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## Appendix A: Full List of CAP Actions

# How to Read the Full List of CAP Actions Table

## GHG Mitigation

Estimated level of emissions reduction. These reductions are projected out until 2035.

- High: >1,000,000 MT CO<sub>2</sub>e
- Medium: 500,000-1,000,000 MT CO<sub>2</sub>e
- Low: <500,000 MT CO<sub>2</sub>e
- Level To Be Determined (TBD): Carbon Sequestration Actions – These actions sequester carbon and thus reduce GHG emissions; however, the level of emissions reduction cannot be estimated without further study.
- N/A: Climate Adaptation Action without GHG emissions reduction OR Enabling Action\* (action that does not have direct emissions reduction but is necessary to support actions with direct emissions reduction)

## Climate Risk Reduction

Climate hazard the action addresses.

- Extreme Heat
- Extreme Precipitation
- High Winds
- Drought
- N/A: GHG Mitigation Action without climate risk reduction OR Enabling Action\* (action that does not have direct climate risk reduction but is necessary to support actions with direct climate risk reduction)

\*Note: If an action is an Enabling Action, "N/A" will appear under GHG Reduction, Climate Risk Reduction, and all co-benefits.

## Co-Benefits

Level of estimated impact the action would have on each of the four co-benefits – Racial Equity and Social Justice, Public Health, Environmental Stewardship, and Economic Prosperity – in Montgomery County

- - = Very Negative

- = Somewhat Negative

Neutral = Neutral

+ = Somewhat Positive

++ = Very Positive

## Authority

Who has the authority to implement this action. For the purposes of this section, "County" is defined as County Executive branch departments and the County Council. Independent public agencies, such as MCPS and M-NCPPC, are defined as "other Public entities" for the purposes of this section.

- County – The County can implement the action under existing policy.
- County with Change – The County can implement the action but may require a policy amendment or new policy.
- Outside County – Action implementation requires County collaboration with other public or private entities or is outside County authority.

## Initial Investment Assessment

The initial investment required to implement each CAP action was assessed for both County Government and the private sector. The term "initial investment" refers to the initial upfront costs that are beyond any currently secured or identified funding. It is this initial, incremental cost that is the most important to estimate because it is the first barrier to implementation that needs to be overcome. The private sector cost assessment is an estimate of the cumulative cost for the private sector across the County; the assessment does not attempt to estimate the economic impact at the scale of individuals and individual businesses. Developing more precise and fine-grained cost assessments would require additional data inputs that were outside the scope of the CAP, and these assessments would depend on the manner in which the action is designed and implemented. For example, the exact cost to implement Action A-18, Expanded Community Gardens, will depend in part on the number of additional sites that are converted to gardens.

## County Investment

Initial upfront costs beyond any currently secured or identified funding

- \$: Low Initial Cost (Public: <\$100k)
- \$\$: Some Initial Cost (Public: \$100k-\$1M)
- \$\$\$: Large Initial Cost (Public: >\$1M)

## Private Investment

Initial upfront costs beyond any currently secured or identified funding

- \$: Low Initial Cost (Private: <\$10M)
- \$\$: Some Initial Cost (Private: \$10-\$100M)
- \$\$\$: Large Initial Cost (Private: >\$100M)

## Lead

Lead County department or independent public agency that would be involved in action development and implementation

## Contributor

Contributor County department, independent public agency, or other entity that would be involved in action development and implementation

## Subsector

- |                               |   |
|-------------------------------|---|
| <b>E</b> Clean Energy         | <b>A</b> Climate Adaptation                             |
| <b>B</b> Buildings            | <b>G</b> Climate Governance                             |
| <b>T</b> Transportation       | <b>P</b> Public Engagement, Partnerships, and Education |
| <b>S</b> Carbon Sequestration |   |

