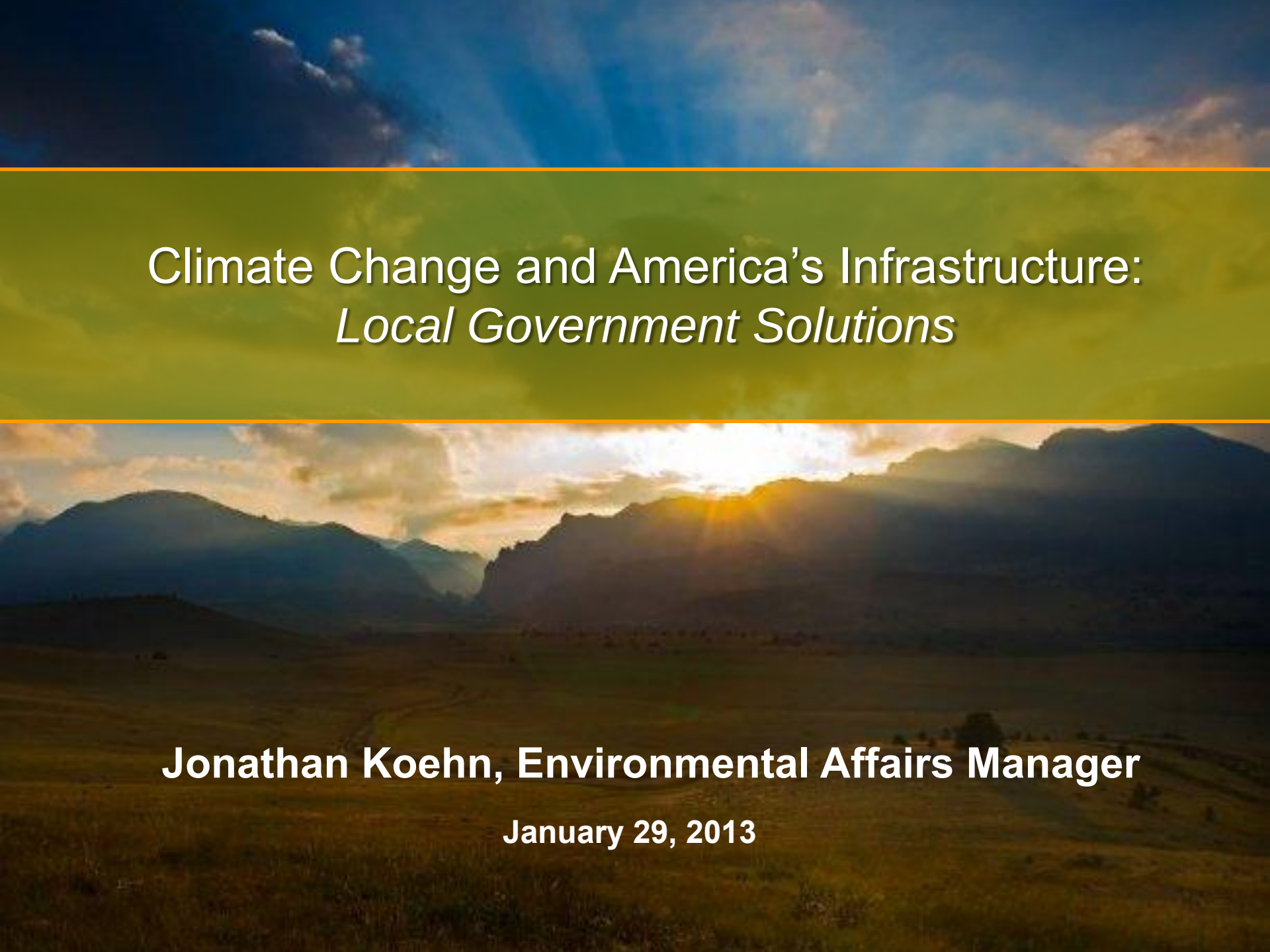




Climate Change and America's Infrastructure: *Local Government Solutions*

Jonathan Koehn, Environmental Affairs Manager

January 29, 2013

Boulder, Colorado, USA



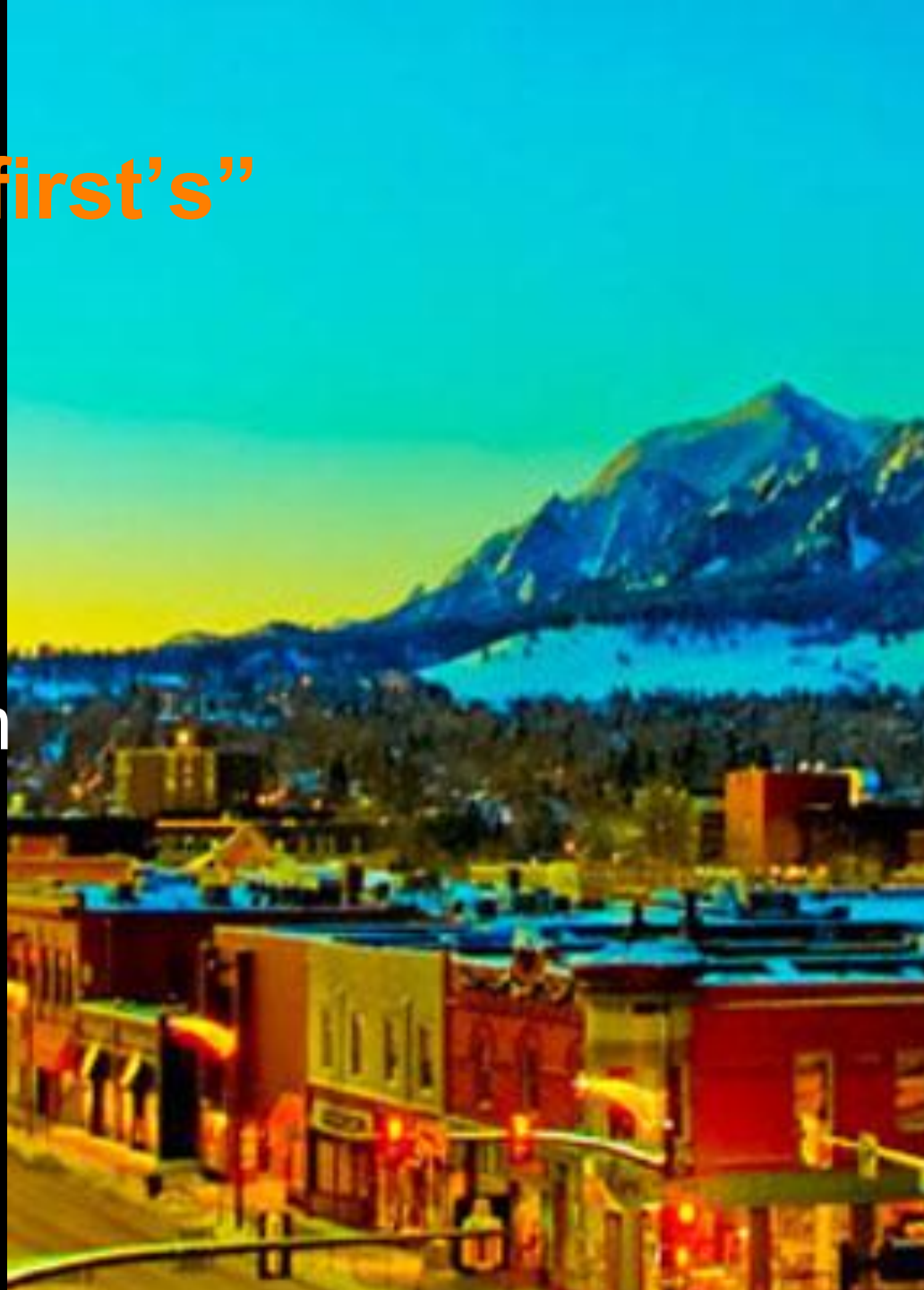
Boulder Basics

- 25 m from Denver
- 103k residents
(280k in county; 4.3 million in front range urban area)
- ~50k daily in-commuters
- ~100k jobs / 6% unemployed
- 25 square m of urban area
- 95 square m of open space



A Community of “first’s”

- First to tax itself for the preservation of open space
- First mandatory green building requirements
- First Carbon Tax in US
- First SmartGrid?



