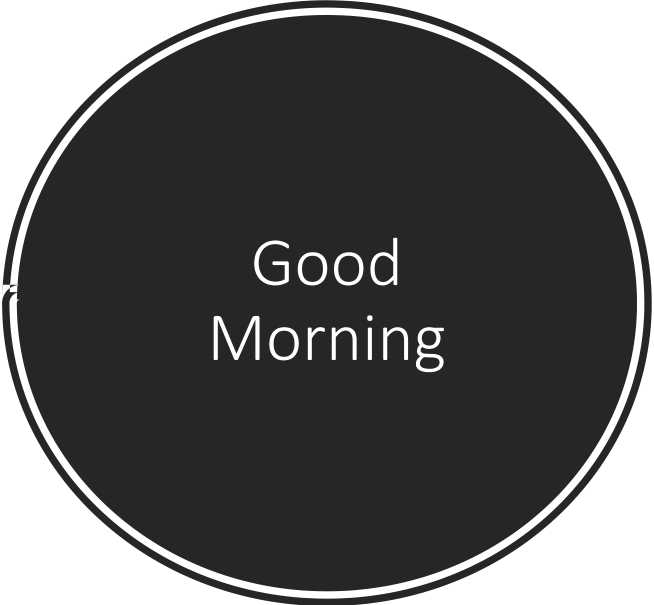




# Stakeholder Meeting #1

June 6, 2018



Good  
Morning

- Stakeholder Introductions
  - Name, Affiliation, and Expertise
  - Favorite Hiking or Biking Trail
- Ground Rules
- Agenda





# Stakeholder Goals

June 6, 2018

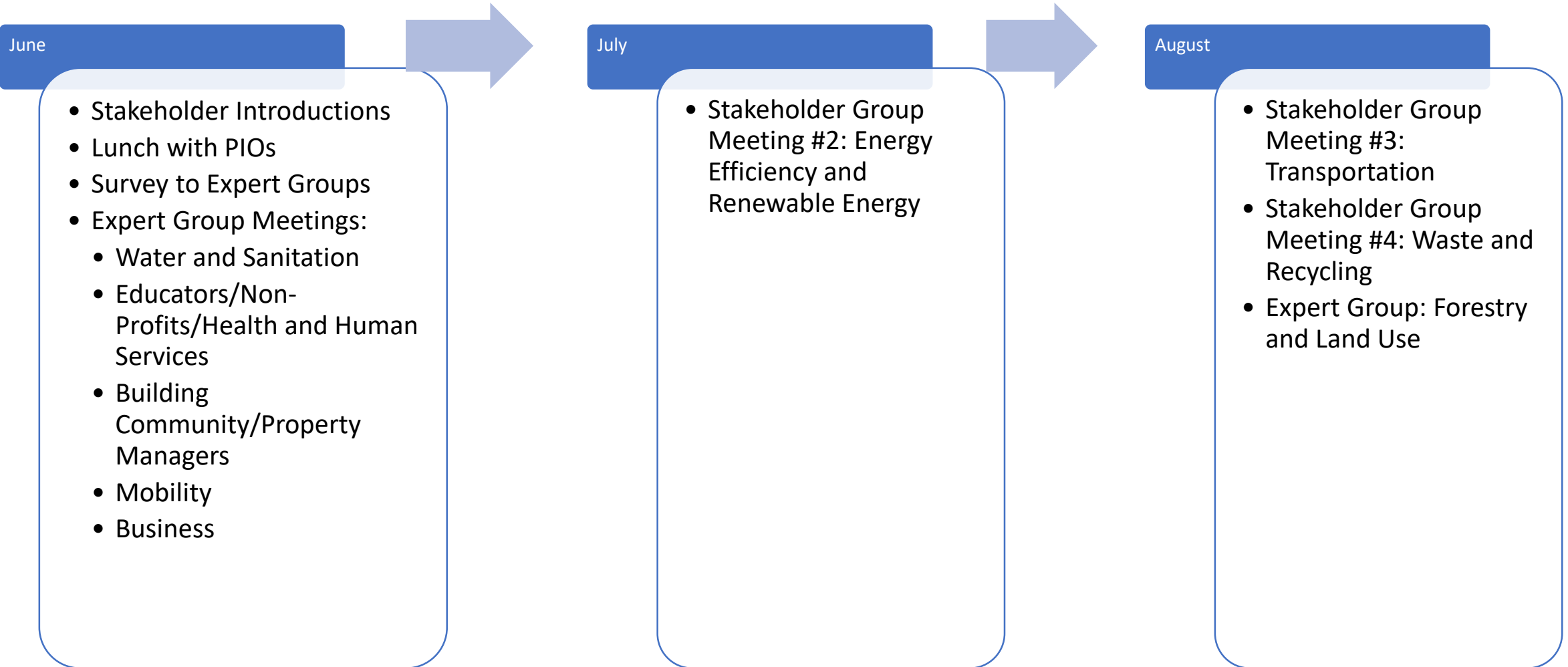
# Climate Action Planning: Establishing a Roadmap to Resiliency

- How did we get here?
- Goals and Process
- Stakeholder Group vs Expert Groups
- Throughout the CAP process we will seek your input and guidance on the appropriate goals and targets to set for Summit County, as well as the strategies that are most likely to be successful in your community.
- This is a collaborative and iterative process and your input is both necessary and valued!

