



Responding to Shocks and Strengthening Regional Resilience

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COLORADO
Department of Local Affairs

CRO's Timeline

Wildfires and floods cause more than \$5 billion in damages, more than 3,000 homes destroyed, and-tragically, 17 lives lost

2012-2013

Colorado hosts the State's first Resiliency Summit and the Colorado Resiliency Working Group is formed

2014

Governor Hickenlooper signs the Colorado Resiliency Framework, establish a roadmap for building resiliency in Colorado

2015

Local Resiliency Frameworks developed for fire and flood-impacted communities along the Front Range

2015-2016

Web-based resiliency resource center launched online at www.coresiliency.com

2017

Colorado Disaster Emergency Act is updated to create the Colorado Resiliency Office under the Department of Local Affairs and mandate creation of a resiliency and community recovery program

2018

Formed the Long term Recovery Working Group to coordinate State recovery support to disaster-impacted communities

2018

Began the Colorado Resiliency Institutionalization Project to integrate resiliency into State departmental investments and operations

2018

Launched Resilient Colorado Communities Workshop series

2019

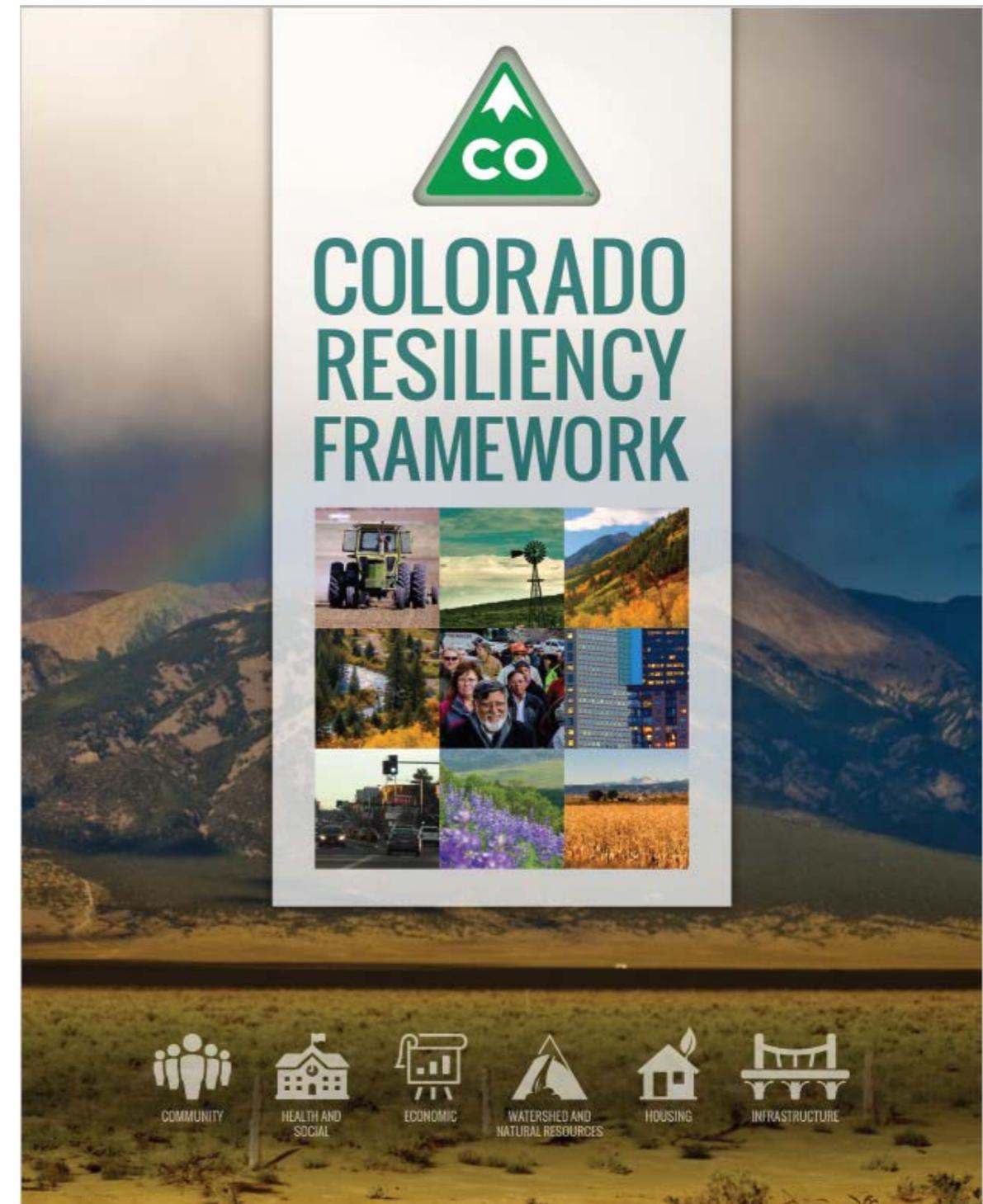
COLORADO'S RESILIENCY STORY



CRO's Role

Designated State lead for resilience.

