



# Montgomery County Climate Action Plan

**Progress Report for October – December 2022**  
(Fiscal Year 2023 Quarter 2)



## **PURPOSE OF THIS REPORT**

The [Montgomery County Climate Action Plan](#) (CAP) is a strategic plan to cut greenhouse gas (GHG) emissions 80% by 2027 and 100% by 2035 (compared to 2005 levels) and to reduce climate-related risks to Montgomery County’s residents, businesses, and the built and natural environment. The Fiscal Year 2023 (FY23) [Climate Action Plan Annual Report](#) provides an overview of the work plan of climate initiatives for the coming year, in alignment with the CAP.

This quarterly progress report summarizes the efforts undertaken by County departments and agencies for the period of October 1 to December 30, 2022 (Quarter 2 of FY23) to implement the CAP. Quarterly progress reporting on the status of CAP implementation fosters public transparency and accountability.

## **HOW THE PROGRESS REPORT IS ORGANIZED**

County departments and agencies that have a role in implementing the CAP provided detailed updates on their efforts. The progress report is organized in two sections:

### **Section 1: Highlights by Sector**

This section summarizes the most significant updates for the quarter. The categories in which the updates are organized include the 7 sectors of the CAP (Clean Energy, Buildings, Transportation, Carbon Sequestration, Climate Adaptation, Governance, and Public Engagement & Education), as well as Zero Waste. There is also a “catch all” bucket for actions that don’t easily fit into any of the other categories.

### **Section 2: Complete Submissions by Department**

This section is organized by department and includes all the detailed submissions provided by each County department and agency. This section is intended for readers who would like to have a comprehensive understanding of the climate activities that took place during the quarter.

## **WE WOULD LIKE YOUR FEEDBACK**

Do you have any feedback on the progress report? Share your feedback with us at:

[climate@montgomerycountymd.gov](mailto:climate@montgomerycountymd.gov)

## Clean Energy

- **Solar Installations:**
  - The Montgomery County Green Bank closed on a **2.1 megawatt (MW) solar project at the 684-unit Seneca Village apartments in an Equity Emphasis Area** in Gaithersburg. The Green Bank funded a \$5 million loan for the project and brought in two partners, Virginia Community Capital and NYCEEC, to support \$1.85 million of the funding.
  - The Montgomery County Green Bank closed on a **100 kilowatt (kW) solar project with a faith-based organization**.
  - MCPS continues to work on designing solar projects, including **rooftop solar installations at eight MCPS sites**, a pilot parking lot canopy with an EV charging station, and a pilot of solar parking lot lighting.
  - Montgomery College re-established connection to a **33-kW solar array located on the Rockville campus** by replacing the system's inverter in October 2022. This solar array was powered up in the Spring of 2016 and has generated [187 MWh of electricity](#), equivalent to approximately 8,000 electric cars charged.
  - Phase I of the **Brookville Smart Energy Depot** was completed in October 2022. This bus depot includes a 6.5 MW microgrid to charge the County's growing Ride On electric bus fleet and is the **largest solar bus charging infrastructure project in the US**.
  - The **6 MW Oaks Landfill community solar project** is 95% completed; the project is awaiting interconnection with expected Permission to Operate from Pepco in March 2023.
  - The Department of General Services completed the **Animal Shelter Solar and Microgrid project**. This is a 572-kW system with the capability to provide power to the facility during a grid outage.
- The Department of Environmental Protection developed proposed regulations for the **Community Choice Energy** program to the Public Service Commission's Community Choice Aggregation Work Group which is charged with preparing draft regulations.
- The Department of General Services has begun design on the Equipment Maintenance & Transit Operation Center's Smart Energy Depot. This microgrid project will provide resilient electrical power to the transit fleet which will be comprised of both electrical battery buses and hydrogen fuel cell buses.

## Buildings

- In November 2022, the County Council passed the Comprehensive Building Decarbonization legislation ([Bill 13-22](#)), which will **require the County to issue all-electric building standards by December 31, 2026**.
- In December 2022, DEP released a Request for Proposals for a contractor to implement the **Residential Electrification Incentives Pilot Program** funded in the FY23 operating budget. This contractor will stand up an administrative help desk to support residents with general questions, perform energy audits, perform retrofits of appliances and systems currently heated with fossil fuels with efficient electric alternatives, and administer prescribed financial incentives directly to residents.
  - By Quarter 4, DEP plans to award the contract to support the Residential Electrification Incentives Pilot Program and begin developing program materials.
- The [Building Performance Improvement Board](#)—the appointed advisory board that advises the County on building energy performance standards (BEPS) implementation—**began meeting bi-weekly to develop their recommendations** on BEPS Method 2 regulations, due to be issued by December 31, 2023.
- The Montgomery County Green Bank closed on **14 loans to homeowners in support of energy efficiency improvements** generating nearly \$5,000 a year in energy savings. These homeowners used the new Clean Energy Advantage statewide program done in collaboration with the Maryland Clean Energy Center and using EmPower funding through the participation of six utilities.
- The Montgomery County Green Bank **launched a technical assistance program with \$750,000 of funding** and reached agreement with eight contractors to complete energy assessments to determine potential energy improvements in commercial properties. The assessments will also include reviews of electrification alternatives where appropriate.
- The Montgomery County Green Bank closed on two energy efficiency projects with a school and a commercial office building that support **over \$5 million in clean energy improvements** that annually reduces almost 250 metric tons of greenhouse gas emissions at these properties.
- The Department of Environmental Protection and the Department of Finance worked with the Montgomery County Green Bank on revisions to the **Commercial Property Assessed Clean Energy (C-PACE) Program Guidelines** to reflect the amendments passed in [Bill 46-21](#). The new guidelines are expected to be published by Quarter 3.

- Montgomery County Public Schools has competitively bid and awarded contracts to two Energy Service Performance Contractors (Ameresco, Noresco) to conduct **Investment Grade Audits of its facilities to identify energy savings and greenhouse gas reduction projects** that can be implemented using a self-funding strategy. The first phase of buildings to be audited this school year have been selected, with audits to begin in Quarter 3, and with a target of work initiating during summer 2023.
- Montgomery Energy Connection **celebrated [Electrify Everything](#) during Energy Action Month in October 2022**. In addition to celebrating one electrification technology each week during the month, the program also released an interactive [Energy Escape Room](#) game for residents.

## Transportation

- **Electric Vehicles**
  - In November 2022, the Department of Environmental Protection (DEP) organized an inter-departmental “**Charge Montgomery**” **EV Planning Workgroup** to coordinate across County Government and other local jurisdictions on strategies to expand community EV charging. The group will continue to meet monthly on topics including public outreach and engagement, prioritizing of locations and types of charging, program models, zoning and building codes, and fire and public safety.
  - In December 2022, DEP launched [EV Purchasing Co-op Dealership Incentives](#). Through this program, DEP amplifies incentives and discounts offered by local auto dealerships for the purchase or lease of electric vehicles.
  - MCDOT continued working with Pepco to plan for **installation of additional EV charging stations in County parking facilities**:
    - Four EV charging station ports are in advanced planning for Garage 57 in Bethesda
    - Four EV charging station ports are in preliminary planning for Lot 34 in Wheaton
    - Four EV charging station ports have been ordered from Chargepoint for Garage 7 in Silver Spring
    - Eight EV charging station ports were installed in Garage 58 in Silver Spring
    - Four EV charging station ports were installed in Garage 40 in Bethesda
  - The Montgomery County Green Bank closed on its first EV Charger installation under the **Electric Vehicle Charger Infrastructure program for affordable multifamily properties** using a grant from General Motors. The Green Bank has two more projects in the closing process and several more in the pipeline. The program provides a no out-of-pocket cost solution to install up to 2 dual chargers at up to 30 properties.
  - MCPS began replacing other diesel and gasoline vehicles, as appropriate, with electric, hybrid, or other more efficient or cleaner-fuel vehicles. So far, two fleet plug-in hybrid SUVs have been delivered with five additional fleet electric vehicles ordered in FY23.
- The Department of General Services’ Fleet Management Services has many electric vehicles that are already in service or will be available for service this year, including:
  - The Police Department has 82- Ford “Explorer UT” hybrid electric pursuit rated Police SUVs.
  - Ride On has 10 Gillig 40’ “Low Floor” all battery electric buses with a total of 14 in service.

