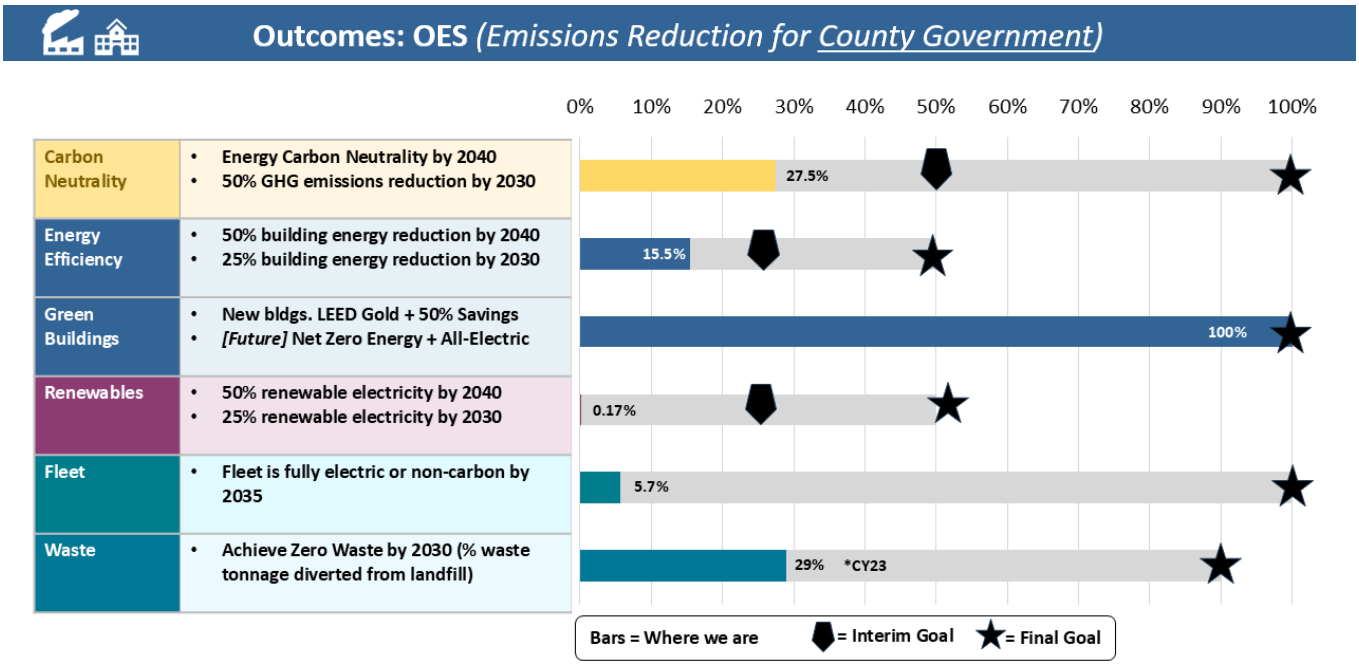


Figure 4: Operational Energy Strategy High-Level Metrics

Figure 4 summarizes progress made on the outcome metrics for OES, 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.

OES 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 27.5%, compared to the 2018 baseline year. In addition to the overarching emissions reduction goal, OES 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 15.5%. For more information on performance of buildings, see the County Government Energy Data page.

The OES also sets a goal of building all new county government to Leadership in Energy and Environmental Design (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**, OES 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 using 2018 as the baseline. In 2024, the county government installed solar photovoltaic (PV) systems on its buildings for the first time and generated 0.17% electricity from solar compared to the 2018 baseline. The county does not yet count the portion of electricity from the utility grid that is from renewable sources, which now contributes about 12% of the total power in Virginia, including about 6% from solar photovoltaics.

The **transportation sector** for OES is focused on fleet electrification, aiming to achieve a fully electric or non-carbon fleet by 2035. To date, 245 hybrid and electric fleet vehicles have been purchased, making up 5.7% 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. See the Zero Waste page for more information.

For additional information, graphics and metrics, see the Climate Action Dashboard.

Adaptation and Resilience Metrics

In addition to reducing emissions (addressing the cause of climate change), it is also essential that we adapt and build resilience to the effects of climate change. As the county faces “warmer, wetter, and weirder” conditions, we are working to better handle such changing conditions.

Climate resilience means being able to bounce back fully from climate-related shocks and stressors without suffering permanent loss of life, property, and resources. **Climate adaptation** means continuously adjusting our practices, infrastructure, natural resources, and services to adapt to changing climatic conditions. In other words, resilience helps us return to the status quo after a disaster, while adaptation helps us modernize the status quo itself.

Resilience and adaptation metrics are more complex than emissions reduction metrics. While emissions reduction metrics have a clear finish line (reduce carbon emissions by a set amount), resilience and adaptation efforts could be compared to running on a treadmill that is continually accelerating. While we are adapting and building resilience to climatic hazards, the hazards themselves continue to intensify. The county’s Resilient Fairfax efforts are crucial to ensure that we continue to get stronger and keep up with the acceleration, rather than falling off the back of the “treadmill.” Therefore, while there is no such thing as eliminating climate vulnerabilities, we measure progress on specific resilience and adaptation strategies, programs, and outcomes.

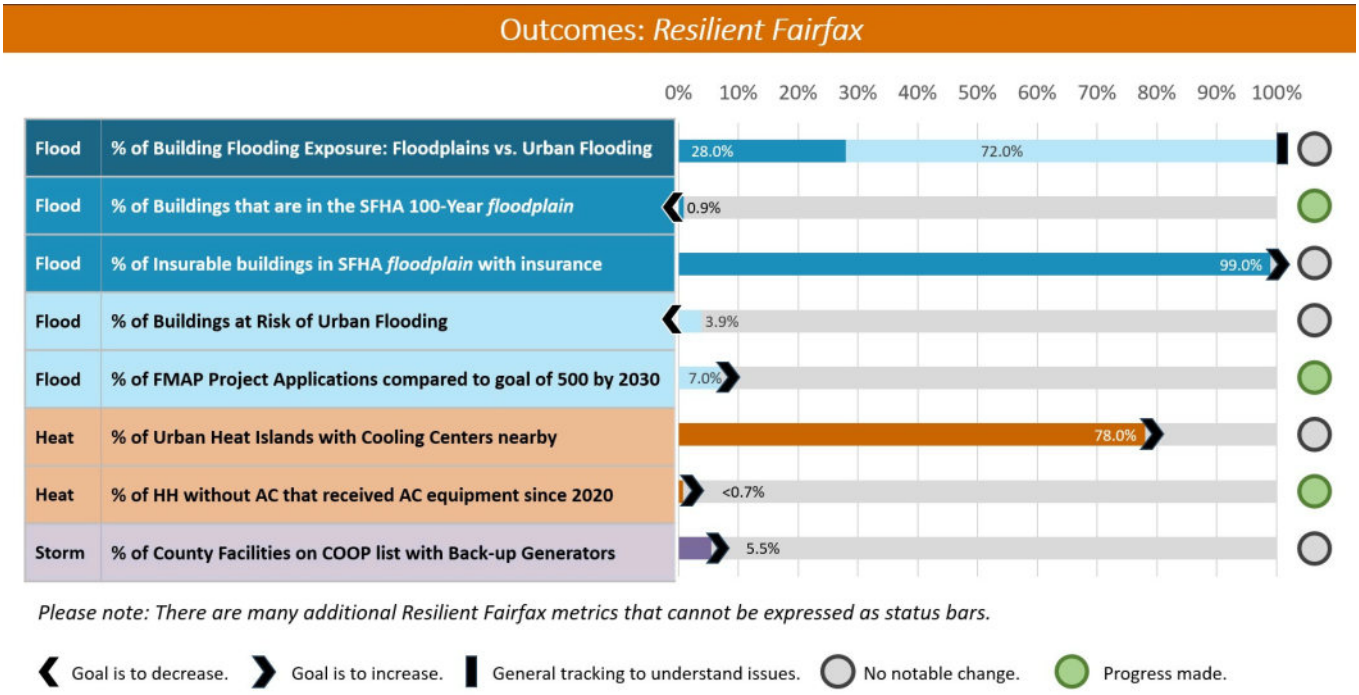


Figure 5: Resilient Fairfax High Level Metrics

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 Figure 5.

In Fairfax County, we have both riverine (floodplain) and urban flooding. Urban flooding is a larger issue. When we look at buildings at potential risk of flooding in Fairfax County, 28% are in floodplains, while the remaining 72% are vulnerable to potential urban flooding. In Fairfax County, floodplains are fairly well-protected. Only 0.9% of all buildings in Fairfax County (2,215 structures) are in FEMA 100-Year floodplains. Of those, 1,573 are insurable structures. 99% of the insurable buildings (1,554 of 1,573) have the required flood insurance. Buildings in the SFHA have a mandatory flood insurance purchase requirement as a condition for obtaining a federally backed mortgage. However, outside of the floodplains, there are over 10,000 homes at risk of urban flooding, due to factors such as insufficient stormwater management infrastructure, increasing impervious surfaces, ponding condition and blocked water flow paths, among other factors.

The county is addressing these flooding issues through a combination of policy updates, capital projects, and community services. Staff are conducting research to update stormwater design standards and are also continuously completing capital projects to resolve known flooding issues. In terms of community services, the Conservation Assistance Program continues its success, and the Flood Mitigation Assistance Program (FMAP) was newly launched in July 2024. FMAP has a goal of approximately 100 projects per year, which would mean approximately 500 projects by 2030. Less than one year into the program, 35 FMAP applications have been approved to date, or 7% of the 2030 milestone.