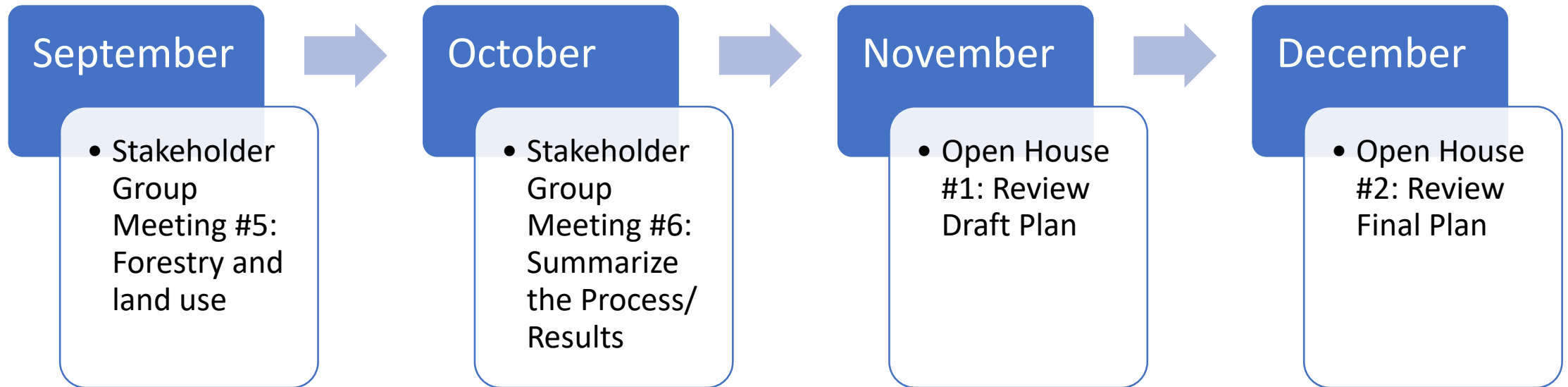




# Process and Timeline



# Process and Timeline





# Getting to know you

- Group Discussion
  - Goal for Project
  - Concern for Project
- How do we keep you engaged as stakeholders?
- Why are you participating in the planning process?



