

CLIMATE, ENERGY AND RESILIENCE

The community has shown consistent support for goals and actions to reduce climate impacts and overall greenhouse gas emissions as reflected in multiple surveys and support for the climate action tax. With emerging new goals related to climate commitment, energy system transformation, and resilience, the BVCP will need to be updated to support them. More recently it's become clear that the scale of the climate challenge is greater than originally understood, and the community now recognizes the need to address adaptation and resilience – how to bounce back after a disruption such as the 2013 flood.

What does the current plan say?

Climate Commitment

Boulder has long understood the importance of climate action and mitigation and has worked to reduce its climate impacts since the early 2000s. However, the Boulder's Climate Commitment (Oct. 2015 draft) establishes a significantly higher bar for action: **"Boulder will reduce its energy-related emissions 80 percent or more below 2005 levels by 2050" ("80 by 50")**. It calls for a fundamental transformation of Boulder's energy system, including a target of **100 percent** clean, renewable electricity – building on improved energy efficiency in buildings and greater energy conservation. While the 2010 BVCP includes a goal to reducing greenhouse gas emissions, these more recent, broader, and more sweeping climate and energy goals are not yet reflected. To learn more about Boulder's Climate Commitment, please visit www.bouldercolorado.gov/climate.

Resilience

Although the 2010 BVCP also does not use the term "resilience," much of the planning and actions over the past few decades (e.g., floodways and greenways planning, managing open space in the foothills, planting diverse tree species, establishing a budget reserve) has made the community more resilient and ready to bounce back in times of emergency or disruption. More recently, the 2013 flood elevated awareness about the need to be adaptable and resilient at the local level. In addition, the 100 Resilient Cities grant has brought new resources to assist in evaluating the plan and recommending how to improve it in support of more resilience and co-benefits.



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What are **people** saying about **climate, energy, and resilience**? (BVCP – SECTION 1 & 5)

The Boulder community has consistently supported **city-led action to reduce greenhouse gas emissions**, expressed recently by overwhelming support to extend the city’s climate action plan tax in 2012 as well as in the responses to the BVCP survey from the fall of 2015 about climate action. While no specific questions in the survey asked about resilience, **a few respondents noted that the plan should address resilience**. Additionally, a climate and resilience survey from about one year ago suggested that most people in the community do not understand the concept of resilience, and therefore additional awareness and information would be helpful. Participants in the BVCP listening sessions from the fall of 2015 have also expressed interest in resilience.

Recent workshops and input as part of the Resilience Strategy have helped Boulder to increase its understanding about potential risks such as drought, flooding, pandemic flu, and wildfires. The community has also recognized vulnerable populations (e.g., mobile home residents, older people, and homeless and transient populations) and vulnerable systems (e.g., small business community, and some infrastructure) on which these potential risks could have a greater impact.

Recommended: **Add climate and resilience to the plan**

Climate: The Energy and Climate chapter will be updated to **add language that reflects the Climate Commitment goal cited above (“80 by 50”)** and its described benefits to the community of transitioning to a clean energy economy and lifestyle. The chapter will be reorganized to reflect the organizing topics of the community’s climate action plan: (1) Energy – Transforming the whole energy system, (2) Resources – Using Resources Wisely, and (3) Ecosystems – Restoring Ecosystems. Other proposed policy updates include addressing **carbon sequestration in soil** and developing an **urban ecosystems management strategy or plan** to enhance biodiversity, environmental health, and resilience of the entire natural environment of the Boulder Valley.

Resilience: Boulder’s partnership in the 100 Resilient Cities organization has allowed the city to leverage consulting resources, HR&A Advisors, Inc., which prepared a report and recommendations about how to better address resilience in the BVCP. Summary recommendations are:

1. **Frame resilience as a guiding principle** of the BVCP (along with sustainability) and convey a clear statement about community resilience. It should be a cross-cutting principle for the plan.
2. **Encourage community and stakeholder engagement** by adding new policies and directions that support risk education and preparedness.
3. **Continue integrated planning** across government departments and jurisdictions, institutional organizations, and the private sector.
4. **Establish measurable goals** and integrated implementation strategies that build resilience value in the long term.

Key Elements of a Healthy, Stable and Adaptive Community:

- ✓ Strong social networks
- ✓ Public spaces
- ✓ Resilient infrastructure
- ✓ Economic diversity
- ✓ Regional connectivity
- ✓ Good governance

Revised Topic Area Approach



Some Resilience Themes

1. Identify Boulder's risks (e.g., drought, flooding, fire, flue, storms, infrastructure failure)
2. Strengthen linkages between protections of ecologically functioning areas.
3. Reduce risk and harm to vulnerable residents (e.g., low income people, elderly, homeless and transient populations) and some businesses.
4. Assist neighborhoods in becoming more self-sufficient and resilient.
5. Ensure that different parts of the city have access to medical facilities, food and supplies, information and communication centers, and emergency assistance during times of emergency.
6. Engage diverse stakeholders and entities to identify residents, businesses, and households most likely to be disproportionately affected by a disruption to city services.
7. Include specific action-oriented items in each chapter to address risks and vulnerable populations, for instance:
 - New Safety and Preparedness chapter (e.g., Build community cohesion by identifying and engaging local stakeholders through regular and ongoing contact, such as programs that enable communities to organize during an emergency in a central place)
 - Community Well-Being (e.g., Support community-level education and preparedness, community-driven communications and information dissemination, and supply provision during emergencies.)
 - Economy (e.g., Identify policies that support small businesses in light of rising real estate costs, changing consumer behavior, and increasingly unpredictable natural risks.)

The "Recommendations for Resilience Integration" draft report from HR&A will be available on bouldervalleycomplan.net in late May.

Question: How would you refine and prioritize ideas related to climate and resilience for the plan update?

Address Sustainability Framework + Resilience

HR&A recommends framing resilience as a guiding principle of the BVCP along with sustainability. The following points highlight the distinct but complementary nature of these concepts:

- **Resilience** is the idea of the city and community being prepared for any disruption and able to bounce back stronger. It ensures responsiveness and adaptability to disruption. It builds on and complements the sustainability framework.
- **Sustainability** (building on multiple themes) ensures stability and continuity.
- **Both concepts** embody holistic points of view about the interactions of systems in a city; they are complementary. Together, they reinforce the notion that systems must be stable yet adaptable to disruption.