

Wildfires, Community Planning and Risk Reduction in Colorado



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Presentation Overview



- Local and State Hazard Mitigation Planning
- Mitigation Planning and Other Community Plans
- Wildfire Risk in Colorado
- Risk Reduction Project Formulation and Implementation
- Changing Federal Funding Landscape
- Opportunity for Growth: Comprehensive and Hazards Planning Integration



Mitigation Planning

Laws and Regulations Governing Mitigation Planning:

The Stafford Act

Disaster Mitigation Act of 2000

44 CFR

- Components of the State and Local Hazard Mitigation Plans
 - Community Profile
 - Hazard Identification and Risk Assessment
 - ✦ Assessment of Vulnerability
 - ✦ State Plan must incorporate risk information regarding State-owned facilities as well as from local plans
 - Capabilities Assessment
 - Mitigation Strategies
 - Monitoring, Evaluation and Updating



Mitigation Planning

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- **State Plan**
 - Required for eligibility for some post-disaster recovery assistance, pre-disaster mitigation grant programs, post-disaster mitigation grant programs and wildfire suppression grant program
 - Must be updated every three years
- **Local Mitigation Plans**
 - Required for eligibility for pre and post-disaster mitigation grant programs
 - Single or multi-jurisdictional
 - Jurisdictions must participate in entire planning process to receive FEMA approval
 - Updated every 5 years

Mitigation Planning Stakeholders



State Plan Stakeholders

- Department of Local Affairs
- Department of Public Safety
- Department of Higher Education
 - CSFS
 - University facilities
- Department of Natural Resources
 - CGS
 - CWCB
 - DWR
- Department of Public Health and Environment
- Office of Risk Management
- Department of Transportation
- Department of Human Services
- Department of Agriculture
- Federal Partners
 - FEMA, EPA, USDA NRCS, USACE
- Local Partners

Local Plan Stakeholders

- Executive/political leadership
- Emergency Management
- Planning and Zoning
- Building Department
- Floodplain Management
- Emergency Services
- Public Works/Transportation
- Public Health
- Parks
- Chamber of Commerce
- Academia
- State and Federal partners
- Other stakeholders not necessarily on core planning team:
 - HOAs
 - Members of the public



Tie to other Plans

FEMA requires local and state mitigation plans to:

- Document how other planning efforts are integrated into the plan
- Document how the plan will be integrated into other planning efforts

- Emergency Operations Plans
- Community Wildfire Protection Plans
- Floodplain Management Plans
- Disaster Recovery Plans
- Comprehensive Plans
- Capital Improvement Plans

Available Wildfire Risk Information



- **State Hazard Mitigation Plan**
 - Wildfire information provided by CSFS
 - State Drought Mitigation and Response Plan
- **Local hazard mitigation plans**
- **Your local emergency management office**
- **CSFS Statewide Assessments**
 - 1999 – Mid-level assessment % area at risk, high hazard acres at risk by county
 - 2002 – Assigned state-wide hazard values (0-15)
 - 2008 – Assigned susceptibility index values to each county
- **Community Wildfire Protection Plans**
 - Conducted at county, fire district or subdivision level
 - <http://csfs.colostate.edu/pages/CommunityWildfireProtectionPlans.html>