For heat, the county provides Cooling Centers, cooling programs, tree planting, and more. 78% of Urban Heat Islands in Fairfax County have Cooling Centers nearby, thanks to the county's updated Cooling Center services. "Nearby" is defined as having a Cooling Center either within the same Census Tract as the UHI or in a directly adjacent Census Tract. In terms of air conditioning access at home, there are continued opportunities for progress. An estimated 5% of Virginia households may lack air conditioning equipment, according to a 2020 survey by EIA. This translates to 20,793 households in Fairfax County. Since that survey, 153 households (<1% of households in need) have received assistance with air conditioning equipment (not to be confused with bill payment assistance) through county programs (Cooling Assistance or AC Rescue).

For storm resilience, there are also opportunities for enhanced resilience using back-up power sources. Of the 312 county government facilities on the county's Continuity of Operations list, 17 facilities, or 5.5%, have generators.

Climate Conditions Data

OEEC also maintain metrics on Fairfax County's climate itself, so that we remain aware of historic, current, and projected conditions.

Warmer

Figures 6 and 7 show average temperatures per year and the number of hot nights per year, respectively, in Fairfax County since 1962. While there is variation year-to-year, there is a prevalent warming trend.

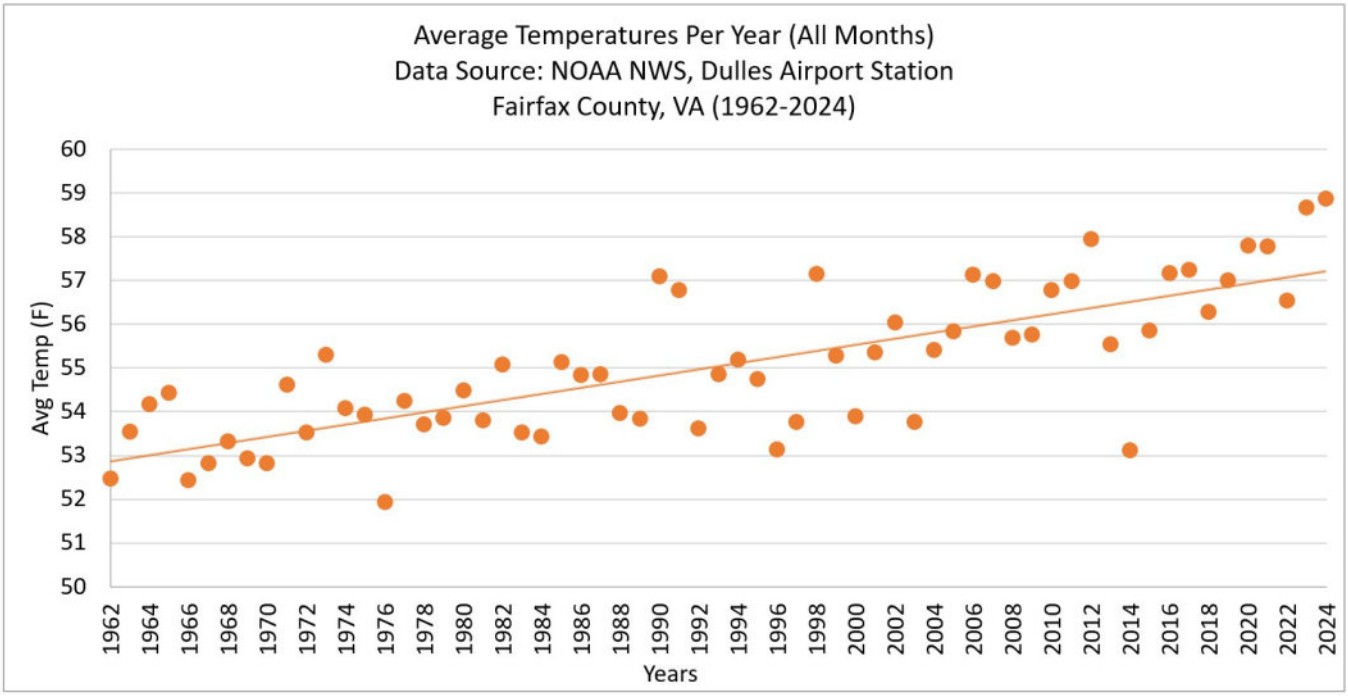


Figure 6: Average Temperatures Per Year in Fairfax County

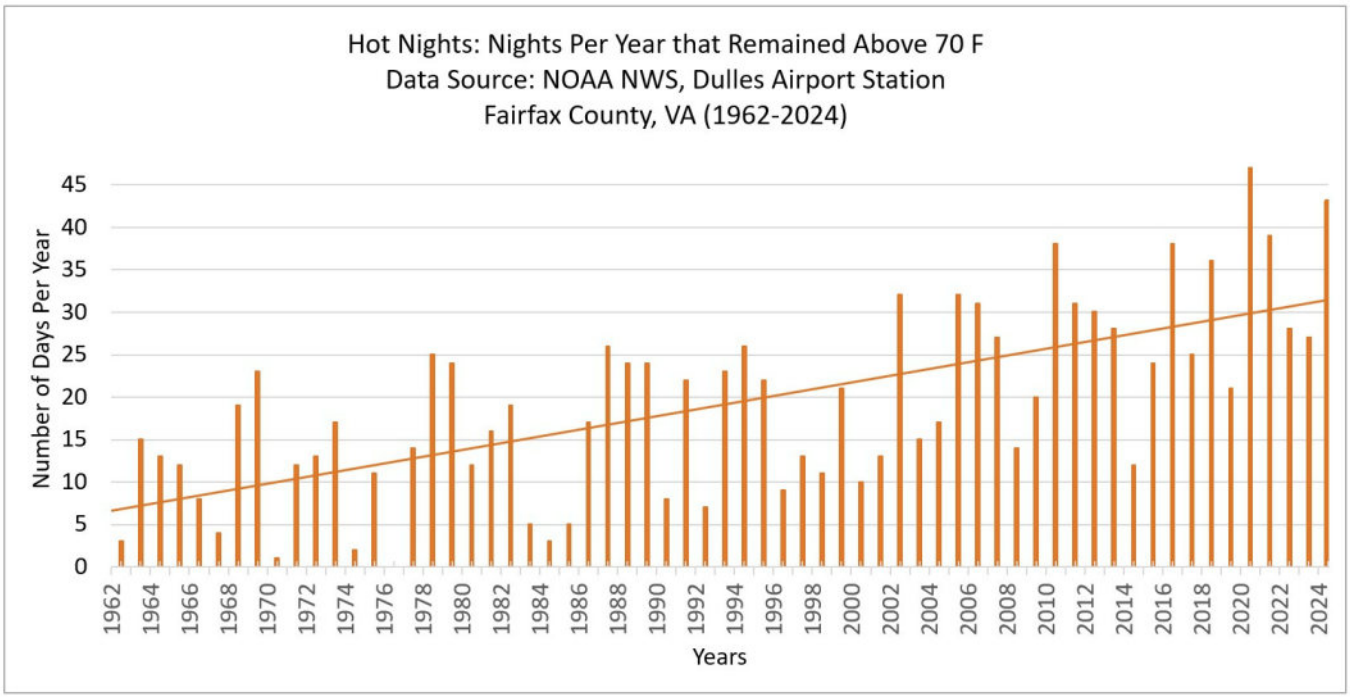


Figure 7: Hot Nights Per Year in Fairfax County

Wetter

Figure 8 shows flood and flash flood events in Fairfax County since 1996 that were of sufficient intensity to be logged by the National Oceanic and Atmospheric Administration (NOAA) Storm Event Database. While there is variation year-to-year, there has been a notable increase over time in the prevalence of these flooding events in Fairfax County. Warmer air can hold more moisture, resulting in heavier rain events. An increase in impervious surfaces such as asphalt and concrete also exacerbates flooding.

