

CLIMATE ACTION & ADAPTATION PLAN

DRAFT – April 22, 2019

In addition to this PDF report, these items are intended to be housed online in a user-friendly format.

Introduction

Columbia's Climate Action and Adaptation Plan (CAAP) lays out a vision and strategy to address risks posed by climate change and to contribute to international efforts to draw down greenhouse gas (GHG) emissions. Cities are poised to lead climate change efforts. Collectively, the world's cities are responsible for 70 percent of greenhouse gas emissions.¹ Cities are also at the frontlines of bearing climate change impacts, such as urban heat island, flooding, drought, and risks to optimal public health. With this plan, Columbia is joining a global coalition of cities committed to reducing these climate change impacts.

The effects of increased global greenhouse gas emissions threaten Columbia's resources and quality of life. Extreme heat, drought, higher incidence of extreme severe storms, and reduced air quality are growing threats in Columbia due to climate change. By taking action now to reduce our community's contribution to worldwide emissions and prepare for climate risks, the City of Columbia can better protect the wellbeing of its residents for decades to come. The purpose of this plan is twofold:

1. To prepare Columbia's natural and built environments (its neighborhoods, resources, and systems) and people to be more resilient to the impacts of climate change; and
2. To reduce greenhouse gas emissions community-wide through targeted municipal, residential, industrial and commercial activities.

The plan was written for the community and by the community. Significant contributors included the public, the Mayor's Task Force on Climate Action & Adaptation Planning (Task Force), and City staff. In development since 2017 through a process that included multiple community and City of Columbia Staff workshops, Task Force meetings, and a public survey, this plan focuses on *effective* actions. These actions achieve the greatest emission reductions and increase our community preparedness in the most cost-effective and equitable manner. The entire community—businesses, residents, and municipal government—all have a role in both implementing the plan and enjoying its benefits.

¹ "Hot Cities: Battle-Ground For Climate Change." UN Habitat. 2011. http://mirror.unhabitat.org/downloads/docs/E_Hot_Cities.pdf

Acknowledgments

We would like to express deep gratitude for those who contributed to the development of this plan.

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And of course, the entire Columbia community!

Executive Summary

The effects of increasing global greenhouse gas emissions threaten Columbia’s resources and the quality of life for Columbia’s residents. Columbia’s Climate Action and Adaptation Plan (CAAP) lays out a vision and strategy to address risks posed by climate change and contributes to international efforts to reduce greenhouse gas emissions. The **purpose of this plan** is twofold:

1. To prepare Columbia’s natural and built environments (its neighborhoods, resources, and systems) and people to be more resilient to the impacts of a changing climate; and
2. To reduce greenhouse gas emissions community-wide through targeted municipal, residential, industrial and commercial activities.

Developed over a year-long engagement process with the public, the Mayor’s Task Force on Climate Action & Adaptation Planning, and City staff, the plan focuses on activities that achieve the greatest emission reductions or do the most to increase our community preparedness in the most cost-effective and equitable manner.

Columbia’s vision is to be the best place for everyone to live, work, learn and play.

The plan sets specific greenhouse gas **emissions reduction targets**. The City’s “80x50” target—an 80% reduction in greenhouse gas emissions by 2050—is broadly accepted by cities, states, and nations and prepares the city for carbon neutrality by 2060. The 80x50 target aligns with the Paris Agreement and scientific understanding of the reductions necessary to avoid catastrophic risks of climate change associated with 2.0°C increase in average global temperature.²

- **Community-wide Target:** Reduce GHG emissions by 35% below 2015 baseline by 2035, 80% by 2050 and 100% by 2060.
- **Municipal Operations Target:** Reduce GHG emissions associated with City operations by 50% below 2015 baseline by 2035 and 100% by 2050.

To achieve this ambitious emissions reduction goal—and to adapt to climate change—this plan includes sector-specific goals, strategies, and actions. Successful implementation of these strategies and actions will require continued cooperation and commitment across the community, including from the public sector, private sector, residents, and businesses. A summary of key strategies in each sector is provided below.

² The City considered using 2010 as a baseline year for consistency with the Intergovernmental Panel on Climate Change (IPCC) Special Report findings, but decided to use 2015 due to data inconsistencies in the 2010 GHG inventory.

Sector-Specific Strategies

Energy

- Increase on-site renewable energy installations in new and existing buildings.
- Maximize Columbia Water and Light's renewable energy purchasing and production.
- Create a resilient energy grid.
- Manage energy demand to reduce peak energy use.

Waste

- Encourage reuse.
- Expand composting participation and operation.
- Divert construction and demolition waste.
- Require and incentivize recycling.
- Upgrade solid waste facilities.
- Track waste diversion.

Natural Resources

- Increase climate resilience and carbon sequestration potential public and private lands.
- Reduce per capita water usage.
- Reduce negative impacts from stormwater runoff and flooding.

Transportation

- Prioritize safety and convenience of walking, biking, and riding transit.
- Shift land use patterns to shorten trips and reduce the need to drive.
- Encourage use of low- to zero-emissions vehicles.
- Improve efficiency of vehicle traffic.

Housing, Building, and Development

- Increase energy efficiency in residential, commercial, and municipal buildings.
- Decrease the impact of building stock on local air pollution and greenhouse gas emissions.
- Support development of buildings that are resilient to anticipated future conditions.

Health, Safety, and Wellbeing

- Reduce incidences of heat-related illness and death.
- Prevent and prepare for increased incidence of vector-borne disease.
- Increase production of local food.
- Assure food security, particularly among the most vulnerable populations.

The plan also contains an **implementation strategy** that outlines protocols and templates for plan implementation, monitoring, and evaluation. An appendix to the final plan will include a detailed actions list with associated timeframes, responsible parties, and next steps, as well as a list of key performance indicators for tracking progress, templates for reporting on indicator and action progress, and internal protocols for City implementation.

To be successful, the Columbia Climate Action and Adaptation Plan must be an iterative process. This plan has set goals, strategies and actions. As it is implemented, staff and community will continually evaluate the key performance indicators, calculate environmental and financial impacts, and then revise the goals, strategies and actions, as required. Outreach, engagement and education will be required throughout this process to succeed.