



City of Manitou Springs

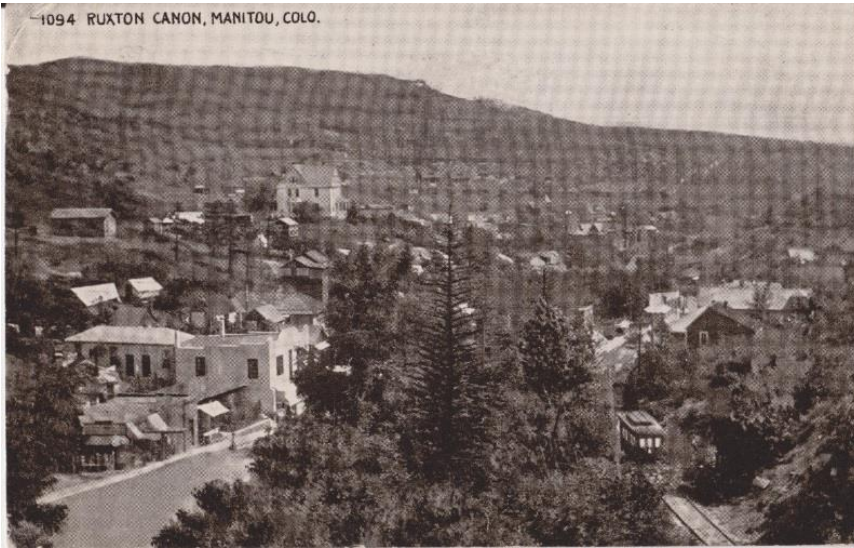


Implementing Land Use tools to reduce and mitigate natural hazard risk



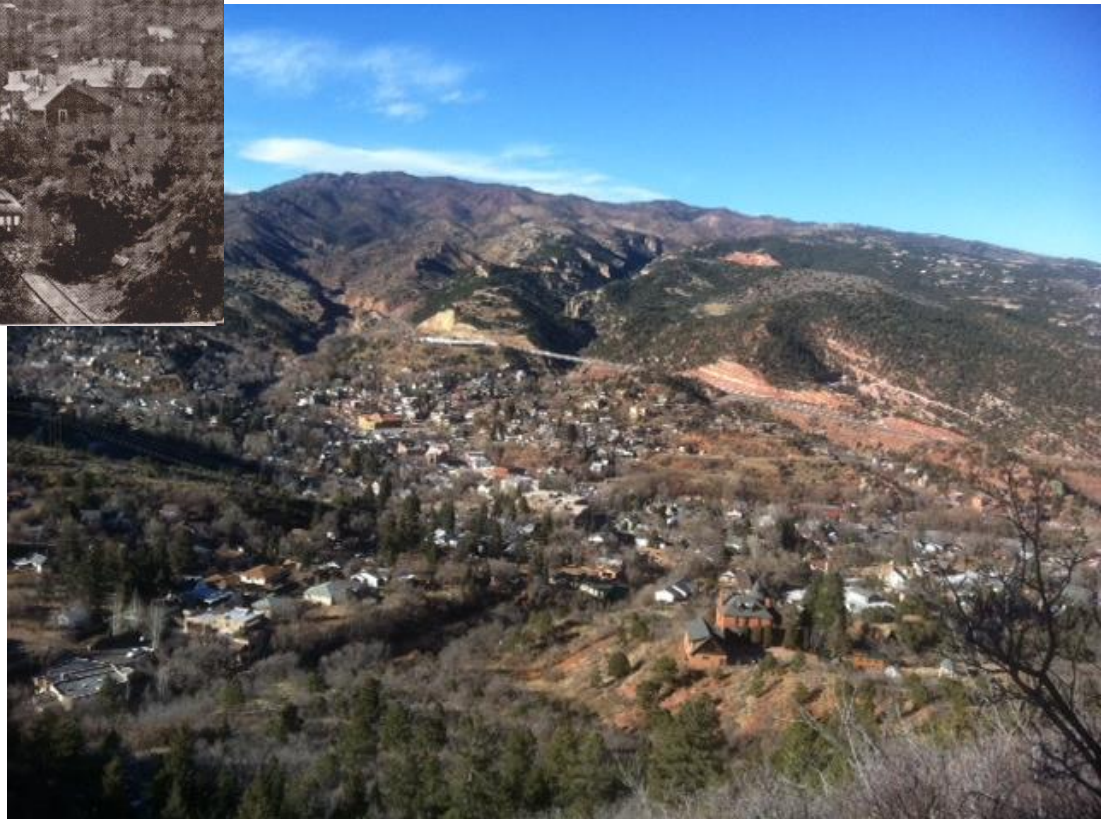
Context & History

Past



- Historic homes
- Older infrastructure
- Hillside development
- Creekside development, loss of floodplain function