- Provide State and local technical assistance to implement resiliency planning.
- Operate the State's resiliency and community recovery program
- Build resiliency into State investments and grants programs
- Develop metrics and targets for measuring success of resiliency efforts
- Support long-term recovery efforts after a disaster



Resiliency

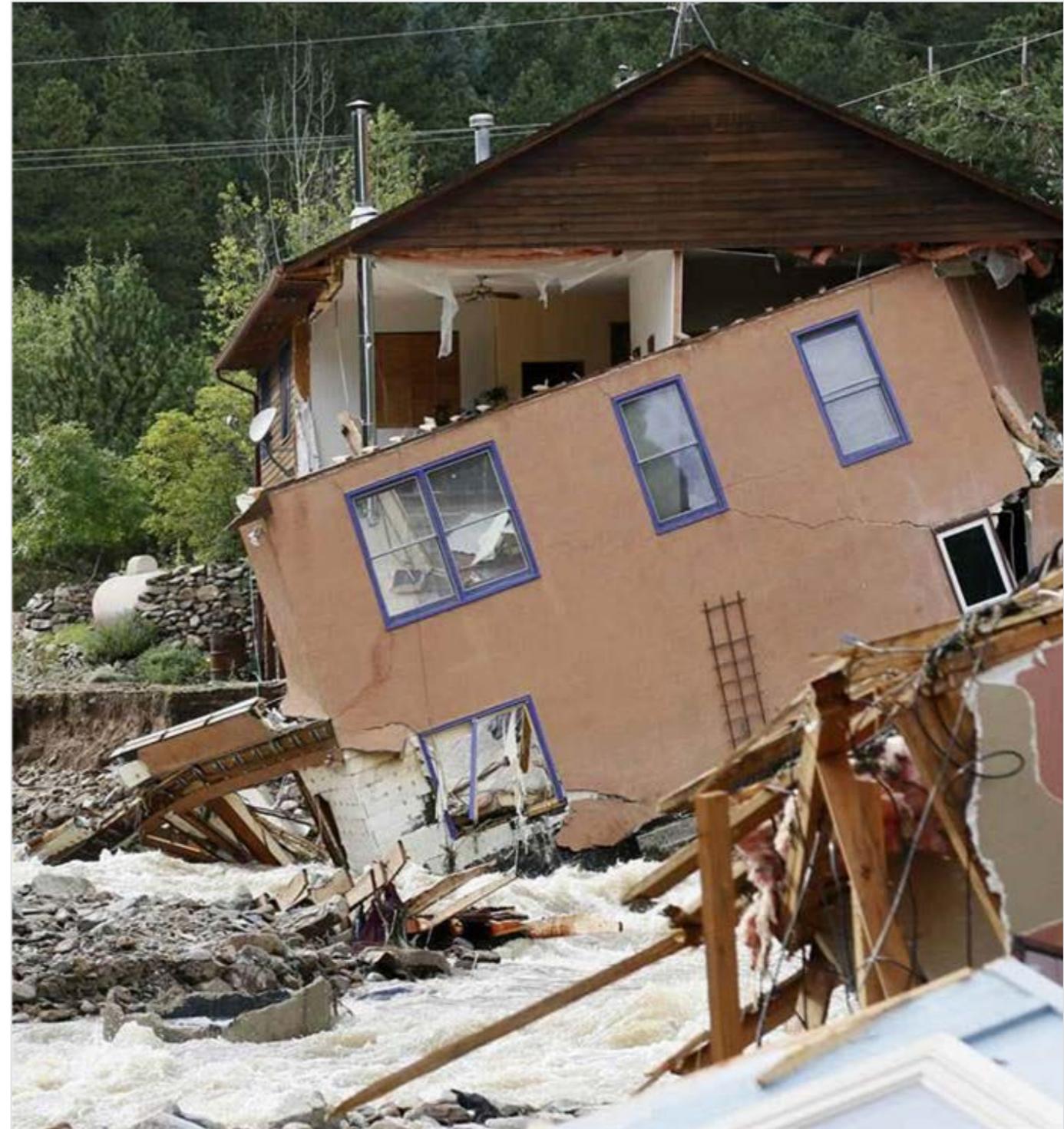
Resiliency is the ability of communities to rebound and positively adapt to or thrive amidst changing conditions or challenges—including disasters and changes in climate—and maintain quality of life, healthy growth, economic vitality, durable systems and conservation of resources for present and future generations.

