

## **Columbia Association Climate Change & Sustainability Advisory Committee (CCSAC)**

### **Annual FY20 Report and Proposed FY21 Charge**

The Columbia Association (CA) Climate Change & Sustainability Advisory Committee (CCSAC) is pleased to submit its annual report and proposed charge for Fiscal Year 2021 (FY21). We very much appreciate the outstanding leadership and guidance we have received from our CA Board Liaison, Ms. Virginia “Ginny” Thomas, representing the Village of Oakland Mills. We also appreciate the great support and collaboration given to the committee by CA’s Energy Manager, Mr. Jeremy Scharfenberg, who has also facilitated our coordination with other key CA staff responsible for open space, watershed, and urban planning issues.

#### **Mission Statement**

The mission of the CCSAC is to support CA efforts to improve the environmental sustainability of the Columbia community and its environs. The CCSAC primarily focuses on climate change mitigation and adaptation/resiliency. However, it also addresses other environmental sustainability topics, such as waste management, water efficiency, and outdoor environmental quality. The CCSAC primarily works with CA and the Village Community Associations to engage residents, businesses, and other community stakeholders to advance clean energy practices, reduce the threat of climate change, and advance resource conservation.

#### **A. FY20 Committee Activities**

- Following completion of our “engagement tour” with CA’s Village Boards in July 2019, we successfully fostered closer collaboration with other local climate and sustainability organizations. In October 2019 we convened and launched the “Howard County Climate Collaborative.” During Spring 2020, the Collaborative’s steering committee, which is chaired by a CCSAC member, formulated both an overriding mission for the group and activities to strengthen it and its member organizations for climate action.
- In line with trends and best practices emerging in other localities, and in response to requests from Columbia residents, the CCSAC drafted a “Resolution to Recognize a Climate Emergency and to Advocate Regarding Emergency Mobilization Efforts to Help Restore a Safe Climate” (Appendix 2). The CA Board approved this resolution on September 26, 2019, making Columbia the third locality in Maryland to adopt such a measure. (Montgomery County adopted MD’s first climate emergency declaration in 2017. Takoma Park was the second, adopting its resolution only nine days prior to the CA Board’s action. Frederick was the fourth and most recent MD locality, adopting its resolution in April 2020.)
- CCSAC members met in November 2019 with CA’s planning, watershed, and energy management staff to review and define the initial scope of a climate vulnerability assessment (CVA). In light of resource constraints, the CCSAC subsequently determined to focus initial efforts on conducting a pilot CVA in a single CA village, with a view to

developing an approach that could be scaled up more broadly across Columbia. We also engaged with outside volunteers from other organizations to form a “climate resilience task force” and develop a workplan and timeline for the pilot CVA. The CCSAC also developed a draft technical scope of work for inclusion with a future request for proposals (RFP) for outside consulting support for the CVA. As a significant part of any CVA entails active engagement with residents and other stakeholders, the CVA effort was stalled by social distancing requirements during the coronavirus pandemic. Task force members are nonetheless reaching out to Wilde Lake Village Board leadership to explore doing the pilot CVA in Wilde Lake. (See Appendix 3 for an overview.)

- The CCSAC engaged with local and state transportation authorities, community activists, and Howard County personnel to track key developments and future needs in the transportation sector relevant to Columbia’s interests. We also explored the possibility of reactivating and updating Jim Rouse’s original transitway concept to augment the existing road network in Columbia, thus relieving some congestion. This concept would have used land originally set aside for the purpose and currently owned by the CA. However, we found that existing land use patterns and other factors make the viability of such a transitway highly doubtful and not ripe for further consideration.
- The CCSAC assessed applicable covenants for each village related to landscaping, which will inform our continued work to promote climate-friendly sustainable alternatives to traditional grass landscaping.
- The CCSAC evaluated plastic bag legislation and other issues related to waste and recycling.