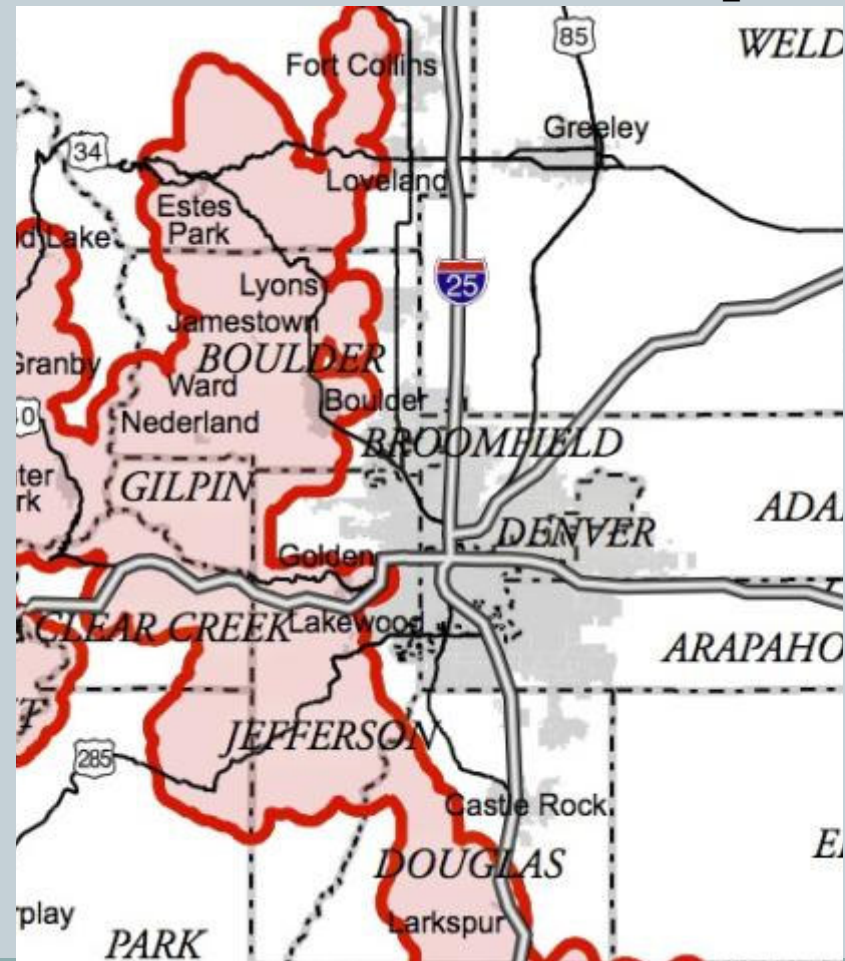
Overview of Wildfire Risk in Colorado

- In 2000, Wildland Urban Interface in Colorado was 715,000 acres
 - Projected to grow by 300% by 2030 to 2,161,400 acres
- 75,000 fire starts nationwide in 2011

Wildfire Starts in Colorado

Year	Number of Fires	Acres Burned
2009	2,973	41,430
2008	2,142	75,571
2007	2,084	151,184
2006	3,294	201,809
2002	3,409	244,252

