

Draft Actions for the Community Energy and Sustainability Master Plan  
 Prince William County, Virginia  
 April 14, 2023

The proposed draft actions below are being developed as part of the *Prince William County’s Community Energy and Sustainability Master Plan*. These draft actions are actions the county would take to achieve the [goals set forth by the Board of County Supervisors](#). The Board has outlined goals for the entire county, as well as goals specifically targeted at county government operations. The actions have been categorized into the following sectors: electricity, buildings, infrastructure, transportation, natural resources, community, agriculture, and waste. Twelve greenhouse gas mitigation and renewable energy actions will be prioritized.

**GREENHOUSE GAS MITIGATION AND RENEWABLE ENERGY ACTIONS**

Action #	Sector	Action Title	Action Description
1	<b>ELECTRICITY</b>	Acquire Clean Electricity Sources for the County	Form an opt-out municipal aggregation program to acquire 100% clean electricity for the community.
2		Promote Existing Green Power Products	Promote purchasing utility green power options within the community.
3		Promote Existing Solar Incentive Programs	Provide outreach and education on available programs and incentives for residents and businesses to install solar (e.g., tax credits, multifamily shared solar program, net metering, community solar, solar renewable energy certificates [SRECs], Solarize NOVA).
4		Develop Additional Solar Incentives	Develop additional solar incentives in partnership with stakeholders such as the Residential Solar Task Force.
5		Streamline Solar Permitting	Establish streamlined permitting for solar installations.
6		Purchase Clean Electricity for County Government Operations	Procure 100% clean electricity for all government operations.
7		Install Solar on County Government Facilities	Develop solar projects on County government facilities.
8	<b>BUILDINGS</b>	Promote Energy Efficiency and Electrification Incentives	Provide outreach and education to residents and businesses about the tools, technology, and incentives for building energy efficiency and electrification.
9		Incentivize Energy Efficiency and Electrification Retrofits	Incentivize existing building energy efficiency retrofits (e.g., streamlined permitting or reduction in real estate taxes).

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10		Propose Green Zoning Regulations	Propose green zoning regulations to incentivize water- and energy-efficient buildings, multifamily and mixed-use areas, and transit-oriented developments.	
11		Incentivize Energy Efficient Buildings	Provide incentives or streamlining for developers who build to a more energy-efficient standard set by the County.	
12		Building Energy Benchmarking	Implement a voluntary commercial building energy benchmarking and reporting program with the intent to transition to a building energy performance standard.	
13		Incentivize All-Electric Equipment in New Construction and Retrofits	Incentivize use of all-electric systems and equipment in new buildings and retrofits county-wide.	
14		Create Net-Zero Plan County Government Facilities	Develop a net-zero building plan for all existing County government facilities.	
15		Create All-electric Guidelines for New Construction of County Government Facilities	Develop an all-electric new construction requirement for all new County government facilities.	
16		Create Mandatory Energy Benchmarking for County Government Facilities	Implement a mandatory energy benchmarking program for County government facilities.	
17		Create Policy to Increase Energy Efficiency in County Government Facilities	Adopt a County government energy policy that outlines operational and purchasing requirements that increase energy efficiency.	
18		<b>TRANSPORTATION – MODE SHIFT</b>	Improve Pedestrian Infrastructure around Public Transportation	Improve transportation infrastructure around transit stops and stations to support active mobility like walking, biking, and rolling, with improvements such as providing bike lockers, installing curb ramps, or installing traffic-calming designs like crosswalk islands or speed humps.
19			Enhance Sidewalk and Trail Connectivity	Continue to improve connectivity of sidewalks and trails (paved and unpaved) for pedestrians and cyclists.
20	Foster Transit-Oriented Development		Support transit-oriented development and ensure that land uses within 1/2-mile of transit stations.	
21	Revise Parking Standards		Eliminate minimum parking standard or introduce maximum parking standards to disincentivize car use.	