Subsector	Action	GHG Reduction*	Climate Risk Reduction	Racial Equity & Social Justice	Public Health	Environmental Stewardship	Economic Prosperity	Authority	County Investment	Private Investment	Lead	Contributors
<b>E</b>	E-1: Community Choice Energy Program	High	N/A	Neutral	Neutral	Neutral	+	Outside County	\$\$	\$	CEX, DEP	OIR
<b>E</b>	E-2: Private Building Solar Photovoltaic Code Requirements	Medium	N/A	-	Neutral	Neutral	+	County with Change	\$\$	\$\$\$	DPS	DEP
<b>E</b>	E-3: Promote Private Solar Photovoltaic Systems	Medium	N/A	++	Neutral	Neutral	++	Outside County	\$\$\$	\$	DEP	DPS, MCGB, DOF
<b>E</b>	E-4: Public Facility Solar Photovoltaic Installations and Groundwork	Low	N/A	Neutral	Neutral	Neutral	+	County	\$\$\$	\$	DGS, MCPS, M-NCPPC	MCDOT, DPS, OAG, Revenue Authority, DEP
<b>E</b>	E-5: Advocate for a 100% Renewable Portfolio Standard by 2030	N/A	N/A	Neutral	Neutral	Neutral	Neutral	County	\$	\$	OIR, CEX	DEP
<b>B</b>	B-1: Electrification Requirements for Existing Commercial and Public Buildings	High	N/A	--	+	Neutral	+	Outside County	\$\$	\$\$\$	DPS, DGS, DHCA, MCPS	DEP
<b>B</b>	B-2: Electrification Requirements for Existing Residential Buildings	High	N/A	--	+	Neutral	+	Outside County	\$\$	\$\$\$	DPS	DEP
<b>B</b>	B-3: Energy Performance Standard for Existing Commercial and Multifamily Buildings	High	Drought	-	+	Neutral	+	County with Change	\$\$\$	\$\$\$	DEP	DGS, DPS, DHCA, DOF, MCGB, OIR
<b>B</b>	B-4: Electrification Incentives for Existing Buildings	High	N/A	Neutral	+	Neutral	++	Outside County	\$\$\$	\$\$	DEP, DHCA	MCGB, DOF
<b>B</b>	B-5: All-Electric Building Code for New Construction	High	Drought	Neutral	+	Neutral	Neutral	Outside County	\$\$	\$\$	DPS, DGS	DEP
<b>B</b>	B-6: Disincentivize and/or Eliminate Natural Gas in New Construction	High	N/A	-	+	Neutral	Neutral	Outside County	\$\$	\$\$	DPS	DEP, DGS, OIR

Subsector	Action	GHG Reduction*	Climate Risk Reduction	Racial Equity & Social Justice	Public Health	Environmental Stewardship	Economic Prosperity	Authority	County Investment	Private Investment	Lead	Contributors
<b>B</b>	B-7: Net Zero Energy Building Code for New Construction	High	N/A	Neutral	+	Neutral	+	County with Change	\$\$\$	\$\$	DPS, DGS, MCPS, DHCA	DEP, M-NCPPC
<b>T</b>	T-1: Expand Public Transit	Medium	N/A	++	++	Neutral	++	Outside County	\$\$\$	\$	MCDOT, WMATA, MDOT	MTA, M-NCPPC
<b>T</b>	T-2: Expand Active Transportation and Micromobility Network	Medium	N/A	++	++	Neutral	++	County	\$\$\$	\$	MCDOT	MDOT, M-NCPPC
<b>T</b>	T-3: Private Vehicle Electrification Incentives and Disincentives	Medium	N/A	-	++	Neutral	++	Outside County	\$\$\$	\$\$\$	USDOT, MDOT, MCDOT, DEP	MCGB, DOF
<b>T</b>	T-4: Constrain Cars in Urban Areas, Limit Major New Road Construction	Medium	N/A	-	++	Neutral	Neutral	Outside County	\$\$\$	\$	MCDOT, MDOT	Regional service centers, M-NCPPC
<b>T</b>	T-5: Zero Emissions Public Buses and School Buses	Medium	N/A	++	+	Neutral	+	County	\$\$\$	\$	DGS, MCDOT, MCPS	OMB
<b>T</b>	T-6: Electrify County and Public Agencies Fleet	Medium	N/A	Neutral	+	Neutral	+	County	\$\$\$	\$	DGS, M-NCPPC, MCPS	FRS, POL, OMB, MCDOT, OP, DEP
<b>T</b>	T-7: Expand the Electric Vehicle Charging Network	Medium	N/A	Neutral	++	Neutral	++	Outside County	\$\$\$	\$\$	MCDOT, DGS, DPS, M-NCPPC	DEP, WMATA, utilities
<b>T</b>	T-8: Transportation Demand Management and Telework Strategies	Low	N/A	+	++	Neutral	+	County with Change	\$\$\$	\$	MCDOT	Businesses with 25 or more employees, developers of projects in TMDs, DPS, M-NCPPC
<b>T</b>	T-9: Traffic Management Systems	Low	N/A	Neutral	+	Neutral	Neutral	Outside County	\$\$\$	\$\$\$	MCDOT, MDOT	SHA, municipalities
<b>T</b>	T-10: Electric Vehicle Car Share Program for Low-Income Communities	Low	N/A	++	+	Neutral	+	County with Change	\$\$\$	\$	DEP	MCDOT; car share companies