Wildfire “Red Zone” Map



*Source: CSFS

CSFS 1998 Assessment

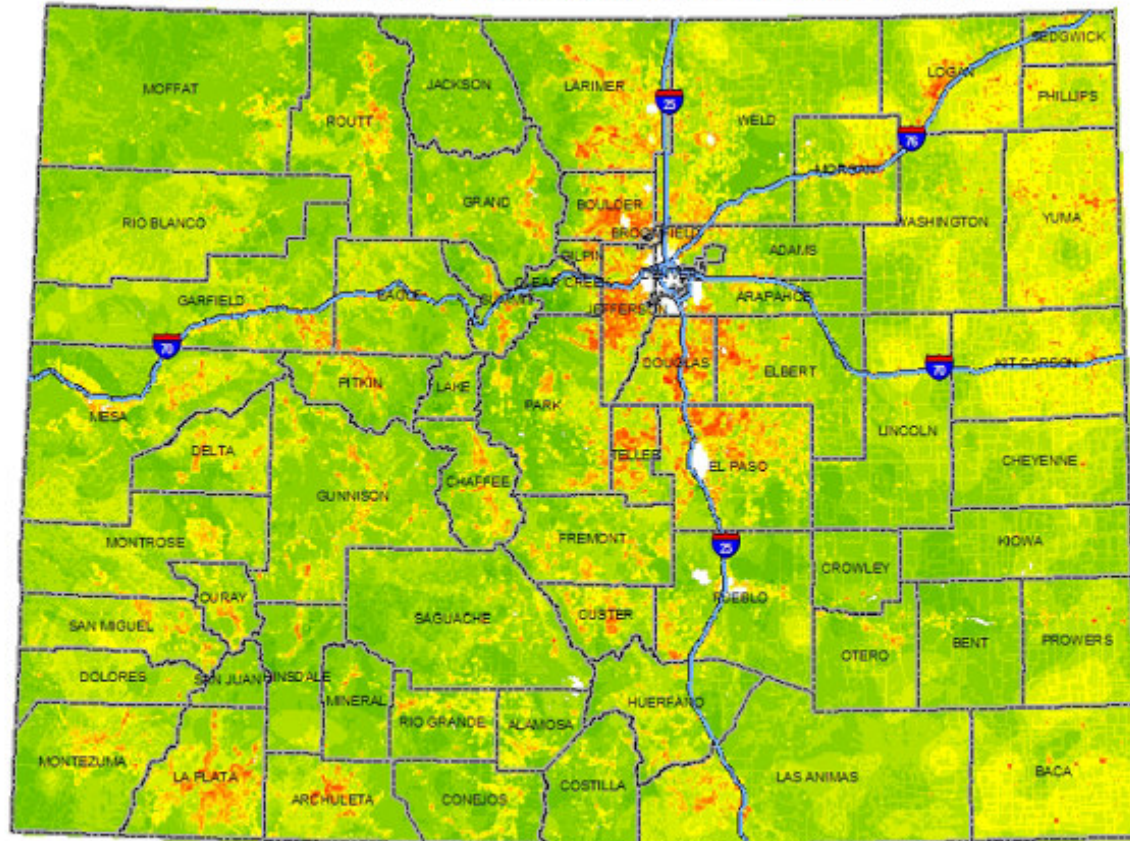


County	% of Land at High/Moderate Risk	Total Acres	Total Acres at High/ Moderate Risk
Adams	.06	768,098.5	497.78
Arapahoe	1.12	514,107.3	5748.7
Boulder	19.8	480,686.4	95,168.25
Broomfield	N/A	N/A	N/A
Clear Creek	29.2	253,372.6	73,998.6
Denver	.01	8.64	99,617.1
Douglas	36	538,527.3	193,724.18
Gilpin	20.5	96,213	19,728.13
Jefferson	56.8	497,076.6	282,540.6

