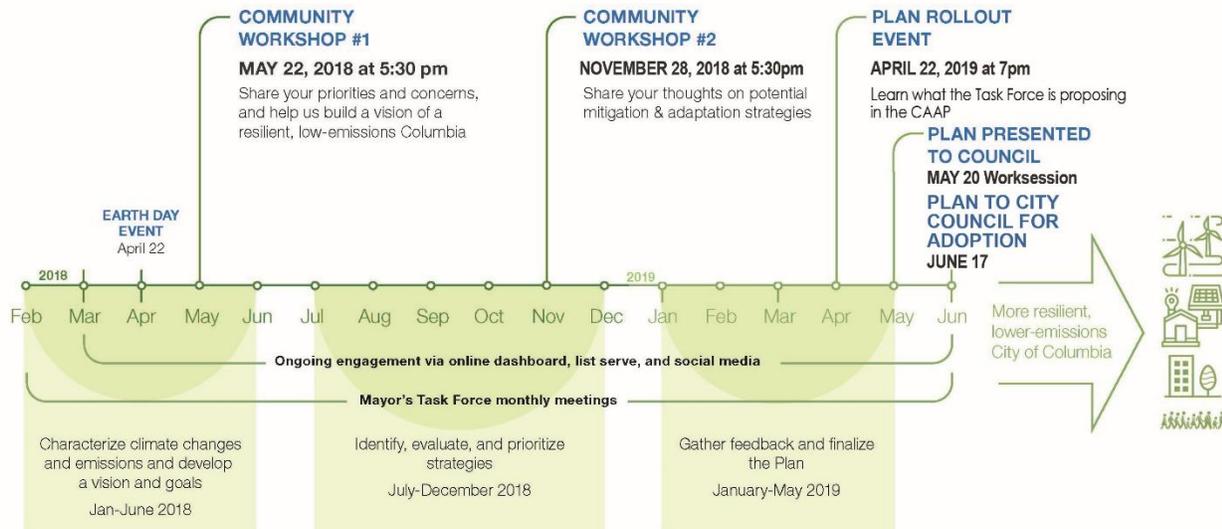


# Plan Development and Objectives

## Plan Development Process

This plan is the product of over a year-long public and stakeholder engagement process that included three community workshops, an online public survey, presentations at board and commission meetings, engagement at community events, collaboration with concurrent planning efforts, and close collaboration with a Mayor-appointed Task Force.



The community workshops provided the public with an opportunity to learn about the planning process, provide feedback on the plan's vision and strategies, and discuss priorities, challenges, and solutions with the project team and other community members. The online public survey gathered input on issues, ideas, and potential mitigation and adaptation options.

The City of Columbia engages in multiple planning processes in the normal course of business. Concurrent to the Climate Action & Adaptation Plan process, community input was and will continue to be reviewed from the following efforts:

- City of Columbia Strategic Plan
- City of Columbia Vision Zero Plan
- Community Development Consolidated Plan
- Columbia Utilities Integrated Management Plan
- Columbia Utilities Integrated Electric Resource and Master Plan
- CATSO Long Range Transportation Plan
- Columbia / Boone County Public Health & Human Services Community Health Improvement Plan

The project management team for this plan has incorporated feedback from public and stakeholder engagement processes into this plan. This reflection respects the conversations our neighbors are having on what makes Columbia the best place to live, work, learn, and play—and what opportunities for improvement exist to achieve this vision.