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22		Discount Transit Passes for Residents	Offer discounted transit passes to residents.
23		Expand Existing Programs that Reduce Single-Occupancy Vehicle Trips	Work with major employers to expand the Transportation Demand Management and Transit Fare Buy Down Program (expanding Strategic Plan program).
24		Upgrade Public Transit Infrastructure	Partner with County transit operators to improve and provide new public transit infrastructure (e.g., priority bus lanes, bus stops, priority signaling)
25		Encourage E-Bike and E-Scooter Adoption	Promote the use of e-bikes and e-scooters through enhanced infrastructure and incentives.
26	<b>TRANSPORTATION - ZERO-EMISSION VEHICLES (ZEV)</b>	Educate on Existing Zero-Emission Vehicle Incentives and Rebates	Provide outreach and education on existing ZEV incentives or rebates.
27		Incentivize Zero-Emission Vehicles and Charging	Develop incentives for residents and businesses to purchase ZEVs or install charging equipment (e.g., through streamlined permitting or "group-buy" programs).
28		Expand Public EV Charging Network	Expand public EV charging infrastructure, especially along main routes and in popular destinations.
29		Promote Zero-Emission Bus Transition	Partner with public transit operators to promote the transition to zero emission buses (e.g., providing charging station infrastructure).
30		Adopt Zero- or Low-Emissions County Fleet	Transition County fleet to zero-/low-emissions vehicles and ensure supporting infrastructure is open to other fleets.
31	<b>TRANSPORTATION – OFF-ROAD VEHICLES</b>	Support Zero- or Low-Emissions County Government Contracting of Off-Road Equipment	Adopt a policy that encourages the County to contract with businesses operating low- or zero-emission off-road equipment.
32		Adopt County Government Zero-Emission Off-Road Policy	Adopt a municipal zero-emissions off-road vehicles and equipment policy that requires low- or zero-emissions replacements.
33		Launch Electric Equipment Lending Program	Start a lending library where residents can check out electric landscaping equipment and expand to other low-emissions tools and equipment.

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34	<b>WASTE</b>	Implement County-Wide Composting	Implement a county-wide composting program to provide free composting services to residents, businesses, and the agricultural sector.
35		Mandate Commercial Food Waste Diversion	Require commercial businesses to divert food scraps either through food recovery or composting programs.
36		Promote Sustainable Purchasing Policy	Develop a municipal sustainable purchasing policy for County purchasing decisions to promote use of sustainable products, such as those made from recycled materials, and prohibit the use of single use plastics and Styrofoam to-go containers.
37	<b>NATURAL RESOURCES</b>	Support Sustainable Farming Practices	Provide outreach and education to the agricultural community on sustainable farming practices that reduce fertilizer use and increase soil carbon sequestration.
38		Launch Suburban and Rural Tree Planting Initiative	Implement a tree planting and maintenance program to expand suburban and rural tree cover.
39		Create Voluntary Countywide Reforestation Program	Implement a voluntary program to increase reforestation of lands throughout the county.

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These draft climate adaptation and resiliency actions below are actions the county would take to achieve the climate resiliency and adaptation goals set forth by the Board of County Supervisors. These are proposed actions to be taken to address the vulnerabilities of the county’s people and assets to climate hazards. The County’s Vulnerability Assessment completed in January 2023 identified the following categories most vulnerable to climate hazards: socially vulnerable populations, natural resources, energy resources, transportation, and food/water/shelter resources. The following climate hazards propose the greatest risk to the county’s assets and people: precipitation, extreme temperature, drought, sea level rise, earthquakes, and strong winds/tornados. The actions below are proposed to help the county become more resilient and adaptable to climate change. Twelve climate adaptation and resiliency actions will be prioritized.

**CLIMATE ADAPTATION & RESILIENCY ACTIONS**

Action #	Sector	Action Title	Action Description	Climate Hazard Addressed
40	<b>BUILDINGS</b>	Develop Adaptation Plans for Critical Facilities	Develop site-level adaptation plans for critical facilities and service areas considering future climate change hazards.	All Climate Hazards
41		Expand Building Insulation Standards to Protect Against Extreme Heat	Increase standards for insulation in new construction buildings and homes for resiliency against extreme heat events.	Extreme Heat
42		Protect Existing Buildings Against Earthquakes	Identify structures for earthquake retrofits and implement retrofits on existing structures.	Earthquakes
43		Protect Existing Buildings Against High Winds	Identify structures for high wind retrofits and implement retrofits on existing structures.	High Winds & Tornados
44		Incentivize Improved Cooling Equipment in Apartments	Incentivize expanded access to reliable, efficient cooling for apartments.	Extreme Heat
45		Incentivize Businesses to Reduce Water Usage	Develop incentives, training and technical assistance programs for significant water use reductions including rainwater and greywater harvesting and onsite blackwater treatment with a focus on industrial and commercial properties.	Drought
46	<b>INFRASTRUCUTRE</b>	Protect County Infrastructure from Flooding	Identify County-owned infrastructure vulnerable to future flooding and evaluate if infrastructure should be elevated, relocated, or floodproofed.	Precipitation