Subsector	Action	GHG Reduction*	Climate Risk Reduction	Racial Equity & Social Justice	Public Health	Environmental Stewardship	Economic Prosperity	Authority	County Investment	Private Investment	Lead	Contributors
T	T-11: Off-Road Vehicle and Equipment Electrification	Low	N/A	-	+	Neutral	Neutral	County with Change	\$\$\$	\$\$\$	DEP, DGS, Procurement	USDOT, MCDOT, MCDOT, MVA, Construction Industry, Landscape Businesses
T	T-12: Advocate for a Vehicle Carbon/Gas Tax or VMT Tax	N/A	N/A	Neutral	Neutral	Neutral	Neutral	Outside County	\$	\$	CEX, MCDOT, DEP	OIR, OCA
T	T-13: Advocate for Rail Alternative Fuels	N/A	Neutral	Neutral	Neutral	Neutral	Neutral	County	\$	\$	MCDOT, MDOT/MDTA	OIR
S	S-1: Retain and Increase Forests	Level TBD	Extreme Precipitation	+	++	++	+	County with Change	\$\$	\$	M-NCPPC	DEP, DPS
S	S-2: Retain and Increase Tree Canopy	Level TBD	Extreme Heat	+	++	++	++	County with Change	\$\$\$	\$	DEP, M-NCPPC	MCDOT
S	S-3: Restore and Enhance Meadows and Wetlands	Level TBD	Extreme Precipitation	+	++	++	++	County with Change	\$\$\$	\$	M-NCPPC	DEP
S	S-4: Regenerative Agriculture	Level TBD	High Winds	Neutral	+	+	Neutral	County with Change	\$\$\$	\$	OAG, M-NCPPC	DEP, MCGB
S	S-5: Restore Soil Fertility, Microbial Activity, and Moisture-Holding Capacity	Level TBD	Extreme Precipitation	Neutral	+	++	Neutral	County with Change	\$\$	\$\$	DEP	M-NCPPC, DHCA, OAG
S	S-6: Whole-System Carbon Management and Planning	Level TBD	Extreme Precipitation	Neutral	Neutral	Neutral	Neutral	County	\$	\$	DEP, M-NCPPC	OMB (CountyStat), DOF, WorkSource Montgomery
A	A-1: Water Infrastructure Resilience	N/A	Extreme Precipitation	+	++	+	Neutral	Outside County	\$	\$	WSSC Water	DEP, municipalities, DC Water
A	A-2: Repair and Enhancement of Stormwater Conveyance Systems	N/A	Extreme Precipitation	+	+	+	Neutral	County	\$\$\$	\$	MCDOT	DPS, M-NCPPC
A	A-3: Temperature Monitoring and Alerts	N/A	Extreme Heat	++	+	Neutral	Neutral	County with Change	\$\$	\$	OEMHS	HHS
A	A-4: Extreme Weather Energy Efficiency Building Code	N/A	Extreme Heat	+	+	Neutral	Neutral	County with Change	\$\$\$	\$\$	DPS	DHCA, MCGB