- Multiple agencies have a total of 10- Ford F150 “Lightning” all-electric pickup trucks to support their services.
- There are eight Ford “Transit E” all electric utility purpose-built vans for multiple agencies.
- The County has seven Ford “Mach E” all electric crossover sedans in service and supporting multiple agencies as daily use vehicles.
- Fire Rescue Services is piloting a Ford F150 “Lightning” for the Fire Rescue Services Battalion Chief, including on-site charging at the Fire Station.
- Library Services uses a Kenworth K270 “Class 8” all electric box truck.
- **Buses:**
  - MCDOT continued work on several **Bus Rapid Transit (BRT) projects:**
    - The Veirs Mill Road BRT project is entering final design.
    - The MD 355 BRT project is nearing completion of preliminary engineering.
    - Planning was completed for the US 29 BRT Phase 2.
    - Planning is underway for the New Hampshire Avenue BRT, North Bethesda Transitway.
  - MCDOT is continuing to advance **tactical bus lanes** (created using paint and signage) along Georgia Avenue in Silver Spring, University Boulevard in Wheaton, and Veirs Mill in Wheaton. Implementation is planned for Summer 2023.
  - The Planning Board recommended the Median Bus Lanes concept as the preferred alternative for the [US 29 Mobility and Reliability Study](#).
  - MCPS continued to add **electric school buses**, bringing the total to 85 active electric buses in the fleet, across 5 of the 6 service area depots. MCPS has partnered with Highland Fleet to upgrade a total of 326 school buses to electric by 2025. So far, MCPS electric buses have driven a total of 150,000 miles.
  - MCDOT, working with Howard County, secured a **Congressional earmark for \$3.35 million to fund vehicles for an extension of the US29 Flash service** to Columbia, Maryland.
- **Pedestrian and Bicycle projects:**
  - MCDOT substantially completed the “White Flint Workaround” for White Flint West, resulting in improved roadway network and addition of new bicycle infrastructure to this area of North Bethesda. The Shared Use Bike Path project on Emory Lane from Holly Ridge Rd. to Muncaster Mill Road also neared completion.
  - MCDOT continued planning, design, and construction on many bike facility projects, including Woodmont Avenue Cycletrack, Bethesda Avenue Cycletrack, Montgomery Avenue/Lane Cycletrack, Sandy Spring Bikeway, MD 355



Shared Use Path, Marinelli Road Separated Bikeway, Kensington Parkway Shared Use Path, Dr. Bird Shared Use Path, Fenton Street Cycletrack, Amherst Avenue Cycletrack, Bowie Mill Road Bikeway, and Dale Drive Shared Use Path.

- Montgomery County was awarded two Federal Congressional earmarks to assist with expansion of its Active Transportation and Micromobility Network.
  - \$400,000 for purchase and implementation of an e-cargo bike pilot program
  - \$428,000 for construction of secure bicycle parking facilities in downtown Silver Spring and Bethesda
- MCDOT's annual Walk & Ride Challenge was held as a virtual competition for the third year in a row, with great results. 79 teams with 290 participants working in the County's Transportation Management Districts competed. This three-week event encourages participants to try alternatives to driving to work, while also raising morale, enhancing health and providing team-building benefits for employers and employees.
- MCDOT provided additional Learn-to-Ride bike and e-scooter classes to residents this fall as demand for these classes continues to grow.
- Montgomery Planning has a [bikeway branding](#) effort, with MCDOT, to actively market the County's bicycle infrastructure to increase bicycling in the County. This project is nearing completion.
- **Off-road Equipment Electrification**
  - MCPS has initiated a program to replace all broken/unrepairable gasoline-powered lawn equipment with electric devices, including leaf blowers, trimmers, weed eaters and small push mowers. Some equipment has been received and others on order and expected this spring.
  - In December 2022 the Planning Board approved reallocation of some FY23 savings from vacancies, including over \$500,000 to replace existing equipment approaching the end of its useful life with electric park maintenance equipment for the Northern and Southern Regions. This funding will outfit four trim crews with electric equipment, purchase four electric mowers and purchase enclosed trailers that are pre-wired to charge electric equipment.
- Updates to County Code submitted by MCDOT were approved by County Council on October 25, 2022. These code updates **implement the Complete Streets Design Guide**, which had been approved by the Planning Board in 2021, to make it legally binding and actionable.
- MCDOT's **Commuter Survey** was conducted for first time since the pandemic. 9,600 responses were received and are being analyzed. Results will help develop alternative transportation services and provide insight to help gauge progress toward the Non-Auto Driver Mode Share goals established for various areas of the County.

## Carbon Sequestration

- **Tree Planting and Reforestation**
  - The Department of Environmental Protection (DEP) ordered more than 2500 shade trees to be installed on more than 550 properties and planted more than 800 of these shade trees.
  - DEP received a grant through the Chesapeake Bay Trust/Maryland 5-Million Tree Initiative to install shade trees in Equity Focus Areas. DEP worked with the Department of General Services to **identify more than 350 planting sites on 12 properties**. The first installment of funds was received in Quarter 2 and 220 of the 350 trees were ordered, a few trees were installed. The bulk of the installations will occur in Quarter 3.
  - The [Reforest Montgomery](#) coupon has an updated value of \$50, and **the Reforest Montgomery free easement reforestation program has been expanded** to accept applications from property owners willing to establish new forest conservation easements. Over the next several planting seasons, the number of free trees offered through the Reforest Montgomery program will be increased, with a goal of doubling the number of free trees planted annually from 100 to 200 trees. Applications for free trees from property owners within Equity Focus Areas are prioritized.
    - Since the start of the program in 2019, Reforest Montgomery has planted forest across 37 acres of public and private property, provided a discount on 2,290 native trees, planted 137 large trees on Commission parkland, and planted 361 free native trees on private properties throughout the County.
- **The Clean Water Montgomery Grant Program received 30 applications in November** that are in the process of being reviewed. DEP and the Chesapeake Bay Trust (the Trust) are partners in the program through the Trust's grant process. County nonprofit organizations such as local watershed groups, homeowner and community associations, faith-based organizations, and civic groups can apply for grants for projects including tree planting, installing permeable pavers or creating rain gardens. The grant program is made possible through the County's Water Quality Protection Fund and through federal appropriations.
- Staff initiated the **Congregations for Clean Water campaign** to encourage local congregations to install green infrastructure and received interest from 5 congregations during the reporting period.

- The **second annual Parks Urban Wood Sale** took place in December 2022. Approximately 17,400 board feet of wood was sold totaling \$45,000 in revenue. The sales benefits Montgomery Parks' urban wood waste recycling and green waste recycling programs.
- The Planning Department continues to participate in the DEP-led effort to identify, prioritize and measure nature-based climate solutions. A new focus for the effort is to work with the [Urban Sustainability Directors Network](#)'s Nature-Based Climate Solutions Initiative to investigate a land-use decision support tool to assess and prioritize implementation of nature-based climate solutions.

## Climate Adaptation

- **Resilience:**
  - The Department of General Services completed construction on the **Scotland Recreation Center resilience hub** with a grant from the Maryland Department of Energy. This small microgrid is has a PV solar roof, batteries, and a generator. Expected permission to operate from Pepco is February 2023.
  - The Office of Energy and Sustainability in the Department of General Services is working with the Office of Emergency Management and Homeland Security to **identify and quantify the list of next potential resilient hub sites** with expected completion March 2023.
  - Montgomery Parks signed a contract with Groundswell to receive a **feasibility analysis for solar and battery storage installations for two Montgomery Parks sites**. Groundswell, along with partners including the Montgomery County Green Bank, SunCatch Energy, and Prime Partners Engineering, was awarded a FY2022 **Resilient Maryland Program grant from the Maryland Energy Administration**. As a participant in the analysis, Montgomery Parks will receive a technical report on whether the site would be a good candidate for a resilience center. The report will offer the proposed design of the solar and storage system and expected barriers to installation.
- **Flood Management:**
  - Multiple County departments, with consultant support, neared completion of Phase I of the County's **Comprehensive Flood Management Plan**, with an expected finish in early 2023. The Plan seeks to address flooding in the County while taking account of scientific and engineering data, the needs of the County's residents and businesses (particularly historically underserved communities that are least prepared to respond to and recover from flooding events), and the resources required to develop comprehensive solutions.
  - The Department of Permitting Services is cooperating with FEMA which is the lead agency in **updating the Flood Insurance Rate Maps**.
  - Montgomery Parks is continuing to implement [outfall restoration projects](#). Two sustainable outfall stabilization projects were completed this quarter on Yates Street and Wildwood Road.
- The Office of Emergency Management and Homeland Security continued work with [Thriving Earth Exchange](#) to build a tool to understand urban heat, the locations of all heat islands, how heat disproportionately impacts communities, and how heat

relates to the tree canopy and impervious surfaces. These results will help the County prioritize tree planting and identify locations for future cooling centers in areas that are disproportionately impacted.

- The Office of Emergency Management and Homeland Security has begun the **Hazard Identification and Risk Assessment** as a part of the Hazard Mitigation Plan updates. The Hazard Mitigation Plan will help the County identify the most pressing climate and weather-related risks to the County.