Present



Past natural hazard events

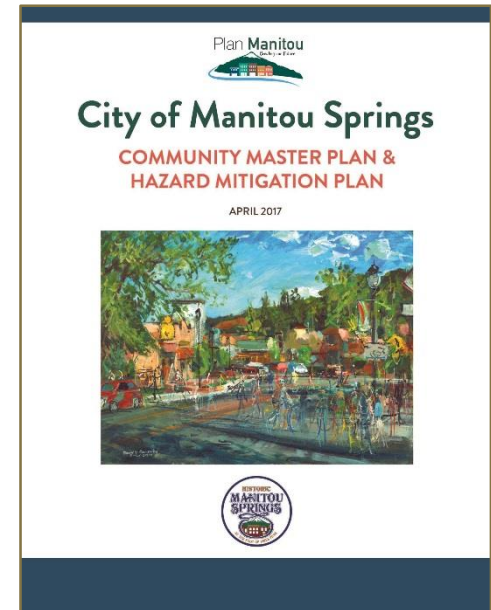
- History of past flooding
- Waldo Canyon fire in 2012
- Subsequent flooding in summer 2013, debris flow and erosion in summer 2015
- Loss of 6 homes from geologic hazards, impact to infrastructure



1920 flood

Plan Manitou

- Clarify City's future development plans
- Tourist-based economy
- *Plan Manitou* – integrated comprehensive plan – hazard mitigation plan
- Good approach for a small community



www.planmanitou.com



COLORADO
Department of Local Affairs

Hazard risk assessment

- FEMA approved plan
- Formation of Hazard Mitigation team
- Mapped risk areas
- 3 highest risks: flooding, geologic hazards and wildfire
- Where and how community has developed – land use basis

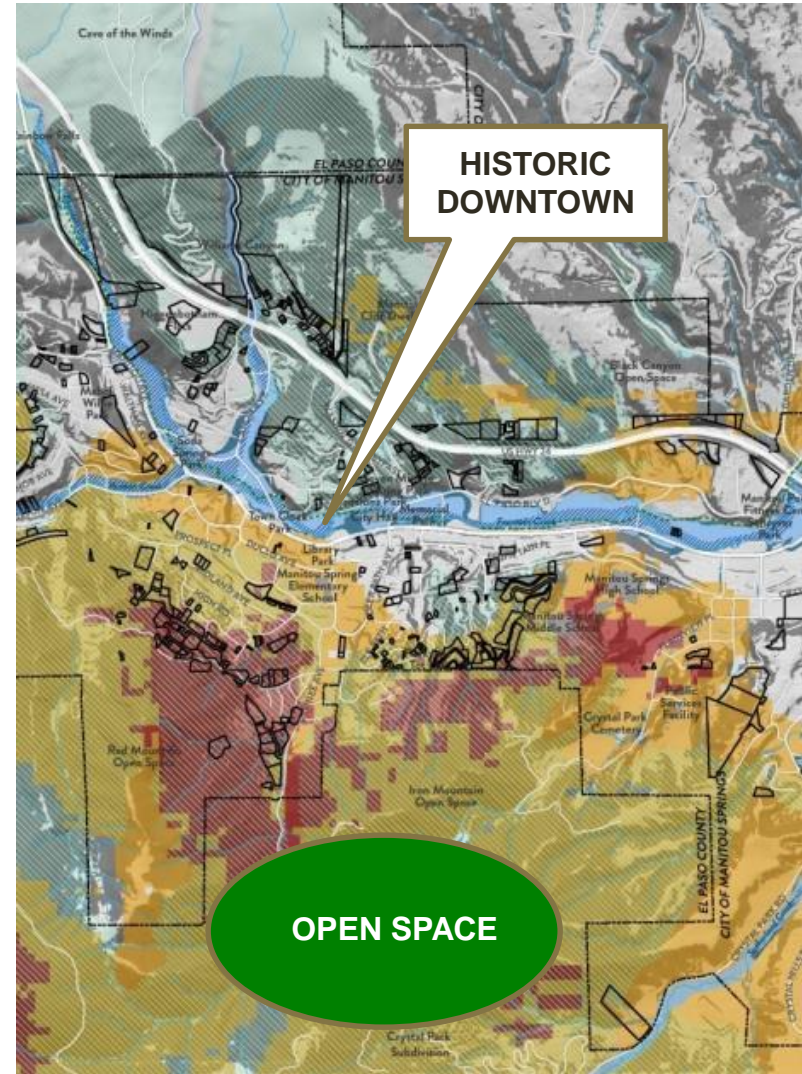
Hazard Risk Assessment: Key Issues and Vulnerabilities