## Columbia's Voice: Results from the Community Survey

In November 2018, over 900 people responded to an online community survey for the Climate Action and Adaptation Plan. Responses from the survey indicate:

- Strong community support for **immediate action** to reduce greenhouse gas emissions from energy use and land use and prepare for a changing climate.
- Strong agreement that Columbia should be a **leader** when it comes to proactively addressing climate change.
- The top **actions** for addressing climate change include:
  - Designing streets and traffic controls to lower vehicle emissions and support walkability.
  - Replacing the City's vehicle fleet with hybrid and electric vehicles.
  - Offering incentives for energy and water efficiency, solar readiness, and stormwater management that go beyond code.
  - Requiring recycling at multi-family residences.
  - Investing in innovative technologies to enhance renewable energy usage (e.g., energy storage, combined heat and power, microgrids).
  - Aligning the municipal utilities' strategic plans help the community meet climate action objectives.
  - Requiring landlords to manage and mitigate mold and fungus in rental units.
  - Increasing native tree cover on public and private property.
- Preferred **funding strategies** include paying fees associated with specific services, programs, or activities and reprioritizing existing resources to pay for climate action.



## Climate and Equity

It is very important that the CAAP is developed and implemented through an equity lens. Each CAAP action should be implemented in a manner that promotes equity and mitigates structural racism and historic inequality. Providing equitable access to climate action and adaptation benefits requires meeting community needs and implementing measures that address existing vulnerabilities and inequalities. The CAAP will also consider where climate action strategies may lead to adverse, unintended impacts. For example, improving bike lanes and adding open space could spur gentrification and displacement. Similarly, additional City fees and rate increases could add new burdens to low- and fixed-income communities.

Ways to ensure that equity is considered throughout the CAAP implementation process include:

- Designing policies and programs that serve disadvantaged communities first.
- Focusing policies and programs on communities experiencing high pollution burdens, poverty, health issues, and exposure to climate hazards.
- Using an “equity checklist” when implementing actions. See the example list below.
- Proactively engaging community leaders and members on an ongoing basis.

Below are key equity considerations and questions, drawn from the City of Portland’s Climate Action Plan, to consider before implementing climate actions:

- **Disproportionate impacts** - Does the proposed action generate burdens (including costs), either directly or indirectly, to communities of color or low-income populations? If yes, are there opportunities to mitigate these impacts?
- **Shared benefits** - Can the benefits of the proposed action be targeted in progressive ways to reduce historical or current disparities? Are the benefits dispersed not only equally, but equitably?
- **Accessibility** - Are the benefits of the proposed action broadly accessible to households and businesses throughout the community - particularly communities of color, low-income populations, and minority, women and emerging small businesses?
- **Engagement** - Does the proposed action engage and empower communities of color and low-income populations in a meaningful, authentic, and culturally appropriate manner? Are community stakeholders involved and engaged in implementation?
- **Capacity** - Does the proposed action help build community capacity through funding, an expanded knowledge base or other resources?
- **Alignment and partnership** - Does the proposed action align with and support existing communities of color and low-income population priorities, creating an opportunity to leverage resources and build collaborative partnerships?
- **Relationship building** - Does the proposed action help foster the building of effective, long-term relationships and trust between diverse communities and local government?
- **Economic opportunity and staff diversity** - Does the proposed action support communities of color and low-income populations through workforce development, contracting opportunities or the increased diversity of city and county staff? Does it engage leaders in those communities?
- **Accountability** - Does the proposed action have appropriate accountability mechanisms to ensure that communities of color, low-income populations, or other vulnerable communities will equitably benefit and not be disproportionately harmed?

Ensuring that participation in climate action is accessible to the entire Columbia community will require considering equity in policy, outreach, and infrastructure development. City staff will work to involve diverse community voices from the start of any new initiative and will track progress towards advancing equity.