– 2018 Update to the Colorado Disaster Emergency Act

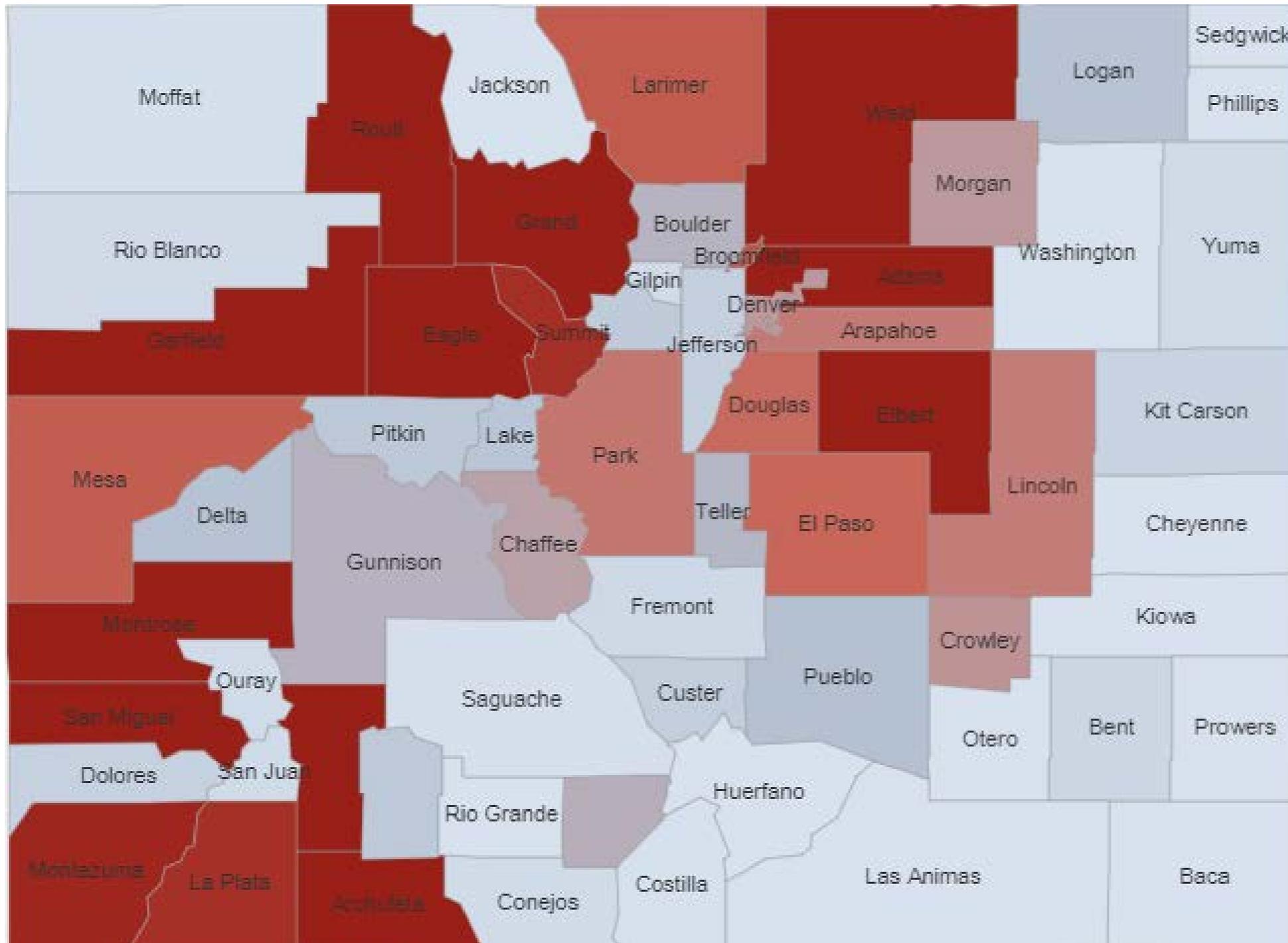


RESILIENT COMMUNITIES...

- Anticipate shocks and stresses
- Take actions to reduce risk using resources available
- Involve the whole community
- Work to remain flexible to adapt to unanticipated events, or “roll with the punches”
- Bounce forward after disasters