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47		Incentivize Nature-based Solutions to Reduce Flooding in Residential Properties	Develop program to provide incentives and promote rain gardens, conservation landscapes, green roofs, water harvesting, and permeable pavement for residential properties.	Precipitation
48		Understand Stormwater Flooding in Areas Outside of the Floodplain	Develop plans for stormwater system upgrades based on future conditions stormwater modeling data and historic flooding information.	Precipitation
49		Improve Water Infrastructure for Extreme Precipitation Events	Update water and drainage infrastructure design standards to address the projected increase in intensity of precipitation, including the use of retrofits and/or green infrastructure in new construction.	Flooding
50		Protect Electrical Infrastructure from High Winds	Partner with Dominion Energy to increase resilience of the electrical grid including hardening infrastructure and/or burying power lines where appropriate.	High Winds & Tornadoes
51		Assess Availability of Backup Power for Critical Infrastructure	Assess the feasibility of switching to clean sources backup power.	High Winds & Tornadoes
52		Invest in Backup Power for Critical Infrastructure	Invest in backup power generation for publicly owned essential services and infrastructure.	High Winds & Tornadoes
53		Urban Heat Island Relief Program	Incentivize urban designs that facilitate air movement to alleviate heat islands (e.g., increasing urban tree cover).	Extreme Heat
54		Adopt Guidelines to Use Nature-based Solutions on County Government Construction	Develop guidelines on how to incorporate nature-based solutions into county projects.	Flooding
55	<b>ENERGY</b>	Improve Grid Resilience During Extreme Weather	Evaluate resilient energy systems such as microgrids or other distributed energy resources within the County to provide stable energy supply during times of extreme weather.	Extreme Heat/Cold
56	<b>NATURAL RESOURCES</b>	Expand Tax Credits for Conservation of Natural Resources	Expand tax credits for conservation of floodplains and natural buffers, such as wetlands and riverbank tree planting, in vulnerable areas.	Flooding
57		Assess Shoreline Protection and Nature-Based Solutions	Conduct feasibility studies to evaluate shoreline protection measures against erosion and flood, incentivizing nature-	Precipitation & Sea Level Rise

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			based solutions. Develop long-term plans to address sea level rise for at-risk public and private property.	
58		Develop Plan to Preserve Estuaries and Wetlands To Reduce Flooding	Map projected future sea levels and identify existing wetlands that may be impacted. Develop a plan to preserve these spaces and use them to mitigate runoff and flood impacts where possible.	Sea Level Rise
59		Restore Streams to Reduce Flooding	Develop stream corridor restoration projects to improve conveyance and mitigate flooding.	Precipitation
60	<b>COMMUNITY</b>	Training for Community Members on Climate Change and Mental Health	Provide professional development training for teachers, support staff and other community members to support child and youth mental health related to climate change.	All Climate Hazards
61		Expand Community Outreach for Education on Climate Change Adaptation	Expand existing “Ready Prince William” Community Outreach and Preparedness Campaign to support the development of accessible technology to provide climate information to individuals and industries to enhance collective understanding.	All Climate Hazards
62		Increase Protection from the Sun at Childcare Centers	Develop guidelines for shade for schools and childcare centers’ grounds.	Extreme Heat
63		Incentivize Technology for Residents to Make Homes Adaptive	Provide incentives or subsidies for residents of low-income housing and rental properties to install or retrofit buildings with climate adaptive technologies to reduce energy, reduce water use, reduce waste heat, and minimize urban heat gain.	Extreme Heat
64		Plan Alternate Evacuation Routes for Flood-prone Areas	Identify alternate evacuation routes for roads and bridges identified as vulnerable to flooding and/or sea level rise.	Flooding
65	<b>AGRICULTURE</b>	Support Agriculture Resiliency	Identify support for farmers to prepare for and recover from extreme weather, such as access to more accurate weather data, harvest support, drought resistant crops, backup generation, and livestock evacuation.	All Hazards