Subsector	Action	GHG Reduction*	Climate Risk Reduction	Racial Equity & Social Justice	Public Health	Environmental Stewardship	Economic Prosperity	Authority	County Investment	Private Investment	Lead	Contributors
A	A-5: Climate-Adapted Housing Incentives/Subsidies	N/A	Extreme Heat	+	++	Neutral	+	County with Change	\$\$\$	\$	DHCA, DEP	MCGB, DPS
A	A-6: Green/Cool/PV Roof and Pavement Code	N/A	Extreme Heat	-	++	+	++	County with Change	\$\$	\$\$\$	DPS	DHCA, MCGB
A	A-7: Green Public Spaces	N/A	Extreme Precipitation	Neutral	+	++	Neutral	County with Change	\$\$\$	\$	DEP, MCDOT	DPS, M-NCPPC
A	A-8: Harden Emergency Shelters and Install Resilience Hubs	N/A	Extreme Heat	++	++	Neutral	Neutral	Outside County	\$\$\$	\$	HHS	DGS, OEMHS, MCPS, FRS, DPS
A	A-9: Mold Protection and Remediation	N/A	Extreme Precipitation	++	++	Neutral	+	County with Change	\$\$\$	\$\$	DHCA, DPS	DEP, MCGB
A	A-10: Green Infrastructure	N/A	Extreme Precipitation	Neutral	+	++	Neutral	County with Change	\$\$\$	\$\$	DPS, DEP	MCDOT, M-NCPPC
A	A-11: Climate Adapted Development Standards	N/A	Extreme Precipitation	+	+	Neutral	Neutral	County with Change	\$\$\$	\$\$\$	DPS	DGS, DEP
A	A-12: Stormwater Retention Credit Trading	N/A	Extreme Precipitation	Neutral	+	+	Neutral	County with Change	\$\$	\$	DEP	M-NCPPC, DPS
A	A-13: Ban Stormwater Management Requirement Waivers	N/A	Extreme Precipitation	Neutral	+	+	-	County with Change	\$	\$\$	DPS	M-NCPPC, DEP
A	A-14: Update Floodplain Maps	N/A	Extreme Precipitation	Neutral	Neutral	Neutral	Neutral	County with Change	\$\$	\$	DPS, OEMHS	M-NCPPC
A	A-15: Water Supply Protection	N/A	Drought	+	++	++	Neutral	County with Change	\$\$\$	\$	DEP, WSSC Water, M-NCPPC	Municipalities
A	A-16: Flood Rescue Resources	N/A	Extreme Precipitation	+	+	Neutral	+	County	\$\$\$	\$	FRS, MCPD, MCDOT	DGS, OEMHS, PIO, municipal police departments
A	A-17: On-Site Water Reuse	N/A	Drought	+	Neutral	+	Neutral	Outside County	\$\$	\$	DPS, WSSC Water	Municipalities
A	A-18: Expanded Community Gardens	N/A	Drought	+	++	+	+	County with Change	\$	\$	M-NCPPC	MCPS, OAG, HHS
A	A-19: Advocacy for Off-River Water Storage	N/A	N/A	Neutral	Neutral	Neutral	Neutral	Outside County	\$	\$\$\$	DEP, WSSC Water	OIR
A	A-20: Study Potential for Buildings in the County to Flood and Possible Remedies	N/A	N/A	Neutral	Neutral	Neutral	Neutral	County	\$\$	\$	DEP, OEMHS	DPS



Subsector	Action	Authority	Lead	Contributors
G	G-1: Build Awareness among All Montgomery County Government Staff about Climate Change	County	DEP	CEX, OHR, DGS, M-NCPPC, MCPS, Montgomery College
G	G-2: Establish a Climate Change Academy to Integrate Climate Change Training into the Professional Development of Montgomery County Government Staff	County	OHR, DEP	CEX, Office of Racial Equity and Social Justice, DGS, Montgomery College, DNR, M-NCPPC, MCPS
G	G-3: Incorporate Climate Competencies into Montgomery County Government Job Descriptions and Performance Plans	County	OHR	All departments, unions
G	G-4: Identify and Create New Positions that Are Needed for the County Government to Prepare for and Respond to Climate Hazards, Implement Climate Adaptation Measures, and Reduce Greenhouse Gas Emissions	County	OMB, OHR	All departments
G	G-5: Establish a Cross-Departmental Climate Innovation Lab to Develop, Fund, and Implement Climate and Resiliency Initiatives	County	CEX (Office of Innovation)	DEP
G	G-6: Designate Climate Ambassadors within Each County Department	County	CEX, DGS, DEP	All departments
G	G-7: Evaluate and Update County Planning, Policy, Codes, and Operations Activities to Account for the Risks of Climate Change Impacts and Prioritize the Needs of Vulnerable Residents	County	CEX, OEMHS	All departments, M-NCPPC, MCPS, Montgomery College
G	G-8: Evaluate and Update County Procurement, Planning, Policy, and Operations Activities to Reduce Greenhouse Gases	County	CEX, DEP, PRO	All departments, M-NCPPC, MCPS, Montgomery College
G	G-9: Incorporate Climate Considerations into the County's Budgeting Processes	County	OMB, CEX, DEP	All departments
G	G-10: Develop Financing Strategies for Implementing Climate Actions and Incorporate Climate Considerations into County Finance Practices	County	DOF	OMB, MCGB, DEP, CEX, Board of Investment Trustees
G	G-11: Develop Climate, Energy, Health, and Racial Equity Metrics and a Data-Driven Assessment and Reporting Process	County	DEP, TEBS, OMB (CountyStat)	HHS (African American Health Program, Latino Health Initiative, Asian American Health Initiative), County advisory committees, OMB
G	G-12: Formalize the Climate Leadership Team to Guide the Implementation of Climate Plan Actions	County	CEX	All departments, independent agencies, and municipalities
G	G-13: Update the County's Teleworking and Transit Benefit Policies to Encourage MCG Staff to Reduce Vehicle Miles Traveled	County	OHR, DOT	DEP, TEBS, OLR, OCA, CEX (Office of Innovation), DGS, unions
G	G-14: Establish Montgomery County Government Carbon Fund for Air Travel	County	DOF	DEP
G	G-15: Consolidate County Climate Data	County	TEBS, OMB(CountyStat)	DEP, OEMHS, DOT, DPS, M-NCPPC, MCPS
G	G-16: Conduct Climate Vulnerability Detailed Assessments	County	DEP, OEMHS	DOT, DPS
P	P-1: Undertake Vigorous Public Outreach Campaign Aimed at Empowering the Public with Information on How to Reduce Emissions and Adapt to the Impacts of Climate Change	County	DEP, OEMHS, PIO	Community Engagement Cluster, Regional Service Directors, HHS, MCPS, M-NCPPC, civic and business community
P	P-2: Conduct an Outreach Campaign that Uses Evidence-Based Communications Strategies	County	DEP, OEMHS, PIO	Community Engagement Cluster, Regional Service Directors, HHS, MCPS, civic and business community
P	P-3: Form a Climate Change Communication Coalition	County	DEP, PIO	All departments, MCPS, Montgomery College, M-NCPPC, civic and business community
P	P-4: Enhance County Websites to Focus More Sharply on Climate Change	County	PIO	All departments
P	P-5: Establish a Community Justice Academy in which Graduating Community Ambassadors Representing their Neighbors Conceive and Co-Create Integrated Health, Equity and Quality-of-Life Solutions Directly Applicable to their Communities	County	DEP	Office of Racial Equity and Social Justice, HHS, DOT, Climate Leadership Team