WHY RESILIENCY: POPULATION SHIFTS



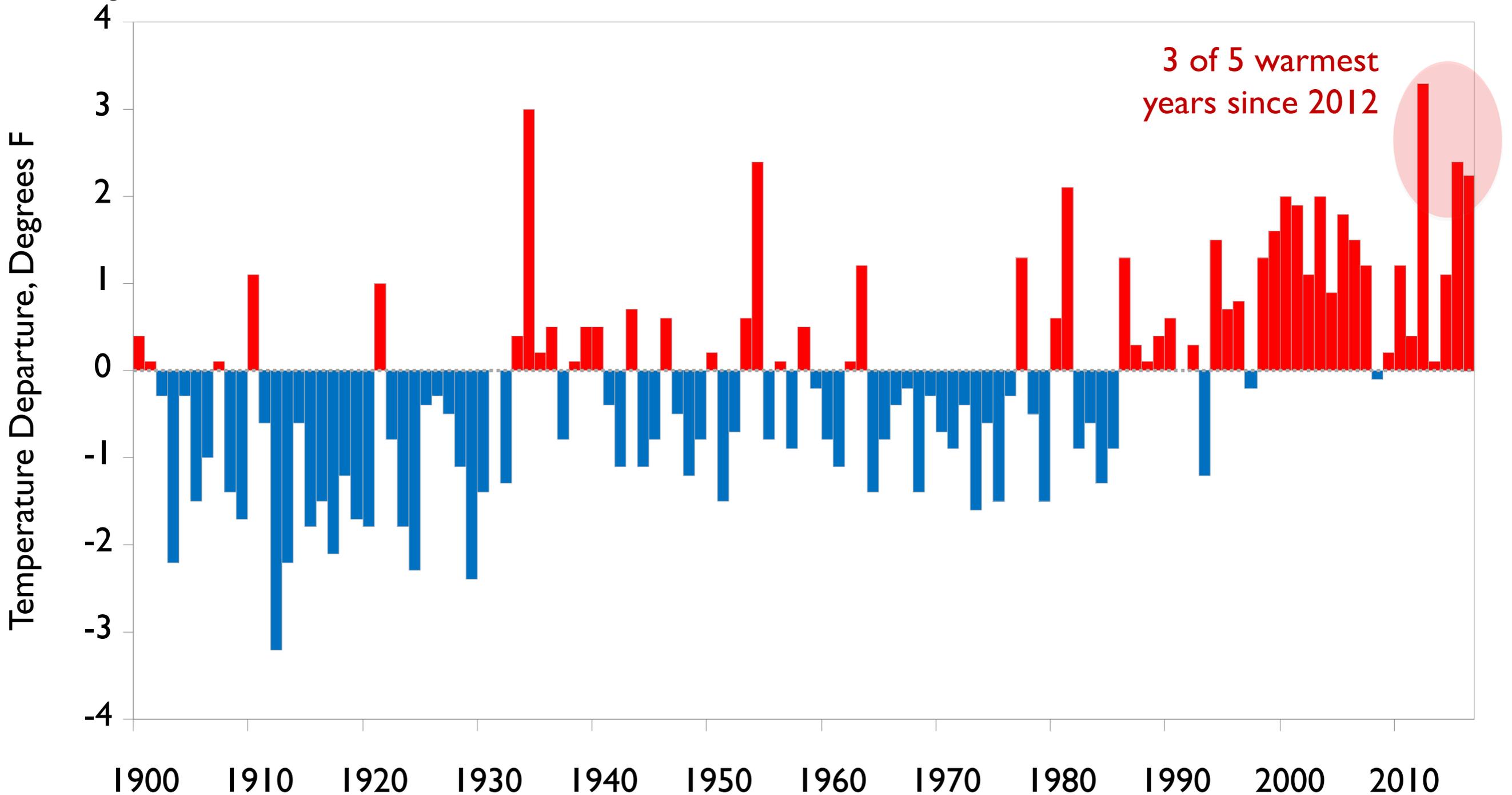
WHY RESILIENCY: DISASTERS

Disaster	Communities Impacted	Disaster Impacts
1965 Floods	Colorado Front Range (South Platte and Arkansas basins)	21 lives lost; \$540M damages (1965 dollars); resulted in construction of Chatfield and Bear Creek reservoirs
Big Thompson Flood (1976)	Primarily Larimer County between Estes Park and Loveland	8 inches of rain in a one hour period; 145 lives lost; 418 houses destroyed.
2002 Drought and Wildfires	Statewide. Major fires included Hayman, Coal Seam, Missionary Ridge and others	Hayman fire burned 137k acres; Missionary Ridge 70k acres
2012-2013 Wildfires	Statewide; large fires in Larimer, El Paso, Fremont counties and the San Luis Valley	More than 1100 homes destroyed, \$1.2B in insurance claims
2013 floods	24 counties impacted	10 lives lost; 1800 homes destroyed, \$3.9B in damages



WHY RESILIENCY: CLIMATE CHANGE

Colorado statewide annual temperatures have warmed by 2°F in past 30 years



HUERFANO COUNTY POST-FIRE FLOOD THREAT

Spring Creek Fire

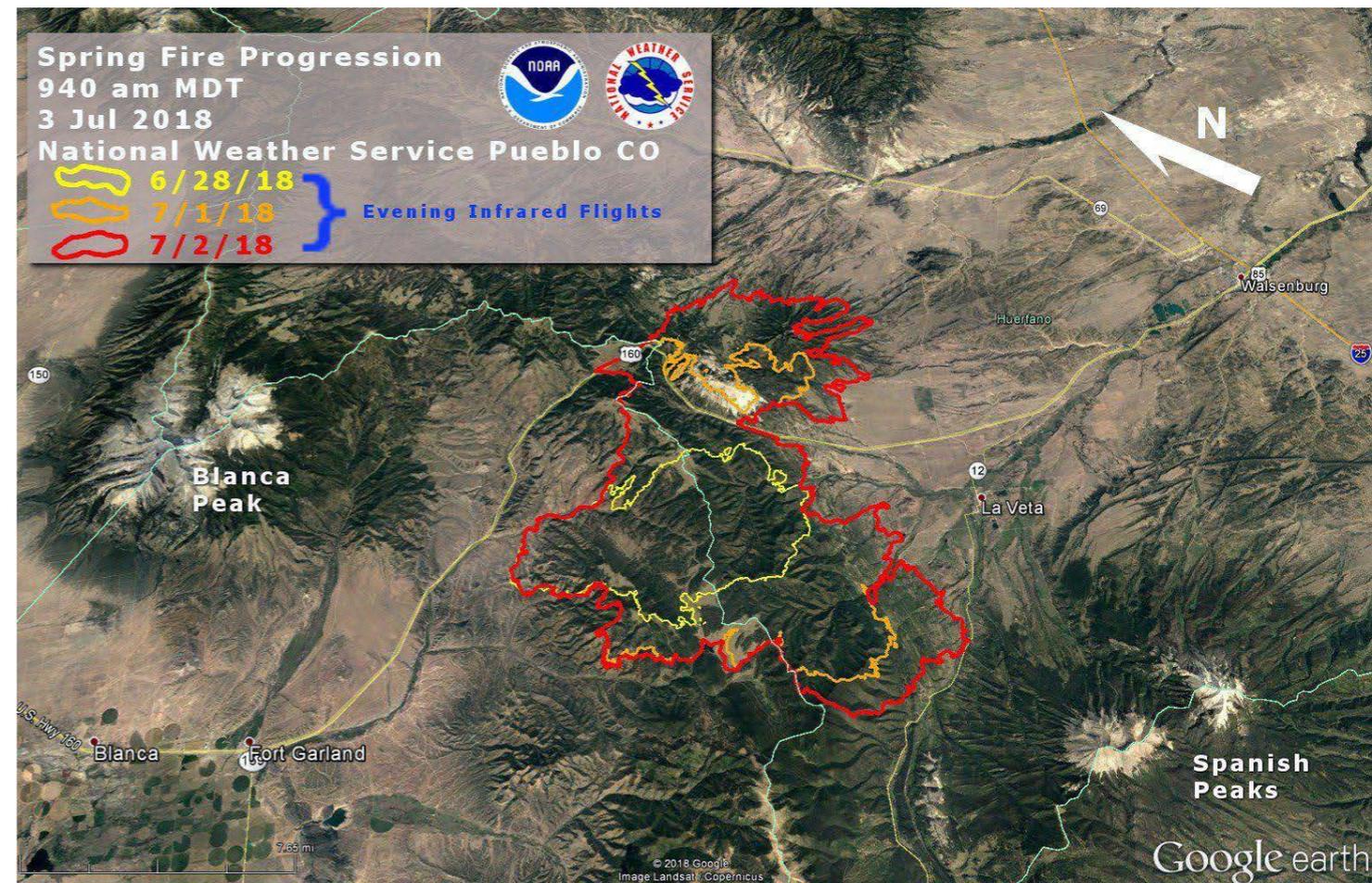
- Burned 108,045 acres in Huerfano and Costilla Counties
- Destroyed more than 140 homes
- Massive burn scar threatens Walsenburg and La Veta

Concerns

- Don't know when rain will happen
- Short warning times
- Older population
- Impacts to local businesses

Pre-Flood Efforts

- Channel restoration/debris removal
- Installing flood gauges
- Installing warning sirens
- Pre-evacuation activities like establishing "flood buddies," , registering for Code Red alerts, prepping for an emergency evacuation center



ESTABLISHING A VISION FOR COMMUNITY RECOVERY AND RESILIENCE IN HUERFANO COUNTY



WORKSHOP: WHY ARE WE HERE?