Existing development

- Existing neighborhoods highly vulnerable to wildfire, floodplain, and geologic hazards

Future development

- Lack of wildfire mitigation policies for new development and redevelopment
- Flood hazards in future development opportunity areas



Gaps and Opportunities: Development

Capability Gap	Actions Identified in <i>Plan Manitou</i>
Enforcement of building regulations	<ul style="list-style-type: none">-Expand code enforcement capabilities as resources allow, with the goal of increasing building code enforcement capability.-Develop a stronger floodplain management program and regulations beyond the State's minimum requirements.
Lack of wildfire or geological hazard ordinances	<ul style="list-style-type: none">-Designate a Wildland-Urban Interface (WUI) overlay and adopt regulations for safe growth and construction.-Strengthen policies and regulations to avoid unsafe growth and development in steep slope and high geological risk areas.
No formal development review process	Adopt a formal development review process that incorporates hazard mitigation.
Need better GIS data and maps	Improve GIS data, analysis capabilities, and maps for hazard and risk information for City decision-making and public education.

Integrated hazard mitigation strategy



Multi-layered hazard mitigation strategy

- Infrastructure projects
- Administrative-enforcement-capacity
- Data, analysis, and mapping
- **Regulatory tools**
- Educational tools
- Partnerships
- And more . . .

Plan Manitou – Land Use and Built Environment Element

Goal LU-5: Minimize risks to property, infrastructure, and lives from natural hazards and disasters.

- **Policy LU-5.1 High Hazard Areas** - Guide new development away from high risk areas.
- **Policy LU-5.2 Flood Hazard Areas** – Discourage development from locating in floodplain areas. Encourage flood mitigation measures for existing structures in flood hazard areas.
- **Policy LU-5.4 Wildland-Urban Interface** - Avoid increasing residential densities in the WUI. Adopt best practices for “Firewise” development
- **Policy LU-5.3 Steep Slopes and Geologic Hazards** - Avoid development on slopes steeper than 30 percent. Encourage best management practices for existing/new development.

Avoid/reduce/mitigate

Planning for Hazards Pilot Project

- Staff participation in workgroup to develop guidance
- *Plan Manitou* adopted in spring 2017
- Tools for developing vs. built out community
- Manitou Springs selected as pilot community

Project Schedule

Six work sessions:



- Introduction & kickoff: Planning strategies and tools
-



- Prioritizing planning tools



- Project assessment memo
-



- 1st draft zoning code
- 2nd draft zoning code
- Adoption and maintenance

12 Months

Identify and
Prioritize
Implementation
Tools

Develop and
Refine
Implementation
Tools

Implementation
and
Maintenance

July

Nov

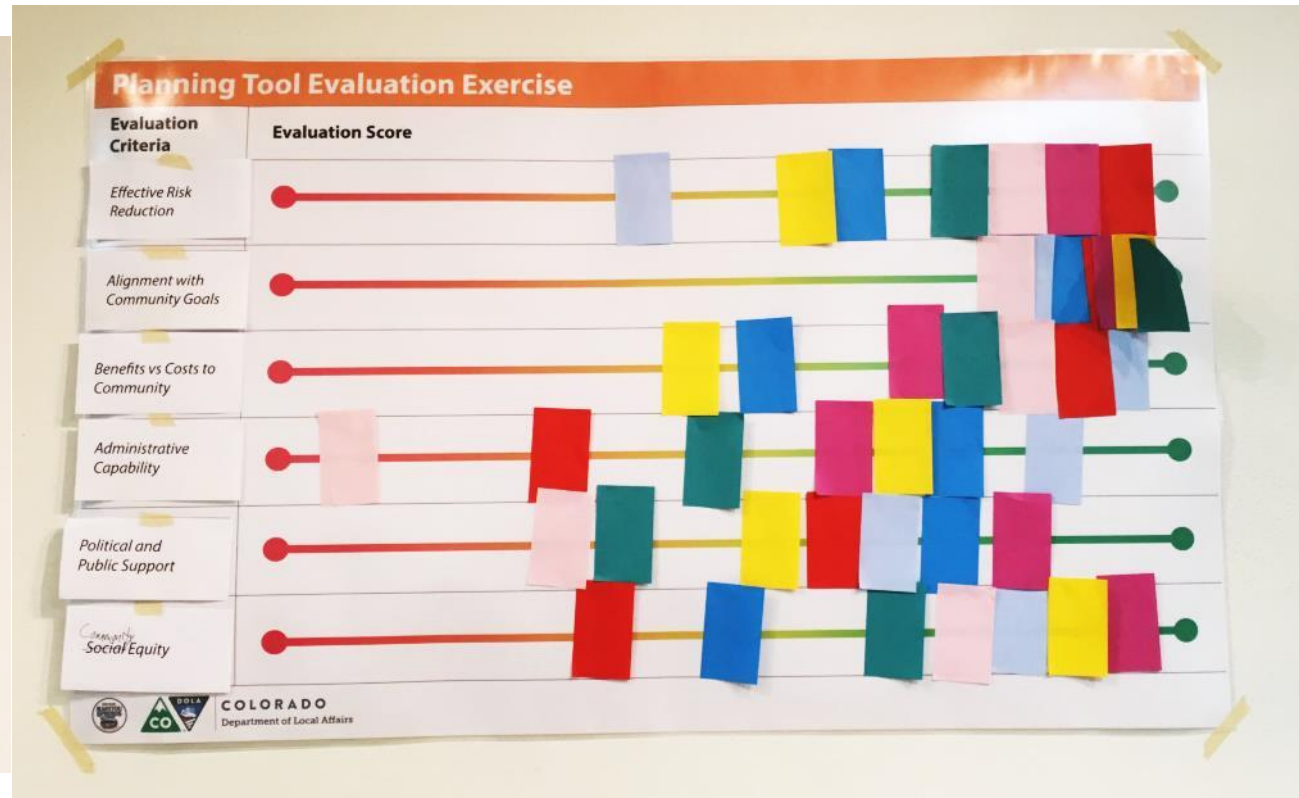
May

July

Project Structure: Core advisory groups

- Workgroup
 - Planning Commissioner, citizen geologist, housing representative
 - Development community
- Planning Commission
 - Familiar with and apply City code
 - Identify need to improve code
- City Council
 - Big picture community needs

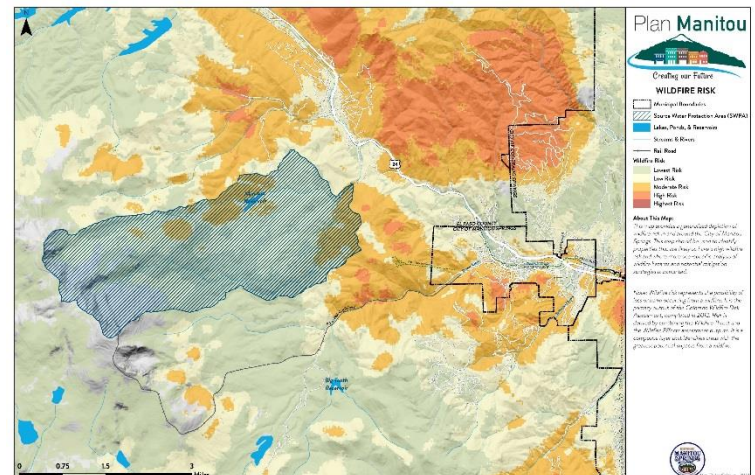
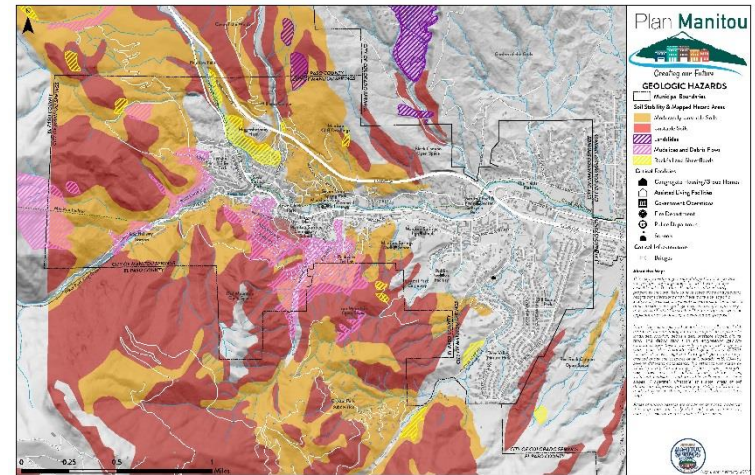
Prioritization Process- July 2017