## Climate Governance

- Departmental **Climate Ambassadors participated in two Lunch & Learn sessions**, including:
  - *"Electricity Matters - find out how you can help residents (and yourself) lower emissions while keeping money in your pocket"* where they learned about the [Montgomery Energy Connection website](#)
  - *"Montgomery County's Comprehensive Flood Management Plan: Understanding and Reducing Flooding Risks"* to learn about [steps the County is taking to address flooding risks and damage](#).
- The Department of Finance continued working with the Montgomery County Green Bank to implement [Bill 44-21](#). Through Quarter 2, the County made almost **\$6 million in distributions of the \$18 million FY23 appropriated Fuel Energy Tax**. Over \$8 million has been deployed and committed for future projects. The Green Bank is exceeding its mandated requirements to use 15% of funds to reduce clean energy costs and deploy 20% of funds in Equity Emphasis Areas.
- CountyStat **analyzed the impact of increased telework on greenhouse gas emissions**. The findings show that 15.3% of Montgomery County Government employees' work hours were teleworked in FY22. The **commute-related emissions avoided in FY22 through telework was equivalent to the CO<sub>2</sub> removed from the air by 268,214 trees**, which is comparable to planting enough mature trees to fill Rock Creek Park three times.
- Montgomery Parks **nature centers' winter professional development series was focused on climate change communication and education**. The staff received training on the Montgomery County CAP and local climate solutions from Sustainability Staff and additional training from Project WET around climate change communication and programing. These trainings are the beginning stages of the nature centers creating a climate education plan for their work program.
- Planning staff and its consultant **presented the new process and templates for creating Climate Assessments** for Master Plans and Zoning Text Amendments (ZTAs) to the Planning Board in December 2022 ([Agenda Item 8](#)) and received the Board's approval to begin using these tools to fulfill the requirements of [Bill 3-22](#). Staff training on the use of the new tools is scheduled for January 2023, with the expectation that all Master Plans and ZTAs transmitted to the County Council will include a Climate Assessment beginning March 1, 2023. The climate assessment process includes estimating greenhouse gas emissions associated with Master Plans and ZTAs, estimating carbon sequestration, and making recommendations for community resilience.

- Climate considerations were part of the Office of Management and Budget's analysis of the County Executive's recommended FY23-28 Amended CIP, which the County Executive transmitted to Council on January 17, 2023.
- One new staff person joined the DEP energy and climate section in Quarter 2. The new [Building Data Analytics Manager](#) will support the expanded Benchmarking requirements and help the department prepare for building energy performance standards. Additional recruitments for the energy and climate section will open by Quarter 4.

## Community Engagement, Partnerships, & Education

- [Montgomery Energy Connection](#) completed **41 in-person and virtual events**, engaging over 2,400 residents from October 1 to December 31, 2022 on several topics:
  - referred 77 people for Quick Home Energy Checkups.
  - collected and disposed of 903 incandescent bulbs.
  - ensured that 578 compact fluorescent bulbs were recycled correctly.
- In partnership with Nature Forward, Montgomery Energy Connection launched the 2023 cohort of the [P.O.W.E.R. Program](#) with **32 students who are being trained to provide energy-focused presentations** and informational sessions to residents.
- In partnership with the Latin American Youth Center, Montgomery Energy Connection piloted [Project Porchlight](#) with Manor Lake Civic Association where **students helped residents switch incandescent porchlight blubs to LED bulbs at 392 homes.**
- The Department of Environmental Protection (DEP) partnered with the Health and Human Services' Latino Health Initiative and Montgomery Parks to provide a **6-week series of environmental discussions in Spanish**, followed by Zumba sessions. 30 participants joined virtually to learn more about topics ranging from flooding, to reducing energy use, and waste reduction.
- DEP partnered with Impact Silver Spring and the Wheaton Urban District to **host the first Wheaton Holiday Market** in December where graduates of the Impact Silver Spring small business sustainability training program sold locally made crafts.
- The County's **Climate Change Communications Coalition** continued to meet regularly with representation from 16 departments and agencies. The coalition plans to launch a vigorous public outreach campaign in 2023 aimed at empowering the public with information on how to reduce emissions and adapt to the impacts of climate change.
- Montgomery County Public Schools (MPCS) curriculum supervisors and instructional specialists are reviewing the recently released MSDE Environmental Literacy standards framework in preparation for the **development of a comprehensive MCPS Environmental Literacy Plan**. Those standards include understanding the environmental impact of human activities and the individual and collective responses to those impacts.
- MCPS is developing a high school **Environmental Justice course that includes research, investigation, and action** focused on the disparate effects of climate change on people of color and those living in lower-income areas. The course will be piloted at Whitman High School in spring 2023.



- Green Schools leaders in MCPS and partner agencies including the Maryland Association for Environmental and Outdoor Education the Audubon Natural Society, and the Montgomery County Council of Parent-Teacher Associations continue **working together to support increasing the number of certified Green Schools in MCPS.**
  - Professional development, individual support for certifying schools, and continuing and enhanced financial support for leading the certification process began in December 2022.
  - MCPS announced three types of stipends to staff leading sustainability programs to increase participation in the Maryland Green School certification program. These stipends are new in FY23, to acknowledge the admirable efforts of staff at all schools who are leading sustainability at their schools.
- MCPS held an [online symposium](#) on the Electric School Bus Project on December 7. **Over 340 students and staff registered to attend the webinar to learn about MCPS' rollout of electric school buses** and how this project helps to reduce the harmful greenhouse gas emissions. Several students actively participated in the planning and facilitated the event that included a guest speaker from Highland Fleet, the supplier of the electric buses to MCPS.
- Montgomery Parks Nature Centers **promote native gardening through education and native plant sales.** In Quarter 2, close to 5,800 native plants grown at Pope Farm were sold at the Locust Grove Nature Center and the Maydale Nature Classroom community native plant sales.

## Zero Waste

- The Department of Environmental Protection (DEP) continues Phase I of the single-family residential curbside recycling collection of food scraps pilot by providing weekly collection of food scraps from participating households in Silver Spring and Potomac. As of December 31, 2022, almost **370,000 pounds of food scraps have been recycled** through this pilot program.
  - Implementation of Phase II of the of the pilot continues with the competitive process to select a contractor to collect food scraps from up to an additional 1,700 participating households in two additional designated areas in Bethesda and Gaithersburg.
- DEP continues the commercial food scraps recycling partnership program which includes soliciting new partners that generate food scraps, providing technical assistance and best practice recommendations, helping to set up on-site food scraps separation and recycling containers, providing transportation to a compost facility, and more. As of December 31, 2022, **more than 1.4 million pounds of commercially generated food scraps have been recycled** through this program. All partners that have graduated from this program continue to recycle their food scraps on their own.
- DEP continues to provide compost bins to residents directly or via partner distribution locations to encourage managing yard trim at the source and to create compost to improve soil health. On December 2, 2022, the Department of Environmental Protection **added its twenty-first compost bin distribution location at the Germantown Library**, making it more convenient for more residents to compost.
- DEP hosted a one-day scrap tire recycling collection event at the Montgomery County Recycling Center in October 2022. During this event, DEP collected **338 tires, weighing 4.44 tons**, for recycling.
- DEP continues to provide intensive technical support and assistance to multi-family properties (apartments and condominiums) that are recycling less than 50% of their waste. The goal is for these properties to **improve their on-site recycling programs** by making it easier and more convenient for residents and staff to recycle more.
- Montgomery County Public Schools has been **actively working with schools on food recovery programs to reduce waste**. Staff and students act to resolve food insecurity by recovering and redistributing food at 33 schools. Several student and parent groups have also raised funds to provide post-consumer food composting services at 24 schools.

## Other Climate Updates

- County staff met with members of the General Assembly and participated in meetings of the Maryland Commission on Climate Change to **advocate for state policy priorities in alignment with County climate goals** to decarbonize the built environment, accelerate the deployment of clean energy, and accelerate the transition to low-carbon mobility.
  - During Quarter 3, County officials and staff will submit testimony for bills that advance the Climate Action Plan.
- County staff actively participated in proceedings and working groups of the Maryland Public Service Commission to **advocate for regulatory changes to retail choice and energy efficiency programs** to better support low-income residents and achievement of the State's energy and climate goals.
- WSSC Water completed its 2022 GHG inventory and updated the [WSSC GHG Action Plan](#) which details future emissions reduction strategies including optimizing the efficiency of the water distribution system, improving equipment efficiency for water and wastewater, implementing renewable energy sources, and more.

