



DENVER
THE MILE HIGH CITY

Climate Considerations in Denver

Thomas Herrod

Dept. of Environmental Health

Why is Denver interested in Climate?



THE UNITED STATES
CONFERENCE OF MAYORS

“If there is only a 3 percent chance that 95 percent of the world’s top scientists are right about the consequences of climate change, we all have a responsibility to act now. Denver remains committed to leading by example.” ~Mayor Hickenlooper, 2007



COMPACT
of **MAYORS**

“We have a responsibility to protect and preserve our quality of life in Denver, and that means taking aggressive steps to combat climate change. We will not shrink from that responsibility. This issue calls for actions now, not inactions that will only slow progress and increase risk to our people here and around the world. . . . We will continue to aggressively pursue our goal of reducing emissions 80% by 2050.” ~Mayor Hancock, 2017

Climate Mitigation

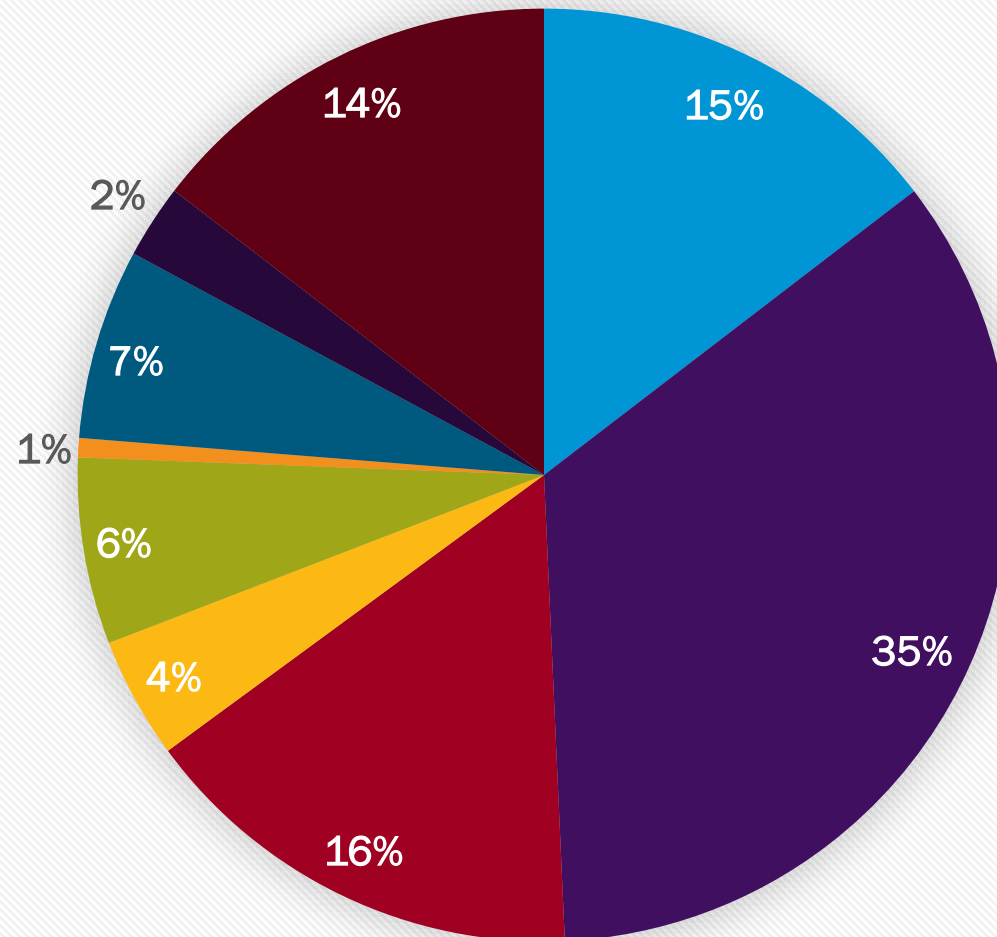
- Reduction or prevention of greenhouse gas emissions.
 - Energy Efficiency
 - Lowering emissions/kWh of electricity
 - Increased Public Transportation
 - Enhancing greenspace for walking, biking, carbon sequestration

Climate Adaptation

- Prepare for and adjust to current and future impacts of climate change.
 - Recognize climate change impacts on building design (more cooling required or increased setbacks near waterways)
 - Availability of cooling, either natural (trees, parks) or man-made (cooling centers, pools)
 - Upgrade stormwater & transportation infrastructure to withstand changes in precipitation and heat.