2002 Assessment



Colorado Wildland Urban Interface Hazard Assessment



Hazard Values - Aggregate of Hazard Risk and Values Layers

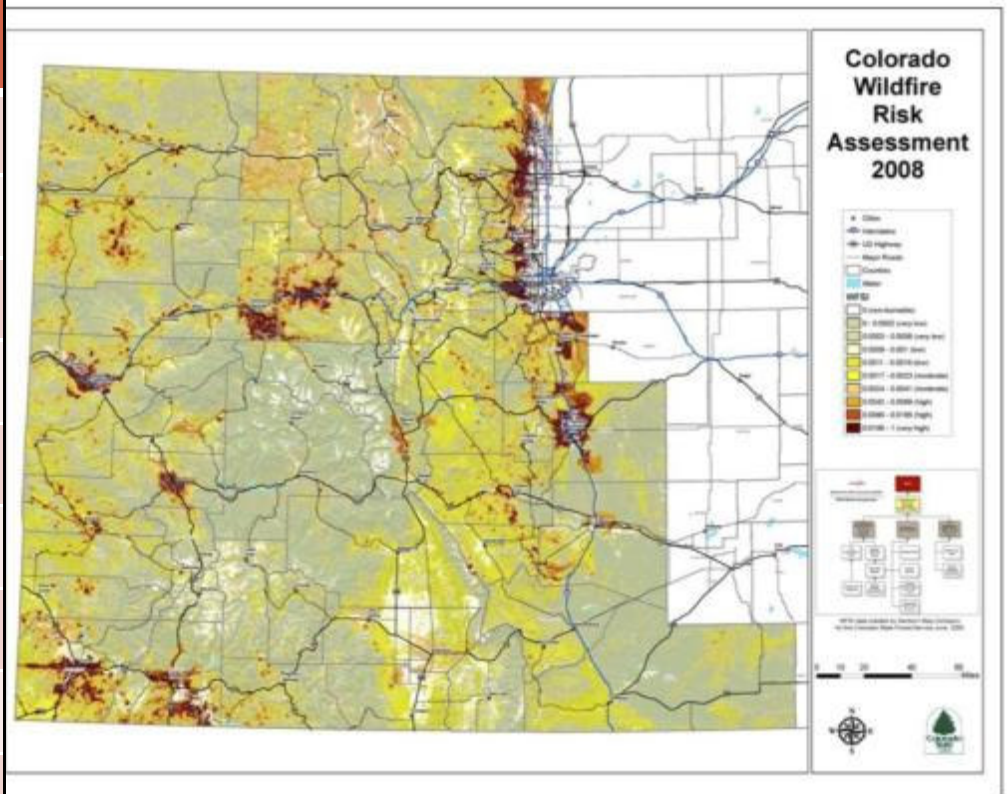


2008 Assessment

Buildings & Contents Values in High Risk Wildfire Zones

Wildfire Assessment Map

County	Values at Risk (\$000s)
Adams	\$1,472,568
Arapahoe	\$1,794,503
Boulder	\$6,032,590
Broomfield	NA
Clear Creek	\$852,894
Denver	\$102,710
Douglas	\$5,445,250
Gilpin	\$319,242
Jefferson	\$8,937,700



State Drought Plan – Climate Change



- Exact impacts of future climate change unclear, however studies commissioned by Colorado Water Conservation Board identified potential impacts:
 - “Climate change is projected to increase the frequency of drought events in Colorado, and, as a result of increasing temperatures, water yields will in general decrease.”
 - Possibility of longer periods of drought
 - Changes to both mean flow and flow variability expected
 - Earlier snowpack runoff, increased rain versus snowfall
 - Changes in air, water, and soil temperatures may affect the relationships between forests, surface and groundwater, wildfire, and insect pests



Project Formulation

- ✓ Mitigation plans must have a “comprehensive range” of mitigation actions that address identified hazards
- ✓ Actions should take into account community’s capabilities
- ✓ Actions prioritized based on review of social, technical, administrative, political, legal, economic and environmental factors

- Communities encouraged to consider the following types of activities:
 - ❖ **Prevention:** Zoning, building codes, open space preservation
 - ❖ **Property Protection:** Defensible space, retrofitting, property acquisition
 - ❖ **Natural Resource Protections:** Protection of open space, fuels management
 - ❖ **Emergency Services:** Warning systems
 - ❖ **Structural projects:** reservoirs, detention ponds (for flood)
 - ❖ **Public Information Activities:** Preparedness programs, outreach, environmental education
- Implementation Plan - Priority? Who? When? How much?



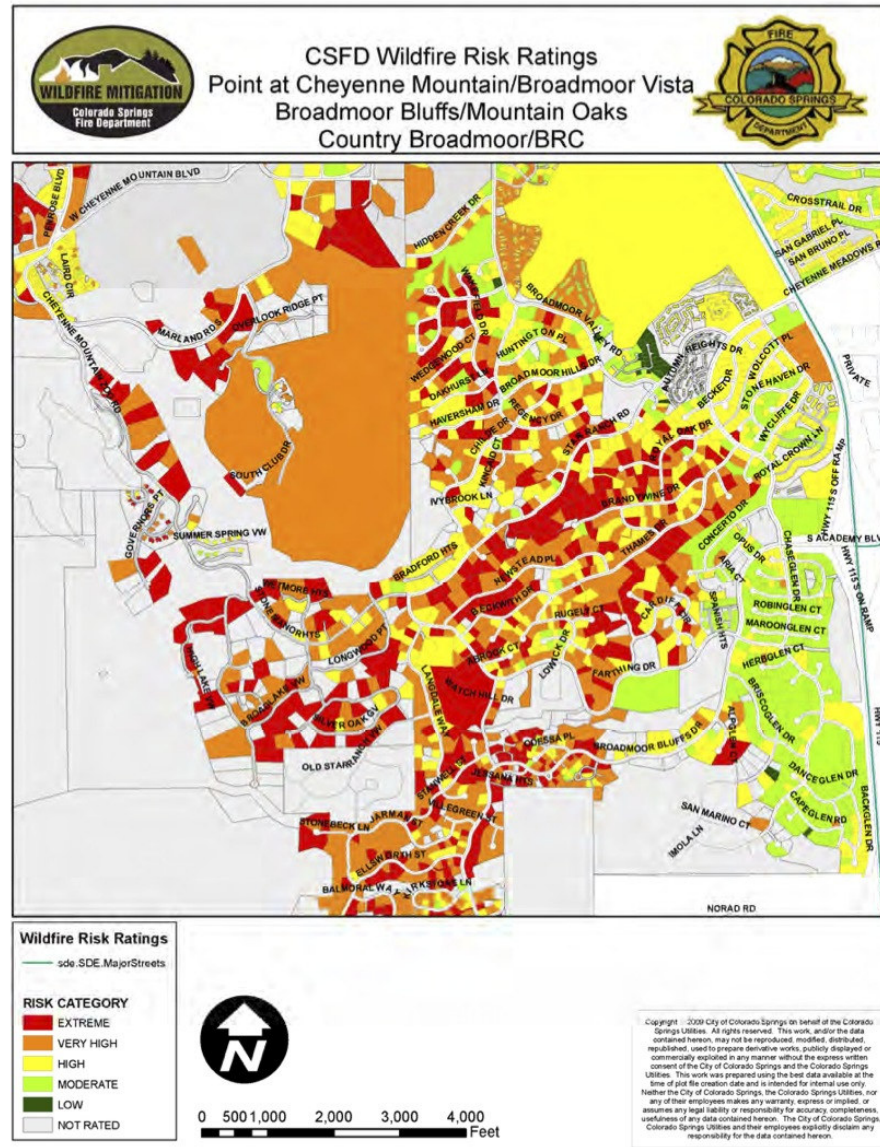
A Practical Example: Colorado Springs Fire Department