## SECTION 2: COMPLETE SUBMISSIONS BY DEPARTMENT

### Department of Environmental Protection

- Prepared proposed regulations governing the County's Community Choice Energy program to the PSC's Community Choice Aggregation Work Group charged with preparing draft regulations. Significant differences remain to be resolved regarding the role of Commission oversight of the program. (CAP Action E-1)
- Montgomery Energy Connection celebrated [Electrify Everything](#) during Energy Action Month in October 2022. In addition to celebrating one electrification technology each week during the month, the program also released an interactive [Energy Escape Room](#) game for residents to play and win prizes. (CAP Actions B-4)
- In November 2022, the County Council approved the Comprehensive Building Decarbonization legislation ([Bill 13-22](#)), which will require the County to issue all-electric building standards by December 31, 2026. (CAP Action B-5)
- In December 2022, DEP released the Request for Proposals for a contractor to implement the Residential Electrification Incentives Pilot Program funded in the FY23 operating budget. This contractor will support an administrative help desk to support residents with general questions, perform energy audits, perform retrofits of appliances and systems currently heated with fossil fuels with efficient electric alternatives, and administer prescribed financial incentives directly to residents. (CAP Action B-4)
  - By Quarter 4, DEP plans to award the contract to support the Residential Electrification Incentives Pilot Program and begin developing program materials.
- DEP staff joined the Maryland Electrification Collaboration Group, an informal community-led collaborative of organizations and local governments working on electrification issues. (CAP Action B-1, B-2, B-4, B-5)
- The [Building Performance Improvement Board](#)—the appointed advisory board that advises the County on building energy performance standards (BEPS) implementation—began meeting bi-weekly to develop their recommendations on BEPS Method 2 regulations, due to be issued by December 31, 2023. (CAP Action B-3)
- One new staff person was added to the energy and climate section in Quarter 2. The new [Building Data Analytics Manager](#) will support the expanded Benchmarking requirements and help the department prepare for building energy performance standards. Additional recruitments for the energy and climate section will open by Quarter 4. (CAP Action B-3)
- DEP made progress in organizing the [2023 Montgomery County Energy Summit](#), which will be held on March 28-29, 2023 at the Silver Spring Civic Building. Registration will open in February 2023. (CAP Action B-3)

- DEP and the Department of Finance worked with the Montgomery County Green Bank on revisions to the Commercial Property Assessed Clean Energy (C-PACE) Program Guidelines to reflect the amendments passed in Bill 46-21. The new Guidelines are expected to be published by Quarter 3. (CAP Action B-4)
- In November 2022, DEP organized an inter-departmental “Charge Montgomery” EV Planning Workgroup to coordinate across Montgomery County Government and with other local jurisdictions on strategies to expand community EV charging. The group will continue to meet monthly on topics including public outreach and engagement, prioritizing of locations and types of charging, program models, zoning and building codes, and fire and public safety. (CAP Action T-7)
- In December 2022, DEP launched [EV Purchasing Co-op Dealership Incentives](#). Through this program, DEP amplifies incentives and discounts that are offered by local auto dealerships for the purchase or lease of electric vehicles. Incentives are updated monthly and promoted on DEP’s newsletter and social media pages. (CAP Action T-3)
- Clean Water Montgomery Grant Program received 30 applications in November that are in the process of being reviewed. DEP and the Chesapeake Bay Trust (the Trust) are partners in the program through the Trust’s grant process. County nonprofit organizations such as local watershed groups, homeowner and community associations, faith-based organizations, service and civic groups can apply for grants for projects including tree planting, installing permeable pavers or creating rain gardens. The grant program is made possible through the County’s Water Quality Protection Fund and through federal appropriations. (CAP Action S-2, S-5)
- Staff initiated the Congregations for Clean Water campaign to encourage local congregations to install green infrastructure and received interest from 5 congregations during the reporting period. (CAP Action S-2, S-5)
- DEP ordered more than 2500 shade trees to be installed across the County on more than 550 separate properties and planted more than 800 of these shade trees. (CAP Action S-2)
- A supplement appropriation was requested to double the funds available and allow for additional shade trees to be ordered and installed. (CAP Action S-2)
- DEP received a grant through the CBT/Maryland 5-million tree initiative to install shade trees in equity focus areas. To this end, DEP worked with DGS to identify more than 350 planting sites on 12 properties. The first installment of funds was received in the 2<sup>nd</sup> quarter and 220 of the 350 trees were ordered, a few trees were installed. The bulk of the installations will occur in the 3<sup>rd</sup> quarter. (CAP Action S-2)
- A couple of years ago, Montgomery County participated in a pilot to develop the Forest and Land Use Appendix to ICLEI’s U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions. The new guidance, developed by the Woodwell Climate Research Center (formerly the Woods Hole Research Center), World Resources Institute, and Climate and Land Use Alliance enabled the Washington Metropolitan Council of Governments to incorporate the impact of trees and forests into its member jurisdictions GHG inventories. Incorporating trees and forests into the [Montgomery County](#)

[inventory during the 2005 to 2020 period](#) shows an increase in the County's overall net emission reductions from 30% to 32% due to both a reduction of emissions related to forest and tree loss and an increase of GHG removals (sequestration) associated with an increase in tree canopy. (CAP Action S-1, S-2)

- Work on Phase I of the County's Comprehensive Flood Management Plan neared completion (expected to be finalized in early 2023). The Plan seeks to address flooding in the County while taking account of scientific and engineering data, the needs of the County's residents and businesses (particularly historically underserved communities that are least prepared to respond to and recover from flooding events), and the resources required to develop comprehensive solutions. (CAP Action A-20)
- DGS in cooperation with DEP's Tree Montgomery program to identify more than 350 planting sites on 12 county-owned properties to receive shade trees to help cool built surfaces. (CAP Action A-7, A-10)
- The Regional Winter Salt Outreach group (DEP, WSSC Water, MDE, City of Gaithersburg, Howard County, MDOT/SHA, Interstate Commission on the Potomac River, Northern Virginia Region- Coastal Program, Izaak Walton League of America, and the Metropolitan Washington Council of Governments) continued to meet to coordinate jurisdictional Winter Salt messaging. DEP, among other group members, presented at the Maryland Water Monitoring Conference and attended the regional Salt Summit. DEP, DOT and WSSC organized a salt wise press event in early December to educate residents about being Salt-Wise. (CAP Action A-15)
- Departmental Climate Ambassadors participated in two Lunch and Learns, including:
  - *"Electricity Matters - find out how you can help residents (and yourself) lower emissions while keeping money in your pocket"* where they learned about the [Montgomery Energy Connection website](#)
  - *"Montgomery County's Comprehensive Flood Management Plan: Understanding and Reducing Flooding Risks"* to learn about [steps the County is taking to address flooding risks and damage](#). (CAP Action G-1)
- Ongoing partnership with HHS' Latino Health Initiative and Montgomery Parks to provide a 6-week series of covering environmental topics followed by Zumba sessions. All sessions are in Spanish. 30 participants participating via zoom to participate during the 6 weeks. Topics covered included, information related to flooding, reducing energy use, waste reduction, and litter. (CAP Action P-1)
- Partnered with Impact Silver Spring to host their small business training program. Provided environmental information to 20 participant about how to green your business. All sessions were in Spanish.
- Partnered with Impact Silver Spring and the Wheaton urban District to host the 1st ever Wheaton Holiday Market where graduates of the Impact Silver Spring small business training program sold locally made crafts. Market days: December 3rd, 10th and 17th. (CAP Action P-1)

- Participated in 5 events to provide information to Spanish speakers related to flooding, reducing energy use, waste reduction, and litter. Locations of events were held in communities with high numbers of Spanish speakers, including locals churches, after school programs, and parent days (CAP Action P-1)
- [Montgomery Energy Connection](#) completed 41 in-person and virtual events from October 1 – December 31, 2022, where we engaged with 2,401 residents. The Montgomery Energy Connection Energy Ambassadors referred 77 people for Quick Home Energy Checkups (QHECs), collected and disposed of 903 incandescent bulbs, and ensured that 578 compact fluorescent bulbs were recycled right. (CAP Action P-1)
- In partnership with Nature Forward, Montgomery Energy Connection launched the 2023 cohort of the [P.O.W.E.R. Program](#) with 32 students who are being trained to provide energy-focused presentations and informational sessions to residents. (CAP Action P-1)
- In partnership with the Latin American Youth Center, Montgomery Energy Connection piloted [Project Porchlight](#) with Manor Lake Civic Association where students went door-to-door to 392 homes to help them switch porchlight lightbulbs to LED bulbs. (CAP Action P-1)
- DEP continued to co-lead the Maryland Coalition of Counties and Cities for Climate Action (MC4A), a statewide climate coalition of local governments that meets regularly to discuss state and local policy and programmatic issues. (CAP Action P-10)
- The Climate, Energy, and Air Quality Advisory Committee (CEAQAC) continues to meet monthly to advise the County on climate, energy, and air quality issues. During Quarter 2, CEAQAC recruited new volunteers to fill open vacancies, which will be formally appointed during Quarter 3. (CAP Action P-6)
- The County's Climate Communications Coalition has been meeting regularly with representation from 16 county departments and agencies. The coalition is planning to launch a vigorous public outreach campaign in 2023 aimed at empowering the public with information on how to reduce emissions and adapt to the impacts of climate change. (CAP Action P-1)
- The Department of Environmental Protection continues Phase I of the single-family residential curbside recycling collection of food scraps pilot by providing weekly collection of food scraps from participating households in designated portions of the Silver Spring (in Subdistrict A) and Potomac (in Subdistrict B) areas. As of December 31, 2022, almost 370,000 pounds of food scraps have been recycled through this pilot program. Data is collected on a weekly basis pertaining to participation and capture for recycling, and formal surveys to obtain feedback from participants are conducted on a quarterly basis. Work is underway to prepare to conduct focus group research with participants in late January 2023.