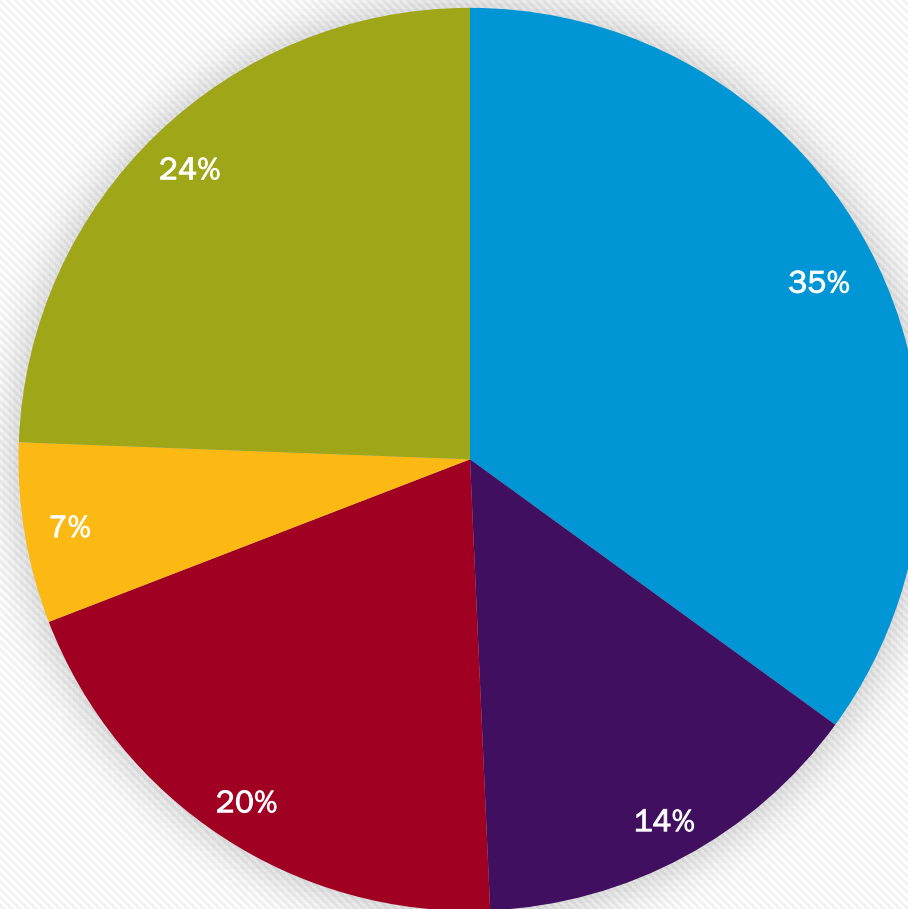
Climate Mitigation - Measurement

Denver 2015 Community-wide
GHG emissions 12,788 thousand mt-CO₂e



- Residential Energy Use
- Commercial Energy Use
- Gasoline Vehicles
- Diesel Vehicles
- Air Travel
- Waste-MSW
- Fuel Production
- Cement
- Food Purchase