- Hazard Overlay(s)
- Stream Buffers/Setbacks
- Site Plan/Subdivision Review Procedures
- Wildland Urban Interface Code Integration

Improve GIS data and analytical tools for decision-making

- **Geologic Hazards**
 - Colorado Geological Survey applying update methods and data improve mapping
- **Wildfire Risk Mapping**
 - COWRAP
 - Best approach to define Wildland Urban Interface Risk map



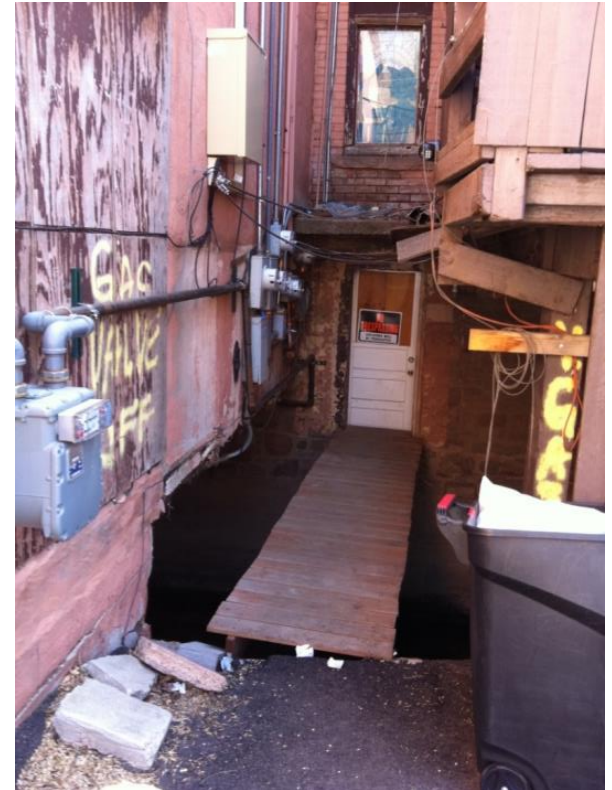
Community Outreach and Engagement

- Workgroup representatives
- Board/Commission outreach
- Informational meetings/open house
- Project webpage
- Surveys
- Media
- Project Information Sheet
- Post comments and provide responses
- Email updates to *Plan Manitou* mailing list
- Focus groups



Flood risk recommendations

- Regional floodplain review
- Address some gaps through “in house” review
- Establish overlay district for structural review of bridges
- Strengthen floodplain review standards
- Integrate with Flood Control Master Plan (FCMP)



Geologic hazards risk recommendations

- Clarify HLDR district and steep slope standards
- Broaden applicability of geologic hazards plan and report requirement
- Clarify retaining wall, simplify grading standards
- Updated geologic hazard mapping



