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Letter from County Executive

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Executive Summary

Summarize why we're here, provide goals and outcomes. Present priority actions that help meet the goals. Discuss connection to strategic plan and comp plan [approx. 2 pages]

Chapter 1 Introduction

Purpose of the CESMP

Discuss what is within the purview of the CESMP in the context of the board goals P; qualitatively discuss general goals and objectives: reduce emissions, increase resiliency, enhancing community quality of life.

Introduce CESMP Actions.

Importance of Climate Action and Resiliency Planning

- What is Climate Change?
 - Provide a scientific explanation of climate change and the scientific consensus on addressing climate change and the net zero goal (via International Panel on Climate Change)
- How is Prince William County Impacted and How does it Contribute to Climate Change?
 - Explain how PWC has acknowledged climate change and PWC's approach to dealing with it
 - Review how PWC is vulnerable to climate change pulling from the Vulnerability Assessment
 - Provide background on how much cities/counties contribute to GHG emissions and importance of municipal leadership
- Prince William County Goals
 - Provide an overview of PWC BoCS-adopted goals. Discuss 2030 greenhouse gas target; define carbon neutrality and discuss how carbon neutrality by 2050 is not an official county goal but a best practice (use ISO definition or PAS definition); reference MWCOG connection with the goals

Climate Action the County is Currently Taking

[Graphic on CESMP Roadmap – i.e., Set up the Office of Sustainability, hire a Sustainability Officer, any funding for specific actions]

How is the county already adapting to climate change?

- GHG Mitigation: Describe actions the county has taken that have directly or indirectly reduced GHG Emissions
- Climate Adaptation and Resiliency: Describe actions the county has taken to mitigate the risk of climate change and improved resilience of its vulnerable populations/assets to increased climate risks; Include actions that the County listed in the Gaps Analysis document
 - Office of Emergency Management Ongoing Hazard Mitigation and Resilience Initiatives, heating and cooling centers, etc.
 - Department of Public Works – tree preservation for new development
- Obtaining funding: County to describe any efforts thus far to obtain funding for actions or describe any funding already received for any specific actions
- Include work the Environmental Council is doing [Jenny Boeder]
- Include work by Development Services (Residential Solar Task Force)

How the CESMP Was Developed

- Describe the process through which the CESMP was developed including a discussion on stakeholder engagement completed in the plan development. Reference Appendix A List of stakeholder groups involved.
- [Graphic showing the pathway the CESMP took from the inventory through the action development]

Chapter 2 Prince William County Greenhouse Gas Emissions

GHG Inventory and Forecasts

- GHG Inventory
 - [Graphic] Show 2018 inventory results; Briefly address COVID impacts on 2020 emissions inventory

Table 1. Greenhouse Gas Emissions Inventory

- Section to Discuss potential impact of forest and trees on inventory and how its reflected in actions
- GHG Emissions Forecasting
 - Discuss the effect of business-as-usual (i.e., no action) on the GHG emissions forecast.

GHG Reduction Targets

- Discussion of how the Plan is meant to address how the County could meet the county-wide GHG reduction goal
- Though achievement of the other county goal s(100% renewable, carbon neutral municipal operations) was not specifically analysed in this Plan, the climate actions developed in this Plan can contribute to the achievement of these targets. Discussion of how the actions can contribute to the targets is in the Climate Actions Chapter

GHG Forecasts

Table 2. Greenhouse Gas Emissions Business-as Usual Forecast

- Describing the Business as Usual forecast

CALL OUT BOX: Address data center growth/Digital Gateway impact on forecasts. Highlight actions that would address data center emissions (e.g., community choice energy, building energy efficiency incentives, etc.).

GHG Emissions Reduction Scenario

- Developing the 2030 GHG Reduction Scenario
 - Discuss development of the preferred GHG Reduction Scenario, including impact of external forces (RPS, ZEV forecasts, HFC reduction, off-road vehicle electrification)

Table 3. Greenhouse Gas Emission Forecast and Target Trajectory

Table 4. 2030 Greenhouse Gas Reduction Scenario

CALL OUT BOX: Discussion on potential IRA emissions impacts and other potential impacts on forecasts

- 2030 GHG Reduction Strategies
 - Discuss GHG reduction strategies and % contribution to 2030 reductions

Table 5. Greenhouse Gas Reduction Strategies

Chapter 3 Vulnerability Assessment

Introduce relevance of VA to climate adaptation. Reference Appendix B – Vulnerability Assessment Report

- Climate Hazards
 - Provide a high-level summary of climate hazard data with references to the Vulnerability Assessment report.

