

wood.



Larimer County Multi-Jurisdictional Hazard Mitigation Plan Update

Hazard Mitigation Planning Committee Meeting #3
Mitigation Strategy Update
July 14, 2020 – 1pm-3pm

woodplc.com

Agenda

1. Introductions
2. Review of Planning Process and Progress To Date
3. Finalizing Goals & Objectives
4. Review of Mitigation Action Categories
5. Progress on Mitigation Actions from 2016 Plan
6. Identification of New Mitigation Actions
7. Next Steps
8. Questions



Meeting Logistics

- Please mute your mic when not speaking.
- ...but please feel free to unmute when you have something to say!
- You can also use the chat log to make comments, ask questions, or provide information.
- This meeting is being recorded.
- Slides and meeting summary will be made available.



Review of the Planning Process and Progress To Date

Mitigation Planning Process

- ✓ **Phase 1: Organize Resources**
 - Coordination & Contracting
 - Data Collection & Review
 - Public Education and Input
 - Floodplain Management and CRS
- ✓ **Phase 2: Identify Hazards and Assess Risks**
 - Risk Assessment
- **Phase 3: Develop a Mitigation Strategy**
 - Develop Mitigation Goals, Objectives, & Actions
- **Phase 4: Plan Adoption, Monitoring and Evaluation**
 - Draft Plan
 - Plan Approval, Submittal & Adoption



Progress So Far

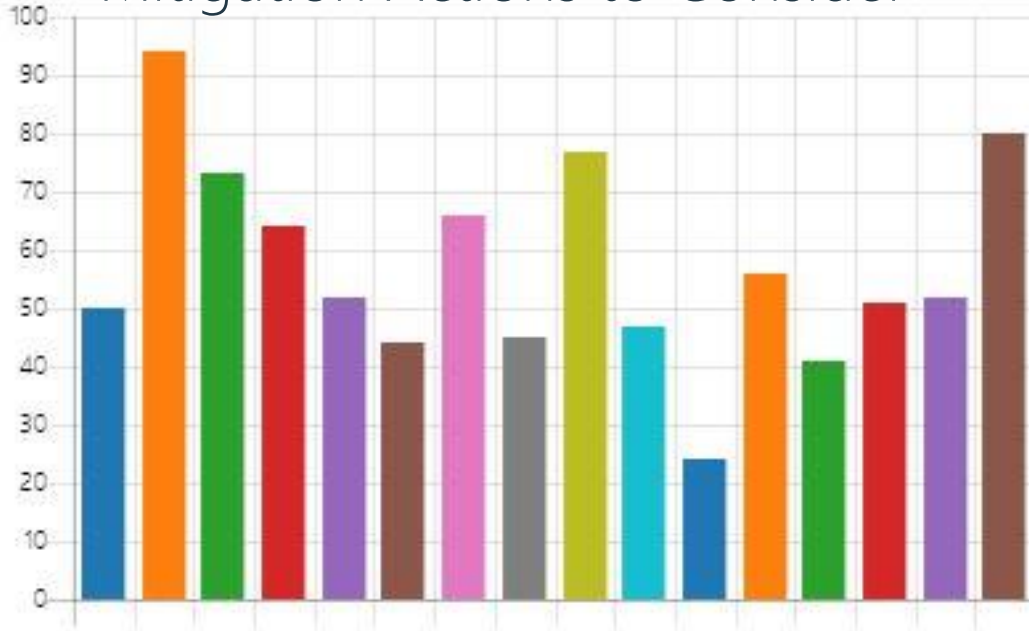
- ✓ Kickoff meeting held April 10th
- ✓ Risk Assessment meeting held May 15th
- ✓ First public meeting conducted May 28th
- ✓ HIRA update completed
- ✓ Online public survey closed July 14th



Public Survey Results

- English and Spanish versions
- 137 responses (as of July 7th)
 - Closes July 14th

