



# COLORADO **CLIMATE PLAN**

State Level Policies and Strategies to Mitigate and Adapt

EXECUTIVE SUMMARY





# Executive Summary



## **In Colorado, climate change presents a broad range of challenges.**

Colorado has warmed substantially in the last 30 years and even more over the last 50 years.<sup>1</sup> Future estimates project temperatures rising an additional 2.5°F to 5°F by 2050,<sup>2</sup> meaning the warmest summers from our past may become the average summers in our future. With increasing temperatures come shifts in snowmelt runoff, water quality concerns, stressed ecosystems and transportation infrastructure, impacts to energy demand; and extreme weather events that can impact air quality and recreation. The challenges we face will affect everyone, and require collaborative solutions.

The goal of this document is to promote state policy recommendations and actions that help to improve Colorado's ability to adapt to future climate change impacts and increase Colorado's state agencies level of preparedness, while simultaneously identifying opportunities to mitigate greenhouse gas emissions (GHG) at the agency level. In this plan, the major sectors of the state government are addressed, specific actions are called for, and policy recommendations are made. Because addressing climate change is best addressed collaboratively, this plan has been developed collectively by the Department of Natural Resources (DNR), the Colorado Department of Public Health and Environment (CDPHE), the Colorado Energy Office (CEO), the Colorado Department of Transportation (CDOT), the Colorado Department of Agriculture (CDA), the Office of Economic Development and International Trade (OEDIT), and the Department of Local Affairs (DOLA), with input from key stakeholders.

This plan has also been developed to meet the requirements of C.R.S. 24-20-111, which calls for the development of a state climate plan setting forth a strategy to address climate change and reduce greenhouse gas emissions while taking into account previous state actions and efforts. This plan represents advances in the discussion on how to best address climate change at the state level, however, we know that more conversations are necessary and we look forward to a continued dialog with climate experts and the public. Therefore, over the next year, each state agency that has helped to develop this plan will hold public engagement sessions on climate change that are specific to their sector. This will include:

- ❖ The CDPHE, following the release of the Environmental Protection Agency's (EPA) final Clean Power Plan, will expand outreach to stakeholders, government agencies, and interested Coloradans in a public process to develop and implement a state plan to substantially reduce carbon dioxide emissions from fossil fuel fired EGUs. The CDPHE will host meetings and solicit public comment to gather ideas and attempt to reach some consensus on the most cost-effective ways to reduce emissions while preserving or enhancing electric grid reliability and the economy. The CDPHE will continue to fully cooperate with the Public Utilities Commission, the CEO and the General Assembly to optimize the state plan.
- ❖ The Colorado Parks and Wildlife Commission will serve as the public forum for future conversations on fish and wildlife adaptation. The Commission will schedule a series of conversations in the next year to hear recommendations from experts and the public about science and management options to inform management decisions.
- ❖ The CWCB will continue to be a leader on climate change adaptation in the water sector and will host an open discussion with experts and the public on climate change at a board meeting(s) during fiscal year 2016. CWCB staff will also engage with stakeholder groups around the state to gather feedback on this plan and recommendations to explore and enhance future actions.

- ❖ The CEO, in conjunction with the Public Utilities Commission, will continue to serve as subject matter experts concerning energy efficiency technologies, markets, and practices involving electric utility end-users. In this role, Colorado Energy Office will convene one or more forums over the next year to engage stakeholders and ensure energy efficiency options best fit within a compliance plan for the state. The development of these forums will also include collaboration with the CDA, who has partnered with the CEO on several energy programs.
- ❖ The DOLA will deliver trainings to local government planners and emergency managers on integrating information regarding changing hazard risks and resilience principles into local plans and land use codes using their forthcoming Colorado Hazard Mitigation and Land Use Planning Guide as a framework.
- ❖ The Colorado Tourism Office will include a session on climate change as part of the agenda at their annual conference. The conference will be held in Crested Butte in September.
- ❖ The CDA will work with the Colorado Association of Conservation Districts to provide an informative, science-based panel and discussion at the annual conference for conservation districts to explore the projected climate change impacts on production agriculture in Colorado and steps that can be taken to adapt and prepare for those changes.
- ❖ The CDOT will work with the State Transportation Advisory Commission to develop a stakeholder engagement process to take place over the next year.

In 2007, Governor Bill Ritter, Jr. released a Climate Action Plan laying out goals for the state through 2050. The plan was primarily focused on mitigation efforts and detailed a handful of measures that would help in reducing overall GHG emissions. Since that time the state has moved forward with many of these measures and has worked to implement additional mitigation efforts as well as greatly expand adaptation initiatives. Federal regulation has also expanded to address some of the goals laid out in 2007. Major State actions, such as the adoption and expansion of Colorado's Renewable Energy Standard (RES) also simultaneously addressed several the 2007 goals, and positioned the state well to respond to the recently released EPA Clean Power Plan rule. Below is a timeline illustrating the measures that have been accomplished since the 2007 plan was released.

Colorado is a state full of talented innovators who come together to tackle challenges and overcome obstacles on a daily basis. That collaboration and creative thinking is at the heart of this plan. The strategies and recommendations laid out here, in addition to the proposed stakeholder engagement opportunities, are commitments by state agencies to continue moving us forward and provide state level policies and strategies to mitigate and adapt. Over the coming months state agencies will work to incorporate the recommendations of this plan, schedule opportunities for continued stakeholder engagement, and continue to ensure that we are taking steps to reduce our greenhouse gas emissions in a balanced and responsible way, while also pursuing adaptive strategies that protect the core elements that make Colorado such a desirable place to live, work, and play. 🌲

---

<sup>1</sup> Jeff Lukas et al., *Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaptation* 2nd Edition (Colorado Water Conservation Board, 2014), 2.

<sup>2</sup> Lukas, *Climate Change in Colorado*, 3.



Release of Colorado Water Plan. ★

Release of State Wildlife Action Plan. ★

**JUNE**

Colorado Resiliency Framework released.

**JANUARY**

Release of Colorado Climate Change Vulnerability Study.

**SEPTEMBER**

Release of Wildfire Insurance and Forest Health Task Force Report.

**JUNE**

Expansion of the state's RES to require cooperative utilities to generate 20 percent of their electricity from renewable sources.

**JANUARY**

Launch of Charge Ahead Colorado.

**SEPTEMBER**

Release of Colorado Drought Mitigation and Response Plan that included climate change analysis

**APRIL**

Green of State Government Executive order established a waste diversion goal. (EO D2010-006)

**MARCH**

Increased the state's RES to 30 percent by 2020 for investor owned utilities. Created a requirement that 3 percent of all electric sales must come from renewable Distributed Generation by 2020.



2017

★ State plan to reduce power plant carbon emissions.

★ Clean Air Clean Jobs Act will be fully implemented.

**AUGUST**

Revised Climate Change in Colorado Report released.

**JULY**

\$50 million Alternative Fuels grant program launched.

2014

**FEBRUARY**

Adoption of control measures for methane emissions from the state's oil and gas industry.

**JUNE**

Completion of goals to reduce state vehicle fleet petroleum use by 25 percent and state government energy consumption by 20 percent. (EO D0011-07)

2012

**MARCH**

Colorado River Water Availability Study released.

2008

**JUNE**

\$10 million New Energy Communities grant program launched.

**OCTOBER**

Release of Climate Change in Colorado Report.

**APRIL**

Reduce GHG emissions to 20 percent by 2020 and to 80 percent by 2050 below 2005 levels. (EO D 004 08)

# Milestones

## Climate Change Mitigation and Adaptation