**B. Proposed FY21 Charge submitted for approval by the CA Board identifying items to be addressed by Committee in FY21 that align with the Committee’s mission, CA’s strategic plan, and the President/CEO’s goals and objectives:**

The CCSAC’s proposed work for FY21 is aimed at advancing key actions set forth for the “environmental sustainability” objective in CA’s 2019 5-year strategic plan and the key commitments articulated in CA’s September 2019 “Resolution to Recognize a Climate Emergency.” We have considered the constraints and uncertainties associated with the likelihood that the coronavirus pandemic will extend well into FY21.

In narrowing the focus of our work for FY21, we considered the findings of “Project Drawdown,” a leading resource on climate solutions based on rigorous multi-disciplinary analysis of the 100 most substantive solutions to slow and reverse the buildup of heat-trapping gases (such as carbon dioxide and methane) in Earth’s atmosphere.

We believe the work outlined below offers significant potential for further reducing greenhouse gas emissions and boosting climate resiliency and sustainability in Columbia: It will also open up

important opportunities to bolster CA's collaborative partnerships with other stakeholders, thereby leveraging the committee's efforts to broaden their impact.

- 1. Pilot Climate Vulnerability Assessment (CVA) to address climate risks (e.g., flooding and erosion) and boost community resiliency.** As outlined in Appendix 3, the CCSAC will spearhead a village-level pilot CVA that identifies the village's key climate-related risks, analyzes climate adaptation possibilities, and recommends priority actions for climate risk management. This effort will also offer a vehicle for closer collaboration between the CCSAC and other CA bodies (e.g., work with CA's Watershed Advisory Committee related to flooding and erosion issues, which are key concerns for many villages). This effort will also provide a foundation for future CVAs and climate resiliency efforts elsewhere in Columbia.
- 2. Regenerative landscaping at both residential and community scales.** Regenerative landscaping practices involve a shift from high-emissions high-input strategies to landscaping practices that require significantly less use of fuel and other inputs. Such regenerative practices benefit the environment and can serve as significant climate actions by reducing carbon emissions from mowing and removing carbon dioxide from the atmosphere and storing it in the soil. As such, regenerative landscaping can increase sustainability and boost climate resilience (e.g., by helping to reduce run-off and erosion). We have seen considerable interest and enthusiasm in the community for learning more about regenerative landscaping, an area where CA leadership could be significant. In addition to developing workable strategies for regenerative landscaping at both residential and municipal scales, we will build on CCSAC member collaboration with CA's Open Space personnel to expand community engagement and promote partnerships that boost public awareness and local adoption of regenerative landscaping practices in Columbia and environs.
- 3. Reducing food waste.** Some 30 to 40 percent of food produced worldwide is wasted across the supply chain, leading to emissions from decomposing food waste that can have a significant climate impact. "Drawdown" experts estimate that reducing food waste is one of the most effective ways to reduce or avoid greenhouse gas emissions. As this means minimizing food loss and wastage from all stages of production, distribution, retail, and consumption, this is an area that is potentially ripe for local action. The CCSAC will investigate successful models of community-level actions on food waste to identify best practices and potential hurdles relevant to CA and Columbia. We will then engage with community groups, food-related businesses, and other institutions to advance programs that could curb Columbia's food loss and food waste sent to landfills.
- 4. Expand community engagement,** particularly through greater use of online

platforms, to support the above actions, strengthen the “Howard County Climate Collaborative,” and boost public awareness and action on climate and sustainability.

5. **Investigate current developments and initiatives potentially affecting Columbia** as needed, with a view to providing further recommendations for CA and the community to better manage climate risks (such as flooding and erosion), advance more affordable clean energy, foster responsible consumption of goods and services, and otherwise promote additional actions to reduce and reverse climate change.
  
6. **Provide input to CA’s General Counsel (GC) on legislation affecting climate change or environmental sustainability**, as needed, with recommendations for CA consideration whether to support, oppose, or take no position on said legislation. The CCSAC may also develop or propose legislation, in coordination with GC, if needed and appropriate, to advance CA’s climate and sustainability interests.