- Implementation of Phase II of the pilot continues with the competitive process to select a contractor to collect food scraps from up to an additional 1,700 participating households in two additional designated areas, portions of the Bethesda (in Subdistrict A) and Gaithersburg (in Subdistrict B) areas.
- The Department of Environmental Protection continues the commercial food scraps recycling partnership program, soliciting new partners that generate food scraps; providing technical assistance and best practice recommendations; helping to set up on-site food scraps separation and storage/recycling containers; providing collection/transportation to a compost facility; providing for processing fees; etc. As of December 31, 2022, more than 1.4 million pounds of commercially generated food scraps have been recycled through this program. All partners that have graduated from this program continue to recycle their food scraps on their own.
- The Department of Environmental Protection continues to distribute educational materials and conduct training sessions on using rodent-proof compost bins to include food scraps in backyard composting efforts. Nearly 1,000 residents are continuing to test two types of rodent-proof compost bins: one static compost bin model and one dual-chamber tumbler compost bin model. The volunteer residents are providing valuable data and feedback pertaining to the use of these rodent-proof compost bins.
- Educational workshops and training for backyard composting of yard trim materials and backyard composting of food scraps using rodent-proof compost bins continue to be offered and conducted.
- The Department of Environmental Protection continues to provide compost bins to residents directly or via 21 partner distribution locations to encourage managing yard trim at the source and create compost for use to improve soil health. On December 2, 2022, the Department of Environmental Protection added its 21<sup>st</sup> distribution location at the Germantown Library, making it easier and more convenient for even more residents to obtain a compost bin.
- The Department of Environmental Protection's Edible Food Recovery Working Group continues its work to increase the donation of edible food to organizations that distribute or provide food to community members experiencing food insecurity, as well as to reduce wasted food. The Working Group continues work necessary in developing its more detailed recommendations.
- The Department of Environmental Protection issued a Task Order to estimate the amount of edible food available for recovery from commercial generators in Montgomery County. Work is expected to begin in late January/early February 2023.
- The Department of Environmental Protection is awaiting notification from USDA pertaining to its grant application (submitted September 1) titled "Edible Food Recovery Program in Montgomery County, Maryland."
- Work has begun to determine the feasibility of implementing a Pay-As-You-Throw variable rate pricing system to create an economic incentive for residents to reduce the amount of trash thrown away.



- The Department of Environmental Protection worked to continue its education campaign, “Food is Too Good to Waste,” to reduce the amount of wasted food in the County.
- The Department of Environmental Protection hosted a special one-day scrap tire recycling collection event at the Montgomery County Recycling Center on Saturday, October 8, 2022. During this event, DEP collected a total of 338 tires, weighing 4.44 tons or 8,880 pounds of scrap tires recycled.
- Education on waste reduction, reuse, recycling, composting, buying recycled, and recycling right continued through many communication channels, including through social media.
- The Department of Environmental Protection continues to provide intensive technical support and assistance to multi-family properties (apartments and condominiums) that are recycling less than 50% of their waste. The goal is for these properties to improve their on-site recycling programs, making it easier and more convenient for residents and staff to recycle more, and to increase their recycling achievement.
- The Department of Environmental Protection launched an education effort to raise awareness about hazardous mercury which may be found in older items that can be present in homes. DEP accepts mercury-containing items and elemental mercury from residents to reduce the risks of exposure to mercury and remove them from the waste stream. Residents can exchange mercury-containing items for a new digital thermometer.
- County staff met with members of the General Assembly and participated in meetings of the Maryland Commission on Climate Change to advocate for state policy priorities in alignment with County goals to decarbonize the built environment, accelerate the deployment of clean energy, and accelerate the transition to low-carbon mobility.
  - During Quarter 3, County officials and staff will submit testimony for bills that advance the Climate Action Plan.
- County staff actively participated in proceedings and working groups of the Maryland Public Service Commission to advocate for regulatory changes to retail choice and energy efficiency programs to better support low-income residents and achievement of the State’s energy and climate goals.

## **Department of Finance**

- The Department of Finance (DOF) executed an MOU with the Montgomery County Green Bank to implement Bill 44-21 and the County has made almost \$6 million in distributions of the \$18 million FY23 appropriated Fuel Energy Tax through Q2. The quarterly monitoring report through Q2 indicates over \$8mm has been deployed and committed (for future projects) and the Green Bank is exceeding its mandated requirements to use 15% of funds to reduce clean energy costs and deploy 20% of funds in Equity Emphasis Areas. (CAP Action G-10)

- DOF and DEP are coordinating with the Green Bank on updating the Commercial Property Assessed Clean Energy (C-PACE) Program Guidelines documents to reflect amendments made in Bill 46-21. Revisions to the C-PACE Program Guidelines are in process. (CAP Action G-10)

## Department of General Services

- Completion of Animal Shelter Solar and Microgrid. (CAP Action E-4)
- The Brookville Smart Energy Depot Phase 1 completed and operational October 2022; Phase 2 is in design. (CAP Action E-4)
- The Oaks Solar project is 95% completed awaiting interconnection from Pepco; expected PTO March 2023. (CAP Action E-4)
- EMTOC Smart Energy Depot in design. (CAP Action E-4)
- New construction and major renovation projects that are currently in the design and planning phases have completed net zero studies. The completed net zero studies will inform the design standards and best practices to be utilized in future projects. Cost implications are included in the studies. (CAP Action B-7)
- The County is negotiating with a third party to install EV public charging stations on County facilities. (CAP Action T-6)
- Fleet Management Services is continually adding EV charging locations in support of Fleet electric vehicle operations. (CAP Action T-6)
- Phase I transition study focused on a.) eliminating vehicles due to underutilization b.) downsizing and replacing with a smaller vehicle and c.) identifying County vehicles that can be replaced with zero-emission vehicles. Phase I study expected completion early Winter 2022. Fleet is finalizing the technical scores and recommendation for an additional (100) 40' "Low Floor" all battery electric buses. (CAP Action T-6)
- The MCPD Pilot test EV police vehicle has been received and piloting Mach E within Department. (CAP Action T-6)
- Fleet Management Services has many electric vehicles that are already in service or will be available for service this year, including:
  - MCPD has 82- Ford "Explorer UT" hybrid electric pursuit rated Police SUV
  - Ride On has 10- Gillig 40' "Low Floor" all battery electric bus (BEB), with a total of 14 all BEB in revenue service
  - Multiple agencies have a total of 10- Ford F150 "Lightning" all electric Pickup Trucks to support their services throughout the county.
  - Additionally, there are eight Ford "Transit E" all electric utility purpose-built vans for multiple agencies throughout the county.

- The County has seven- Ford “Mach E” all electric crossover sedans in service and supporting multiple agencies as daily use vehicles.
- Fire Rescue Services is piloting a Ford F150 “Lightning” for Fire Rescue Services Battalion Chief -includes on site charging at the Fire station.
- Library Services uses a Kenworth K270 “Class 8” all electric box truck.
- The Scotland Recreation Center resilience hub has completed construction phase; expected permission to operate (PTO) is February 2023. (CAP Action A-8)
- OES working with OEHMS to identify and quantify list of next potential resilient hub sites; expected completion March 2023. (CAP Action A-8)
- Phase I transition study focused on a.) identifying eligible vehicles to be eliminated due to underutilization b.) downsized and replaced with a smaller vehicle and c.) identify County vehicles that can be replaced with zero-emission vehicles. Phase I study expected completion early Winter 2022. Phase II will focus on developing a department specific zero emission strategy identifying immediate opportunities as well as areas of future focus to be addressed by new technology development or additional funding. (CAP Action G-13)
- Electric Bus RFP for 100 Electric buses scheduled to be awarded in Q3 of FY23. (CAP Action G-13)
- 13 bus Fuel Cell grant from FTA awarded in 2022. Planning for the microgrid to support the project started in FY22. The planning for the hydrogen station and fuel cell buses is scheduled to begin in Q3 FY23. (CAP Action G-13)
- Ordered 2 F150 Lightnings to pilot with Fire and Rescue Services to explore their utilization in Fire Service. (CAP Action G-13)
- Exploring the purchase of electric box trucks to support Alcohol Beverage Services’ delivery fleet. (CAP Action G-13)