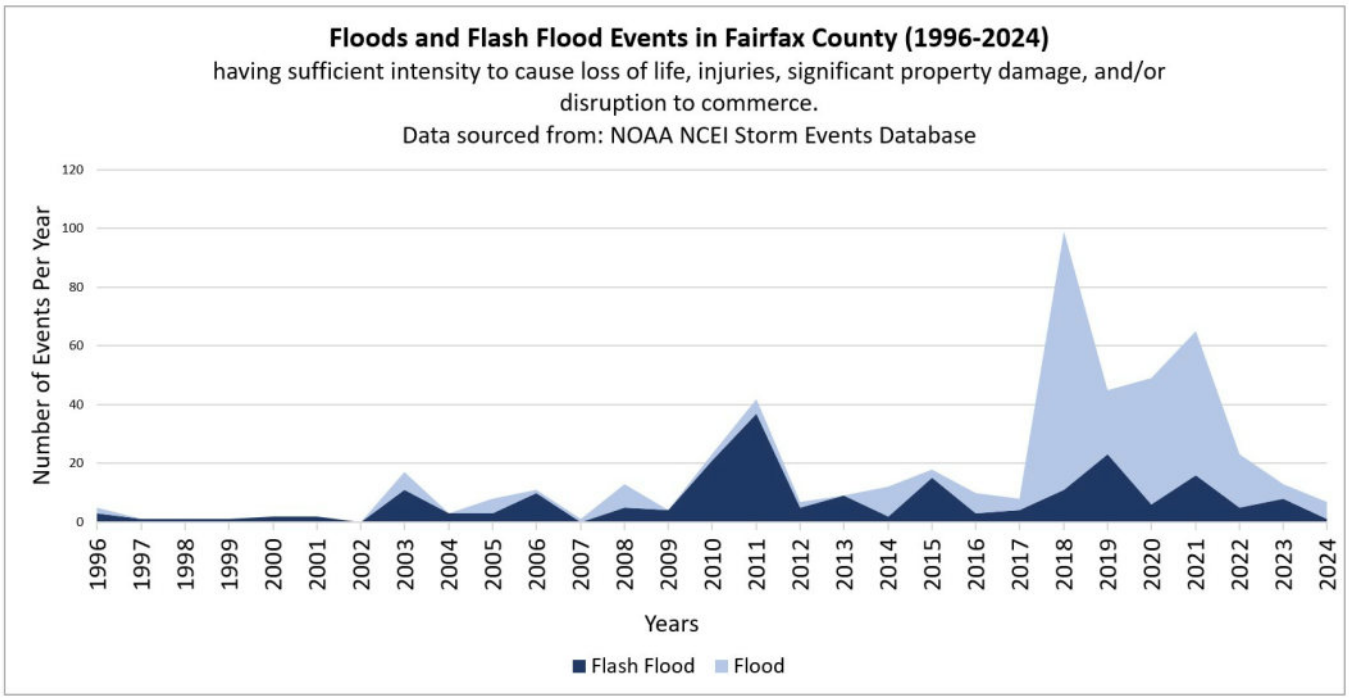


Figure 8: Flood and Flash Flood Events Per Year in Fairfax County

Figure 9 shows the rise in Potomac River water levels since 1924, as measured by the Washington DC tide gauge. From 1924-2024, the water level has risen 1.15 feet or 13.8 inches so far. The relative sea level trend is 3.49 mm/year (.014 inches/year). This rise is projected to continue, for an additional rise of 1.10 - 3.56 feet by 2050 or 1.76 - 11.27 feet by 2100.

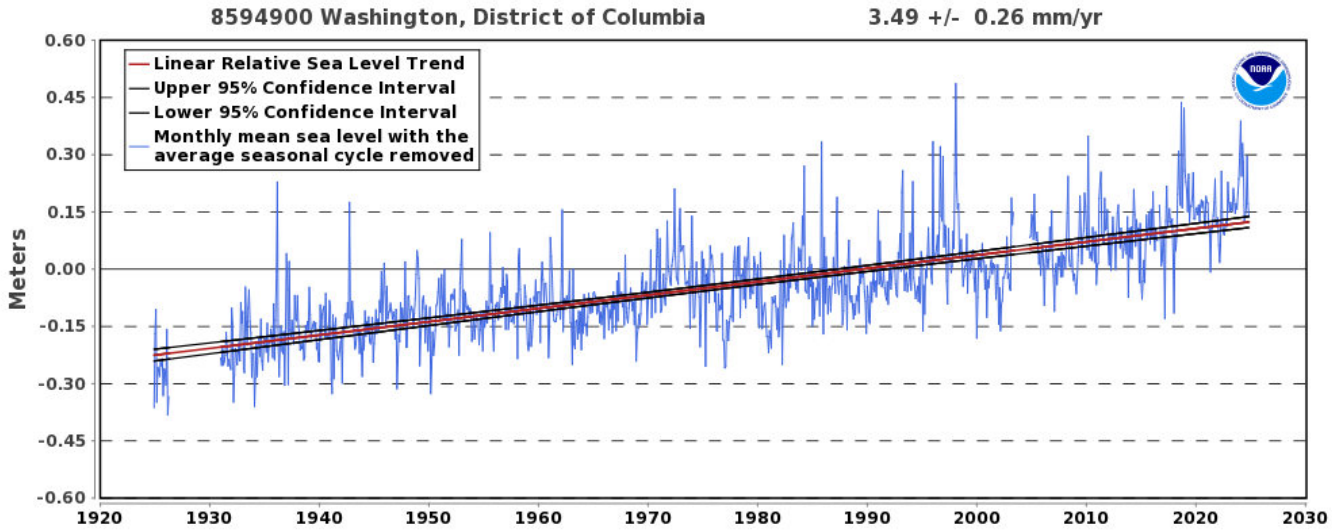


Figure 9: Potomac River Water Level Over Time

Weirder

Figure 10 shows all severe weather events in Fairfax County of sufficient intensity to be logged by the National Oceanic and Atmospheric Administration (NOAA) Storm Event Database between 1996 and 2024. The graph shows that while there is variation year to year, there has been a notable increase in the volume of severe weather events over time. The county is working to adapt and build resilience to such events.

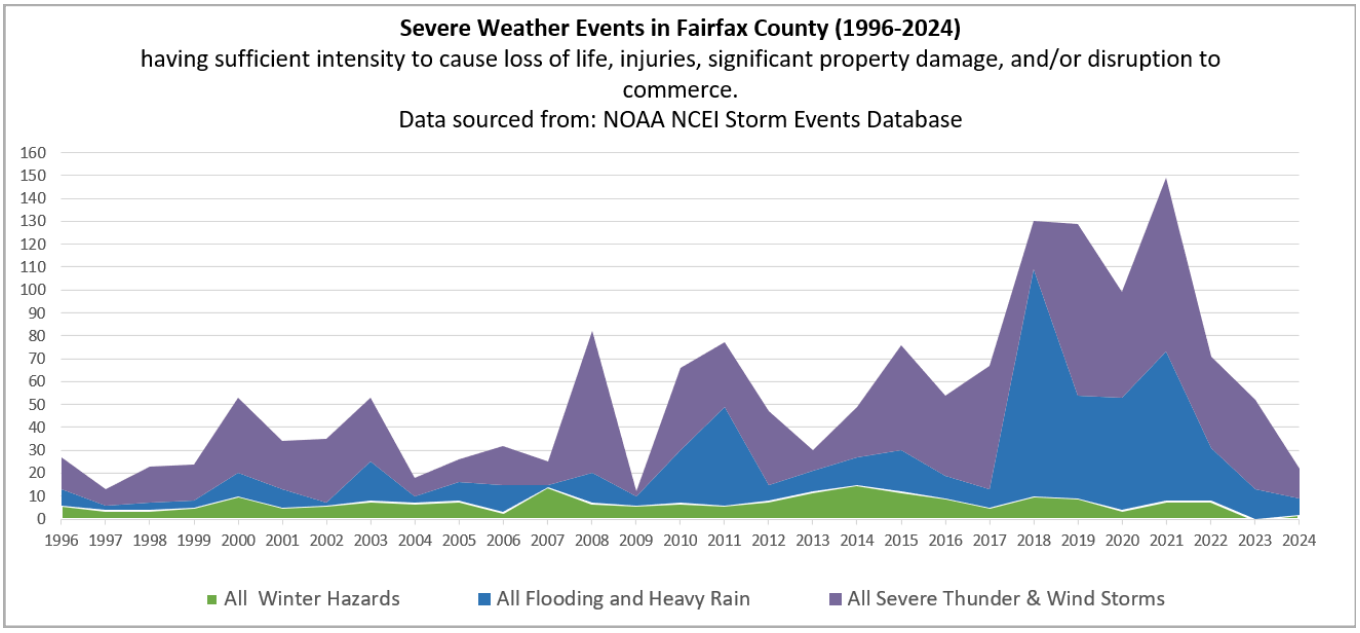


Figure 10: Severe Weather Events in Fairfax County

Awards and Recognitions in 2024

In 2024, Fairfax County received multiple recognitions for its climate action and energy efficiency initiatives, including awards from the Virginia Energy Efficiency Council, ASHRAE, and the League of American Bicyclists, as well as honors for outstanding individual and team contributions from the county. The section underscores Fairfax County's commitment to energy efficiency, climate action, and community support through collaborative projects, innovative solutions, and dedicated staff efforts in 2024.

Virginia Energy Efficiency Council (VAEEC) Leadership Award

- **Recipient**: Pender Office Building Project
- **Details**: Recognized in the Government category for efficiency upgrades and a new rooftop solar installation.
- **Collaborators**: OEEC, Department of Housing and Community Development, Fairfax County Redevelopment and Housing Authority.



Pender Office Building Project team with their VAEEC Award

VAEEC Recognition for OEEC Director

- **Recipient**: John Morrill, OEEC Director
- **Contribution**: Served as a VAEEC Board member for nine years, including as Chair from 2021-2023, advancing energy efficiency in Virginia.

ASHRAE Region III Technology Award

- **Recipient:** Fairfax County Park Authority's Cub Run Rec Center
- **Category**: Public Assembly Facilities
- **Details**: Awarded First Place for facility improvements that significantly reduced energy consumption, recognized for innovative building design in occupant comfort, indoor air quality, and energy conservation.

Outstanding Performance Awards for OEEC Staff

- **Recipients**: Emily Bohr, Kate Daley, Neely Law, John Silcox and Regina Weil
- **Contributions**: Legislative work, equity initiatives, support for the Board of Supervisors Environmental Committee, Fairfax Employees for Environmental Excellence (FEEE), Charge Up Fairfax program, Green Business Partners, Energy Conservation Assistance Program, and achievements in social media, website, and agency communications.



Harmony Place Team with their Team Excellence Awards

Harmony Place Team Excellence Award

- **Recipients:** County employees who mobilized an emergency heat relief project
- **Details**: Installed 31 air conditioning units in 29 homes at Harmony Place Mobile Home Park, along with critical life-safety repairs and referrals to additional services.