Mitigation Actions to Consider



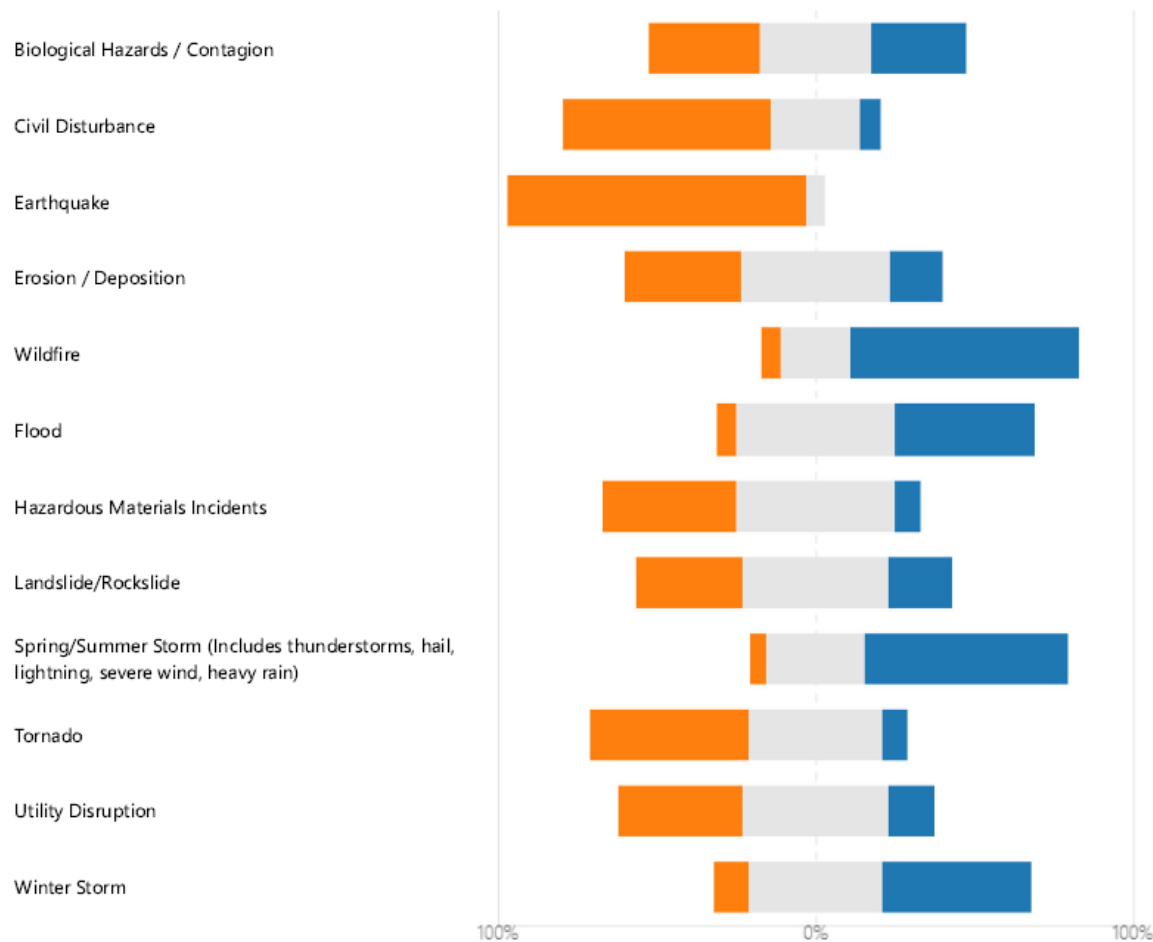
Indoor/Outdoor Warning syst...	50
Wildfire Fuels Treatment proje...	94
Continued Participation in the...	73
Critical Facilities Protection	64
Generators for Critical Facilities	52
Planning/Zoning	44
Public Education/Awareness	66
Stormwater Drainage Improve...	45
Forest Health/Watershed Prot...	77
Stream Restoration	47
Education and Discounts on Fl...	24
Water Conservation	56
Floodprone Property Buyout	41
Evacuation route development	51
Dam safety	52
Improve reliability of commun...	80



Public Survey Results

1. The hazards addressed in the Hazard Mitigation Plan update are listed below. Please indicate the level of significance in Larimer County that you perceive for each hazard.