Preparedness & Response	Short-Term Recovery	Medium-Term Recovery	Long-Term Recovery
Public awareness	Debris removal plan	Debris removal	
Coordination with partners	Emergency sheltering	Repair of critical infrastructure	
Flood channel mitigation	Food and water		
Enhanced storm monitoring	Utility restoration		
Table-top exercises	Critical transportation routes		
Identification of relief assets	ID of vulnerable headgates		
Flood buddy system	Health & human services		
Evacuation routes			
ID of vulnerable evacuees			



WORKSHOP: GOALS

1. What is long-term recovery?
2. What does a 'good recovery' look like in Huerfano County?
3. What short-term steps can Huerfano County and its communities take to plan for long-term recovery?



WORKSHOP: 6 "THINGS WE KNOW" ABOUT LONG-TERM RECOVERY

1. All recoveries are local
2. Recovery is unique to the community and disaster, but follows similar patterns
3. There will be competing desires to recover quickly and recover deliberately
4. Recovery requires the whole community and careful coordination with outside resources
5. Recovery starts immediately after the disaster and overlaps with response and near term recovery. Decisions made early in the recovery have long-term consequences.
6. Communities that are proactive, not reactive, about recovery tend to recover more quickly and with better outcomes.



WORKSHOP: PRE-DISASTER RECOVERY PLANNING IS...

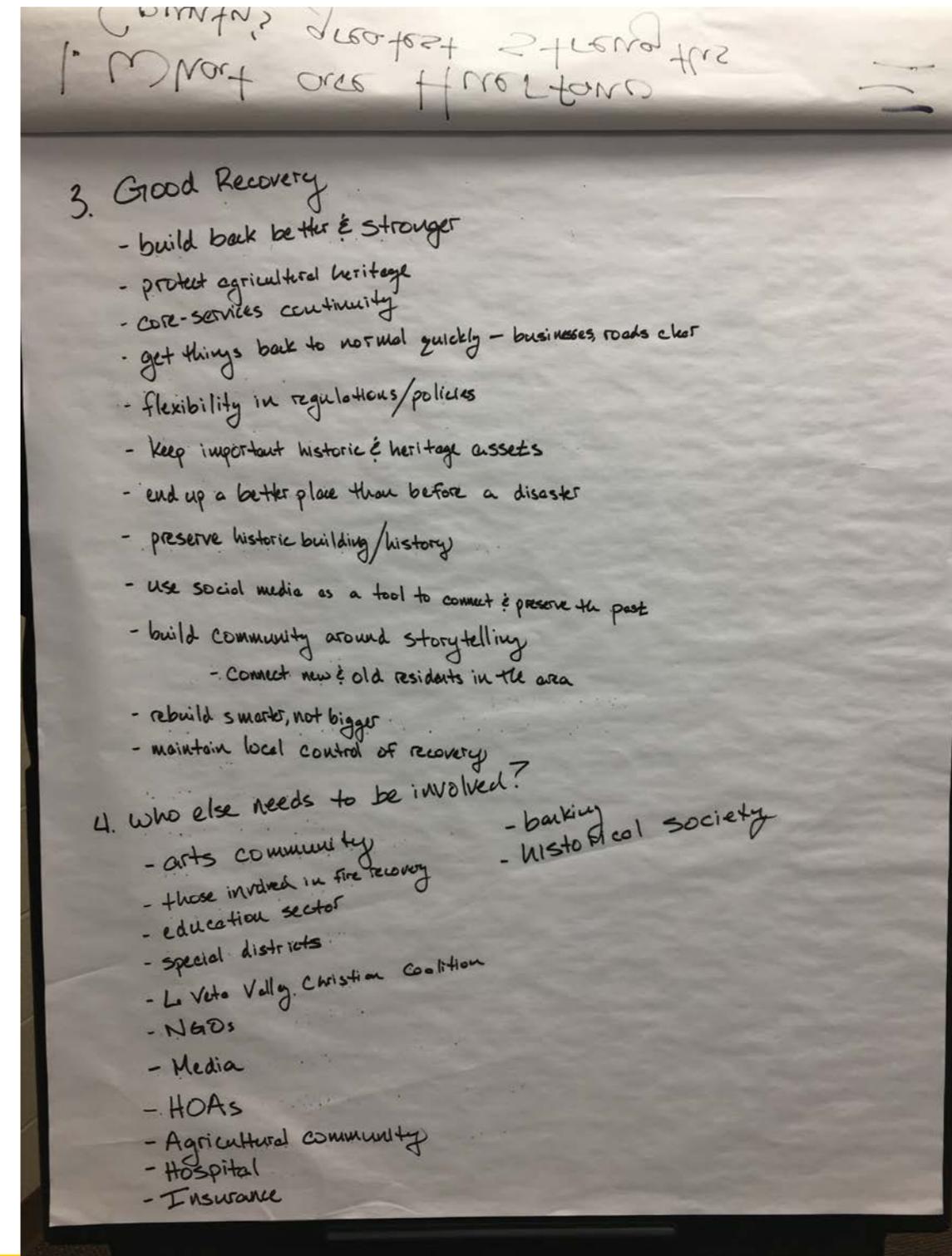
A community-driven process to understand risks, establish priorities, and identify and coordinate resources. The benefits of pre-disaster recovery planning are to:

- Establish clear lines of communication and responsibility across stakeholders
- Identify who should be involved in the planning process
- Help speed the recovery process and improve resilience



WORKSHOP: DISCUSSIONS

- What are Huerfano County's greatest strengths and assets to help with disaster recovery?
- What specific long-term challenges do you worry about most when you think about flood scenarios we discussed earlier?
- What does a "good recovery" mean for Huerfano County?
- Who needs to be at the table for long-term recovery planning?



