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
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
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

<table>
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<tr>
<th>Capability Gap</th>
<th>Actions Identified in <em>Plan Manitou</em></th>
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| Enforcement of building regulations                 | - 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    | - 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

Hazard Risk Assessment → Hazard Mitigation strategy → Future Land Use Plan

Land use: goals, policies and actions
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-5.3 Steep Slopes and Geologic Hazards** - Avoid development on slopes steeper than 30 percent. Encourage best management practices for existing/new development.
- **Policy LU-5.4 Wildland-Urban Interface** - Avoid increasing residential densities in the WUI. Adopt best practices for “Firewise” 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
  - July
- Develop and Refine Implementation Tools
  - Nov
- Implementation and Maintenance
  - April
  - 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

www.planmanitou.com
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
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