Denver GHG Emissions by Sector

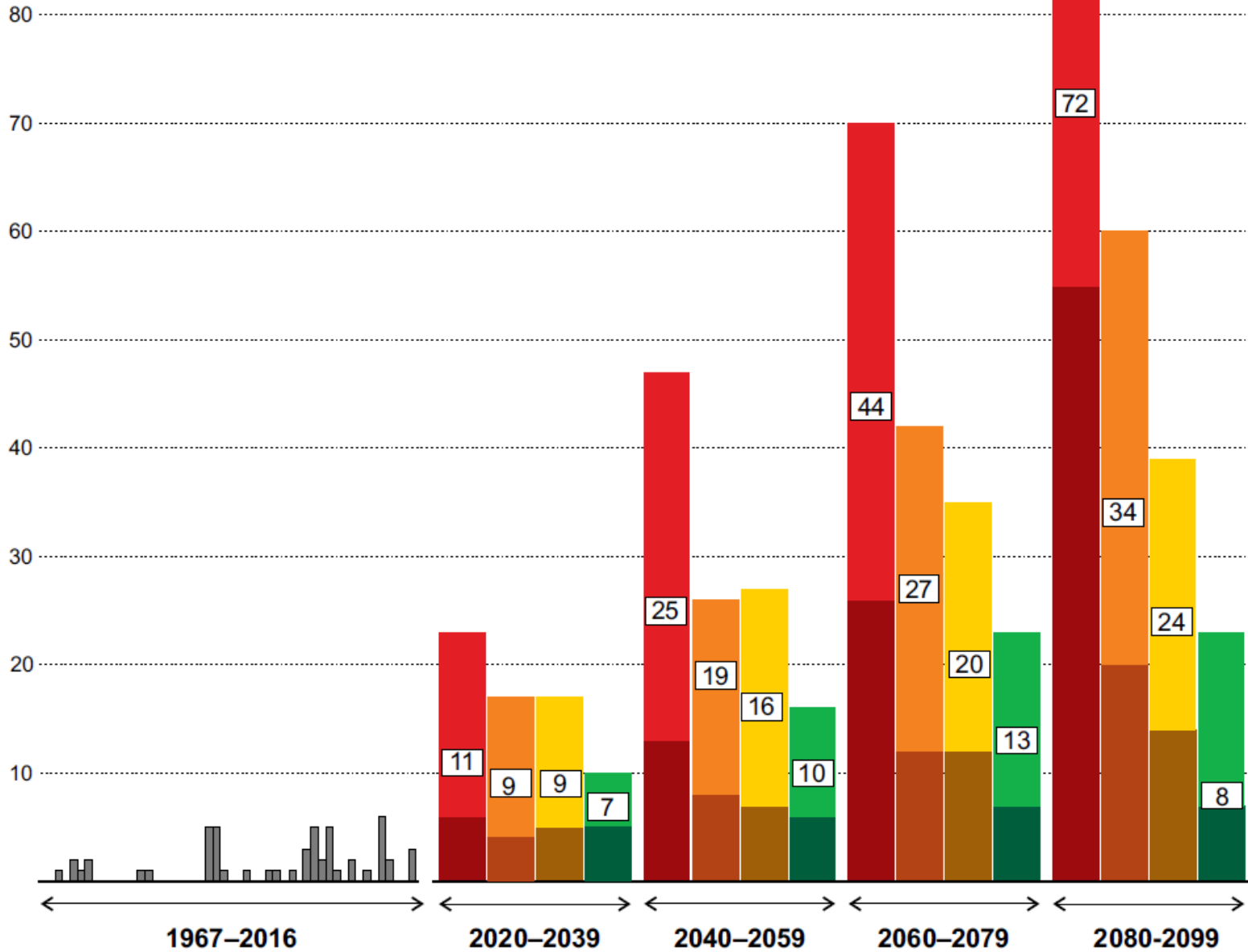


- Electricity
- Natural Gas
- Surface transportation
- Airline Travel
- Embodied Energy



DENVER
THE MILE HIGH CITY

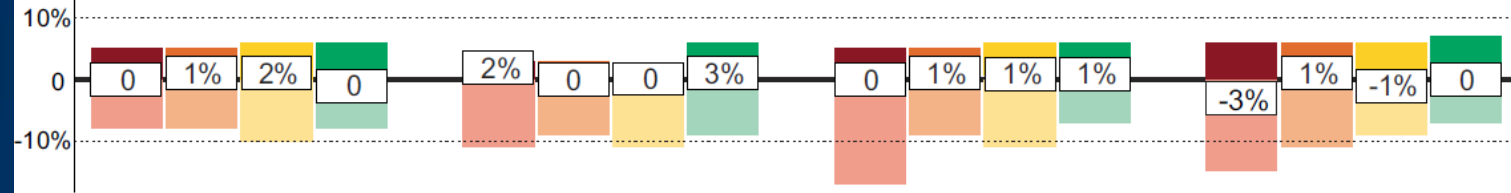
Days 100° or hotter in *extreme years* Projections for the hottest year in each 20-year period