Low Moderate High



Public Survey Results

2. How many times has a natural hazard disrupted your daily life in the last five years?

● 0	15
● 1-2	61
● 3-5	41
● More than 5 times	16
● Other	3



3. Do you have information on specific hazard issues/problem areas that you would like the planning committee to consider? Note the jurisdiction to which it applies:

63
Responses

Latest Responses

"CSU pathogen research should be considered if it's not already. "

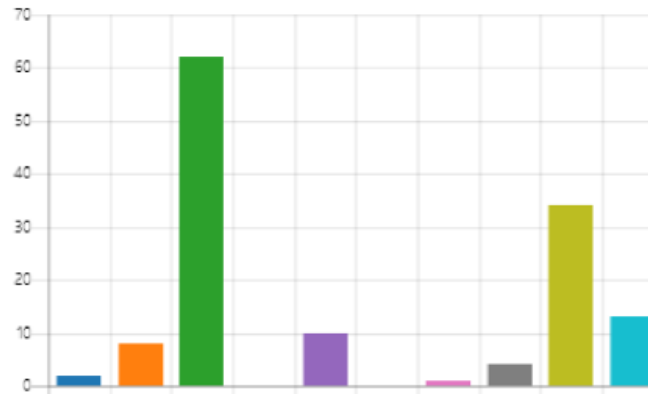
"Hail damage protection: Maybe consider providing COVERED areas w..."



Public Survey Results

6. Please indicate the community you live in

● Town of Berthoud	2
● Town of Estes Park	8
● City of Fort Collins	62
● Town of Johnstown	0
● City of Loveland	10
● Town of Timnath	0
● Town of Wellington	1
● Town of Windsor	4
● Unincorporated Larimer County	34
● Other	13



7. How long have you lived in this community?

● Less than 1 year	2
● 1-5 years	25
● 5-10 years	19
● over 10 years	85
● Other	4



2020 Hazard Summary

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Flood – Flash & Riverine	Highly Likely	Significant	Catastrophic	High
Wildfire	Highly Likely	Significant	Critical	High
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Earthquake	Occasional – Unlikely	Limited - Significant	Catastrophic	High – Medium
Biological Hazards / Contagion	Highly Likely - Occasional	Extensive	Catastrophic	High
Tornado	Likely	Limited	Critical	High
Winter Storm	Highly Likely	Extensive	Critical	High
Hazmat	Likely	Limited	Critical	High
Landslide/Rockslide	Likely	Limited	Critical	High
Erosion / Deposition	Likely	Significant	Limited	Moderate
Utility Disruption	Likely	Significant	Critical	Moderate
Civil Disturbance	Likely	Limited	Limited	Moderate
Dam Failure/Incident	Occasional	Significant	Critical	Moderate



Finalizing Goals & Objectives

Mitigation Goals and Objectives

Goals

- General guidelines that explain what you want to achieve
- Usually broad policy/vision statements

Objectives

- Define strategies or implementation steps to attain goals
- Specific and measurable

Actions

- Specific projects/activities to achieve goals & objectives



Larimer County 2020 Mitigation Goals

1. Protect people, property, and natural resources
2. Increase level of community resilience county-wide and improve capability to reduce disaster losses
3. Strengthen communication and coordination among public agencies, non- governmental organizations, businesses, and citizens
4. Increase public awareness of natural and human-caused hazards and mitigation options
5. Integrate hazard mitigation into other planning mechanisms



Larimer County 2020 Mitigation Objectives

1. Continue to develop and expand public awareness and information programs
2. Enhance training for hazard prevention and mitigation options
3. Incorporate risk reduction principles into policy documents and initiatives, as well as other institutional plans
4. Continue to collaborate with area partners through mutual aid agreements and long-term planning efforts
5. Reduce the vulnerability of local assets and members of the community to the impacts of hazards.