2009 Community Guide to Boulder's

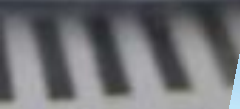
Climate ACTION PLAN



- Progress Report
- 2009 Strategies and Programs
- Paths to the Goal
- What You Can Do



THOU



| 5 |

COLORADO CLIMATE PREPAREDNESS PROJECT FINAL REPORT

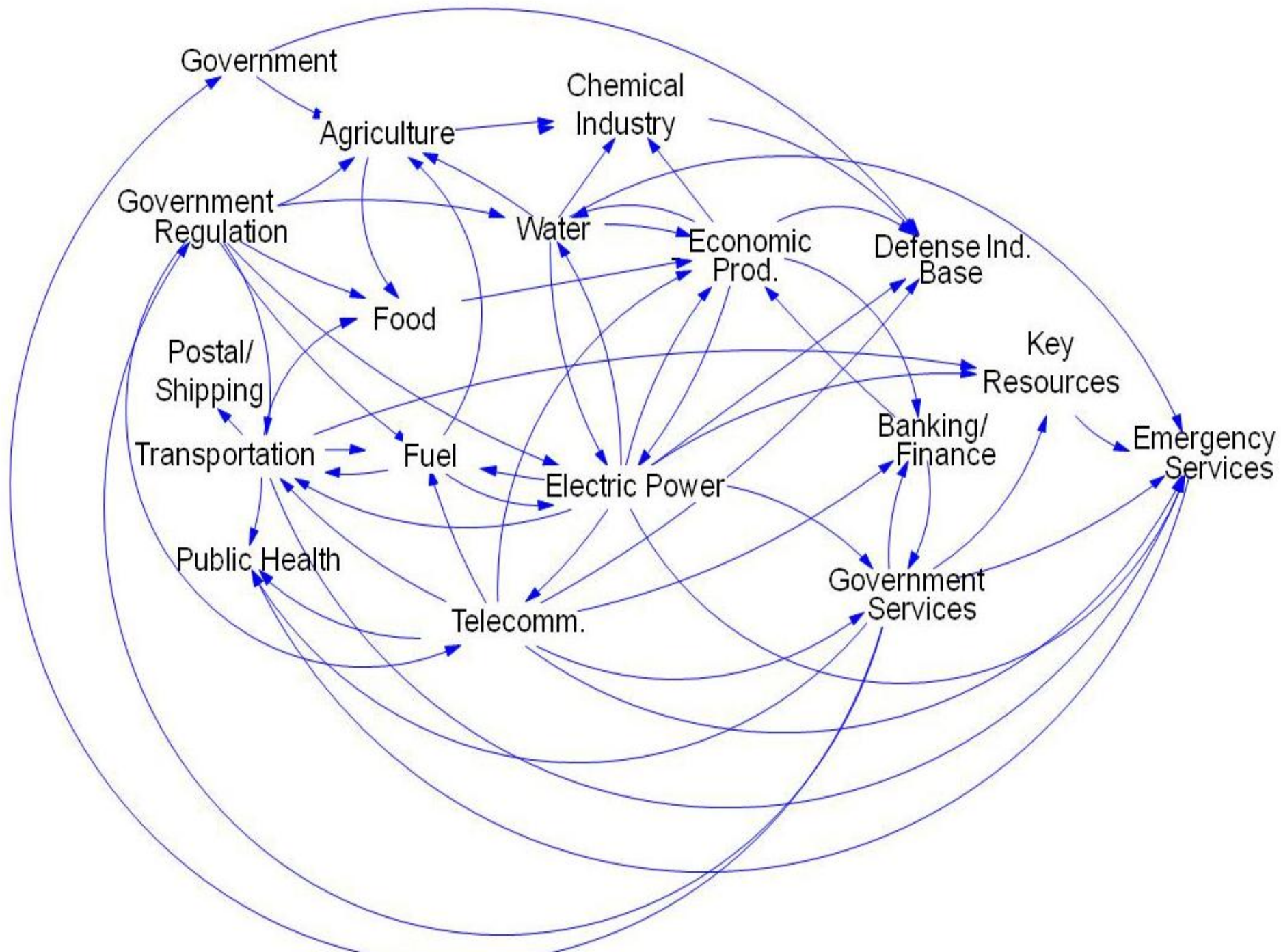
Prepared by
the Western Water Assessment
for the State of Colorado