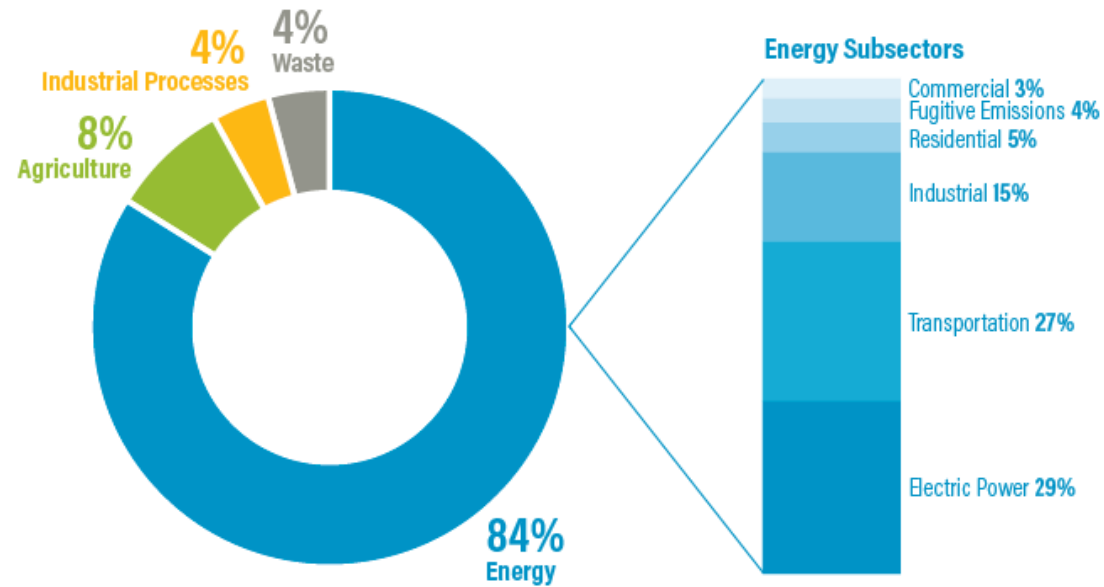


# Climate Change in Summit County

A Case for Action

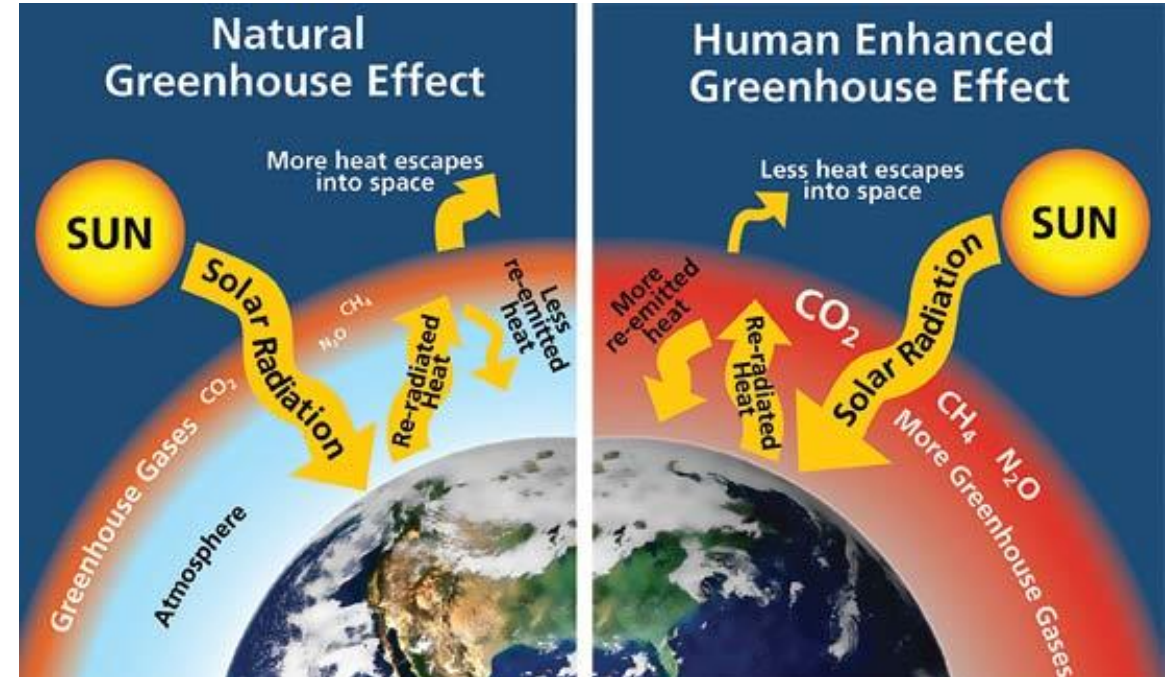


## U.S. Greenhouse Gas Emissions by Sector, 2014



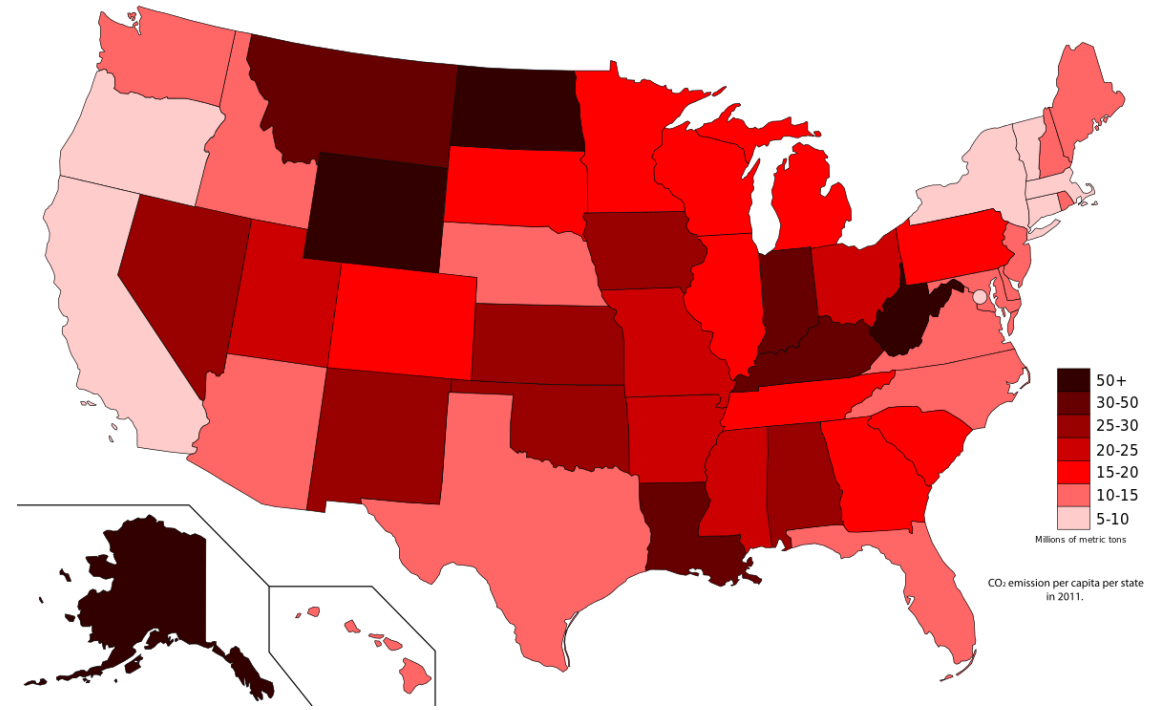
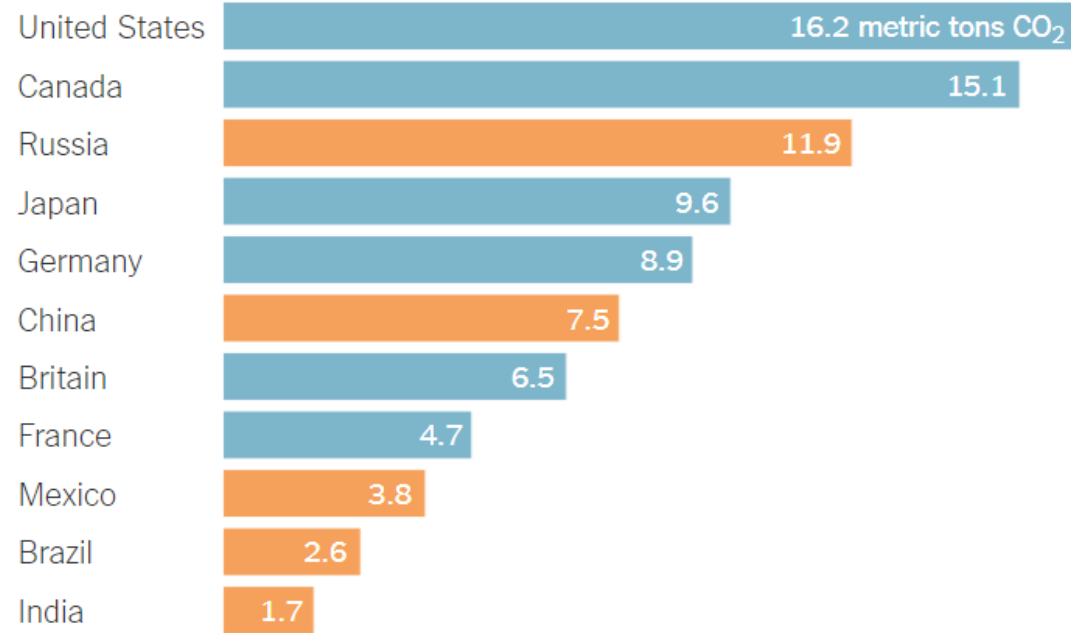
[bit.ly/usa-ghg](https://bit.ly/usa-ghg)