### Equity Actions in the Plan

While equity will need to be considered in implementing every strategy and action within this plan, there are particular actions for which equity considerations will be critical, such as:

I-2.1.4	Develop a process for requiring mitigation, adaptation and climate-equity impact assessments for all new policies and projects that meet threshold criteria, such as cost burden, vulnerability, or increase to net emissions.
I-3.2.1	Create a report that identifies the differential impact of climate change on neighborhoods and communities.
I-3.2.2	Develop and incorporate equity metrics in the evaluation of CAAP activities. This evaluation will be used as a criterion for the CAAP Action Group, Community Climate Commission, and budget team during review of program cost, viability, and success.
E-2.1.2	Ensure equitable implementation of grid resilience actions by partnering with vulnerable neighborhoods and non-governmental organizations to develop resilience hubs--community facilities that offer power and other community services during times of need. Establish criteria to screen and select locations for community microgrids to support grid and community resilience.
H-1.1.2	Increase energy efficiency funding options for income-qualified families (low-interest financing, on-bill financing, Pay as You Save, PACE, etc.).
H-1.6.2	Develop affordable and efficient (temporary/transitional) housing options.
T-1.5.4	Preserve and enhance affordable housing as well as infill development, especially near bus service.
HS-1.1.6	Conduct a needs assessment of accessible community centers for during extreme weather or other emergency situations. Create a development improvement plan, if needed.
HS-1.2.2	Increase availability to cooling mechanisms in low-income housing and rental units (e.g., air conditioning units, fans, window screens).

## Climate Action Targets

City staff and Task Force members worked closely with the Columbia community to set overarching goals for the CAAP. These goals set the foundational framework for the strategies and actions of the CAAP and allow Columbia to track progress on achieving its vision for climate action. The goals below include greenhouse gas reduction targets in line with global scientific, peer-reviewed studies on necessary emissions reductions. To set reduction targets, the Task Force assessed Columbia's forecasted greenhouse gas emissions, listened to public input, reviewed peer cities' targets, and reflected on the community's climate ambitions.

Using the 2015 GHG inventory as a baseline year, the community and municipal reduction targets are:<sup>3</sup>

- **Community-wide** GHG emissions: 35% below baseline by 2035, 80% by 2050 and 100% by 2060.
- **Municipal operations** GHG emissions: 50% below baseline by 2035 and 100% by 2050.

This 80x50 community-wide 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.<sup>4</sup>

To assess the feasibility of attaining these communitywide targets, the City commissioned the development of a “wedge analysis.” This forecasting analysis estimates potential GHG emission reductions associated with strategies and actions in the plan. Wedge analysis findings, presented at the beginning of the “Sector-Specific Strategies and Actions” section, suggest that full implementation of the CAAP will be sufficient to meet the community's near- and long-term GHG emission reduction targets.

To support achievement of the community's overarching GHG emission reduction goal—and to adapt to climate change—this plan includes sector-specific goals for climate action. For each emissions or adaptation sector, these overarching goals will guide the implementation of CAAP strategies in support of Columbia's climate vision.

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<sup>3</sup> The City considered using 2010 as a baseline year for consistency with the Intergovernmental Panel on Climate Change Special Report findings but decided to use 2015 due to data inconsistencies in the 2010 GHG inventory.