### **Department of Permitting Services**

- The Montgomery County Department of Permitting Services (DPS) is working with stakeholders to explore options for the 2021 International Energy Conservation Code (IECC). The 2021 building codes are currently under review at the state level. Once the state publishes the 2021 codes, the County can move to public engagement. The 2021 IECC will include proposed amendments that will set minimum thresholds for onsite renewables. (CAP Action E-2)
- The SolarAPP+ pilot program, which allows applicants to obtain pre-approval for basic residential rooftop solar installations, is moving to next steps. DPS is currently working through Apply Online adjustments and issuance processes in preparation for a 2023 launch (estimated March 2023). (CAP Action E-3)

- DPS's customer service section has moved large photovoltaic installations into its case management process. This process puts additional focus and resources on projects deemed a high priority. (CAP Action E-4)
- Multiple departments coordinated a draft plan for electrification ready and electrification of new construction. Language on existing construction (level 3 alterations) was removed from the bill. Options for electrification ready will be proposed in the 2021 IECC. (CAP Action B-1, B-2)
- The Department of Permitting Services (DPS) is working with stakeholders to explore options for the 2021 International Energy Conservation Code (IECC). The 2021 codes are currently under review at the state level. Once the state publishes the 2021 codes, the County will move to public engagement. Additionally, DPS has a voting seat in the IECC Energy modeling and Net Zero Energy subcommittee that works on future energy code language. (CAP Action B-5)
- DPS will utilize the New Buildings Institute decarbonization language during amendment proposal. The County is continuing to explore legal and building code strategies to disincentivize fossil fuel use and encourage electrification in newly constructed buildings. (CAP Action B-6)
- DPS is working with stakeholders to explore options for the 2021 IECC. The 2021 codes are currently under review at the state level. Once the state publishes the 2021 codes, the County will move to public engagement. DPS will utilize the New Buildings Institute decarbonization language during amendment proposal. Additionally, the 2018 International Green Construction Code (IgCC), which was adopted in September 2021, will advance energy goals through enforcement on new construction over 5,000 square feet. 2018 IgCC is now being enforced. Additionally, we are waiting on the update on the IgCC which may be updated to the 2021 version by the State. (CAP Action B-7)
- The Department of Permitting Services (DPS) is exploring options to expand EV ready infrastructure and EV infrastructure in the 2021 International Energy Conservation Code (IECC). The state will be updating the IgCC to the 2021 IgCC which provides us opportunities to embed EV charging requirements in the green code. (CAP Action T-7, T-8)
- Currently no codes directly correlate to resiliency but the increased efficiency in the 2021 International Energy Conservation Code (IECC) puts Montgomery County on a path to better extreme weather resiliency through envelope, onsite solar, and potential onsite storage. The 2018 International Green Construction Code (IgCC), adopted in September 2021, also enforces increased efficiencies and onsite generation. (CAP Action A-4)
- The 2018 IgCC was adopted in September 2021. DPS is exploring specific amendments to the 2021 codes to require solar reflective index (SRI) requirements for roofing materials. (CAP Action A-6)
- DPS is in communications with neighboring jurisdictions, the state energy administration, and multiple national organizations to better align with holistic goals and utilize national expertise. (CAP Action A-11)

- DPS requires stormwater management (SWM) compliance to the maximum extent practicable and only grants waivers when 100% compliance cannot be achieved. Many projects meet a large percentage of SWM compliance, but if even 1% is not achievable and a waiver is granted, the full fee-in-lieu (not a portion thereof) is required. DPS is in the process of contacting several Maryland jurisdictions and the District of Columbia. The timeframe for updates to FEMA's Flood Insurance Rate Maps (FIRM) has been delayed. DPS is working with FEMA to ascertain an updated timeline for community outreach and the ability for residents to easily view flood maps online. DPS participated in the kickoff meeting with Jacobs, a consultant that is working with the Flooding Taskforce to comprehensively address flood prevention and mitigation in Montgomery County. These meetings are ongoing and include many other County stakeholders. (CAP Action A-13)
- DPS is cooperating with FEMA who is the lead agency in updating the Flood Insurance Rate Maps. DPS routinely updates GIS layers as new floodplains at the local level are mapped as part of its floodplain study reviews. A draft scope of work has been prepared for the development of a comprehensive strategy to address flooding in the County. (CAP Action A-14)
- DPS plans to explore county legislation to enforce water conservation as a method of energy conservation. (CAP Action A-17)
- The Department of Permitting Services has a new database system under development. This will allow DPS to report more detailed information on Climate Action Plan items. The database project has been reformatted to update current software rather than migrate to a new platform. IT staff have been added to provide support to data collection and reporting expansion. (CAP Action G-15, G-16)

## **Department of Transportation**

- MCDOT, working together with Howard County, secured a Federal Congressional earmark for \$3.35M to fund vehicles for an extension of the US29 Flash service to Columbia, MD. DOT is actively working with Howard County to start this service in FY25. (CAP Action T-1)
- Design is underway for the MD 355 and Veirs Mill Road Bus Rapid Transit (BRT) projects. (CAP Action T-1)
  - The Veirs Mill Road BRT project is entering final design.
  - The MD 355 BRT project is nearing completion of preliminary engineering.
- Planning was completed for the US 29 BRT Phase 2. (CAP Action T-1)
- Planning is underway for the New Hampshire Avenue BRT, North Bethesda Transitway. (CAP Action T-1)
- MCDOT is continuing to advance tactical bus lanes along Georgia Avenue in Silver Spring, University Boulevard in Wheaton, and Veirs Mill in Wheaton. Implementation is planned for Summer 2023. (CAP Action T-1)

- A tactical bus lane can be implemented quickly, does not require road reconstruction, and is typically run on a curb lane or a parking lane. Tactical bus lanes are created using paint to designate the bus lane and with signage to outline the bus lane restrictions.
- Substantially completed the road and bike infrastructure construction project known as the “White Flint Workaround” for White Flint West, resulting in improved roadway network and addition of new bicycle infrastructure to that area of North Bethesda. (CAP Action T-2)
- Substantially completed the Shared Use Bike Path project on Emory Lane from Holly Ridge Rd. to Muncaster Mill Road. (CAP Action T-2)
- Planning, design, and construction of several bike facility projects on-going: Woodmont Avenue Cycletrack, Bethesda Avenue Cycletrack, Montgomery Avenue/Lane Cycletrack, Sandy Spring Bikeway, MD 355 Shared Use Path, Marinelli Road Separated Bikeway, Kensington Parkway Shared Use Path, Dr. Bird Shared Use Path, Fenton Street Cycletrack, Amherst Avenue Cycletrack, Bowie Mill Road Bikeway, and Dale Drive Shared Use Path. (CAP Action T-2)
- Montgomery County was awarded two separate Federal Congressional earmarks to assist with expansion of its Active Transportation and Micromobility Network. (CAP Action T-2)
  - \$400K for purchase and implementation of an e-cargo bike pilot program
  - \$428K for construction of secure bicycle parking facilities in downtown Silver Spring and Bethesda
- Updates to County Code submitted by MCDOT were approved by County Council on October 25, 2022. These code updates implement the Complete Streets Design Guide, which had been approved by the Planning Board in 2021, to make it legally binding and actionable. Chapters updated included: Chapters 49 – Streets & Roads, 50 – Subdivision of Land, and 59 – Zoning. (CAP Action T-4)
- Recommended revisions to Chapter 49 Regulations are now underway, which will further define, interpret and apply the updates made to that portion of the County Code. (CAP Action T-4)
  - New Bus Depot Test Fitting / Design Concept under review. (CAP Action T-5)
  - Transportation analysis regarding use of Zero Emissions buses and coordination with the study *Ride On Reimagined* are on-going. (CAP Action T-5)
  - Modeling of Fleet Transition to ZEV vehicles is under development (CAP Action T-5).
  - Federal Hydrogen Fuel Cell Grant: evaluating hydrogen and bus supply options; preliminary analysis of costs and general design for microgrid at EMTOC on-going. (CAP Action T-5)