 WORLD RESOURCES INSTITUTE



# Climate Change Basics

### Per person carbon emissions in 2014



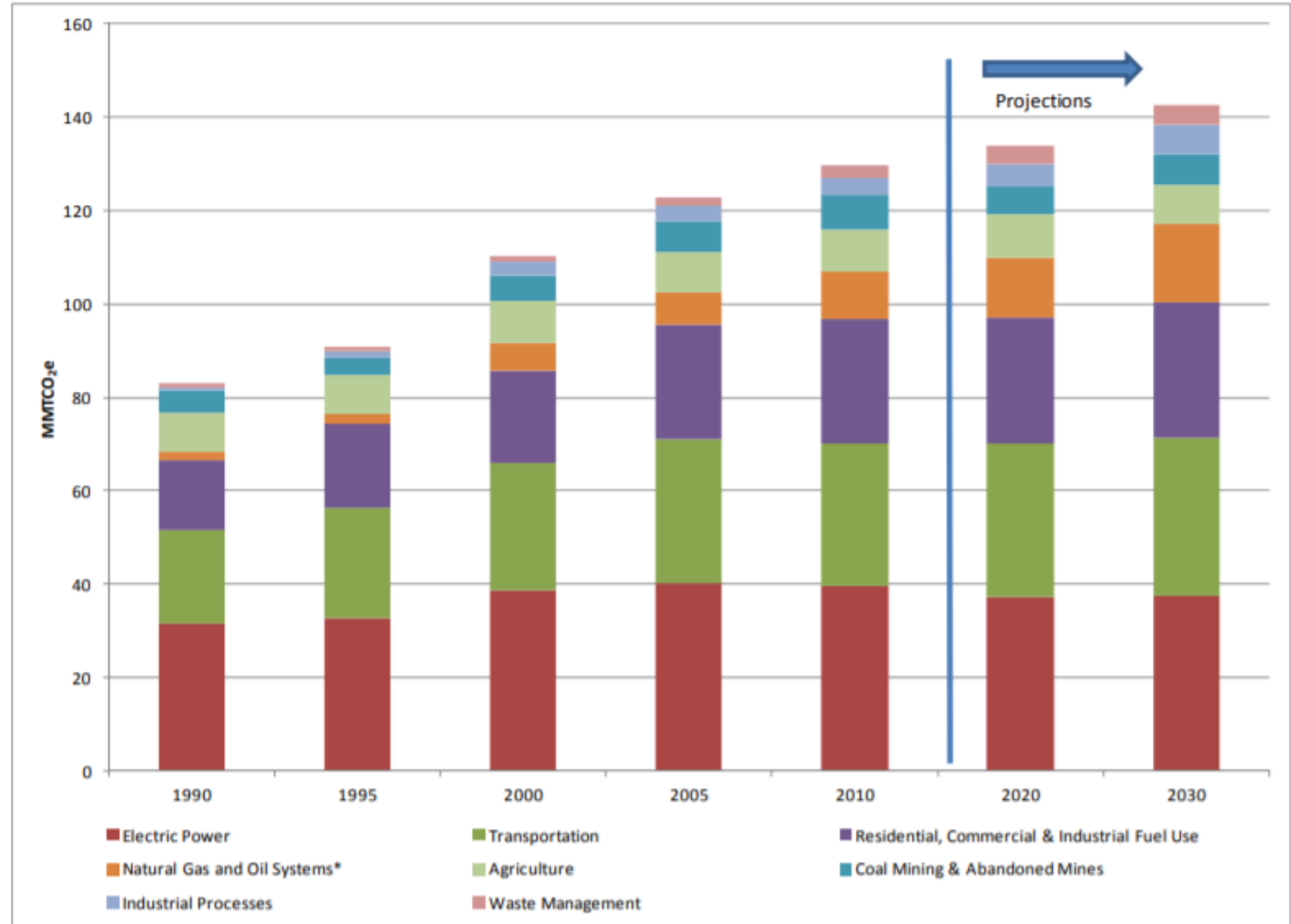
# Individual actions have global impact

Greenhouse gas emissions are the primary driver of climate change and global warming.



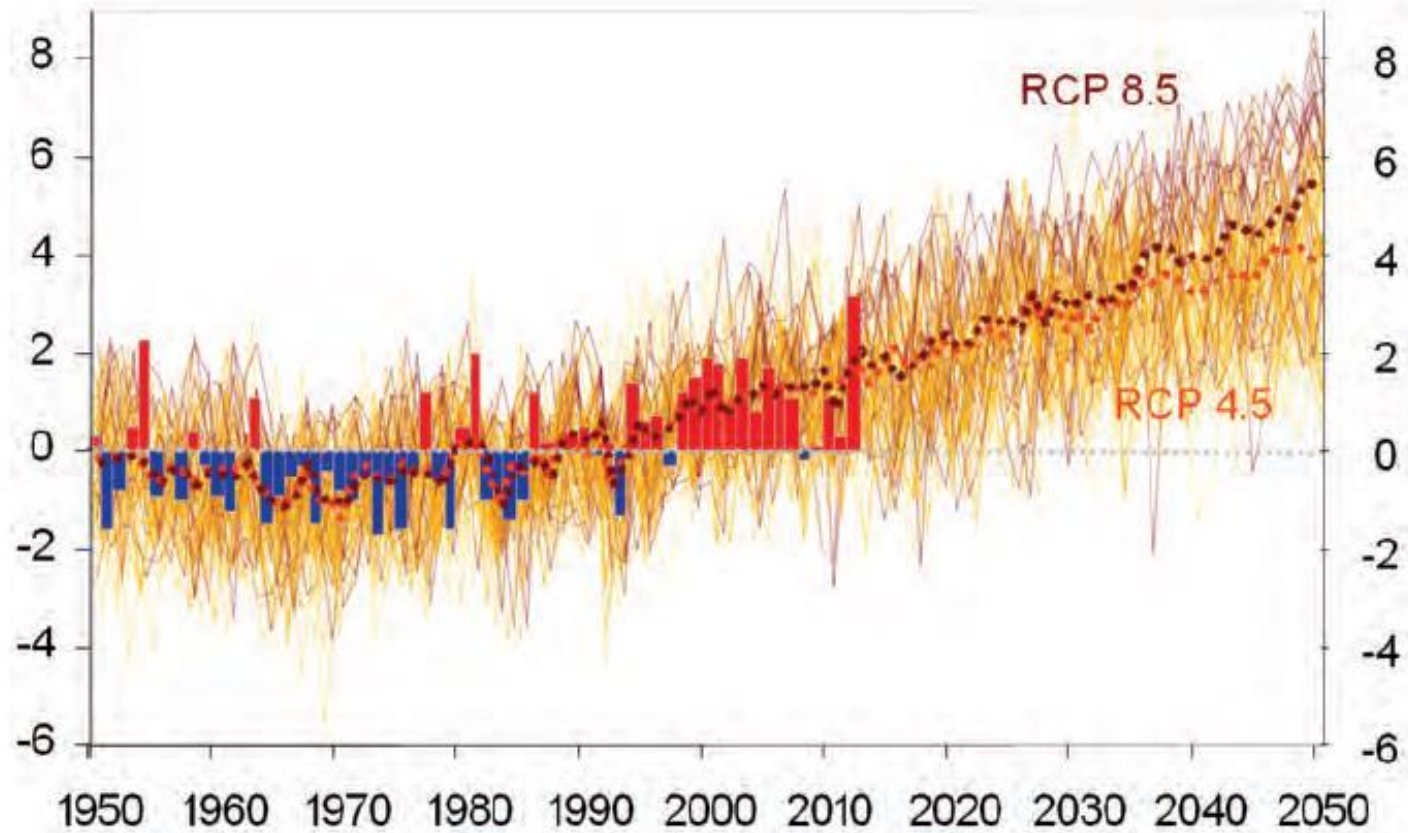
Colorado's  
Emissions  
Profile by  
Sector, 2014