Review of Mitigation Action Categories



COLORADO

Division of Homeland Security & Emergency Management

Department of Public Safety

Hazard Mitigation Examples

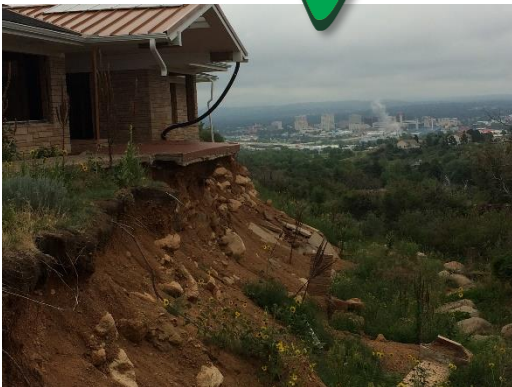
- Reduce the future demand for, and rising costs of, disaster response and recovery.
- Retrofit a critical facility, enforce building codes, land use planning, remove a structure from a hazard area.



MITIGATION: Elevated Home by the River



MITIGATION: Defensible Space, Fuels Reduction



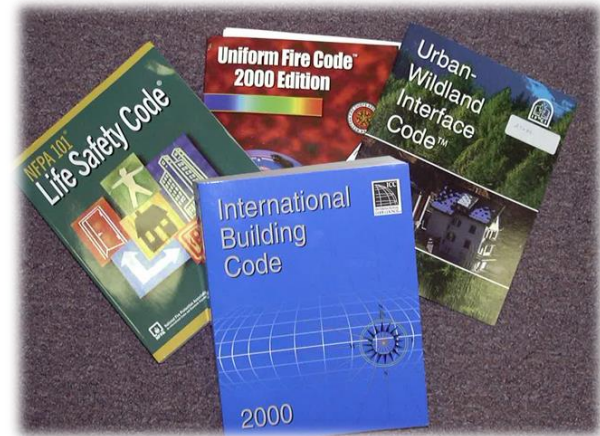
MITIGATION: Home Removed from Landslide Area



RESPONSE: Purchase of Police Command Vehicle

Review Possible Mitigation Activities

- Plans and Regulations
- Structure and Infrastructure Projects
- Education and Awareness
- Natural systems protection
- *Actions must be prioritized*



Mitigation Action Categories

FEMA Mitigation Ideas Guidance Categories

- Plans and Regulations
- Structure and Infrastructure Projects
- Education and Awareness
- Natural systems protection

Community Rating System Guidance Categories

- Prevention
- Property protection
- Natural resource protection
- Structural projects
- Public information
- Emergency services

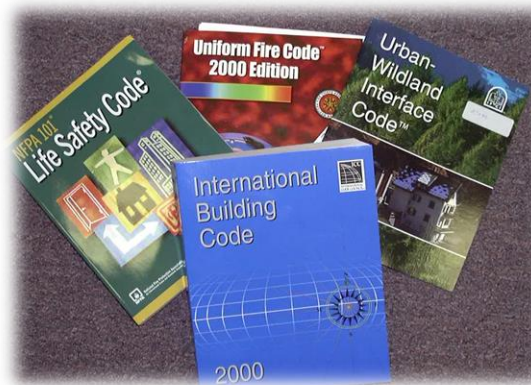


FEMA Community Lifelines



Review Mitigation Alternatives

- ▶ Alter
- ▶ Avert
- ▶ Adapt
- ▶ Avoid



Review Mitigation Alternatives

► **Alter the Hazard**

- Prescribed burns or fuels management to reduce wildfire intensity and severity
- Draining lakes behind weakened dams