STRATUS CONSULTING

**Boulder County Climate Change
Preparedness Plan
Draft**

Prepared for:
Boulder County and the City of Boulder



What does a changing climate mean to Boulder?

- High water and energy demands/cost
- Impacts on vulnerable populations (cooling, working conditions, inadequate housing, etc.)
- Effects on built environment
 - Design considerations (buildings, stormwater management, pavement, etc.)
 - Extreme weather impacts (housing, transportation, cooling systems, etc.)
- Livability/Health
 - Air and water quality impacts (ozone, particulate)
 - Recreation
 - Habitat (people, plants, animals)
- Economic impacts (tourism, transportation /business disruption)

A changing climate means:

- Earlier and faster snowmelt
- Drier conditions on the front range



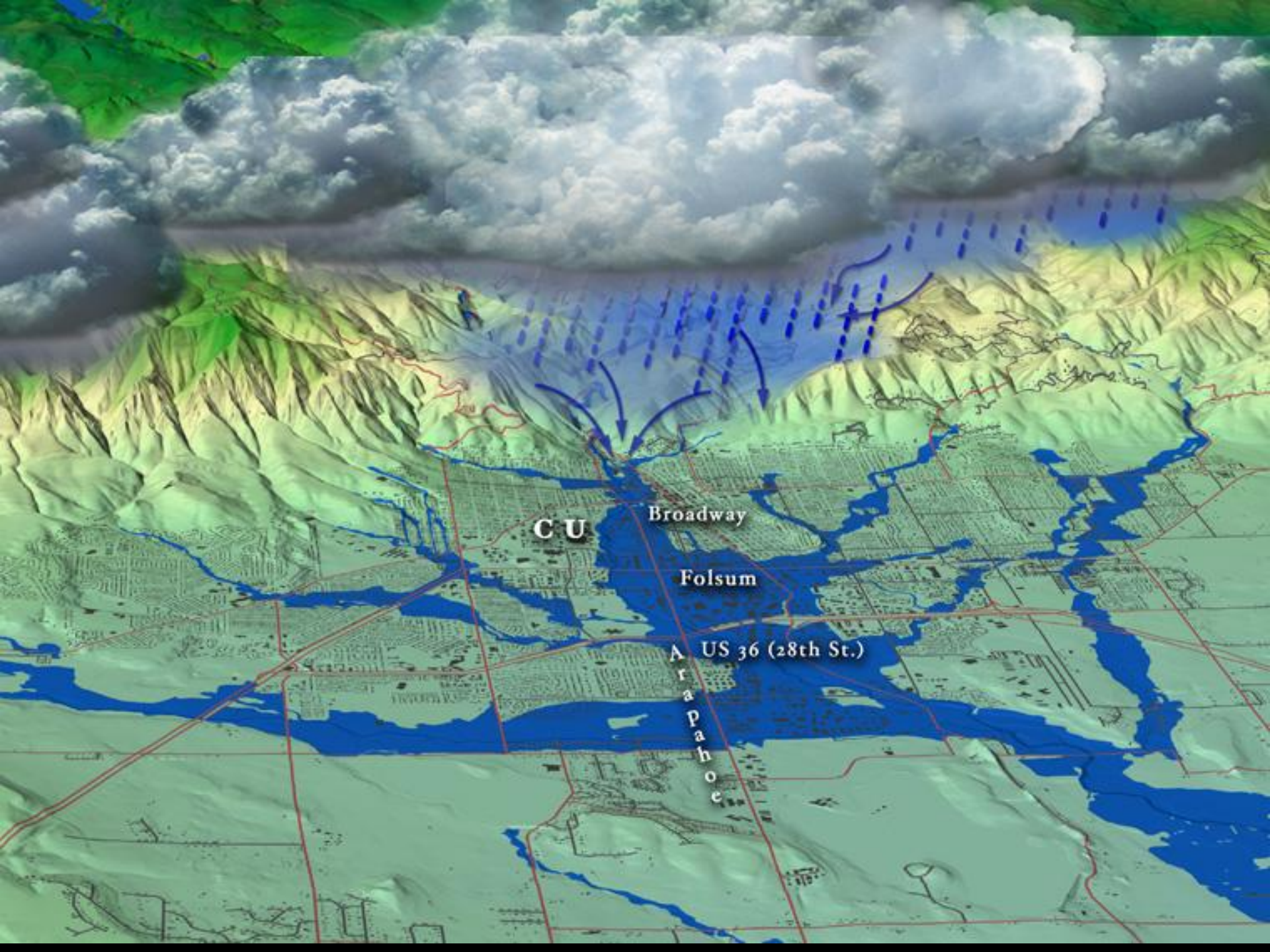




A changing climate means:

- Earlier and faster snowmelt
- More severe weather events

**FLASH
FLOOD
SAFETY**
BOULDER, COLORADO



Flood Mitigation Program

City of Boulder's flood management program has been in place for more than 30 years:

- Mapping of floodplains
- Regulate floodplain development
- Reduce flood hazard
- Help residents prepare for an emergency situation.