PRE-DISASTER RECOVERY ORDINANCE

- Lays the groundwork for disaster recovery administrative actions *and* policies
- Local adoption provides rationale and authority for actions affecting private property
- Speeds the recovery process for residents, businesses, and local government



POST-DISASTER BUILDING MORATORIUM

- Moderates rush to rebuild
- Allows time to take into consideration new hazard conditions, prevent repetitive loss, and assess options
- Politically challenging in post-disaster context
- Duration?



The screenshot shows a webpage with a dark header image of a person in a hard hat. The title is "Land Use Tool: Post-Disaster Building Moratorium". Below the header is a "On This Page" section with links: [How it Works](#), [Implementation](#), [Where It's Been Done](#), [Advantages and Key Talking Points](#), and [Challenges](#). A "Model & Commentary" section contains a "Learn More" button. A "Hazards Addressed" section lists: [Earthquake](#), [Flood](#), [Hazardous Material Release](#), [Landslide, Mud/Debris Flow, and Rockfall](#), [Soil Hazards](#), and [Wildfire](#). A "PDF" section contains a "Download PDF" button. The main content area is titled "How it Works" and contains a paragraph: "A post-disaster moratorium on repairing or rebuilding structures temporarily restricts building activity following a major disaster. Communities have the authority to implement such restrictions post-event. The authorization to enact a moratorium can also be found within a comprehensive recovery ordinance that is adopted prior to a hazard event. Such ordinances typically establish the framework for a variety of post-disaster tasks, such as debris management, stabilization of damaged buildings, identification of other life/safety risks, repair of damaged infrastructure, and mitigation options and funding to rebuild to different standards or to potentially relocate certain uses (Boyd, Hokanson, Johnson, Schwab, & Topping, 2014). A sample model ordinance can be found on the APA website (see additional resources below)." Below this text is a photo of a damaged building and a caption: "The moratorium may include provisions to address critical issues regarding rebuilding that will be faced by communities in a post-disaster environment. Such".



TEMPORARY USE PERMITS

- Most zoning codes do not consider temporary uses during disaster recovery
- Broadly important to issues like transitional housing and economic recovery
- What are requirements on local government to establish a temporary use? (i.e. study, adverse impact)