Wildfire risk reduction - context

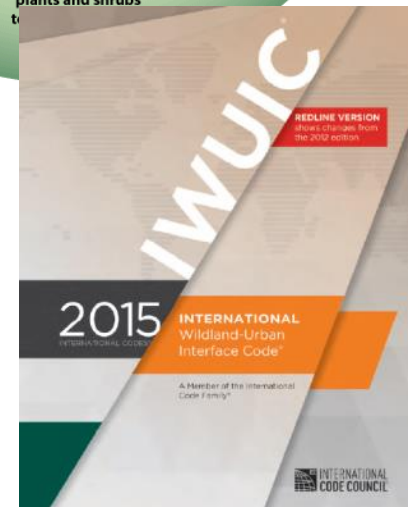
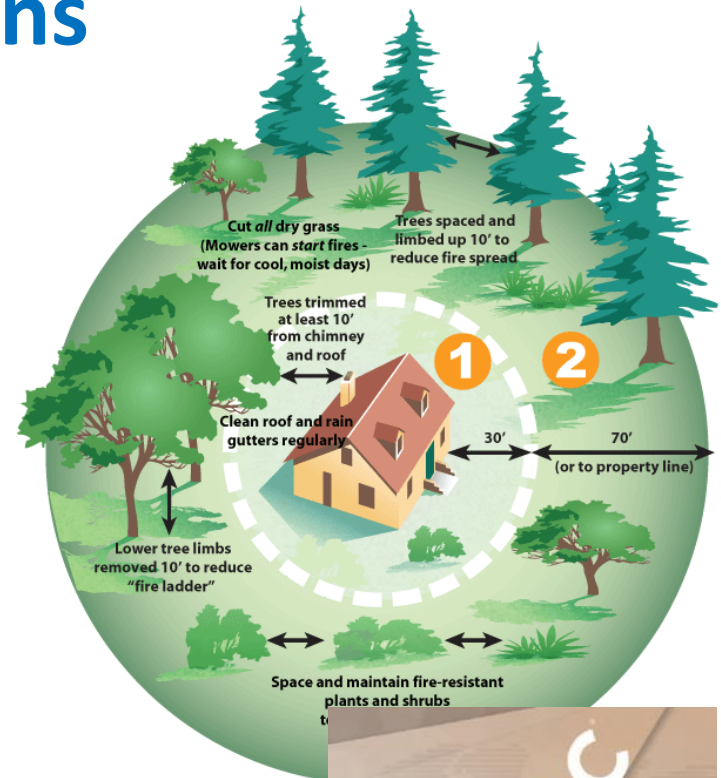
- WUI map steering committee of fire specialists
- Coordinate with CWPP effort underway
- FD site assessments of wildfire risk
- Coordination between Planning and Fire departments
- Regional building review



Waldo Canyon Fire

Wildfire recommendations

- Integrate elements of International WUI Code
- Address access and water supply for new subdivisions
- Require fire protection plans for new developments and redevelopments (water, access, defensible space, vegetation management)
- Site assessment approach - enhanced review and enforcement
- Landscaping requirements – focused changes, may have high impact



Expand risk reduction criteria in development review

- Enhance approval criteria, address natural hazard mitigation
- Hazard overlay approach evolved into sensitive lands protection development standard – coordinated approach
- Change “no build” to “limits of disturbance” approach