**Committee Charge approved by CA Board on:**

\_\_\_\_\_, 2020

**Appendices**

1. Members of the CA Climate Change & Sustainability Advisory Committee
2. CA Climate Emergency Resolution, Adopted September 26, 2019
3. Climate Vulnerability Assessment Overview

**Appendix 1**  
**CA Climate Change & Sustainability Advisory Committee**  
**FY20 Members**

**Michael Cornell**  
(River Hill)

**Dr. Chiara D'Amore**  
(Harpers Choice)

**Kimberlee Drake**

**John Klein**  
(Town Center)

**Timothy Lattimer**  
(Long Reach)

**Julian Levy**  
(Wilde Lake)

**Dr. Tracey Manning**  
(Wilde Lake)

**Robert Marietta**  
(Oakland Mills)

**Roberto Martin**

**Rachel Matney**  
(Long Reach)

**Katherine McCarter**

**Dr. Sara Via**

**Luke Wisniewsky**  
(Long Reach)

## Appendix 2

### RESOLUTION TO RECOGNIZE A CLIMATE EMERGENCY AND TO ADVOCATE REGARDING EMERGENCY MOBILIZATION EFFORTS TO HELP RESTORE A SAFE CLIMATE

**WHEREAS**, in December 2015, 196 countries recognized the urgent need to combat the threats posed by climate change, concluding the Paris Agreement to keep warming “well below 2°C above pre-industrial levels” and to “pursue efforts to limit the temperature increase to 1.5°C;”

**WHEREAS**, in October 2018, the Intergovernmental Panel on Climate Change (IPCC) found that the world is already suffering significant adverse impacts from nearly 1°C of global warming through more extreme weather, rising sea levels, floods, wildfires, and other effects, and the IPCC reported “. . . that limiting global warming to 1.5°C would require ‘rapid and far-reaching’ transitions in land, energy, industry, buildings, transport, and cities” and that “(g)lobal net human-caused emissions of carbon dioxide (CO<sub>2</sub>) would need to fall by about 45 percent from 2010 levels by 2030, reaching ‘net zero’ around 2050;”

**WHEREAS**, the federal government’s Fourth National Climate Assessment published in November 2018 warned that “(c)limate change creates new risks and exacerbates existing vulnerabilities in communities across the United States, presenting growing challenges to human health and safety, quality of life, and the rate of economic growth;”

**WHEREAS**, restoring a safe and stable climate requires emergency mobilization on an enormous scale to reach zero greenhouse gas emissions across all sectors, to rapidly and safely remove excess atmospheric carbon, and to avert a climate catastrophe;

**WHEREAS**, over 1,000 jurisdictions representing some 227 million citizens in 19 countries (including 33 jurisdictions in the United States) have thus far declared a climate emergency;

**WHEREAS**, Columbia Association’s (CA) mission is to “(e)ngage our diverse community, cultivate a unique sense of place and enhance quality of life,” with a vision in which “CA creates and supports solutions to meet the evolving needs of a dynamic and inclusive community;”

**WHEREAS**, CA, in recognizing the urgency of tackling the climate crisis, has reduced CA’s greenhouse gas emissions by approximately 55% since 2012, signed the “We Are Still In” declaration supporting the Paris Agreement in October 2017, and formed a Climate Change and Sustainability Advisory Committee (the “Committee”) in 2018;

**WHEREAS**, CA’s 2019 five-year Strategic Plan includes “Environmental Sustainability” as a strategic priority, with the goal of advancing “Columbia as a leader in environmental sustainability in Maryland” and laying out specific objectives and action steps to advance CA’s climate change mitigation and adaptation efforts, such as reducing energy consumption, supporting clean energy development, conducting a Columbia-wide climate vulnerability

assessment, and implementing sustainable land-use practices and other measures to advance community sustainability;