Subsector	Action	Authority	Lead	Contributors
P	P-6: Use the Climate, Energy, and Air Quality Advisory Committee as a Resource to Advise the County on Performance Metrics and Plan Implementation	County	DEP	Climate Leadership Team
P	P-7: Facilitate Ongoing Input from Community Members on the CAP's Implementation	County	CEX, DEP	DOT, OEMHS, PIO, Community Engagement Cluster, Regional Service Directors, MCPS, M-NCPPC
P	P-8: Engage County Artists through Public Art Installations to Raise Awareness, Discussion, and Action on Climate Change	County	DEP	Arts and Humanities Council, Regional Service Directors, civic and business community, M-NCPPC
P	P-9: Support the Efforts of Community Organizations, Businesses, Municipalities, and Associations that Promote and Operationalize Equitable Climate Action	County	DEP	Montgomery College, public libraries, civic and business community, M-NCPPC
P	P-10: Establish a Statewide Coalition of Local Governments and Youth Groups Focused on Advancing Ambitious State Climate Policy by Collectively Advocating their Positions before the State Legislature, the Public Service Commission, and the Utility Companies	County	CEX	OIR, DEP
P	P-11: Establish Partnerships with Federal Agencies Located within the County's Boundaries on GHG Mitigation and Climate Resiliency Efforts	County	CEX	MCEDC, DEP
P	P-12: Advocate for the Continued Integration of Climate Change Education into the Existing School Curriculum	County	MSDE, MCPS	DEP
P	P-13: Develop a Standardized Climate Change Curriculum across Public Schools and Recommend the Same for Private Schools and Home Schools	County	MSDE, MCPS	DEP
P	P-14: Provide Professional Development for Educators on Climate Change Topics	County	MCPS	Montgomery College, DEP
P	P-15: Use School Gardens or Other Outdoor Learning Facilities as a Jumping-Off Point to Address a Multitude of Climate-Related Topics	County	MCPS	DEP, M-NCPPC
P	P-16: Develop Increased Opportunities for Students to Participate in Climate Change Learning Experiences Outside of the Classroom	County	MCPS	Local universities, non-profits, public libraries, Maryland Association for Environmental & Outdoor Education, (MAEOE), M-NCPPC, municipalities
P	P-17: Develop Sustainability Goals for Schools to Reach and Provide Incentives to Do So	County	MCPS	DEP
P	P-18: Encourage Climate Change Action at Home	County	MCPS	DEP, MCCPTA
P	P-19: Establish Cross-Departmental Partnership to Facilitate Implementation of Climate Goals at County Schools	County	MCPS	DEP, M-NCPPC, CUPF, DPS
P	P-20: Establish Cross-Departmental Partnership to Facilitate Implementation of Climate Goals at County Schools	County	MCPS	DEP, M-NCPPC, CUPF, DPS