Wildfire Risk information included in Mitigation Plan comes directly from Colorado Springs CWPP

Parcel by parcel risk information

Risk helps to drive project formulation, prioritization and execution, including neighborhood engagement and grant applications

Current FEMA Pre Disaster Mitigation Program Project Site





Current Federal Funding Environment

FEMA pre-disaster grant programs:

- ✓ Pre-Disaster Mitigation
- ✓ Flood Mitigation Assistance
- ✓ Repetitive Flood Claims

Post-disaster grant programs (dependent on presidential disaster declaration)

- ✓ Hazard Mitigation Grant Program

- In past 10 years, Colorado communities have competed for and received nearly \$40 million in pre-disaster mitigation project grants for wildfire, flood, landslide and tornado projects
 - \$190,000 in post-disaster funding over same period
 - Wildfire grants won by Boulder County, Platte Canyon Fire Protection District, Colorado Springs, Colorado State Forest Service
- Eligible wildfire projects: Hazardous fuels reduction, defensible space, building retrofit
- PDM funding diminishing
 - DHS/FEMA proposed elimination of program in FY 2013
 - Only multi-hazard pre-disaster mitigation program
 - House Appropriations Committee currently proposing keeping program, funding at \$15 million nationwide
- What other avenues are available to fund or implement wildfire projects?

Comprehensive Planning and Mitigation Planning: *Opportunities for Growth*



APA May 2012 *Zoning Practice*:

- ◆ Wildland Urban Interface regulations usually administered by building or fire departments
 - ◆ Planners rarely involved

- ◆ “Zoning requirements that are explicitly supported by public policy through...the goals and policies in a comprehensive plan tend to be much more legitimate and legally enforceable.”



Comprehensive Planning and Mitigation Planning: Opportunities for Growth

“The ability to integrate hazard mitigation into the larger context of plan making in a community is tied directly to another unique and crucial planner’s skill: the ability to think comprehensively about the challenges facing a community, how to address them with the resources available, and how to steer the public and its decision makers toward goals and objectives that are reasonably constructed to achieve the desired ends.”

- Hazard Mitigation: Integrating Best Practices into Planning (APA, 2010)

- One potential solution involving planners: integration of mitigation planning and comprehensive planning
 - Enhances coordination between planning, emergency management, emergency services, floodplain management, parks, and executive leadership
 - Provides a more universal baseline understanding of risk throughout the community
 - Enables communities to make *risk informed* decisions when creating a long-term vision for development
 - Adams County currently in the process of integrating a Hazard Identification and Risk Assessment, Comprehensive Plan and Transportation Plan. The three plans will be submitted to FEMA for approval as a hazard mitigation plan.
 - Other communities in Colorado have expressed interest

Questions?



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