- Federally-subsidized flood insurance to all residents through the National Flood Insurance Program (NFIP).



Flood Mitigation Projects

- Boulder Creek Flood Mapping Study
- South Boulder Creek Flood Mapping Study
- South Boulder Creek Flood Mitigation Study
- Comprehensive Flood and Stormwater Master Plan Update
- Critical Facilities and Mobile Populations Ordinance
- Fourmile Canyon Creek
- Greenways Program
- Multi-Hazard Mitigation Plan
- Skunk Creek Letter of Map Revision Project
- Wonderland Creek Greenways Improvement Project
- Wonderland Creek (Diagonal Highway to Winding Trail) Greenways Improvement Project
- Wonderland Creek (Foothills Parkway to 30th Street) Greenways Improvement Project





More Info

1777 Broadway

Find

- ☐ Cross Sections
- ☐ High Hazard Flood Zone
- ☐ Conveyance Flood Zone
- ☐ 100/500 Year Flood Zones

- ☐ FEMA Base Flood Elevation Lines
- ☐ FEMA Cross Sections
- ☐ City High Hazard Flood Zone
- ☐ City Conveyance Flood Zone
- ☒ FEMA 100/500 Year Flood Zone

Change Flood Layer Transparency

Basemap Layers ▼









Boulder's
ENERGY
FUTURE

You Have the Power to Decide



Setting a Course for the Future



What Are We Trying to Achieve?