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Figure 1. Swift Water Rescue and Road Closure Hotspots

- County Assets
 - Provide a high-level summary of county asset definition with references to the Vulnerability Assessment.
Call-out box on the equity emphasis areas
- Vulnerability Assessment
 - Provide a summary of the methodology and the results of the Vulnerability Assessment (exposure/sensitivity/adaptive capacity), focusing on highest risk climate hazards and most vulnerable asset types
Call-out box on vulnerable population risks

Figure 2. Transportation + Equity Emphasis Areas

Table 6. Summary of combined Vulnerability Ratings (2050 and 2075)

Chapter 4 CESMP Actions

Action Development, Evaluation, & Prioritization

- Brief high-level narrative of the process used to develop, evaluate, and prioritize the actions – tying in the GHG emissions inventory/forecasting and the vulnerability assessment report.
- [Graphic showing the process of developing the actions – focus on developing actions for all climate hazards and asset types]

Table 7. Evaluation Criteria

Achieving Goals

- [Graphic Showing each CESMP goal and which actions fall under which goals]
- Reference “Meeting the Goals” section below that will provide quantitative graphic of how much reduction potential the combination of goals produces and the gap.

How to Read the List of Actions

- Describe how to read the list of actions
- Reference Complete list of Actions with Description and Reduction Potential (High/Med/Low) and Climate Hazards (Appendix C)

Climate Mitigation Actions

- Describe how to read climate actions

Table 8. Climate Action List

Priority Community-wide Climate Actions

Table 9. Community Climate Actions

- Describe each action organized by Sector: Electricity, Buildings, Transportation, Waste related back to the GHG inventory
- In Electricity section, reiterate community renewable electricity goal
- In Electricity section, include narrative of how proposed actions could help meet county-wide renewable energy goals OR reference target section in Chapter 2

Example Action Description

Electricity – E.2 Promote Renewable Energy Incentive Programs and Develop Additional Solar Incentives

County Goals:

- Reduce County-wide GHGs 50% from 2005 Baseline by 2030
- Obtain 100% Renewable Electricity County-wide by 2035

GHG Reduction Strategy:

- 92% clean electricity by 2030

Primary Benefit: GHG Reduction

Action GHG Reduction Potential: Medium

Investment Level: Very Large Cost

Co-Benefits:

- Local Employment: +
- Cost to Residents and Business: +

Authority: Full Authority

Development Stage: In Development

Lead Department: Development Services

Primary Partners: Residential Solar Task Force, Dominion, NOVEC

Action Description: Provide outreach and education on programs and incentives for residents and businesses to install renewable energy systems, such as solar tax credits, community solar programs, net metering, multifamily shared solar program, solar renewable energy certificates and Solarize NOVA. Develop additional local renewable energy incentives, such as streamlined solar permitting, in partnership with stakeholders such as the Residential Solar Task Force and local utilities.

Priority County Government Climate Actions

Table 10. Municipal Climate Actions

- Describe each action organized by Sector: Electricity, Buildings, Transportation, Waste
- Reiterate municipal goals (carbon neutral and 100% renewable)
- Describe how a first step is to create a municipal GHG inventory, but this is not included as a separate action
- Narrative of how proposed actions could help meet municipal emissions and renewable energy goals OR reference target section in Chapter 2
- Other Climate Actions
 - List all medium and low priority actions

Climate Adaptation and Resiliency Actions

- Describe how to read the climate adaptation actions.

Table 11. Climate Adaptation Action List

Opportunities for External Advocacy

- Identify sectors where County has limited control and describe where external advocacy is needed, e.g., electric grid
- Identify sectors where County has limited control and describe where external advocacy is needed; include state building/energy code updates, utility electricity infrastructure upgrades/expansion, rail and bus services, state tree protection, etc.

Other Climate Actions

- Provide a list (title and description) of all other actions.



Meeting the Goals

- [Graphic showing the sum of GHG reduction potential for all priority actions and the gap that offsets would need to fill]
- Addressing the Gap: Carbon Offsets
 - Discuss how carbon offsets can fill the gap between the actions and the GHG goals; Discuss that this is a “last resort” action if the County cannot meet target through direct action
- **CALL OUT BOX: Role of forests and non-forest trees in target achievement**
- **Reiterate need and opportunities for external advocacy**
- **Include recommendations on vetting offsets – not choosing cheapest option but 3rd party verified**

Chapter 5 Action Implementation

- Describe the next steps in how we developed implementation roadmaps referencing Appendix D
- Discuss CESMP as a living document with the need for future updates
- Recommendations on how to incorporate the CESMP into the comp plan

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Appendix A List of Stakeholder Groups

County Core Team Members

Sustainability Commission

List of Community Workgroup Organizations Represented

General Public

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Appendix B Vulnerability Assessment Report

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Appendix C Complete List of CESMP Actions

Appendix D Implementation Plan

[Implementation roadmaps for 25 high priority actions that include: County department to lead implementation, major milestones, initial funding needed to kickstart implementation, and high-level performance indicators.]

Example

Action Title		
Action Description		
Related CESMP Goal		
Sector Strategy	Electricity, Buildings, Transportation, Waste, Agriculture, Forestry, and Other Land Use	
GHG Reduction Potential		
Lead Department		
Total Potential Action Cost Range		
Initial Funding Needed to Kickstart Implementation		
Implementation Steps		
Performance Indicators	Output Indicators	Outcome Indicators