Exhibit ES-2 Summary of Colorado GHG Emissions by Emission Sector (MMTCO<sub>2</sub>e)  
SIT Model Runs 1990-2030



**Figure 1-1**

**Observed annual temperatures** are shown as red and blue bars relative to a 1971-2000 baseline. Projected temperatures are shown by yellow lines (middle-emission scenario; RCP 4.5) and red lines (high emissions scenario: RCP 8.5). The heavy dashed lines are the average projection for each emissions scenario.



Source: Adapted from Lukas et.al, Climate Change in Colorado, 2014

Colorado Observed and  
Projected Annual Temperatures



## Precipitation—More Extreme and Wet

- North and northwestern parts of the state are likely to see an increase in precipitation, while areas of south and southwest Colorado will experience a decrease.
- More precipitation will come in the form of rain rather than snow, reducing snowpack and limiting stream flows in warm months.
- Droughts may become longer and more intense in coming years.

### Snowfall as Share of Winter Precipitation

Projections with high emissions

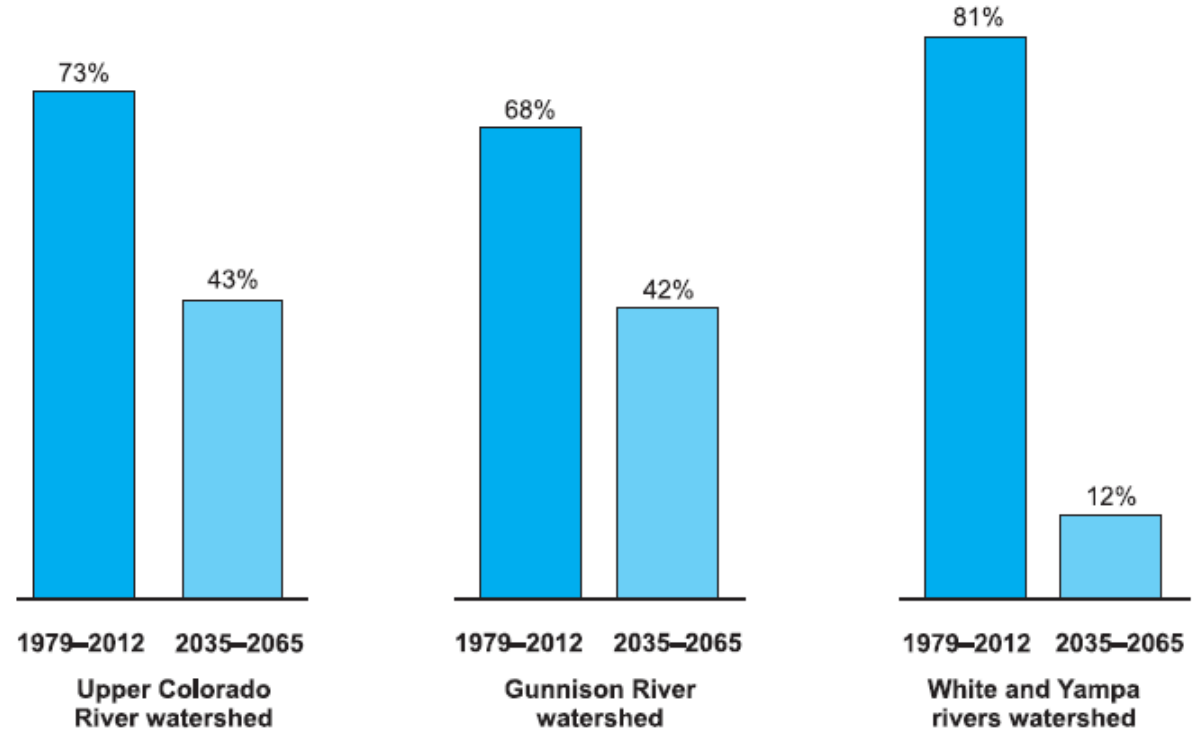


Figure 5. The share of winter precipitation falling as all snowfall in the indicated watersheds. For 2035–2065, shown are averages of 20 projections based on a high rate of future heat-trapping emissions (see page 8). The remaining share of winter precipitation is either mixed snowfall/rainfall or all rainfall. Data from Klos (2017).<sup>58</sup> The watersheds are as defined by the U.S. Geological Survey.<sup>59</sup> The Upper Colorado River watershed is of the main stem of the Colorado River in Colorado and its immediate tributaries. The White and Yampa watershed contains the drainages of both rivers, and the values shown are combined averages across both.



# Real-world impacts

- Higher average seasonal temperatures allow for greater migration and impact from pine beetles and other pests
- Drier and hotter summers can lead to more severe wildfire situations
- Impacts of extreme temperatures on air quality, health, and vector borne diseases are also predicted to become more intense in the coming years.





## Summit County's Forecast

- Higher elevations and Summit County's position in the Rocky Mountains may prevent some of the most extreme impacts of rising temperatures and changes in precipitation from being felt.
- However, temperature and precipitation changes and reduced snowpack will still have an impact locally.