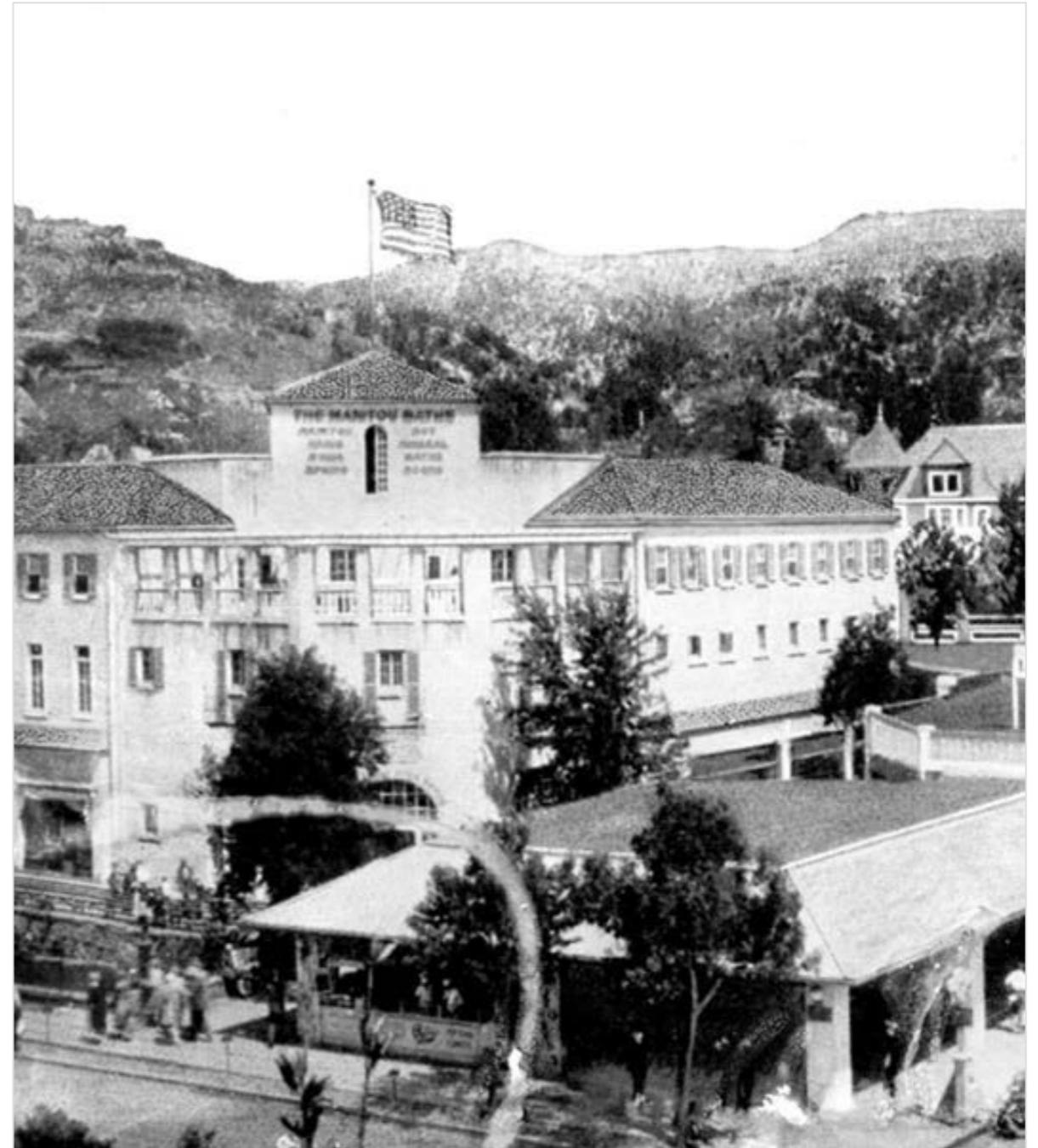
NON-CONFORMING BUILDINGS AND USES

- What requirements will an existing building or use be required to recover to?
- How to consider non-conforming uses?
- How to consider non-conforming buildings?
- What are potential impacts?



DEMOLITION OF DAMAGED HISTORIC BUILDINGS

- Power to condemn historic building if poses threat to life and safety, following specific guidelines
- Protecting historic buildings from demolition
 - What defines a historic building?



ONGOING ACTIONS

- Developing county recovery plan template
- Increasing participation in NFIP
 - La Veta NFIP: 619%
 - Huerfano County: 450%
 - Walsenburg: 248%
- Continued community engagement
- Establishing peer network among recovery managers



HINSDALE COUNTY AVALANCHES

2019 Avalanches

- Town has 400 full-time residents
- San Juan's had 38 feet of snowfall
- Dozens of avalanches, some a mile wide and foot deep

Effects

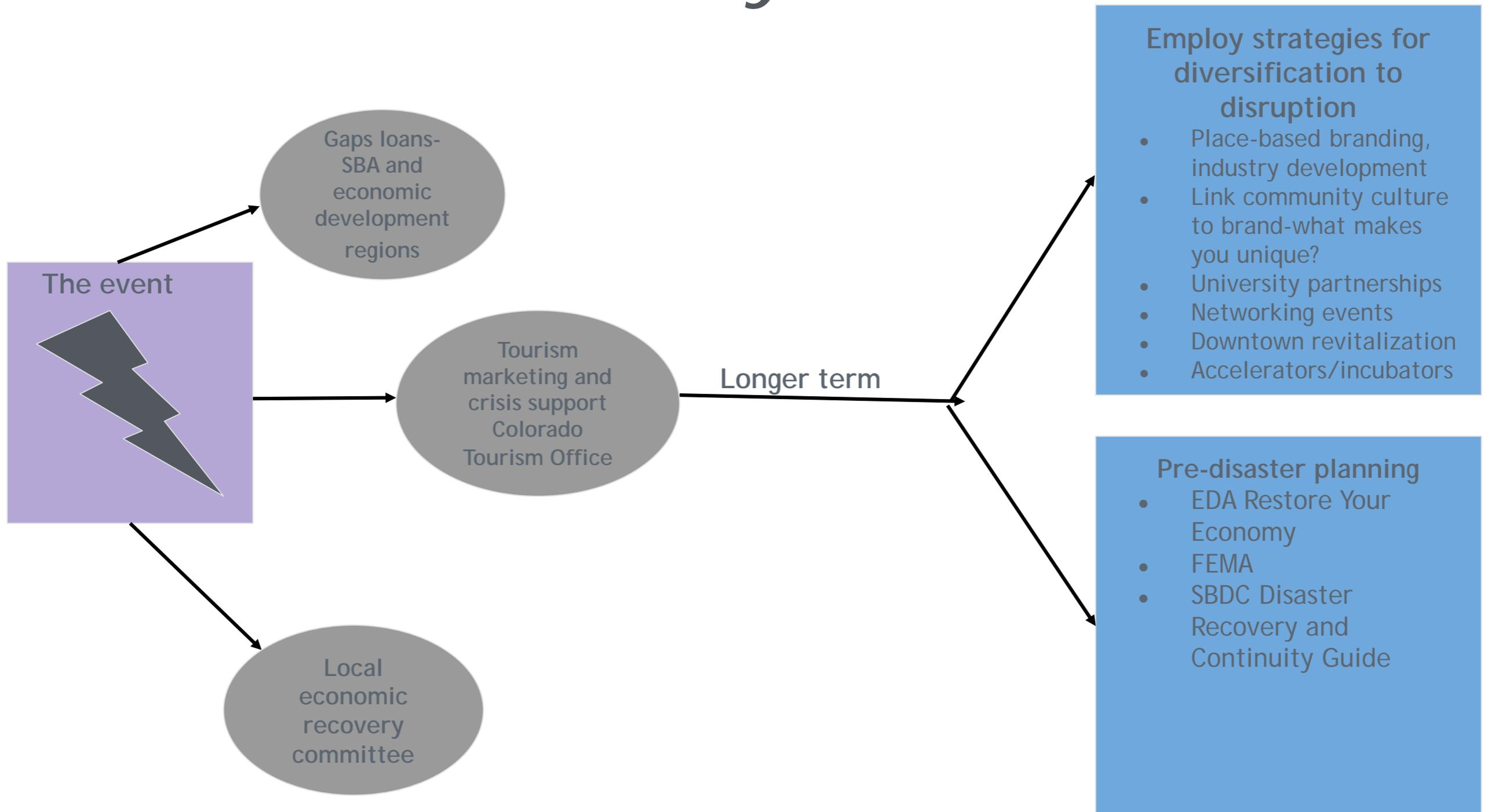
- Destroyed 2 homes, damaged 1
- Highways closed, county road shut down
- Debris choked stream and creek beds

Concerns

- Decline in tourism as the avalanches blocked a main tourist attraction, the alpine loop
- People deterred from visiting due to the potential of flooding
- Future unknown events