**WHEREAS**, CA can bolster its environmental leadership by advancing an ecologically, socially, and economically regenerative economy at emergency speed and by supporting a substantive community mobilization effort in response to the climate emergency;

**NOW BE IT THEREFORE RESOLVED**, CA acknowledges the findings of the IPCC and the Fourth National Climate Assessment that a climate emergency threatens our community, county, state, region, nation, and the natural world;

**BE IT FURTHER RESOLVED**, CA commits to supporting a climate emergency mobilization effort to help reverse global warming through appropriate financial, policy, and regulatory initiatives from Howard County, the State of Maryland, and Federal authorities, and initiates efforts to enable CA to achieve net-zero emissions<sup>1</sup> no later than 2040, and puts climate adaptation and resilience measures in place to avoid or reduce the impacts of climate change on CA infrastructure and open space resources.

**BE IT FURTHER RESOLVED**, CA commits to strengthening community outreach and advocacy efforts to increase awareness among Columbia's individuals, households, businesses, and other stakeholders about the climate emergency and to help catalyze a climate mobilization effort to protect our community's safety and well-being;

**BE IT FURTHER RESOLVED**, CA urges Howard County, the State of Maryland, the federal government, and other authorities worldwide to also declare a climate emergency, and to launch ambitious climate emergency mobilization efforts in their jurisdictions to help reduce greenhouse gas concentrations and global average temperatures, promote smart and sustainable development, halt the development of new fossil fuel infrastructure, rapidly phase out fossil fuels and the technologies which rely upon them, end greenhouse gas emissions as quickly as possible, promote carbon sequestration in soils and forests, reduce food waste, transition to regenerative agriculture, and promote high-quality, good-paying jobs with comprehensive benefits for those whose livelihoods may be impacted adversely by the transition to a clean energy economy; and,

**BE IT FURTHER RESOLVED**, CA will maintain climate action as a top priority and, with support in the form of subject matter expertise from the Committee, will continue substantive and quantifiable progress toward the achievement of the objectives and actions in the areas of climate mitigation, adaptation and outreach outlined in the Environmental Sustainability and Outreach section of CA's 5-year Strategic plan, and a report will be provided to the CA Board of Directors at least annually, outlining CA's progress in climate mitigation, recommending additional climate actions, and seeking further CA Board guidance, as appropriate.

September 26, 2019

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<sup>1</sup> Scope 1 & 2 greenhouse gas emissions only.



**Overview of Proposed Pilot Climate Vulnerability Assessment  
(Proposed for Village of Wilde Lake) – June 2020**

**Context**

As reported in the 2018 “[National Climate Assessment](#)” produced by the federal government, “The impacts of global climate change are already being felt in the United States and are projected to intensify in the future — but the severity of future impacts will depend largely on actions taken to reduce greenhouse gas emissions and to adapt to the changes that will occur.”

The Columbia Association’s (CA’s) 2019 five-year Strategic Plan includes “Environmental Sustainability” as a strategic priority, with the goal of advancing “Columbia as a leader in environmental sustainability in Maryland” and laying out specific objectives and action steps to advance CA’s climate change mitigation and adaptation efforts, such as reducing energy consumption, supporting clean energy development, and conducting a climate vulnerability assessment.

In adopting its September 2019 “Resolution to Recognize a Climate Emergency,” the CA Board also committed to, inter alia, “supporting a climate emergency mobilization,” to strengthen community outreach and advocacy, and to “help catalyze a climate mobilization effort to protect our community’s safety and well-being.”

**What is a Climate Vulnerability Assessment (“CVA”)?**

A CVA is a process of community engagement to identify people, assets, services, and/or ecosystems that are or may become compromised by climate-related hazards, e.g., extreme precipitation events, prolonged heatwaves, and other threats associated with climate change. In essence, this process fosters collaboration among residents and other stakeholders to assess the vulnerability of community’s infrastructure, people, and environment to the risks posed by climate change (Fig. 1 below).