Bicycle-Friendly Business Designation

- **Recipient**: Fairfax County Department of Transportation (FCDOT)
- **Level**: Silver
- **Awarding Body**: League of American Bicyclists

Group 1 Strategies - Funding, Coordination & Legislation



Fully electric Fairfax Connector buses

In 2024, Fairfax County advanced its climate action initiatives through enhanced interagency and regional coordination, securing diverse finding sources for climate projects, and advocating for supportive state-level legislation. This section highlights progress made on the strategies in Group 1.

Interagency and Regional Coordination and Capacity Building

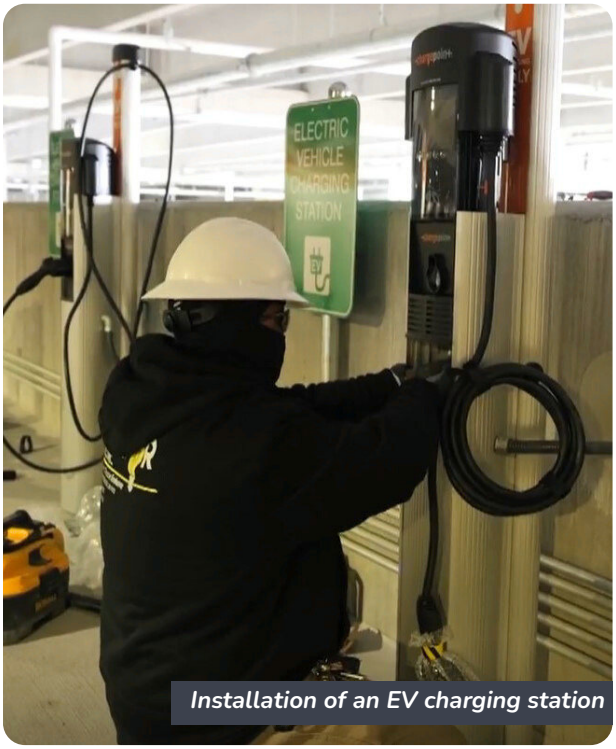
There continues to be over 25 county government agencies and over 150 staff involved in the implementation of the county's climate plans, led by OEEC. OEEC staff have provided regular training for other agencies on climate information, customized for relevance to the applicable agency. Staff are also working to align other county-wide plans, such as the Strategic Plan, Climate Health Plan, Hazard Mitigation Plan, with the adopted climate plans.

Additionally, staff are coordinating with neighboring jurisdictions, authorities, and other levels of government for well-coordinated, broader action. This includes active participation in initiatives led by the Metropolitan Washington Council of Governments (MWCOG), Northern Virginia Regional Commission (NVRC), local military installations, Virginia Energy and Sustainability Peer Network (VESPN), Southeast Sustainability Directors Network (SSDN), Virginia Energy Purchasing Governmental Association (VEPGA), and more.

Funding Opportunities

Funding for climate plan implementation is obtained and allocated through several different avenues. First, most strategies in the climate plans are being implemented by existing staff across more than 25 agencies, whose salaries were already accounted for in the county budget. Second, new staff positions and programs have been created where necessary. Third, the OEEC manages the Capital Improvement Program Fund 30015, Environmental and Energy Programs, that supports implementation of CECAP, OES and Resilient Fairfax as well as the Plastic Bag Tax that generates revenue for certain environmental programs. Fourth, county agencies continually apply for federal and state funding opportunities related to climate plan implementation.

- **CFI:** In September 2024, the Federal Highway Administration announced the award of $3.9 million to MWCOG as part of the Charging and Fueling Infrastructure (CFI) grant. **Of the total award, $2.52 million is being allocated to Fairfax County to install publicly available electric vehicle (EV) charging stations at up to 25 county facilities.** Installation sites will include parking garages, park-and-ride lots, office buildings, libraries, rec centers, and community centers. Shortly after the award was announced, MWCOG applied for a second round of funding under the CFI, including funding for EV charging stations at an additional six sites owned and operated by Fairfax County. OEEC coordinated with the Department of Vehicle Services (DVS) and FCDOT to identify the sites for both rounds.



Installation of an EV charging station

- **DEMS Grants: The Department of Emergency Management and Security (DEMS) obtains federal and state grants (projected $12,387,100 in FY2025)** to enhance emergency management capacity, regional preparedness, first responder data systems, incident management training, emergency alert systems, swift water rescue gear, and more.

- **CFPF Grants:** Community Flood Preparedness Fund (CFPF) supports Virginia localities in reducing the impacts of flooding, including flooding driven by climate change. **The Department of Public Works and Environmental Services (DPWES) Stormwater Planning Division has applied for and been awarded funds in the previous two grants cycles totaling over $20M. FCDOT grants: FCDOT obtained multiple federal and state grants (projected $1,850,655 in FY 2025)** for funding to assist commuters and promote alternative travel modes including ridesharing, active transportation, and public transit, all of which reduce emissions.

- **EECBG:** In September 2024, OEEC submitted an application for the U.S. Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG). **Fairfax County is expected to receive $963,530 under this formula grant.** The county intends to use funds to support the installation of a 121-kW solar system on the Lorton Community Center & Library and a 110-kW solar system on the Edsall Road Fire Station. Funding will also support a new residential energy program that will provide concierge services to owners and residents of single-family homes looking to implement energy efficiency, electrification, and renewable energy projects. The award is anticipated to be finalized in early to mid-2025.

- **FCDOT**: The Fairfax County Department of Transportation was awarded $50.6 million from the Federal Transit Administration (FTA) to purchase **new low emission, diesel-electric hybrid buses**. **Fairfax County Public Schools' bus electrification program** received an EPA award of approximately $16.6 million to purchase 42 additional zero-emission buses.

State-Level Legislative 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 2024 General Assembly session and beyond, Fairfax County was involved in efforts to prevent the rollback of environmental and energy programs and policies, including efforts to withdraw Virginia from the Virginia Clean Cars program and the Regional Greenhouse Gas Initiative (RGGI). On the latter, in November 2024, a **Virginia Circuit Court nullified the Virginia State Air Pollution Control Board's repeal of a regulation that implemented Virginia's participation in this regional cap-and-trade program for carbon emissions.** Continued participation in RGGI provides funding that allows Fairfax County to bolster its flood mitigation assistance and home energy improvement programs within low-income and vulnerable communities.

Summary of Achievements

- **Coordination**: Enhanced interagency and regional collaboration involving over 25 agencies and 150 staff members.

- **Funding**: Secured significant federal and state grants to support climate initiatives, including EV infrastructure, emergency management, and energy efficiency projects.

- **Legislation**: Advocated for and successfully maintained key environmental programs at the state level, ensuring ongoing support for local climate resilience efforts.

Success

Secured over $41.6 million in federal and state grants to support climate initiatives, including EV infrastructure, emergency management, and energy efficiency projects.

Group 2 Strategies - Development Codes, Plans & Policies



OEEC staff members on-site at a stormwater improvement project

In 2024, Fairfax County made significant strides in updating development codes, policies, and plans to enhance climate resilience and sustainability. This section highlights progress made on strategies in Group 2.

Flood Risk Reduction Plan and Policies

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 stormwater improvement projects 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 regulations and design standards may need to be updated so that our neighborhoods are more resilient to intense rainfall. (For community-facing programs, see Group 3).



Flooding in a Fairfax County neighborhood

Comprehensive Plan Amendments – Plan Forward Process

The **BOS 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, as well as the addition of Health and Equity. The adopted climate plans will be integrated into updated Comprehensive Plan guidance that would help to reduce emissions and boost resilience in Fairfax County. Staff are actively working on this amendment, which is being done in coordination with the public and applicable boards, authorities, and commissions.

Zoning Ordinance and Other County Code Amendments

Staff are conducting research on potential additional amendments to the Zoning Ordinance and other County Codes with relevance to climate. For example, staff are currently researching battery energy storage systems, which can facilitate the use of renewable energy sources and provide resilient back-up power. Staff plan to present preliminary information for a Zoning Ordinance amendment to the BOS and community in early 2025.

The Landscaping and Screening Zoning Ordinance Amendment, which was adopted by the BOS January 23, 2024, increases tree canopy in parking lots, which reduces the Urban Heat Island effect, and encourages the planting of native or environmentally tolerant trees.

The Parking Reimagined Zoning Ordinance Amendment:, adopted by the BOS September 26, 2023, and effective beginning January 1, 2024, includes climate-friendly provisions such as lower minimum parking requirements for developments in areas of the county with higher density and more available transit options, new bicycle minimum parking requirements, and expanded options for adjusting parking requirements.

The Data Centers Zoning Ordinance Amendment, adopted by the BOS on September 10, 2024, requires special exception approval for data centers in many locations, which will allow for consideration of green building and other climate considerations in accordance with the Comprehensive Plan.

The Uniform State Building Code was updated in 2021, and enforcement of the new code became effective on January 18, 2024. Some of the changes include increased energy efficiency in a variety of ways, including increased insulation for the thermal envelope, testing mechanical ventilation systems, changes to electrical power and lighting to reduce energy use, as well as modifications to rooftop solar energy system placement.

Urban Design Guideline Amendments

The county's Urban Design Guidelines, 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 Volume I of the Urban Design Guidelines. **This update will include climate-related considerations for streetscapes and plazas such as cool pavement selection, biophilic designs, solar considerations, and low-impact stormwater management techniques.** Updates to Volume I are expected to be completed in 2025.

Summary of Achievements

- **Flood Risk Reduction**: Implemented numerous stormwater system upgrades and conducted flood modeling to update development regulations, enhancing community resilience to intense rainfall.

