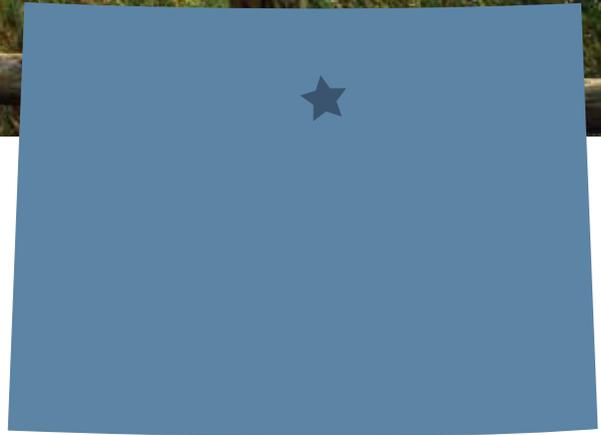




# NOAA Critical Thresholds for Extreme Weather Events CASE STUDY

# Boulder, CO

Photo: Keith Cuddeback (Flickr CC)



The City of Boulder is a progressive city in the greater Denver metro area. The city frequently experiments with novel means of city planning, zoning, and policies, largely with the support of the citizens. Capacity of City staff to understand climate information is high and recent flooding and wildfire events have raised concerns and increased motivation to address these issues.

**Population:** 107,349

**Primary Climate and Weather Related Concerns:**  
Flooding, Drought, Wildfire, Extreme Cold

## ACTION TO BUILD RESILIENCE

The City decided that it was critical to develop a common understanding of the challenges that climate change will pose, then build on that understanding to act across city departments. In 2016, the City planned and executed a series of workshops which included sharing local climate projections, to spur action to address potential climate impacts across all departments.

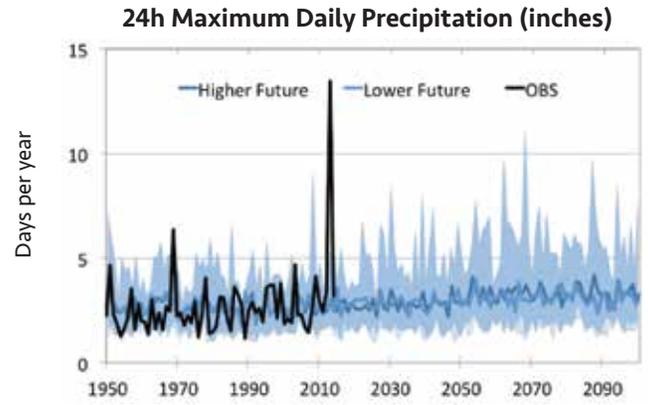
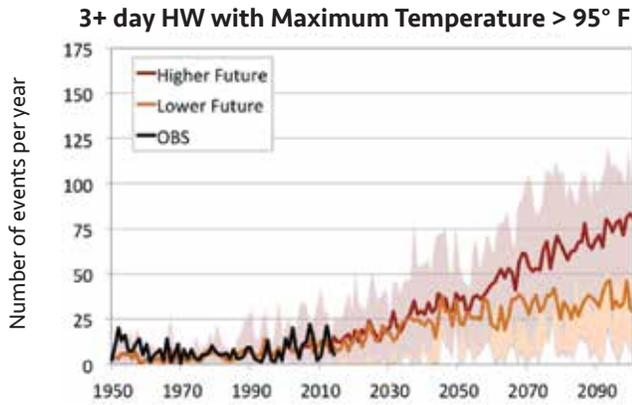
The workshops also created a forum for departmental staff to interact and work together to address current and future climate related concerns.



Photo: Russ Sands

# CLIMATE PROJECTIONS

Project participants identified a variety of thresholds of concern including high daytime temperatures, high nighttime temperatures, heavy precipitation events, shifts in wildfire risk, and extreme swings in temperatures (especially in the spring as they could affect the urban tree canopy). Heat waves are uncommon and likely to become more frequent in the future and the city has yet to prepare for this threat. Figures below show observations (OBS) and projections for the future with a lower climate change scenario (RCP 4.5 - Lower Future) and higher climate change scenario (RCP 8.5 Higher Future).



# INSIGHTS

The challenge of climate change isn't that we're going to get more of the same - more flooding, more drought, more windstorms. In many cases, the challenge is the new and unexpected - things that haven't been seen before. And **the greatest challenge with these is to convince policy-makers that these new concerns are real threats that should be prioritized and funded. This challenge is one that Boulder identified and is taking head-on.**

This case study was developed under a grant from NOAA Sectoral Applications Research Program (SARP), NA14OAR4310248, in association with the following project partners. Please visit [www.adaptationinternational.com/projects](http://www.adaptationinternational.com/projects) for more details on this project.