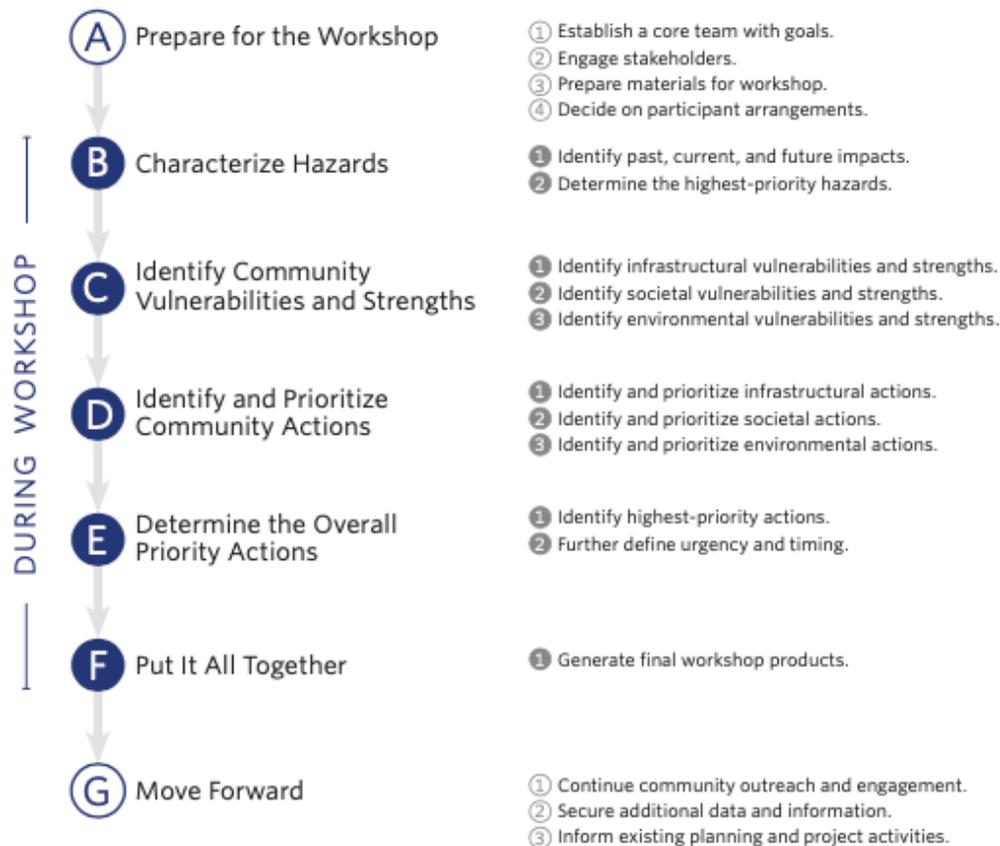
As outlined below (Fig. 2), this process can provide the necessary baseline to inform decisions on priorities for further actions needed to boost the community’s climate resiliency, that is, the ability to withstand and bounce back from climate-related impacts.

**Figure 1 – KEY COMMUNITY COMPONENTS – INFRASTRUCTURE, PEOPLE, & ENVIRONMENT**  
(Source: “Community Resource Building Workshop Guide,” [www.communityresiliencebuilding.org](http://www.communityresiliencebuilding.org).)



**Figure 2 – OVERVIEW OF THE PROCESS – KEY STEPS AND TASKS**

(Source: “Community Resource Building Workshop Guide,” [www.communityresiliencebuilding.org](http://www.communityresiliencebuilding.org).)



**Who is Involved?**

The CA Board of Directors charged CA’s Climate Change and Sustainability Advisory Committee (CCSAC) with spearheading this CVA effort. Given the unique character of Columbia, the CCSAC proposes to do a pilot CVA in Columbia’s Wilde Lake Village. This would focus initial efforts on a village with a strong tradition of community engagement and that presents a range of climate-related challenges that are relevant to many of Columbia’s other villages. This pilot initiative would also provide a foundation for scaling up future CVA efforts more broadly in Columbia and could even serve as a model for a CVA in Howard County.