- **Comprehensive Plan and Zoning**: Updating the Comprehensive Plan and Zoning Ordinance to integrate climate considerations, including increased tree canopy, reduced parking requirements, and green building standards for data centers.

- **Urban Design and Building Codes**: Revising Urban Design Guidelines to incorporate climate-friendly features and enforced the updated Uniform State Building Code to improve energy efficiency and support renewable energy adoption.

Success

New Landscaping and Screening Ordinance Amendment boosts the planting of native or environmentally tolerant trees in parking lots to mitigate the Urban Heat Island effect.

Group 3 Strategies - Community Services, Education, Engagement & Incentives



Supervisor Jimenez at an Earth Day event

Through extensive public outreach, innovative programs, and targeted assistance, Fairfax County inspired climate action and fostered environmental stewardship. This section highlights progress made on strategies in Group 3.

Public Information and Outreach

OEEC conducted robust public information and outreach during 2024 through many avenues, including in-person 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. This included an updated Climate Action Dashboard, with climate data and progress, and regular articles and stories related to climate change and environmental sustainability written by OEEC staff and guest authors.



Highlights of new or updated offerings include those described below:

- **Sustain Fairfax:** Launched to promote environmental stewardship and sustainable practices, this public awareness campaign has delivered over 2.2 million impressions. The campaign highlights key actions and promotes county resources and programs, such as Charge Up Fairfax and the Flood Mitigation Assistance Program, to foster collective responsibility and community engagement. While the paid media component will end in April 2025, the campaign will continue in 2025 and beyond.

- **Sustain Fairfax Challenge:** Contracted with BrightAction Communities to pilot a climate action tracking platform for residents, set to go live in early 2025.

- **Board of Supervisors Initiatives:** Sponsored proclamations for Earth Day and Energy Efficiency Day and created a video showcasing supervisors' efforts to reduce carbon emissions — by walking and biking, driving electric and hybrid vehicles, growing their own fruits and vegetables, composting their food waste, recycling their trash, and more.

- **OEEC's Monthly E-Newsletter:** Featured highlights and success stories from the county's climate action initiatives.

- **Climate Matters Blog:** OEEC's blog where we share stories, insights and information related to climate change and environmental sustainability, written by staff and guest authors.

Tabling and Outreach Events

In 2024, OEEC **tabled at over 25 events** across the county, including community events, fairs, preparedness expos, and specifically requested engagement, all with a focus on equitable outreach. In addition to informational and resource handouts, OEEC gave out almost 1,500 LED lightbulbs to attendees to promote transitioning to LEDs.

One example of outreach is the **Culmore Conversations Series**. In the fall of 2024, OEEC partnered with local non-profit Second Story to engage with residents of the Culmore and Bailey's Crossroads neighborhoods. Two learning sessions were hosted and offered completely in Spanish. The first featured the HomeWise program and focused on ways to make home energy improvements to increase comfort, decrease energy use and reduce costs. The second session focused on emergency preparedness and building resiliency with a specific focus on flooding; NVSWCD, DEMS, and DPWES joined OEEC for this session.



OEEC staff member interacting with residents at an event

In addition to tabling events, OEEC staff also participated in many presentations, conferences and webinars as subject matter experts.

Residential Solar Campaigns

Fairfax County supports two group purchasing programs run by nonprofit agencies that offer homeowners free assessments, access to qualified installers, and a discounted price.

- **Solarize Virginia**: Achieved nearly 270 signups from Fairfax County – more than 34% of the total in the Commonwealth. Of the total signups, 23 installations totaling 191 kW were completed in Fairfax County. The campaign will return in spring 2025.

- **Switch Together (formerly Solar Switch)**: Held spring and fall campaigns with over 1,600 signups from Fairfax County, more than 18% of the total in the capital region, which includes jurisdictions from Maryland and Virginia, and DC. The 2024 campaigns resulted in 112 solar installations, equaling approximately 1.17 megawatts of solar capacity at the time of this report with additional contracts signed and awaiting installation. The campaign will return in spring 2025.

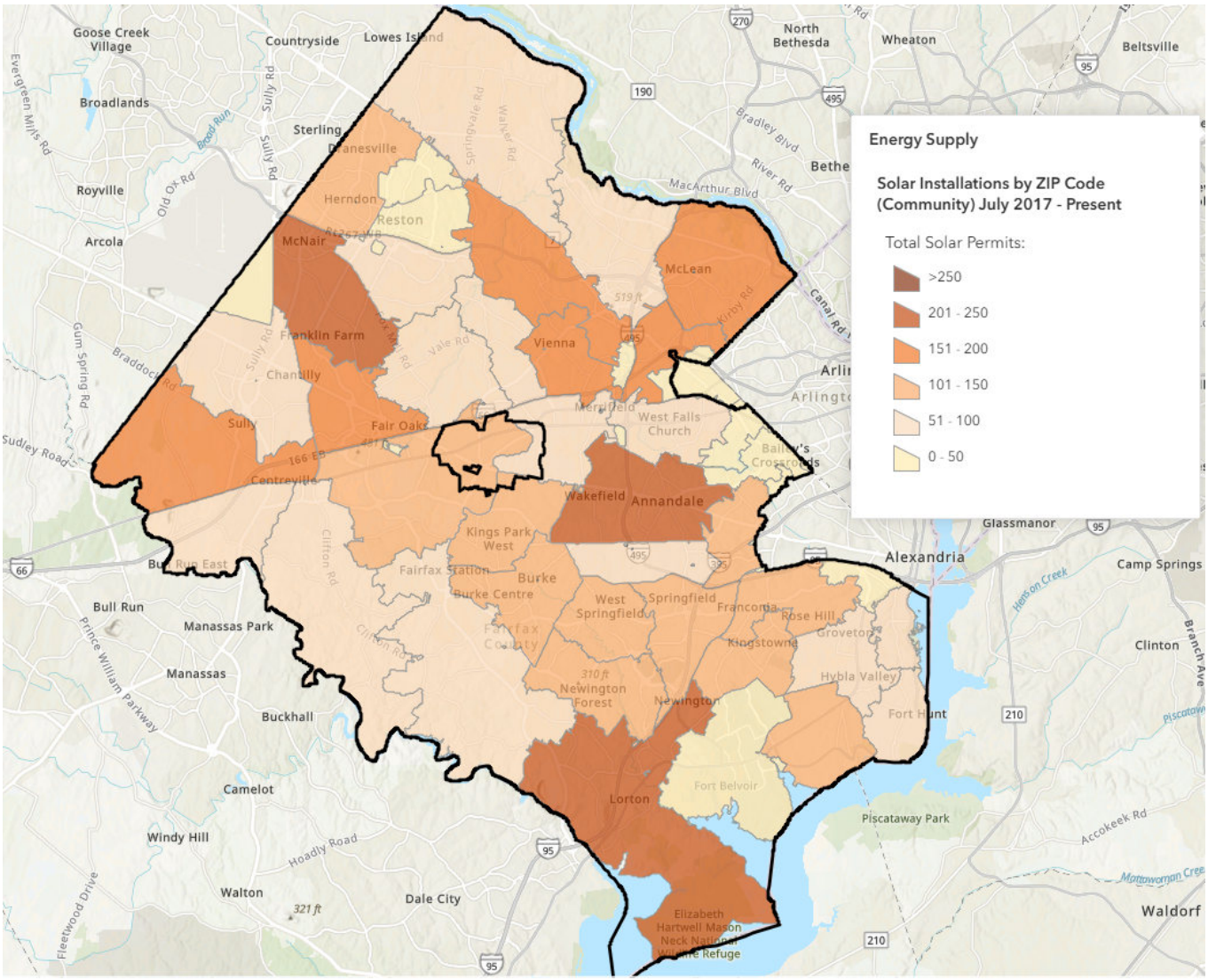


Figure 11: Solar Installations by Zip Code in Fairfax County (Climate Action Viewer)

Charge Up Fairfax



Harpers Square Cluster Association's opening their new EV chargers

Charge Up Fairfax is a program that helps community associations access electric vehicle (EV) charging for their residents and guests. **OEEC is continuing to work with 16 communities who enrolled in the program since the 2023 pilot phases.**

As of 2024, two of these communities, (Harpers Square Cluster Association and Penderbrook Community Association) have their EV chargers installed, and are waiting for power and inspections. Two more communities (Nantucket, and Colonies at McLean) have hired contractors and are moving forward with their installation.

In September 2024, Charge Up Fairfax held a roundtable for interested community members. Four members from HOA communities accepted into the pilot community discussed their experiences with the Charge Up Program. There was a total of 32 attendees at the virtual roundtable which produced great discussions and questions for the panel.

Electric Vehicle Readiness Strategy

OEEC and DVS are developing an Electric Vehicle Readiness Strategy to enable widespread use of EVs in the Fairfax County community. This strategy will include recommendations on the number and approximate location of EV supply equipment (EVSE) throughout the community, and identification of any obstacles to deployment of EVSE and recommended measures, policies, or programs to mitigate those obstacles.

The plan will include strategies for increasing the availability and use of EVs in vulnerable and historically-disadvantaged communities to ensure equitable access. Additionally, Fairfax County seeks to replace its internal combustion (ICE) municipal fleet vehicles with EVs with similar functional capabilities. For the municipal fleet, the plan includes a comprehensive examination of the county's active fleet and existing replacement program and a strategy to phase in zero-emissions vehicles.

Preparation of the plan includes internal and external engagement throughout the process and a strategy will be published in July 2025.