Economic recovery



Building resilience to economic disruption

Entrepreneurial ecosystem

Build ecosystem identity

Storytell around value of place- live, work, play

Design

- Broadband
- Innovative use of space-shared
- Connected
- Innovative market build out

Promote

- Pitch events
- Downtown blog featuring entrepreneurs
- Peer network
- Social media contests

Partner

- Networking events
- Start-up Colorado
- Regional roadmaps
- University

Capitalize on change

Mitigate

- Hazard mitigation plans
- Business continuity plans
- Scenario planning

Integrate

- Programs to develop skills of the future workforce
- Local business futures committee
- Business community plays a role in community planning

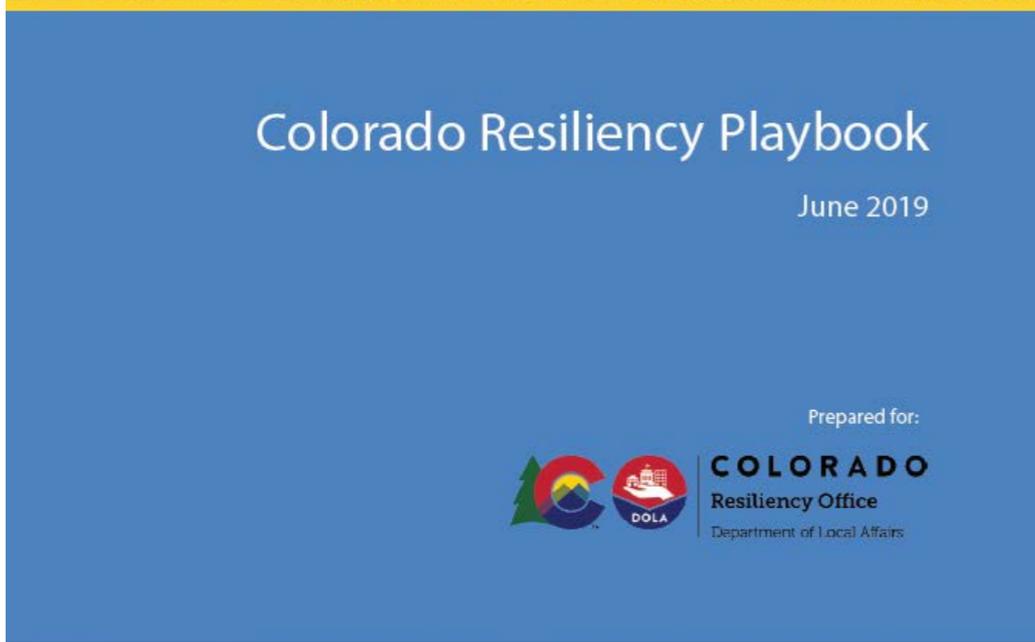
Adapt

- Develop markets, businesses, tourism seizing change opportunities

Credit to Main Street for design, promote, partner frame



Resiliency Tools



Colorado Resiliency Playbook



Figure 9. Defining Resilience

Resiliency Survey



Resiliency Workshops



Resiliency Tools

COLORADO Resiliency Resource Center

HOME UNDERSTAND PLAN ACT RESOURCES CONTACT

The COResiliency Resource Center is the online, interactive hub for resiliency knowledge and resources in Colorado. Through a variety of training modules and webinars, case studies, templates and model plans, grant information, etc., the Resource Center provides critical tools for communities and their stakeholders to integrate resiliency into every-day activities.

The Resource Center is aimed at a variety of audiences, including local government agencies, elected officials, community organizations, the private sector and individual resiliency champions.

If you have ideas on how to advance resiliency in Colorado, please send them to CRRO resiliency program coordinator [Rob Pressly](#) and we will share them on this page.

Understand
The **Understand** section lays the groundwork for what resiliency is and why it matters.

Plan
The **Plan** section provides resources for those interested in taking the next step and developing

Act
The **Act** section (under construction) will provide guidance, best practices and other resources for

Resource Center

Colorado's Resiliency Story

Chapter 1: Framing the Challenge - Why is Resiliency Important to Colorado?

Colorado Resiliency Story Map

Land Use Tool: Climate Plan

On This Page
[How It Works](#)
[Implementation](#)
[Where It's Been Done](#)
[Advantages and Key Talking Points](#)
[Challenges](#)

How It Works

ASPEN'S CLIMATE ACTION PLAN
A Roadmap to Our Sustainable Future

The City of Aspen adopted its first Climate Action Plan in 2007, one of the earliest plans adopted in the state, as part of the Canary Initiative, a community effort to reduce the threat of climate change. It has recently been updated for 2018-2020.

Climate plans, also referred to as "climate action plans," are an increasingly common type of specialized plan developed by local governments to address the challenges of a changing climate. They are designed to provide a strategic framework for driving local actions to assess, understand, and reduce greenhouse gas emissions. Identified as a root cause of climate change. Plans increasingly also include strategies to prevent or minimize the anticipated adverse effects of climate change.

One distinction in climate planning terminology is important: "mitigation" refers to the practice of reducing greenhouse gases, while "adaptation" refers to anticipating and taking action to reduce the adverse consequences of climate change, including those relating to natural hazards risks. An example of a mitigation strategy might be converting public buses to biodiesel or other alternative fuels, while an example of an adaptation strategy would be adopting a larger setback from flood-prone areas.

Hazards Addressed
Avalanche
Drought
Flood
Extreme Heat
Landslides, Mud/Debris Flow, and Rockfall
Wildfire
Wind Hazards
Severe Winter Storm

PDF
Download PDF
See all PDFs

Key Facts
Administrative Capacity
Community planner supported by

Planning for Hazards Guide





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Resiliency Office

Department of Local Affairs

Thank You!

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