- MCDOT, in partnership with Pepco, installed eight EV charging station ports in Garage 58 in Silver Spring and four EV charging station ports in Garage 40 in Bethesda. (CAP Action T-7)
- Four EV charging station ports have been ordered from Chargepoint for Garage 7 in Silver Spring, with delivery and installation anticipated later in FY23. (CAP Action T-7)
- Efforts continue in coordination with Pepco to plan for installation of additional EV charging stations in County parking facilities. (CAP Action T-7)
  - Four EV charging station ports are in advanced planning for Garage 57 in Bethesda
  - Four EV charging station ports are in preliminary planning for Lot 34 in Wheaton
- MCDOT's Commuter Survey conducted for first time since the pandemic. A total of 9,600 responses were received and are being analyzed. (CAP Action T-8)
  - Survey is used to obtain data from employers and multi-unit residential projects on how those working and living in the County are getting to work.
  - Results help develop alternative transportation services and provide insight to help guide future incentives and promotional efforts.
  - Data is used to determine progress toward the Non-Auto Driver Mode Share (NADMS) goals established for various areas of the County.
- MCDOT's annual Walk & Ride Challenge held as a virtual competition for third year in a row, with great results. Total of 79 teams with 290 participants working in the County's Transportation Management Districts (TMDs) competed. (CAP Action T-8)
  - This is a three-week event to encourage participants to try alternatives to driving to work, while also raising morale, enhancing health and providing team-building benefits for employers and employees.
  - Teams in County TMDs compete for prizes by logging steps used walking to/from transit or simply walking to work or at lunchtime.
  - Teleworking employees encouraged to participate by including walking in their daily schedules.
- MCDOT hosted Car Free Day outreach events at several transit stations and other sites throughout the County. This International event is held annually and throughout the region on September 22<sup>nd</sup>. (CAP Action T-8)
  - Event provides a platform to increase awareness and educate the public on issues related to climate impacts and sustainable transportation options.
  - Those using transit or other alternatives are provided with promotional items as a "thank you" to commuters going "Car Free" or "Car Lite."

- MCDOT provided additional Learn-to-Ride bike and e-scooter classes to residents this fall as demand for these classes continues to grow. (CAP Action T-8)
  - Classes held in various locations around the County in the fall and spring are taught by certified instructors under arrangements with the Washington Area Bicycle Association (WABA).
  - Bulk of the cost paid by MCDOT so County residents can take the class for \$10. Bikes and helmets supplied by WABA for use during the class.
  - E-scooter classes conducted at same time and locations by County-approved shared e-scooter program vendors.

### **Montgomery College**

- Montgomery College re-established connection to a 33 KW solar array located at the Science West building in the Rockville campus. This solar array was powered up in the Spring of 2016 and since then it has generated 187 MWh of electricity equivalent to approximately 16,000 gallons of gasoline or 8,000 electric cars charged. Our interactive dashboard could be located using the following link: <https://www.solrenview.com/SolrenView/mainFr.php?siteId=4770>. (CAP Action E-4)
- The college is in the process of upgrading the thermal storage capacity at the Rockville and Takoma Park campuses. This technology allows the college to control electricity demand daily and avoids expensive charges in our utility bills. In addition, the thermal storage technology allows the electric grid to maintain some level of reliability, which benefits the county residents.
- The college started the renovation of the HVAC systems of five buildings on the Rockville campus. These renovations will ensure higher indoor air quality and thermal comfort and comply with current construction codes.
- The college finished the HVAC renovation of the P1/P2 building at Takoma Park. This building was connected to the campus district cooling and heating loop. According to many articles, including “[Reference Module in Earth Systems and Environmental Sciences](#) by S Werner”, district heating and cooling have the potential to increase the overall energy efficiency of the heating and cooling process.



## Montgomery County Green Bank

- The Montgomery County Green Bank has closed on a 2.1 MW solar PV project at the 684-unit Seneca Village apartments in an Equity Emphasis Area in Gaithersburg. The Green Bank funded a \$5 million loan for the project and brought in two partners, Virginia Community Capital and NYCEEC to support \$1.85 million of the funding. (CAP Action E-3)
- The Montgomery County Green Bank closed on a 100-kW solar PV project with faith-based organization. This brings our total in solar supported efforts to seven organizations nonprofits, affordable housing, and faith-based institutions. (CAP Action E-3)
- The Montgomery County Green Bank closed on 14 loans to homeowners in support of energy efficiency improvements generating nearly \$5,000 a year in energy savings. These homeowners used the new Clean Energy Advantage statewide program done in collaboration with the Maryland Clean Energy Center and using EmPower funding through the participation of six utilities. (CAP Action B-2)
- The Montgomery County Green Bank launched its technical assistance program with \$750,000 of funding and currently have reached agreement with eight contractors to use the program with commercial property owners to complete energy assessments to determine potential energy improvements for their properties. The assessments will also include reviews of electrification alternatives where appropriate. (CAP Action B-3, B-4).
- The Montgomery County Green Bank closed on two energy efficiency projects with a school and a commercial office building that supports over \$5 million in clean energy improvements that annually reduces almost 250 metric tons of greenhouse gas emissions at these properties. (CAP Action B-3)
- The Montgomery County Green Bank closed on its first EV Charger installation under the Electric Vehicle Charger Infrastructure program for affordable multifamily properties in the county using a grant from General Motors. The Green Bank has two more projects in the closing process and several more in the pipeline. The program provides a no out-of-pocket cost solution to install up to 2 dual chargers at up to 30 properties. (CAP Action T-3)
- The Montgomery County Green Bank continued its work to engage and educate the community by hosting or participating in 19 events reaching over 800 people, including with contractors, community groups, associations, and property owners. To date, the Green Bank has participated in 50 events and reaching over 1,300 people.

## Montgomery County Public Schools

- Work continues on designs for installation of rooftop solar production sites at 8 MCPS sites, a pilot parking lot canopy with EV charging station, a pilot of solar parking lot lighting, and purchasing of off-site ground mounted solar in the PJM region under development. (CAP Action E-4)
- MCPS has competitively bid and awarded contracts to two Energy Service Performance Contractors (Ameresco, Noresco) to conduct Investment Grade Audits of our facilities to identify energy savings and greenhouse gas reduction projects that can be implemented using a self-funding strategy. The first phase of buildings to be audited this school year have been selected, with audits to begin in Q3, and with a target of work initiating during summer 2023. (CAP Action B-3)
- Central Office staff continue to assist schools in their individual efforts in behavior modification to increase sustainability, reduce energy consumption, and increase recycling and other waste reduction/rethinking activities. (CAP Action B-3)
- The first onsite Green Globes assessment for two newly opened schools was successfully completed in November for Odessa Shannon MS and Harriet Tubman ES, who met the two Green Globe Level. Additionally, the construction of four new schools according to the new Green Globes Standards continues.
- MCPS continued to add electric school buses this fall, bringing the total to 85 active electric buses in the fleet, across 5 of the 6 service area depots. MCPS has partnered with Highland Fleet to upgrade a total of 326 school buses to electric by 2025. So far, MCPS electric busses have driven a total of 150,000 miles. (CAP Action T-5)
- MCPS has begun to work towards replacing other diesel and gasoline vehicles, as appropriate, with electric, hybrid, and/or other more efficient or cleaner-fuel vehicles: (CAP Action T-6)
  - Two fleet plug-in hybrid SUVs were delivered in December as a part of our fleet replacement program,
  - A fleet electric cargo van is expected to be delivered in the upcoming months, and
  - Four additional fleet electric vehicles have been ordered in FY23.
- MCPS has initiated a program to replace all broken/unrepairable gasoline-powered lawn equipment with electric devices, including leaf blowers, trimmers, weed eaters and small push mowers. Some equipment has been received and others on order and expected this spring. (CAP Action T-11)
- MCPS curriculum supervisors and instructional specialists are reviewing the recently released MSDE Environmental Literacy standards framework in preparation for the development of a comprehensive MCPS Environmental Literacy Plan. Those standards include understanding of the environmental impact of human activities and the individual and collective responses to those impacts. (CAP Action P-12, P-13)

- MCPS is developing a high school Environmental Justice course that includes research, investigation, and action focused on the disparate effects of climate change on people of color and those living in lower-income areas. The course will be piloted at Whitman High School in spring 2023. (CAP Action P-13)
- The Quarter 1 field experience component of the MCPS HS biology course investigating the climate-related use of road salts is currently being evaluated to determine degree of implementation, successes, and challenges to inform future professional development and instructional plans. (CAP Action P-13)
- Green Schools leaders in MCPS and partner agencies (including the Maryland Association for Environmental and Outdoor Education, MAEOE, the Audubon Natural Society and the Montgomery County Council of Parent-Teacher Associations, MCCPTA) continue working together to support increasing the number of certified Green Schools in MCPS. Professional development, individual support for certifying schools, and continuing and enhanced financial support for leading the certification process began in December 2022 with support with application submittals through March 17, 2023 and continued engagement in the remaining school year. (CAP Action P-17)
- MCPS held an online symposium on Electric School Bus Project on December 7. Over 340 students and staff registered to attend the webinar to learn about MCPS' rollout of electric school buses and how this project helps to reduce the harmful greenhouse gas emissions. Several students actively participated in the planning and facilitated the event that included a guest speaker from Highland Fleet, the supplier of the electric buses to MCPS. Many of the questions submitted by the attendees while registering were answered during the event by the MCPS and Highland Fleet staff. The session was recorded and can be viewed [here](#). (CAP Action P-1)
- MCPS began planning for the 2<sup>nd</sup> Annual Youth Climate Summit to be held in Spring 2022.
- MCPS announced three types of stipends to staff leading sustainability programs and to increase participation in the Maryland Green School (MDGS) certification program. These stipends are new in FY23, to acknowledge the admirable efforts of staff at all schools who are leading sustainability at their schools. These replace incentive awards that were previously awarded to a limited number of schools. (CAP Action P-17)
- MCPS has been actively working with schools on food recovery programs to reduce waste. Staff and students act to resolve food insecurity by recovering and redistributing food at 33 schools. Several student and parent groups have raised funds to provide post-consumer food composting services at 24 schools. Among those, 13 schools participate in both the food recovery program and composting.