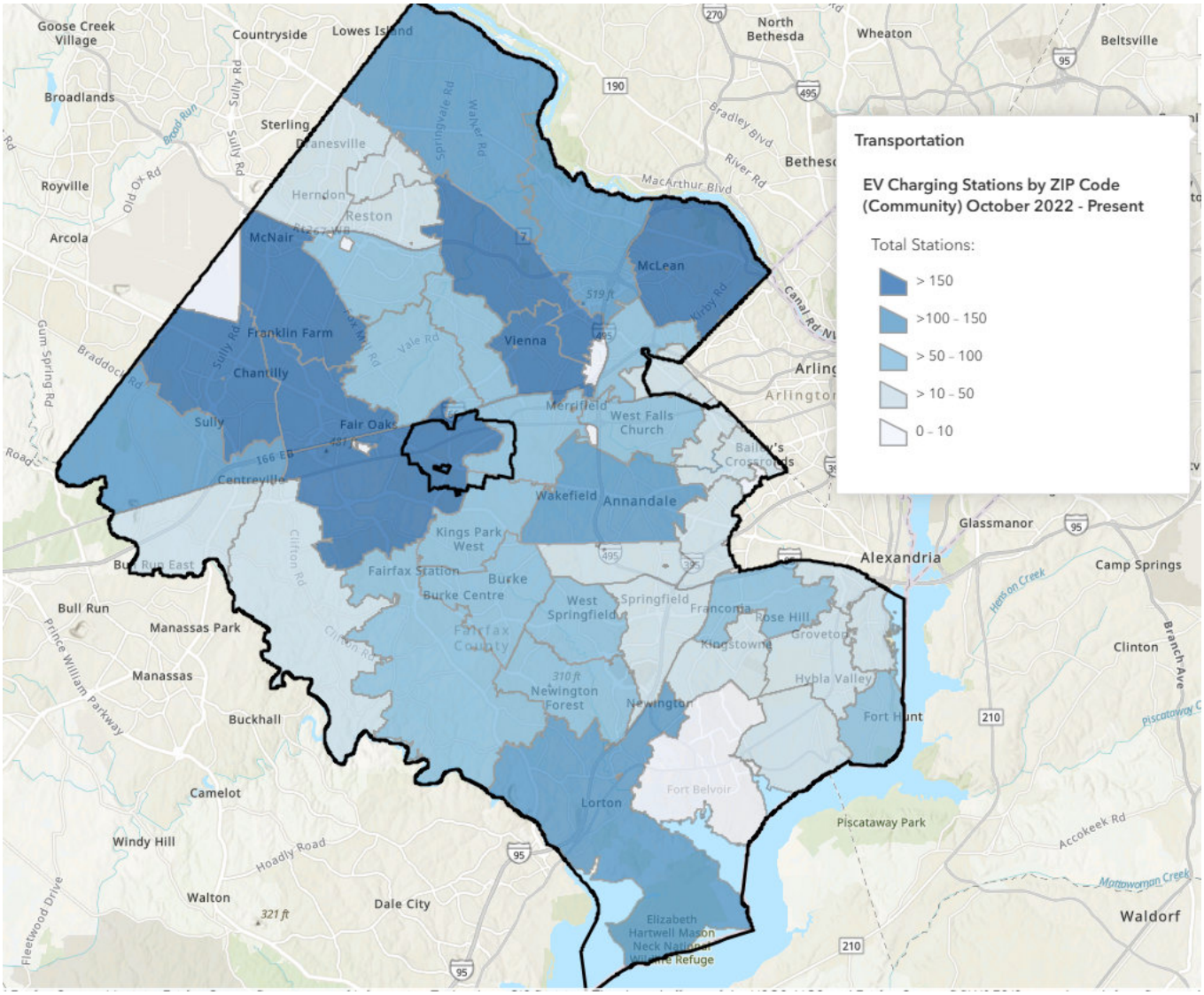


Figure 12: Electric Vehicle Charging Stations by Zip Code in Fairfax County (Climate Action Viewer)

Green Business Partners


Green Business Social networking event

The Green Business Partners program recognizes businesses that are actively engaging in or interested in sustainable business practices that advance climate action and help create a carbon neutral economy. **As of 2024, there is a membership of 51 businesses, including 10 Allies, 21 Leaders and 20 Members.** OEEC provided a number of engagement, educational and recognition opportunities for the membership. This included adding new resources to the website, a Green Business Social networking event, two webinar events, two new Spotlight videos and bimonthly newsletters. A partnership with George Mason University supported a GBP Member in their business development plans.

Energy Conservation Assistance Program

The Energy Conservation Assistance Program is managed by OEEC and administered by the Northern Virginia Soil and Water Conservation District (NVSWCD). The program started in fiscal year 2016 and has approved $155,238 in grants in support of 28 energy projects completed or in progress as of end of 2024. In total, these projects will result in over $901,000 worth of efficiency upgrades for properties maintained by community organizations, nonprofits and places of worship. In 2024, projects have included: energy audits, LED lighting, HVACs, insulation, and solar arrays.

Two recent projects supported by this program are highlighted below:

- **Rising Hope Mission Church, Franconia District,** replaced all of their interior lights with LEDs. There is a projected energy savings of 70% or $3,140 is expected or a reduction of 73% in lighting energy use. The payback for this project is estimated at 2.5 years.

- **Church of the Holy Comforter, Hunter Mill District**, installed a 136.3 kW solar array on a parking lot canopy. This innovative project along with an additional solar system on the campus (not supported by this grant program) will meet all of the electricity needs and achieve a goal of net zero.



Solar array at the Church of the Holy Comforter

Flood Risk Reduction Services

A new program was launched in 2024 by the Department of Public Works and Environmental Services (DPWES) in partnership with NVSWCD to help residents reduce their flooding risk. The Flood Mitigation Assistance Program (FMAP) offers 50% reimbursements (up to $5,000) to residents for flood-proofing practices installed in their homes such as floodproof windows, basement window covers, flood gates, sandless sandbags, sump pump back-up power, utility flood covers, elevation of HVAC, and more. The program is funded by Fairfax County and administered by NVSWCD. In its first six months, from July 1st to December 31st, the program received 23 applications and disbursed $45,310 in reimbursement monies, with an average reimbursement of $2,157 per applicant.

In addition to FMAP, NVSWCD continues to offer the Conservation Assistance Program (CAP), which helps to reduce flood risk in yards through practices such as bioretention, rain gardens, impervious surface removal, and more. In 2024, NVSWCD staff approved 42 project applications and conducted 132 site visits. In the community, 51 projects were installed.

Additionally, DPWES continues their tireless service to respond to flooding service requests and ensure that storm water infrastructure is well-maintained. *(For information on policy and codes, please see Group 2. For information on county facilities and infrastructure, please see Group 5.)*

Extreme Heat Services

The county continues many services and programs related to extreme heat. **Thanks to work in 2023 and 2024, the county now has upgraded Cooling Center services, transportation and accessibility, and supply distribution on extreme heat days, especially for unsheltered residents**.

The county's 47 official upgraded Cooling Centers include libraries, community centers, and human services regional offices. Out of the three types of facilities designated as Cooling Centers, libraries are the most-visited facility for cooling relief. In 2024, Cooling Centers received 1,301 visits, an increase from 251 in 2023. The increase in visits correlates to the 180% increase in extreme heat days between 2023 and 2024. Through the Cooling Assistance program, the Department of Family Services (DFS) also continues to provide financial and other assistance to those who cannot afford air conditioning. In 2024, 1,557 service requests were approved, up slightly from 1,452 service request approvals in 2023.

Additionally, the county has detailed land surface temperature maps (Resilient Fairfax Interactive Map Viewer), historic and future temperature trends (see "Resilience Metrics Overall"), and heat plans, protocols, outreach, and alert systems. Group 3 of the Interagency Climate Team is continuing coordination to expand access to heat-related services, to ensure that similar services are coordinated and aligned with each other, and to fill gaps in existing services.

In 2024, **the Fairfax County Health Department's (FCHD) Homeless Healthcare Program increased distribution of heat-related health information** during its street outreach to provide healthcare services and prevention education to unhoused populations. FCHD also provided heat safety educational resources to community-based organizations to distribute during outreach to underserved high-risk populations and partnered with the Department of Housing and Community Development (HCD) to offer relevant resources to unhoused clients at shelters across the county.

Harmony Place AC Rescue



Supervisor Lusk and the Rebuilding Together team

In the summer of 2024, community organizers alerted OEEC staff that there were residents in Harmony Place Mobile Home Park, with little or no air conditioning in the summer heat. Situations were reported such as young children in homes that were over 100 degrees inside, pregnant mothers without air conditioning, a baby with heat-related illness, and many homes with weak window units. Unfortunately, due to federal and state limitations, the homes in need did not qualify for existing cooling programs.

Rather than turning away, OEEC rapidly partnered with several non-profit organizations and fellow agencies to meet the need in this community. **Rebuilding Together** deployed more than 25 volunteers to conduct electrical assessments, AC installations, and critical repairs to the homes during six of the hottest weeks of the summer. Community members, including members of **Faith Alliance for Climate Solutions (FACS)** swiftly donated window and portable air conditioning units and supplies. **Hybla Valley Community Center** and **Daniels Run Peace Church** stored supplies. **United Community**, the Office of **Supervisor Rodney L. Lusk, HCD,** and **TWU** provided significant community engagement support and language interpretation.