Review Mitigation Alternatives

- ▶ **Avert** the Hazard
 - Floodwalls
 - Debris basins
 - Drainage improvements
 - Channels and culverts
 - Firebreaks



Review Mitigation Alternatives

► **Avoid** the Hazard

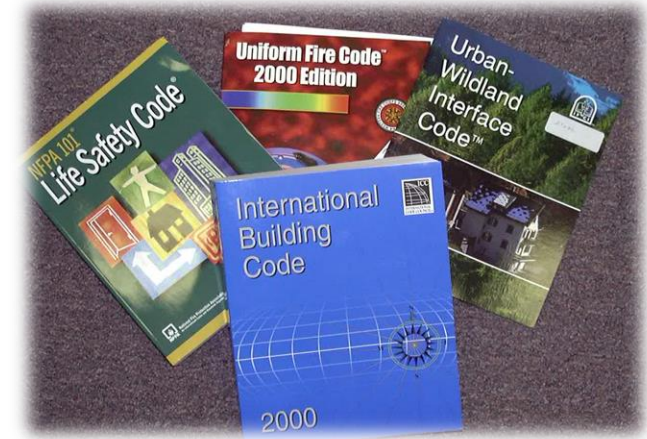
- Acquisition
- Relocation
- Open space
- Land use designation
- Natural system protection



Review Mitigation Alternatives

▶ Adapt to the Hazard

- Building codes
- Construction standards
- Land use and development regulations
- Design standards
- Monitoring and warning systems
- Safe rooms and shelters



Climate Change Adaptation Considerations

Vulnerability Assessment

- **Exposure:** What climate change effects will the community experience?
- **Risk & Onset:** How likely are impacts and how quickly will they occur?
- **Adaptive Capacity:** What can be done?

Adaptation Strategy Development

- **Prioritize Needs:** Which vulnerabilities require action?
- **Identify Strategies:** Which strategies should be pursued?
- **Prioritize & Evaluate:** Feasible? Potential costs vs benefits
- **Phase & Implement:** How can strategies be funded, monitored?



Projects Eligible for FEMA Funding - Wildfire

- Defensible space
- Structural protection through ignition-resistant construction activities
- Hazardous fuels reduction activities
 - Community level vegetation management
 - Vegetation removal
 - Vegetation clearing and/or thinning
 - Slash removal
 - Vertical clearance of tree branches



Projects Eligible for FEMA Funding - Flood Mitigation

- Acquisition
- Dry and wet flood-proofing
- Elevation
- Minor localized flood reduction projects
 - Detention ponds
 - Channel stabilization
- New policy change: levee projects if no duplication of programs with Army Corps
- Infrastructure retrofit
 - Culverts, bridges, etc.



Projects Eligible for FEMA Funding (Other Hazards)

- Landslides/ geologic hazards
 - Channel or slope stabilization - protection of critical facility
 - Property acquisition
- Utility protection/ infrastructure retrofit
 - Winter weather
 - High winds
- Safe rooms
- Generators
- Seismic building/infrastructure retrofit
- Climate resilient mitigation activities
 - groundwater recharge
 - green infrastructure



Mitigation Action Selection and Prioritization

STAPLEE

- ▶ Social
- ▶ Technical
- ▶ Administrative
- ▶ Political
- ▶ Legal
- ▶ Economic
- ▶ Environmental

Other Strategies to Consider

- ▶ Life safety and vulnerable populations
- ▶ Addressing high risk hazards
- ▶ Protect critical facilities/assets
- ▶ Multiple objectives