## M-NCPPC Parks

- Due to a record number of vacancies, Montgomery Parks is already projecting significant savings in personnel costs due to these vacancies. In December the Planning Board approved reallocation of some of those FY23 savings, which included over \$500,000 to replace existing equipment approaching the end of its useful life with electric park maintenance equipment for the Northern and Southern Regions. This funding will outfit four trim crews with electric equipment, purchase four electric mowers and purchase enclosed trailers that are pre-wired to charge electric equipment. (CAP Action T-11)
- The second annual parks urban wood sale took place on December 10 and 11, 2022. Approximately 17,400 board feet of wood was sold totaling \$45,000 in revenue. (CAP Action S-6)
- Parks is continuing to implement [outfall restoration projects](#). Outfall restoration projects completed in Q2 were Yates Street and Wildwood. (CAP Action A-15)
- Construction has begun for the new Black Hill Community Garden, which will be adjacent to new SEED Classroom. (CAP Action A-18)
- Montgomery Parks nature centers' winter professional development series was focused on climate change communication and education. The staff received training of the Montgomery County CAP and local climate solutions from Sustainability Staff and additional training from Project WET around climate change communication and programming. These trainings are the beginning stages of the nature centers creating a climate education plan for their work program. (CAP Action G-1)
- Montgomery Parks Nature Centers promote native gardening through education and native plant sales. In Q2 close to 5,800 native plants grown at Pope Farm were sold at the Locust Grove Nature Center and Maydale Nature Classroom community native plant sales. (CAP Action P-16)
- Montgomery Parks signed a contract with Groundswell to receive a feasibility analysis for solar and battery storage installations for two Montgomery Parks sites. Groundswell, along with partners including the Montgomery County Green Bank, SunCatch Energy, and Prime Partners Engineering, was awarded a fiscal year (FY) 2022 Resilient Maryland Program grant from the Maryland Energy Administration (MEA), which has provided funding for 20 sites within the county to receive these free technical reports to see if a site is a good fit as a resiliency hub. As a participant in the analysis M-NCPPC will receive a technical report on whether the site would be a good candidate for a resilience center with solar and battery storage. The report will offer the proposed design of the solar and storage system and expected barriers to installation. This technical analysis could be used to apply for grants in the future.

## M-NCPPC Planning

- Planning Board recommended the Median Bus Lanes concept as the preferred alternative for the [US 29 Mobility and Reliability Study](#). (CAP Action T-1)
- The Working Draft of the [Pedestrian Master Plan](#) will be posted in February 2023 and will be taken up by the County Council in late 2023. (CAP Action T-2)
- Planning is working with MCDOT to do an add-on to the [Complete Streets Design guide](#) (could be a separate chapter or amendment), to put design guidance on shared streets, for how those can be build out in the County. (CAP Action T-2)
- With MCDOT, Planning has a [bikeway branding](#) effort to actively market the County's bicycle infrastructure to increase bicycling in the County. This project is nearing completion. (CAP Action T-2)
- The [Reforest Montgomery](#) coupon now has an updated value of \$50, and the Reforest Montgomery free easement reforestation program has been expanded to accept applications from property owners willing to establish new forest conservation easements. Over the next several planting seasons, we plan to increase the number of free trees offered through the Reforest Montgomery free tree program, with a goal of doubling the number of free trees planted annually from 100 trees to 200 trees. Applications for free trees from property owners within the Equity Focus Areas of the county are prioritized. Since the start of the program in 2019, Reforest Montgomery has planted forest across 37 acres of public and private property, provided a discount on 2,290 native trees, planted 137 large trees on Commission parkland, and planted 361 free native trees on private properties throughout the County. (CAP Action S-1)
- In 2023, the County Council will advance the Planning Board's proposed 'No Net Loss of Forest' amendments to the County's Forest Conservation Law ([Bill 25-22-Forest Conservation – Trees](#)). The work session has not been scheduled yet as of January 2023. The amendments would incentivize strategic protection of existing forest, encourage planting new forests in areas of the county where forest cover is lacking, and expand options to create forest ecosystems and increase long-term resilience of planted forests. (CAP Action S-1)
- The Planning Department continues to participate in the DEP-led effort to identify, prioritize and measure nature-based climate solutions. A new focus for the effort is to work with the [Urban Sustainability Directors Network's](#) Nature-Based Climate Solutions initiative to investigate a land-use decision support tool to assess and prioritize implementation of nature-based climate solutions. (CAP Action S-6)
- Planning staff and their consultant presented the new process and templates for creating Climate Assessments for Master Plans and ZTAs to the Planning Board in December, 2022, ([Agenda Item 8](#)) and received the Board's approval to begin using

these tools in fulfillment of the requirements of [Bill 3-22](#). Staff training on the use of the new tools is scheduled for January, 2023, with the expectation that all Master Plans and ZTAs transmitted to the County Council will include a Climate Assessment beginning March 1, 2023. The climate assessment process includes guidance for making recommendations for community resilience. (CAP Action G-7)

- The Planning Department continued its participation in MCDEP-led projects including the Comprehensive Flood Management Plan, the Heat Mapping Study, and the Nature-Based Climate Solutions project. (CAP Action G-16)
- The Great Seneca Master Plan included preliminary results of the Heat Mapping Study in the Plan's Existing Conditions Report to the Planning Board. This information will help inform heat island recommendations in the Master Plan. (CAP Action G-16)

#### **Office of Agriculture**

- The Soil Conservation District has certified 10,315 acres of cover crop in Montgomery County in Q2. (CAP Action S-5)

#### **Office of Emergency Management and Homeland Security**

- OEMHS and DEP met with subject matter experts to discuss resiliency hub concepts and best practices. We have been discussing possible sites for evaluations. (CAP Action A-8)
- We issued a Cold Emergency Alert for December 23 – 24 and coordinated public messaging and warming center resources during this time. We deployed our mass care team to open an emergency shelter for about 38 individuals due to extreme cold and power outages. (CAP Action A-3)
- Supported the development of the County's Comprehensive Flood Management Plan with several key stakeholders to plan for future flood management strategies. (CAP Action A-20)
- 35 Flood sensors have been installed throughout the County in coordination with the Department of Homeland Security. (CAP Action A-20)
- Hazard Mitigation Planning is underway. We have begun the process for the Hazard Identification and Risk Assessment (HIRA) as a part of the Hazard Mitigation Plan updates. We are in the process of gathering data from our local municipalities.
- On November 30, we hosted a Tabletop Exercise for Dams within the County. The purpose of this exercise is for dam owners, operators & County departments to discuss Dam Emergency Action Plans under different scenarios to assess and improve these plans and coordination.

- We have filled our Community Outreach Coordinator position. The Community Outreach Coordinator will support emergency preparedness outreach in the community.
- OEMHS continued work with Thriving Earth Exchange on Urban Heat Island and Tree Canopy Cover.

### **Office of Human Resources**

- OHR working with DEP to explore opportunities to develop training and professional development to the County Climate Change Ambassadors (CAP Action G-2)
- OHR continues to work with DEP to define the content for the job classifications by providing market research and key factors to consider in order to define and differentiate the work from existing jobs. (CAP Action G-4)
- OHR updated the County's Telework Policy in October 2021 to further expand the opportunities for remote work. Transit Benefit Policies will be addressed by DOT. This is completed and future updates should be provided by DOT. (CAP Action G-13)

### **Office of Management and Budget**

- Climate considerations were part of OMB's analysis of the CE's recommended FY23-28 Amended CIP, which the County Executive transmitted to Council on January 17, 2023. (CAP Action G-9)
- Climate is also part of the discussions for the FY24 recommended operating budget, which will be transmitted to Council on March 15. (CAP Action G-9)

### **WSSC Water**

- Although WSSC factors sea level expectations into engineering and related project designs and renovations, review of proposed design guideline is still in progress.
- Completed WSSC Calendar Year 2022 GHG inventory and updated the WSSC GHG Action Plan.
- WSSC began a high-level feasibility study for the Potomac Water Filtration Plant microgrid.