Social workers from **Coordinated Services Planning (CSP)** joined OEEC and HCD on site to connect residents to other basic needs. **Fairfax County Fire and Rescue** provided help with fire safety. The departments of **Emergency Management and Security, Public Works and Environmental Services, Health**, and **One Fairfax** provided printed materials for OEEC to distribute while on site. **Community Housing Partners** coordinated with OEEC to align the initiative with energy efficiency projects. Spanish interpreters from nearly all of these partners and the **Office of Public Affairs** enabled communication with the residents.


Rebuilding Together volunteers installing a window A/C unit

In all, **31 air conditioning units in 29 homes** were installed, along with many critical health and safety repairs. OEEC continues to pursue avenues to scale this project into a broader program to serve as a safety net for those who are in need but don't qualify for other programs.

Summary of Achievements

- **Public Information and Outreach**: Launched the Sustain Fairfax campaign to promote environmental stewardship, created the Sustain Fairfax Challenge platform for resident engagement in climate actions, and conducted extensive outreach through events, social media, and new resources

- **Solar and EV Programs**: Achieved significant participation in Solarize Virginia and Capital Area Solar Switch campaigns, resulting in numerous solar installations, and expanded the Charge Up Fairfax program, helping multiple communities install EV chargers and develop an EV Readiness Strategy to increase electric vehicle use and infrastructure.

- **Community Services and Assistance**: Enhanced flood risk reduction through the Flood Mitigation Assistance Program, improved Cooling Center services and heat safety outreach, and launched the Harmony Place AC Rescue initiative to provide air conditioning and critical repairs to vulnerable residents, with significant community and interagency collaboration.

Success

Over $901,000 worth of efficiency upgrades for community organizations supported by the Energy Conservation Assistance Program.

Group 4 Strategies - Natural Resources



Tree planting event at a Fairfax County public school

In 2024, Fairfax County enhanced climate resilience by maintaining extensive tree planting programs, analyzing tree species for climate adaptability, continuing wetland and stormwater restoration projects, implementing green infrastructure solutions, and protecting natural areas through various conservation measures. This section highlights progress made on strategies in Group 4.

Tree Planting and Programs

The county and its partners have continued the **20-plus local tree planting programs**, along with invasive removal and management. These include tree plantings in Urban Heat Islands, to help cool temperatures. **For county facilities specifically, 287 trees were planted in 2024 at schools and government sites.** Urban heat island and equity data were used for site selection. Beyond county government-led initiatives, many tree-related non-profits are active in the county. All tree programs considered, approximately 16,000 trees are planted each year according to the 2023 Trees Community of Practice Survey. The county also continues to pursue cutting-edge urban forestry analyses. Based on the most recent analysis, the county has 55% 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. For more tree information, please see Urban and Community Forestry.

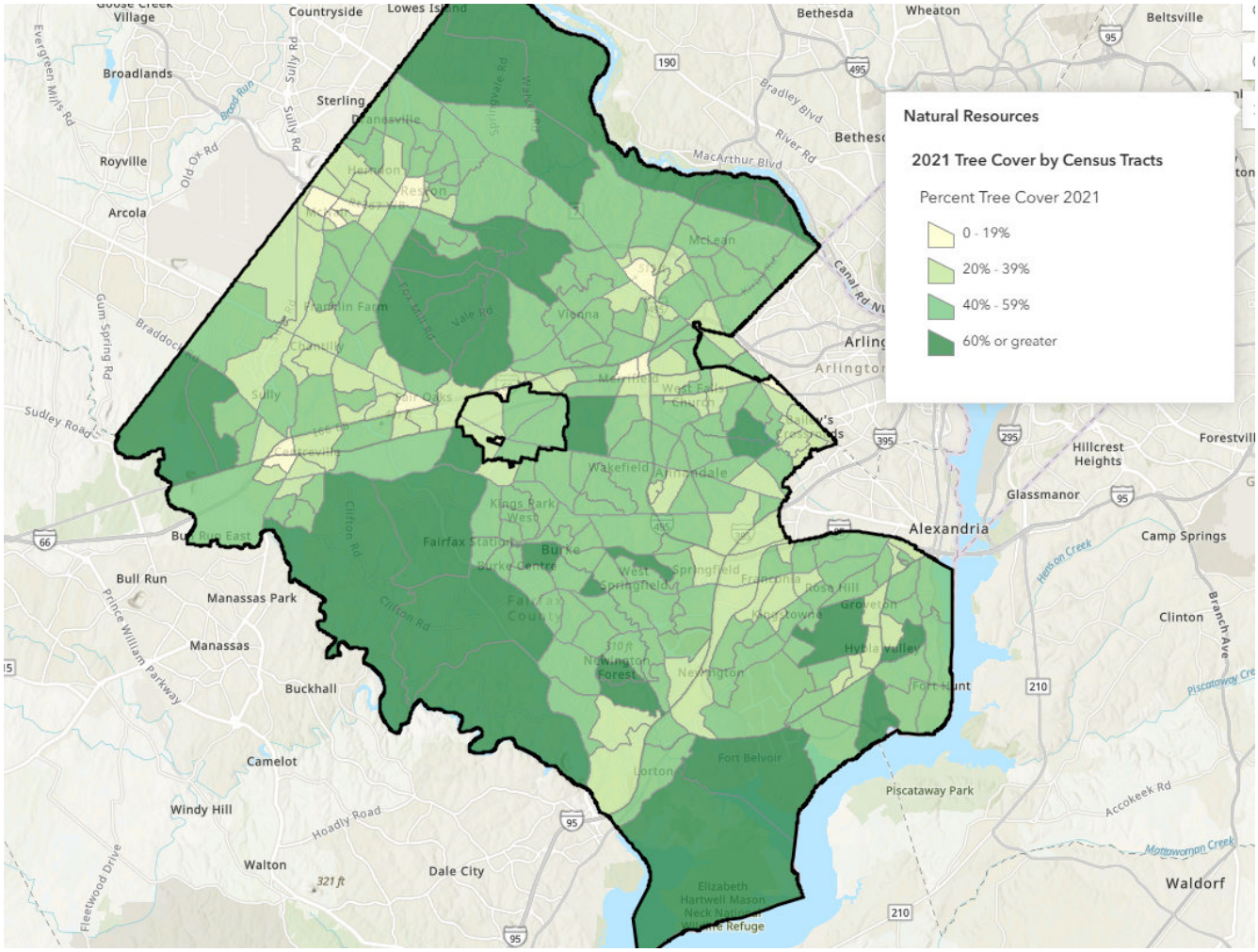


Figure 13: 2021 Tree Cover by Census Tracts in Fairfax County (Climate Action Viewer)

Climate-Resilient Trees

For our tree canopy to be healthy, we need to ensure that the trees we plant can survive and thrive in increasingly severe climatic conditions and shifting hardiness zones. **Staff have conducted extensive reviews of research on over 200 tree species in Fairfax County to score each species' climate resilience, adaptability, migration patterns, benefits, and more.** This research is being used to guide amendments to the tree-related sections of the Public Facilities Manual.

Additionally, the county issued a Letter to Industry announcing to developers that due to a changing climate (including warmer autumns), the recommended tree planting window start has shifted from September to October, to ensure better survivability of saplings. Additionally, the tree planting window now extends through the winter.



Tree planting event at a Fairfax County public school

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. As of December 2024, DPWES has **approximately 50 stormwater improvement projects listed as "active."** In 2025, the Stormwater Improvement Project map will be updated with new information.

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 Conservation Assistance Programs also provide green infrastructure assistance for homeowners.

DPWES Stormwater Management-Maintenance and Inspections offers a free virtual Stormwater Facility Maintenance Awareness Training Program and Maintenance Contractor List, as a public service and courtesy. A listing of all contractor attendees is sent to facility owners with their facility inspection reports for reference. Once the training is completed, a company will be added to the list. The list is updated on a quarterly basis.



Figure 14: Herrity Building Green Infrastructure Rendering

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. Resource Protection Areas (RPA) are protected from encroachments by Land Development Services (LDS). If an RPA is being illegally developed, degraded or otherwise encroached upon, a complaint can be submitted to LDS. The Environmental Compliance and Enforcement branch of LDS responds to these complaints.



Volunteers from Fairfax Employees for Environmental Excellence (FEEE) at the Herrity Building

Summary of Achievements

- **Tree Planting and Programs**: Planted approximately 16,000 trees through county and partner programs, focusing on urban heat islands and equity-driven site selection, with 287 trees planted at schools and government sites.

- **Climate-Resilient Trees**: Conducted extensive research on over 200 tree species to guide amendments to the Public Facilities Manual and issued new guidelines to improve tree planting survivability, adjusting planting windows to accommodate changing climate conditions.

- **Restorations and Green Infrastructure**: Continued dozens of wetland, stream, floodplain, and forest restoration projects, implemented green infrastructure practices such as bioretention and permeable pavement, and offered training programs for contractors and homeowners to support green infrastructure maintenance and adoption.

Success

50 active stormwater improvement projects.

Group 5 Strategies - Facilities and Operations



CMTA staff inspecting heating equipment at Reston Community Center

In 2024, Fairfax County made significant progress in reducing energy consumption, enhancing energy efficiency, expanding solar installations, promoting electric and hybrid vehicles, advancing towards zero waste, and improving the resilience of county facilities to climatic hazards. This section highlights progress made on strategies in Group 5.

County Operations Updates

Fairfax County Government consumed less energy for operations and produced fewer greenhouse gas emissions in fiscal year 2024 than it has in any year since it started tracking data – a significant indicator in the county's efforts to become carbon neutral by 2040.

Data highlights include the following:

- **Overall greenhouse gas emissions from energy use – including from electricity, natural gas and vehicle fuel - is down almost 28%** compared to the baseline in FY 2018, due to the combination of energy efficiency measures and a cleaner supply of electricity.