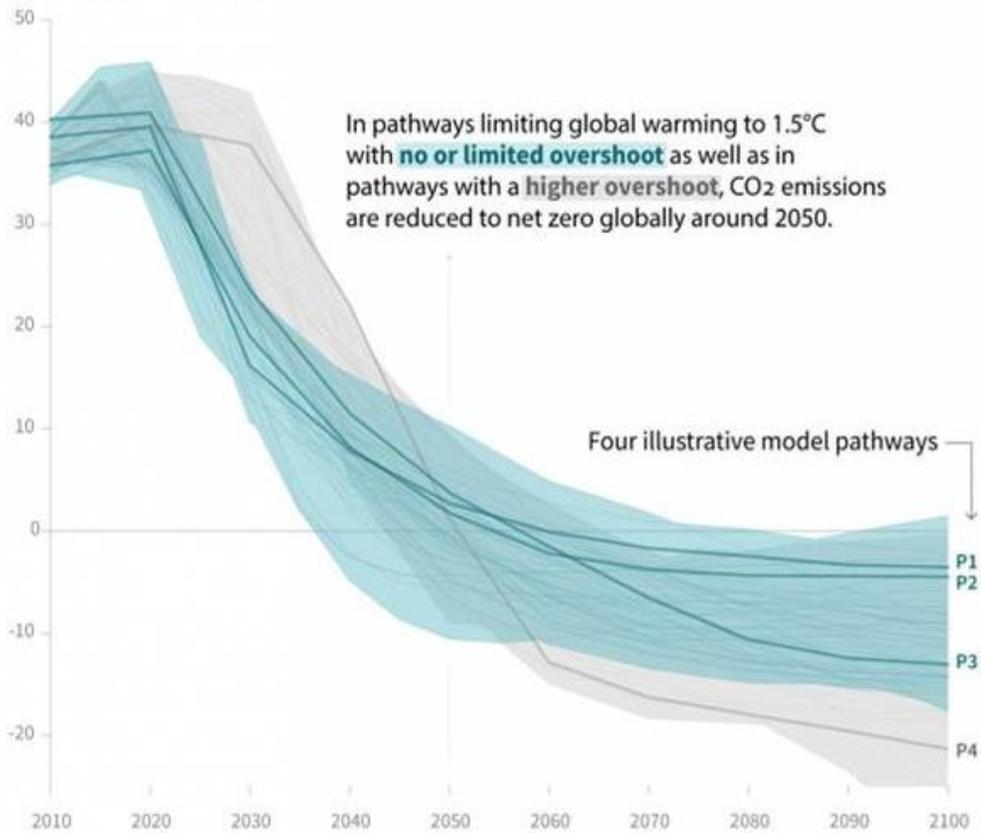
<sup>4</sup> “Framework for Long-Term Deep Carbon Reduction Planning.” *Carbon Neutral Cities Alliance*. 2018.

## Columbia's Goals and the IPCC

This Plan is intended to allow for course corrections, giving us the ability to address the evolving science of climate change. In 2018—after Columbia had approved its 80x50 goal—the Intergovernmental Panel on Climate Change (IPCC) released a Special Report that describes the expected impacts of 1.5°C and 2.0°C warming and lays out pathways for limiting average global warming to those levels. As illustrated by the figure below, the report indicates that limiting warming to 1.5°C can only be achieved if action is taken to reduce global carbon dioxide emissions by about 45% from 2010 levels by 2030 and to 'net zero' by around 2050. Limiting warming to 2°C requires net global CO<sub>2</sub> emissions to decrease by about 25% from 2010 levels by 2030 and reach 'net zero' by around 2070. We will continue to work to meet the most rapidly attainable emissions reductions.

### Global total net CO<sub>2</sub> emissions

Billion tonnes of CO<sub>2</sub>/yr



Source: IPCC Special Report on 1.5°C

## Sector-specific goals for climate action

The goals of the CAAP, listed below, address both climate mitigation (reducing greenhouse gas emissions) and climate adaptation (improving resilience to climate impacts), and are denoted as follows:

 Mi	Climate mitigation strategy (reduces greenhouse gas emissions)
 Ad	Climate adaptation strategy (increases resilience to climate impacts)
 Mi/Ad	Both (addresses both mitigation and adaptation goals)

### Implementation

-  Increase City staffing and capacity to support community climate action.
-  Establish climate action as a priority for the City Council and the community.
-  Establish CAAP goals as priorities in the activities of the City of Columbia as an organization.

### Energy

-  Increase local renewable energy generation and procure renewable energy.
-  Maintain reliability of local energy supply and local distribution.

### Housing, Building & Development

-  Reduce housing-, building-, and development-related energy consumption and improve resiliency.

### Transportation

-  Reduce travel by car.
-  Reduce greenhouse gas emissions from vehicles.

### Waste

-  Reduce waste production.
-  Increase waste diversion.
-  Improve waste system management.

### Health, Safety, and Well-being

-  Prepare the community and public safety and health services for anticipated climate change impacts.
-  Reduce emissions associated with the food system.

### Natural Resources

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