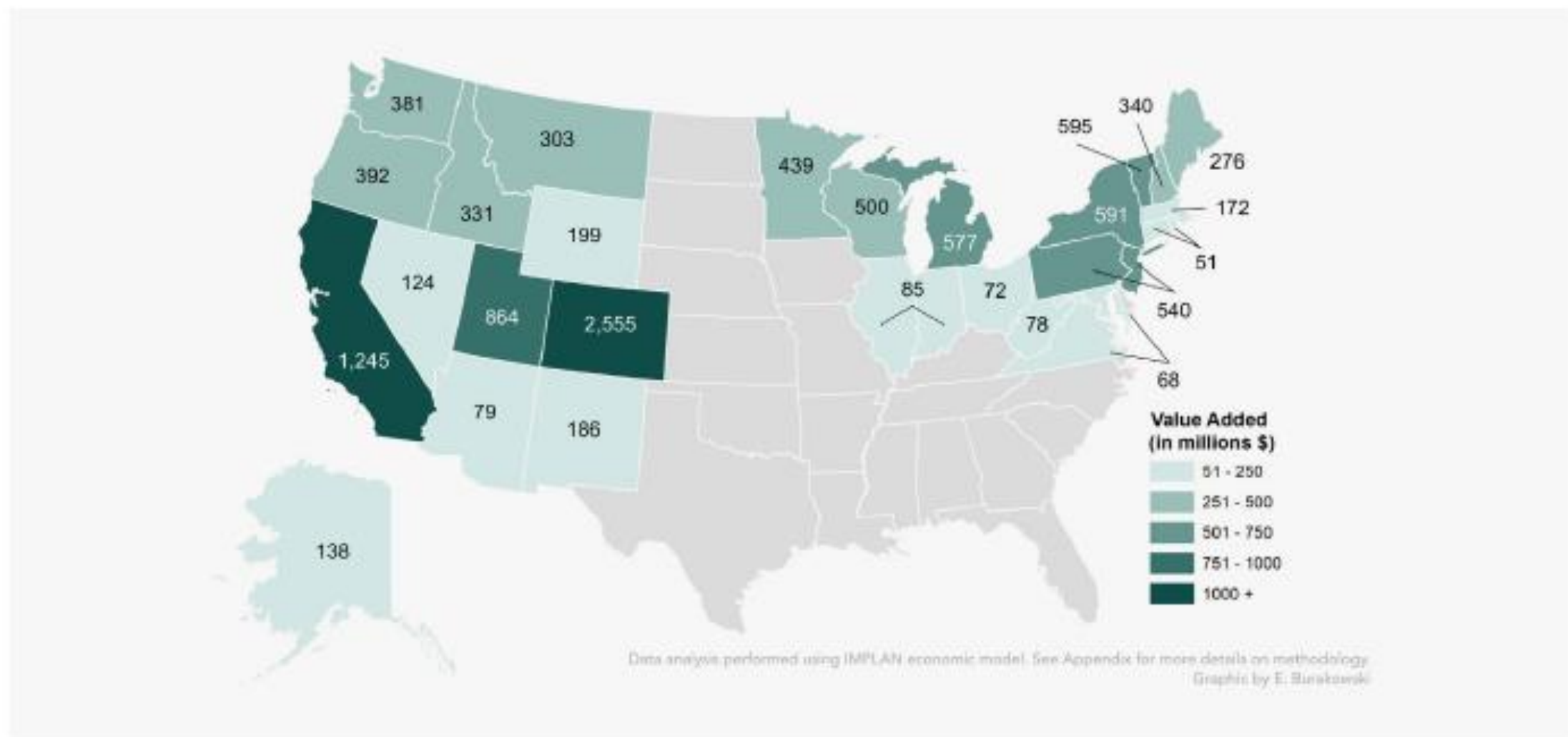


Figure 2. Map of value-added (referenced on p. 13)