- **Total electricity use is down 15% compared to the FY 2018 baseline**, driven in large part by the continued conversion of streetlights to LEDs, and energy-related equipment upgrades at county facilities like Spring Hill Rec Center.

- **The avoided costs from energy reductions at county facilities are estimated to be about $5 million per year.** The term 'avoided costs' is used because utility rates have increased since the baseline period of FY 2018.

Energy Audits and Retrofits

Since the OES was published in 2021, 31 energy audits have been completed (10 of those in 2024), and 18 energy retrofits have been completed (4 in 2024). Two completed energy retrofit projects have been recognized by the Virginia Energy Efficiency Council with Energy Efficiency Leadership Awards: Fairfax County Park Authority's Cub Run Rec Center in 2023, and Fairfax County Redevelopment and Housing Authority's Pender Building in 2024. Cub Run Rec Center was also recognized for a national 2025 Technology Award from ASHRAE (the American Society of Heating, Refrigeration, and Air Conditioning Engineers).

In 2024, McLean Community Center enrolled in a Dominion Electric program to purchase renewable energy credits for 100% of the electricity use of that facility. Lorton District Police Station and the Animal Shelter also enrolled in this program in 2024, joining several other buildings which have participated for the last several years.

Green Buildings

As of 2024, **46 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. Visit the OES Green Buildings Page to see a full listing and map of these facilities.



Monument Drive Parking Garage

Solar on County Buildings

The county has also rapidly accelerated the installation of solar on county government buildings. As of December 2024, there are 10 county buildings with rooftop solar, and there are 10 additional planned by the end of 2025. 1.2 MW of solar has been installed on county buildings to date. **In April 2024, the Fairfax County Park Authority's Spring Hill Rec Center energized its brand-new 307-kilowatt solar photovoltaic array** installed on the natatorium and gymnasium roofs as part of a multi-faceted project to offset electricity use by the popular rec center. The new solar array, the largest to date in the Park Authority, generates enough energy to power 33 homes annually, and is expected to reduce the center's electricity needs by 13 percent. The installation of the rooftop solar panels at Spring Hill Rec Center was part of several improvements to the center that will significantly reduce the building's electrical and natural gas consumption.

On August 9, 2024, the **DPWES' Solid Waste Management Program completed a solar installation at the Newington Refuse and Recycling Collection Operations Facility Office** located in Lorton, Va. The project includes **334 high efficiency rooftop solar photovoltaic panels** for onsite power generation totaling 150 kilowatts. The project is expected to generate approximately 152 thousand kilowatt-hours of electric energy per year and **will save the county nearly $3 million in energy costs over 20 years.** The solar arrays will reduce over 91 metric tons of greenhouse gas emissions each year, which is equivalent to 18 homes' electricity use for one year.



Solar array at Newington Refuse and Recycling Collection Operations Facility Office

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. **In 2024, there are a total of 450 low-emissions vehicles in the fleet, including 67 electric vehicles and 383 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 450 vehicles make up about 12% of the county's total fleet. To enable this fleet conversion, the county has also installed 123 EV charging ports on county government property. See the Electric Vehicle Readiness Strategy highlight in Group 3 for more information.

Zero Waste in County Operations

The county continues to make progress towards its goal of Zero Waste by 2030 (90% of waste diverted by 2030). To date, **approximately 29% of waste is being diverted.** The Zero Waste Team, led by DPMM, launched the Zero Waste Champions Network, and the second annual Action Plans are in progress. The county has also created educational and training resources such as the **Champions Toolkit and an internal Zero Waste Dashboard, completed Waste Audits for select county facilities and schools, launched the Three Bin Pilot (composting) throughout the Government Center, and kicked off the Zero Waste Party Pack Program** for reusable foodware. Many other **projects are underway across departments to educate staff, reduce single-use products and packaging, and improve recycling.** Additionally, the Zero Waste Team continues to promote Zero Waste funding opportunities, such as the Plastic Bag Tax fund, to encourage Zero Waste projects in all county departments.

Sustainable Procurement / Scope 3

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 110 major suppliers have joined the Corporate Social Responsibility Program.** DPMM, in collaboration with OEEC, **finished a "Scope 3" Supply Chain Greenhouse Gas analysis** project. While CECAP examined Scope 1 (direct emissions from sources owned or controlled by the county) and Scope 2 (indirect emissions from the generation of purchased energy) emissions, this analysis focused on the emissions resulting from the county's supply chain and waste, both part of Scope 3 (all other indirect emissions from upstream and downstream sources). As the majority of Scope 3 emission models have been developed for the private sector, this **analysis was innovative in terms of data manipulation and analytical methods.** In 2025, DPMM staff will continue to share the results with Fairfax County departments. The results will help to inform possible changes to the procurement strategies for the county.

Resilience of County Buildings and Facilities

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 power outages, 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 developed a Climate Resilient Design Checklist for two facility types, "Resilient Buildings" and "Resilience Hubs." The checklist includes over 100 design considerations for resilience to flooding, severe storms and wind, and heat and drought.** Use of the checklist in design is being piloted by the new Embry Rucker Shelter design (Resilient Building) and the Willard-Sherwood Health and Community Center design (Resilience Hub).

Summary of Achievements

- **County Operations Updates**: Achieved a 28% reduction in greenhouse gas emissions and a 16% reduction in electricity use compared to FY 2018, saving an estimated $5 million annually in avoided energy costs. Completed 31 energy audits and 18 retrofits since 2021, with several projects receiving energy efficiency awards.

- **Green Buildings and Solar Installations**: As of December 2024, 46 county buildings are LEED certified, including the first LEED Platinum building. Installed 1.2 MW of solar on county buildings, with 10 additional solar projects planned by the end of 2025.

- **Electric Vehicles and Zero Waste**: Expanded the fleet to 450 low-emission vehicles, including 67 electric vehicles, and installed 123 EV charging ports. Progressed towards the goal of Zero Waste by 2030, diverting 29% of waste and launching various educational and training resources, as well as sustainable procurement initiatives.



Success
123 EV charging stations installed on county government property.

Group 6 Strategies - Climate Data and Research

In 2024, Fairfax County continued its efforts to improve climate-related data coordination, tracking, and reporting, which are essential for measuring progress and driving informed climate action. This section highlights progress made on strategies in Group 6.

Interagency Environmental Data Coordination and Database

County agencies are systematically working to streamline and improve environmental and climate data tracking and coordination. 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 is merged with the Strategic Plan’s data group, enabling countywide consistency on metrics and data.

Climate Action Dashboard

OEEC continues to update the Climate Action Dashboard, which shows climate-related data and metrics for both emissions reduction and resilience. The dashboard features Emissions Reduction Overall and Resilience Overall pages, along with sector-specific metrics pages for Buildings, Energy Supply, Transportation, Waste, Natural Resources, and Community Services.

The sector-specific metrics pages include information for both emissions reduction and resilience as they relate to those sectors. Additionally, many of these metrics will be featured on the Countywide Strategic Plan Environment and Energy dashboard.

Summary of Achievements

- **Interagency Data Coordination:** Merged the Interagency Climate Team's data group with the Strategic Plan's data group to streamline and improve the tracking and coordination of environmental and climate data across county agencies, ensuring countywide consistency on metrics and data.

- **Climate Action Dashboard**: Updated the Climate Action Dashboard to display comprehensive climate-related data and metrics for emissions reduction and resilience, featuring sector-specific metrics.

Success
A Climate Plan Progress Tracker used by county agencies integrates strategies and metrics from various climate plans.

Looking Ahead



Penderbrook Community Association EV charging station ribbon cutting event

2024 was another excellent year of progress for Fairfax County in reducing both operational and community emissions while enhancing climate resilience. This success is attributed to the collaborative efforts of all county agencies, showcasing a whole-of-government approach that has enabled integrated and effective advancements towards our climate goals.

The year was marked by several notable achievements, including funding awards, personnel recognitions, and significant progress on key projects like Plan Forward. Public awareness campaigns such as Sustain Fairfax, high levels of public engagement, outreach initiatives, and service provision to communities like Harmony Place were also highlights. The county made strides in providing information on resilient trees, retrofitting facilities for energy efficiency, and tracking and reporting climate progress. However, the work is far from complete.

In 2025, we anticipate a new greenhouse gas emission inventory from Metropolitan Washington Council of Governments, which will offer fresh insights into our post-pandemic emission reduction efforts. Upcoming initiatives include the launch of a concierge program for home energy and the expansion of existing programs.

Despite budget and funding challenges and policy changes at the federal level, Fairfax County remains committed to climate action, and our planned efforts for 2025 will continue to deliver results for the community. We extend our gratitude to all partners involved and look forward to making further progress in the coming year.

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 Government

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

UCFD – Urban and Community Forestry Division

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

Further Reading

Explore these resources to learn more about our environmental efforts and how you can contribute!

- Climate Action Dashboard
- Climate Plans, Policies and Initiatives
- Sustain Fairfax
- Environmental, Climate, and Energy Newsletter

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X (Twitter): x.com/@ffxgreen

LinkedIn: linkedin.com/showcase/fairfaxcountygreenbusinesspartners

OFFICE OF
Environmental and Energy Coordination
FAIRFAX COUNTY

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Fairfax County is committed to nondiscrimination on the basis of disability in all county programs, services, and activities. Reasonable accommodations will be provided upon request. For information or to request reasonable ADA accommodations, please call the Office of Environmental and Energy Coordination at 703-324-7136 | TTY 711.