In addition to the support and collaboration of CA staff and other relevant CA bodies, the CCSAC would invite other stakeholders to participate actively in the CVA process. These may include, but not be limited to, the Village Board, community associations, business people, utility providers, academics, public health and safety officials, non-governmental organizations, and other local, state, and federal agencies. The engagement of community members is essential because they may have a unique view of vulnerabilities not seen by outside organizations.

## What does a CVA produce?

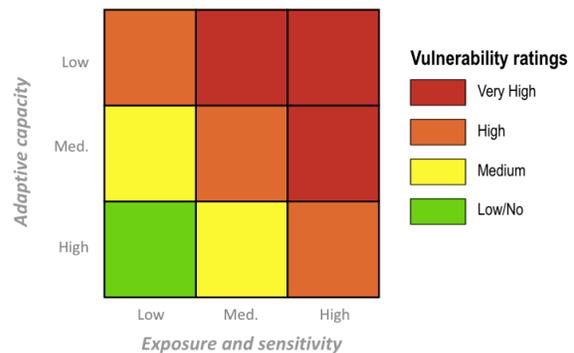
Through a facilitated process with community stakeholders, the CVA provides a proactive way to consider how potential climate hazards may affect key community components (infrastructure, people, and environment) and to explore potential system responses. Information provided in the CVA will allow climate variability and uncertainties to be factored into current and future development; will reveal critical infrastructure, services, and communities at risk from climate-related threats; and will inform strategies to manage, reduce, and/or avoid risks. Drawing on a variety of tools (e.g., Fig. 3 below), the CVA effort marries technical data (e.g., flood hazard mapping) with concerns of community stakeholders in order to assess and prioritize potential risks and vulnerabilities.

**Figure 3 – SAMPLE TOOLS**

(Sources: “Community Resource Building Workshop Guide,” [www.communityresiliencebuilding.org](http://www.communityresiliencebuilding.org) and Association of Climate Change Officers – ACCO.)

Community Resilience Building Workshop Risk Matrix			
<i>H-M-L</i> priority for action over the <i>S</i> hort or <i>L</i> ong term (and <i>O</i> ngoing) <i>V</i> = Vulnerability <i>S</i> = Strength			
Features	Location	Ownership	V or S
<b>Infrastructural</b>			
<b>Societal</b>			
<b>Environmental</b>			

### Grading Vulnerability



Ultimately, a CVA will enable greater community resilience so that the village the community to increase its climate resilience, that is, to better prepare for anticipated hazards, adapt to changing conditions, and withstand and recover rapidly from climate-related disruptions.

Beyond the documentation and visualization of potential climate-related hazards and ways to mitigate climate risks, the CVA process offers an opportunity to strengthen social cohesion through continuing community engagement and collaboration of community members with a broad range of stakeholders.

## What is the process and timing?

The CCSAC, together with other partners, will carry out the key tasks outlined below in a phased approach. To the extent required in an era of “social distancing” required by the coronavirus pandemic, we will engage stakeholders through online platforms and resources in lieu of in-person gatherings.

<b>Pilot (Phase 1) Tasks</b>	<b>Approx. Overall Duration</b>	<b>Comments</b>
1. Data gathering & literature review	1-2 mos.	Relevant county, state, & federal data, studies, mapping, etc.
2. Village-based community engagement to gather key information and input.	6 mos.	Engage/invite participants for pilot kick-off and subsequent workshops
3. Contractor support	6 mos.	CA-funded contractor for climate projections, scenarios, impact analyses, and other technical support.
4. Community Engagement and sharing of report. Mobilization for future actions.	3 mos.	Workshops, briefings, publications, and special events, as appropriate.

Following completion of the pilot CVA (proposed for Wilde Lake), the CCSAC plans additional analyses in other parts of Columbia following a similar approach, modified as needed based on lessons learned from the phase 1 pilot program.