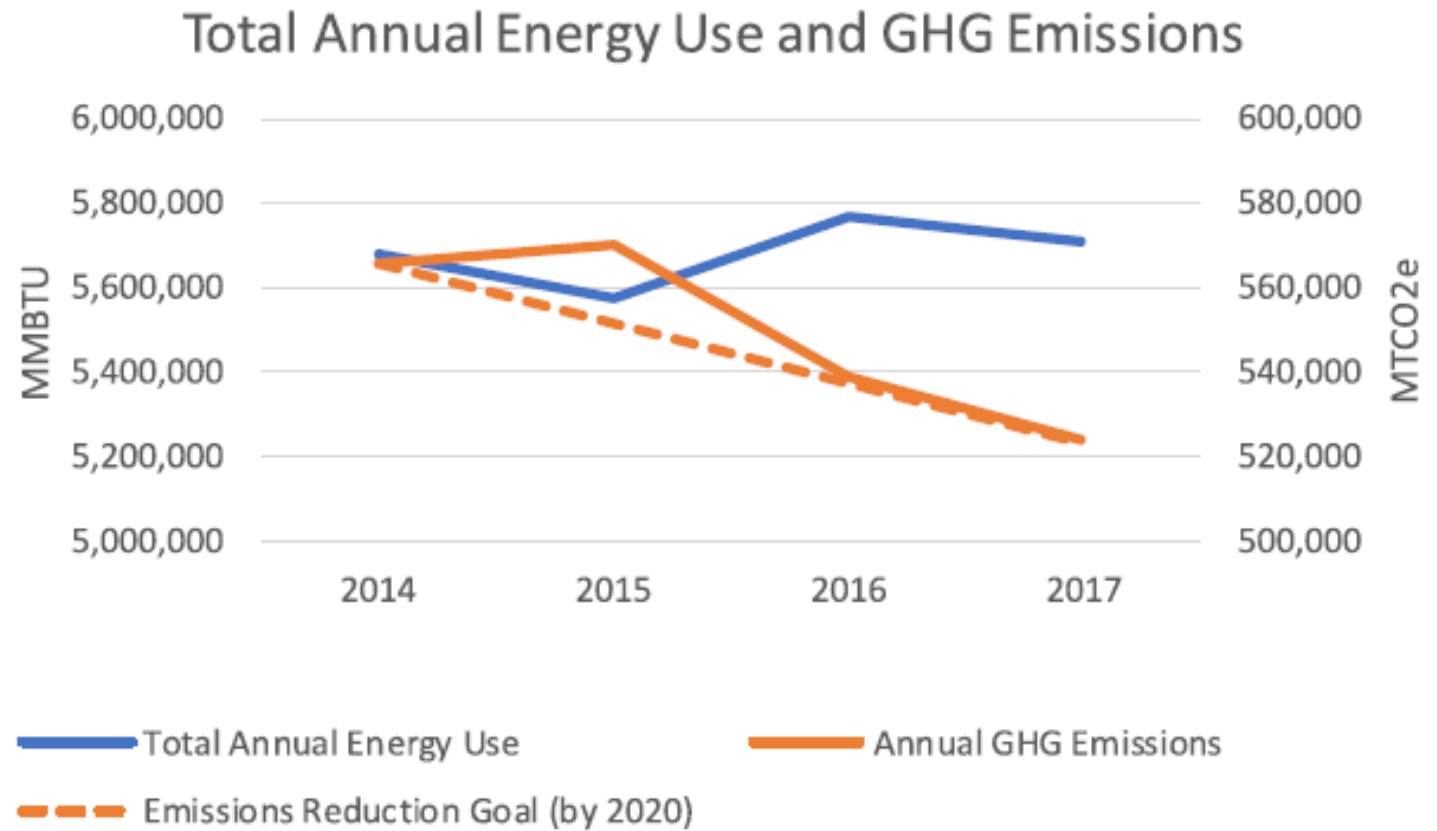
## Winter and Summer Tourism

Decreased snowpack will effect winter tourism, as ski season become shorter and less predictable.

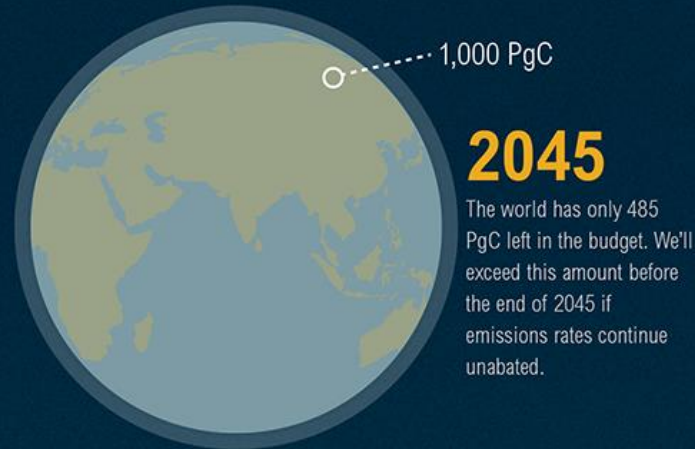
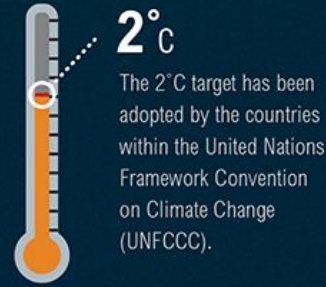
Summer tourism is also expected to be impacted by increased temperatures and reduced ecosystem biodiversity, leading to less optimal fishing, hunting, and boating conditions



## Summit County trends



The carbon budget is the estimated amount of carbon dioxide the world can emit while still having a likely chance of limiting global temperature rise to 2°C above pre-industrial levels. The international scientific community estimates this budget to be 1 trillion tonnes of carbon (1,000 PgC).\*



## Our Collective Goal

- Global consensus (agreed to in the Paris Climate Accord negotiations) is that every effort should be made to reduce emissions such that global temperatures do not rise more than 2 degrees. In this case, less is certainly better—the more we can limit emissions and massive temperature increases, the better!
- Every reduction in emissions will help drive towards this goal, and our constantly improving technology solutions and improved policies at the local level have a BIG impact!



The background image shows a vast solar farm with rows of solar panels stretching into the distance. The panels are tilted towards the sun, which is visible in the upper left corner, creating a bright lens flare. The landscape is a mix of dry grass and some green patches, with a wooden fence in the foreground. In the far background, there are mountains under a blue sky with scattered white clouds. A semi-transparent white circle is overlaid on the left side of the image, containing the title and list.

# The Power of Communities

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- There is a big support network both locally and internationally for communities who want to tackle this problem
  - Compact of Colorado Communities
  - Global Covenant of Mayors for Climate and Energy
  - Climate Mayors
  - C40
- Colorado communities are moving in the right direction