Community feedback – common themes

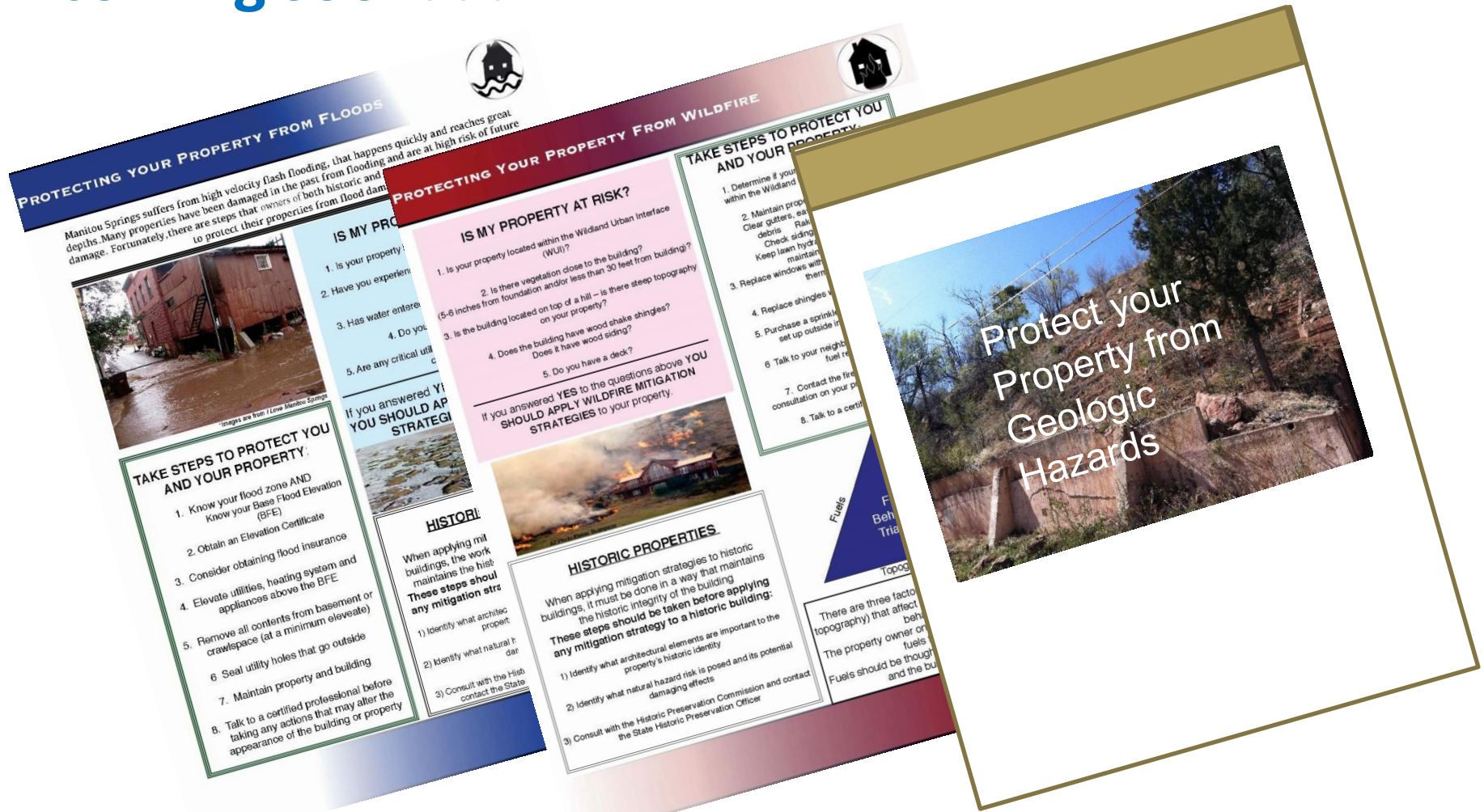
- Mitigation priority for new development
- More flexible standards for less vulnerable areas
- Balance with other community development goals – housing, economic development
- Evaluate fiscal impact
 - Overall
 - Individual level
- Improve code to be more clear, useful

Planning for Hazards project				existing requirement	x									
Assessment of fiscal impact and other factors				new requirement	x									
(what is the best way to do this? By code section?)										(envir assessment light?)				
Development requests	Code section	Floodplain assessment by engineer req'd	Envir & Fiscal Impact Report	wildfire assessment			Development plan (new requirement)	Geologic hazard report required	Grading (ils erosion control) plan	Comply with sensitive lands standards	Meet new approval criteria for natural hazard risk and mitigation	Survey work required	Added flexibility to requirement	Simplified code language/consolidate
Development permit										??				
Grading permit								X		X				
Building permit		X		X??				X (if not provided with Subdiv plan)		X				
Subdiv master plan		X	X	X				X		X	X			
Minor subdivision		X						X			X			
Major subdiv		X						X						
- Preliminary plat			X (unless incl in master plan)	X							X			
subdiv improvements						X ??								
Street design														
Hillside Low Density district							X		X	X			X	X
Minor development plan		X		X				X						
Major development plan		X		X				X						
Rezoning		X	X					X						
Waivers	May not be granted for compliance with natural hazard mitigation requirements.													
Conditional use permit														
Staff assigned to review		PIng/PPRB		FD	PIng/FD	FD	PIng	PLIng?CG	??	PIng/FD?				

What we've learned so far . . .

- Planning for multiple hazards is complex
- Mapping component is critical – outcome defines code approach
- Potential to integrate hazard risk updates into overall code update
- Consider best ways to convey code changes to diverse community stakeholders – how can the changes be presented in a transparent manner?
- Need to constantly reinforce “health, safety and welfare” basis

Educational resources for property owners coming soon. . .



Next Steps

- ➔ • First draft code updates in April
- Extensive outreach
 - Posted on project webpage
 - Community survey
 - Focus groups
- Second draft updates – late May, early June
- July: Adoption

Participate online:

www.manitouspringsgov.com/planning-for-hazards