Progress on Mitigation Actions from 2016 Plan

Mitigation Action Statuses

- Completed
- Annual Implementation
- In Progress
- Not started
- Deleted



2016 Mitigation Actions Summary

Jurisdictions	# of Actions in 2016 HMP	# of Actions Completed	# of Actions Deleted	# of Actions Continued	Need Update
Larimer County	22	12	0	6	4
Town of Berthoud	4				4
Berthoud Fire Protection District	6	4		1	1
Colorado State University	4	1		NA	
Crystal Lakes Fire Protection District	5				5
Town of Estes Park	7	2		5	
Estes Park Health	2	1		1	
Estes Valley Fire Protection District	1				1
Estes Valley Recreation and Park District	1	1		0	
City of Fort Collins	32	10		19	3
Glacier View Fire Protection District	3			3	
Town of Johnstown	2				2
Livermore Fire Protection District	5	4		1	
City of Loveland	8	4		2	2
Northern Water	1			1	
Pinewood Springs Fire Protection District	5	3			2
Platte River Power Authority	2			NA	
Poudre Canyon Fire Protection District	1			1	
Poudre Fire Authority	3	0		1	2
Thompson Valley EMS	3				3
Town of Timnath	3			3	
Upper Thompson Sanitation District	3	2		1	
Town of Wellington	2				2
Wellington Fire Protection District	2				2
Town of Windsor	6	1		5	
Windsor Severance Fire Rescue	3				3



Identification of New Mitigation Actions

Disaster Mitigation Act Requirements

- ▶ Each jurisdiction must have at least one new action
- ▶ Priority should be given to High Risk hazards
- ▶ Must be “true” mitigation to meet FEMA requirements
 - ▶ Preparedness & other actions may also be included
- ▶ Actions must be prioritized
- ▶ Actions must have detail on implementation & admin
- ▶ Actions must have a basic review of benefit vs cost
- ▶ Must include actions that address existing and future development



New Mitigation Action Development

- ▶ Please submit one new mitigation action by July 28
- ▶ Link: [https://bit.ly/Larimer HMP New Mitigation Actions](https://bit.ly/Larimer_HMP_New_Mitigation_Actions)
- ▶ Include as much detail as you can, but it's okay if you don't know or can elaborate later
- ▶ Feel free to submit more than one.

Adams County Hazard Mitigation Plan 2020 Update New Mitigation Action Worksheet	
Use this sheet to record new potential mitigation projects (1 form per project) identified during the planning process. Provide as much detail as possible and use additional pages as necessary. Complete and return to Amy Carr by January 31, 2020 .	
Mitigation Action/Project Title	
Hazard(s) Mitigated	
Priority (High, Medium, Low)	
Project Description, Issue/Background	
Responsible Office/ Agency and partners	
Timeline for Completion	
Cost Estimate	
Benefits (Avoided Losses)	
Prepared by: _____ Jurisdiction: _____ Title/Dept: _____ Phone: _____ Email: _____	<div style="border: 1px solid black; padding: 5px;"> Please return worksheets by email to: Amy Carr amy.carr@woodplc.com Phone: 303-630-0796 </div>



Next Steps

Project Schedule Update

Project Milestones	Anticipated Timeline
Draft HIRA Review	July
HMPC Meeting #4 – Plan Review	August
HMPC Review Draft	September
Public Meeting #2 & Public Review Draft	September - October
CO DHSEM Review	October
FEMA Review	October - December
Final Approved HMP for local adoption	January



Next Steps

- Submit 1 new mitigation action via survey by July 28th
 - https://bit.ly/Larimer_HMP_New_Mitigation_Actions
- Provide updated status for 2016 actions
- Return the Data Collection Guide if you haven't already

Coming Soon:

- Take prioritization survey
- Review & comment on draft HIRA
- Review & comment on draft plan
- Final HMPC meeting in August?





wood.

Questions?

Thank you!

Shayle Nelson Sabo
Larimer County OEM
sabosn@co.larimer.co.us
970-498-7148

Scott Field
Wood E&IS
Scott.Field@woodplc.com
303-742-5320