- Respond in a responsible and pro-active manner to a changing energy economy
- Reduce our exposure to fluctuating energy prices and long-term fuel availability issues
- Reduce our greenhouse gas emissions
- Maximize the local benefit of our energy investments
- Create more choice and more competition, and position Boulder as a center for energy innovation

Local Utility – Big Picture



Potential benefits of a local utility

- Local management
- Emphasis on long-term community goals
- Lower electricity rates with equal or greater reliability
- Not for profit
- Opportunities for innovation and partnership
- Local jobs creation
- Ability to tap wholesale electricity market
- Ability to develop large-scale local generation



Local Power



Benefits of local generation



Energy self-reliance/independence

- Stabilize long-term energy prices
- Reduce volatile fossil-fuel price risks
- Ensure *reliable* supply during emergencies/outages
- Support energy security and community security

Local Economic Development

- Supports local jobs creation
- Keeps energy dollars local

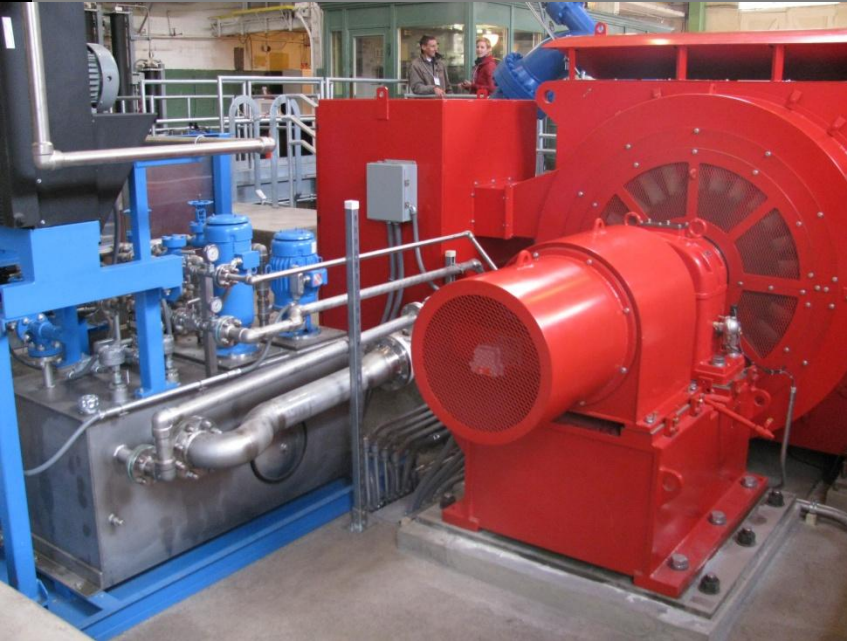
Environmental Benefits

- Improve Air Quality (reduction in NO_x , SO_x)
- Climate Change/GHG emissions

Boulder Solar-12MW



Boulder hydroelectric-15MW



Boulder wind

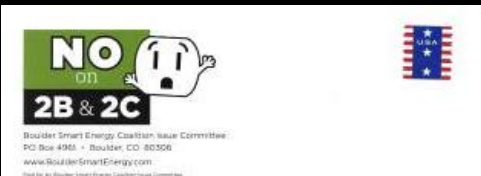


Boulder-new technologies



- Micro-grids
- Vehicle-to-grid
- Reactive Power
- Waste-to-energy

Ballot Issues 2B & 2C



Boulder's energy future is tied to rates, reliability and renewables.

But with a City-owned power utility. . .

- ⚠ No guarantees on competitive rates, which will be set by City Council
- ⚠ No guarantees on stable, safe and reliable energy supply
- ⚠ No guarantees that we will increase our renewables or improve our energy efficiency

City Council wants citizens to give them a blank check to condemn and purchase the power system - but with no chance to ever vote again on such a costly, high-risk undertaking.

Vote NO on Issues 2B & 2C, because giving a blank check to City Council is the wrong way to achieve our energy goals.

Learn more about these risky ballot issues at www.bouldersmartenergy.com.



Take-a-way's



- Water and energy cross-cutting theme for multiple climate issues
- Coordination across multiple boundaries is critical
- Need regular assessment of climate threats and vulnerabilities to ID adaptive opportunities

Contact



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