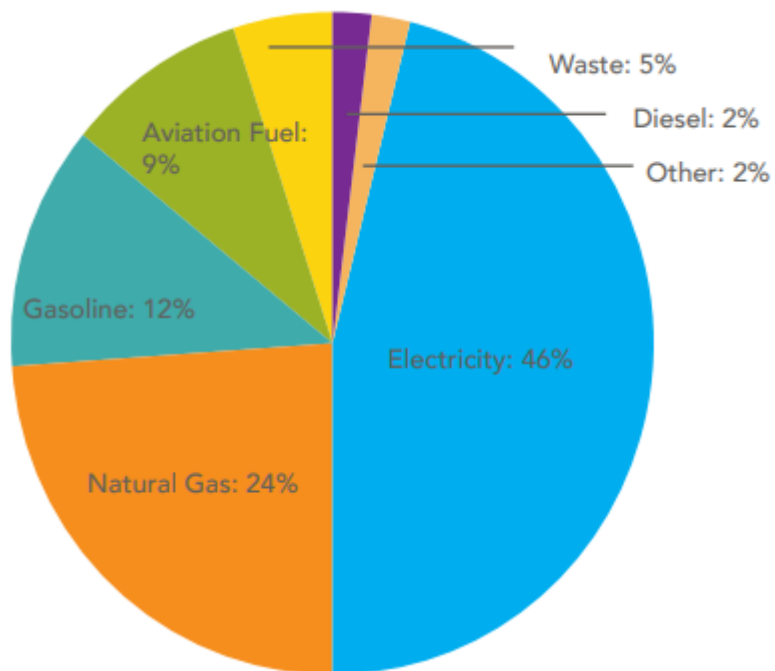




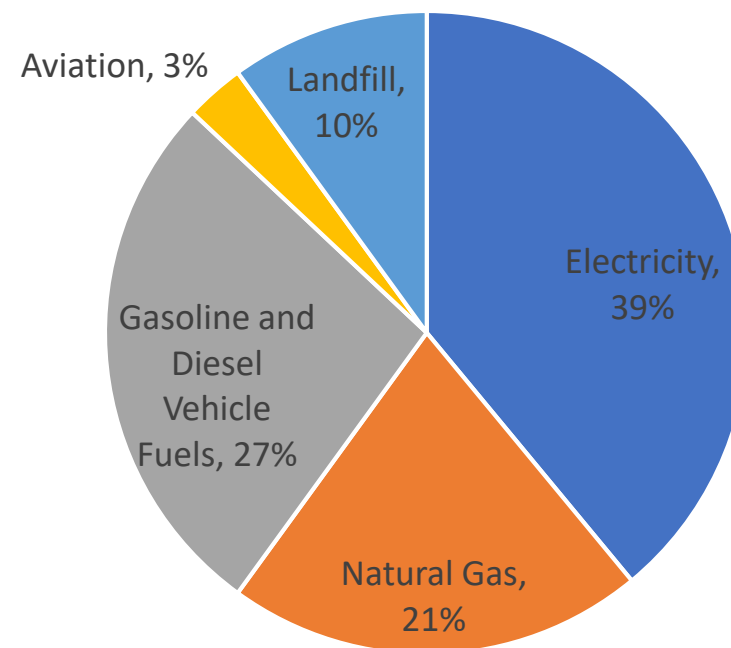
© Edward P.K. 2016

# Preliminary Estimates of GHG Emission in Summit County | 2017

# Pitkin County, 2014



# Eagle County, 2014





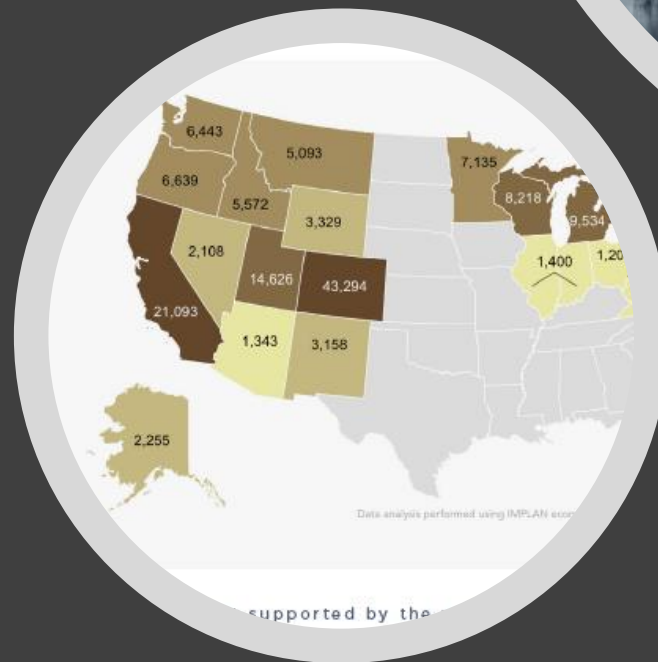


Final Deliverable | 2017



## Other Benefits of Taking Action Now

- What are the additional ancillary benefits from addressing climate change and reducing emissions could we realize as a community?
- Think big picture—how will our decisions impact the economy, health, and our ecosystems?



# How quickly should we act?

Time Frame	Short	Mid	Long
Target Year	2025	2030	2050
Types of Strategies	<ul style="list-style-type: none"><li>• Projects and programs that can be immediately implemented</li><li>• Policies with near-term impacts</li></ul>	<ul style="list-style-type: none"><li>• Projects and programs that require greater buy-in from multiple sectors</li><li>• Policies that require more extensive vetting</li></ul>	<ul style="list-style-type: none"><li>• Projects and programs that require extensive study; may be developed and implemented prior to the target year but have long-range impacts</li><li>• Policies may be adopted in the near-term but have long-ranging impacts</li></ul>

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# Report Goals

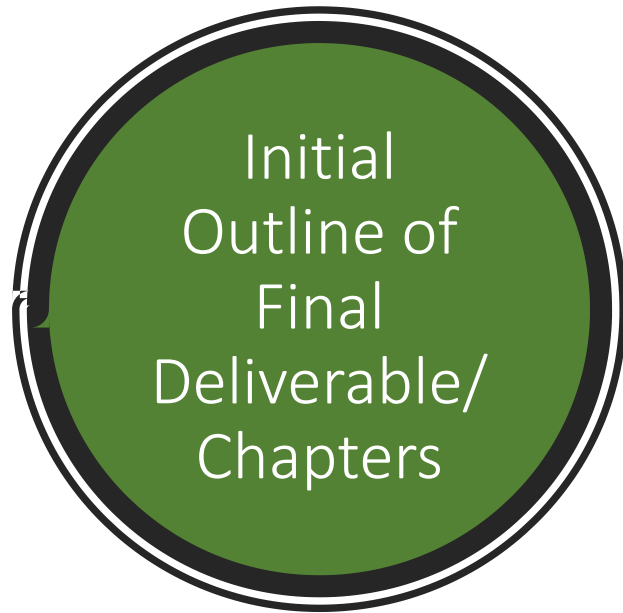
- What is valuable outcome for you?
- What do you want to get out of this for your organization?
- How do we ensure you remain engaged when project is finished?





# Overview of Final Report

- Length – 20 to 30 pages
  - Clean, crisp, readable
  - Lots of visuals
    - Make sure graphics speak for themselves
  - Not too much text
  - Avoid Appendices
- 



- Letter from Steering Committee with Signatures
- Introduction/Overview of Process/Why create a plan
- Greenhouse Gas Inventory
- Emission Reduction Goals
- Topics
  - Energy Efficiency and Renewable Energy
    - Goals, Targets, and Strategies
  - Transportation
    - Goals, Targets, and Strategies
  - Waste and Recycling
    - Goals, Targets, and Strategies
  - Forestry and Land Use
    - Goals, Targets, and Strategies
- City and Town Specific Goals and Strategies
- References
- Acknowledgments
- Acronyms and Definitions





© Edward PK 2016

| Next Steps



# Next Steps

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- Set dates for upcoming meetings
- Before Next Meeting
  - Lotus will finalize the GHG inventory
  - Lotus will meet with Expert Groups