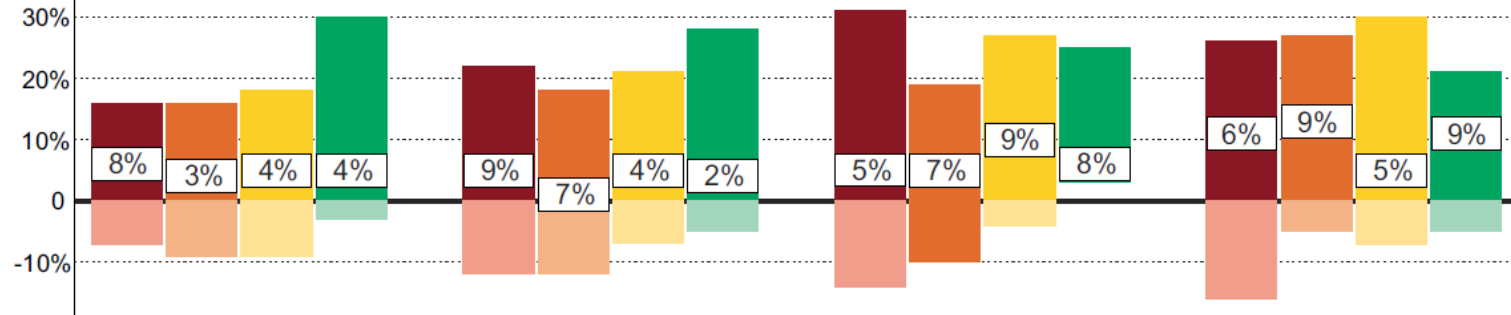
**Denver's
Future
Climate**



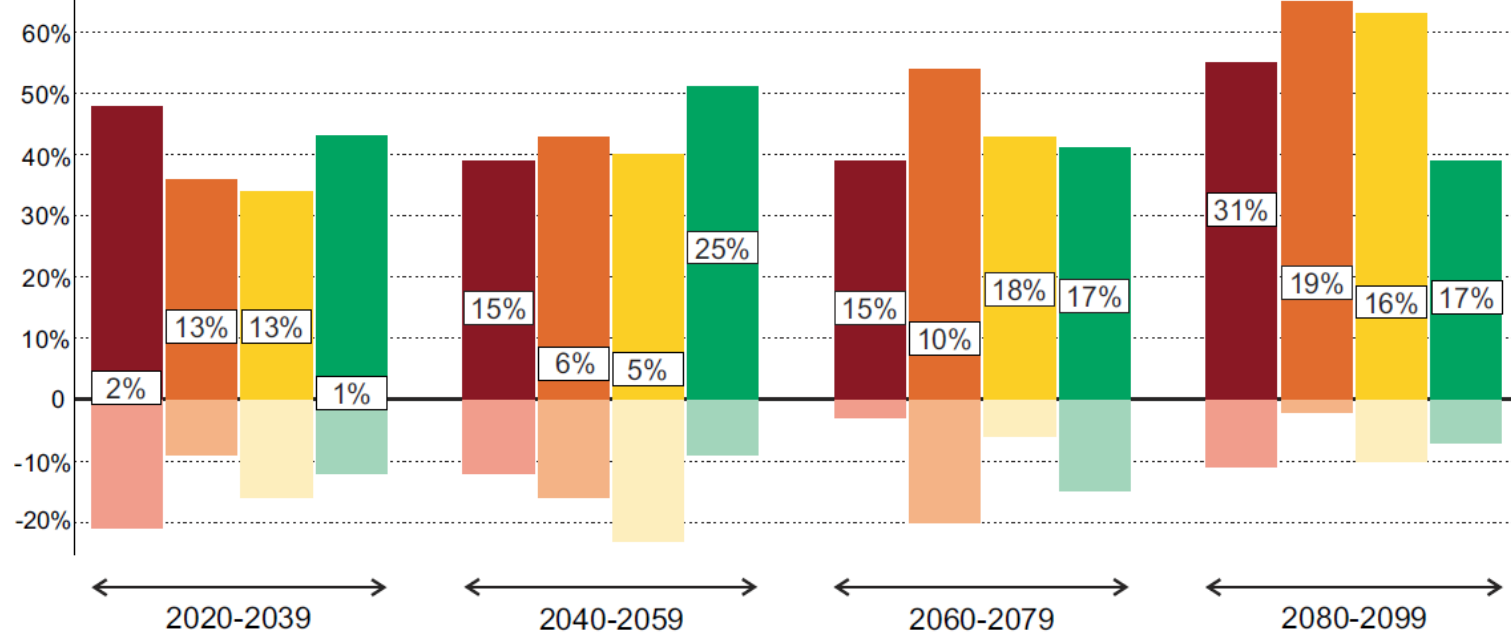
Under 1/4 inch per day



1/4 to 1/2 inch per day



1/2 inch and more per day



- Considerations
 - Resilience
 - Development
 - Transportation
 - Life Cycle and Cost of Carbon