

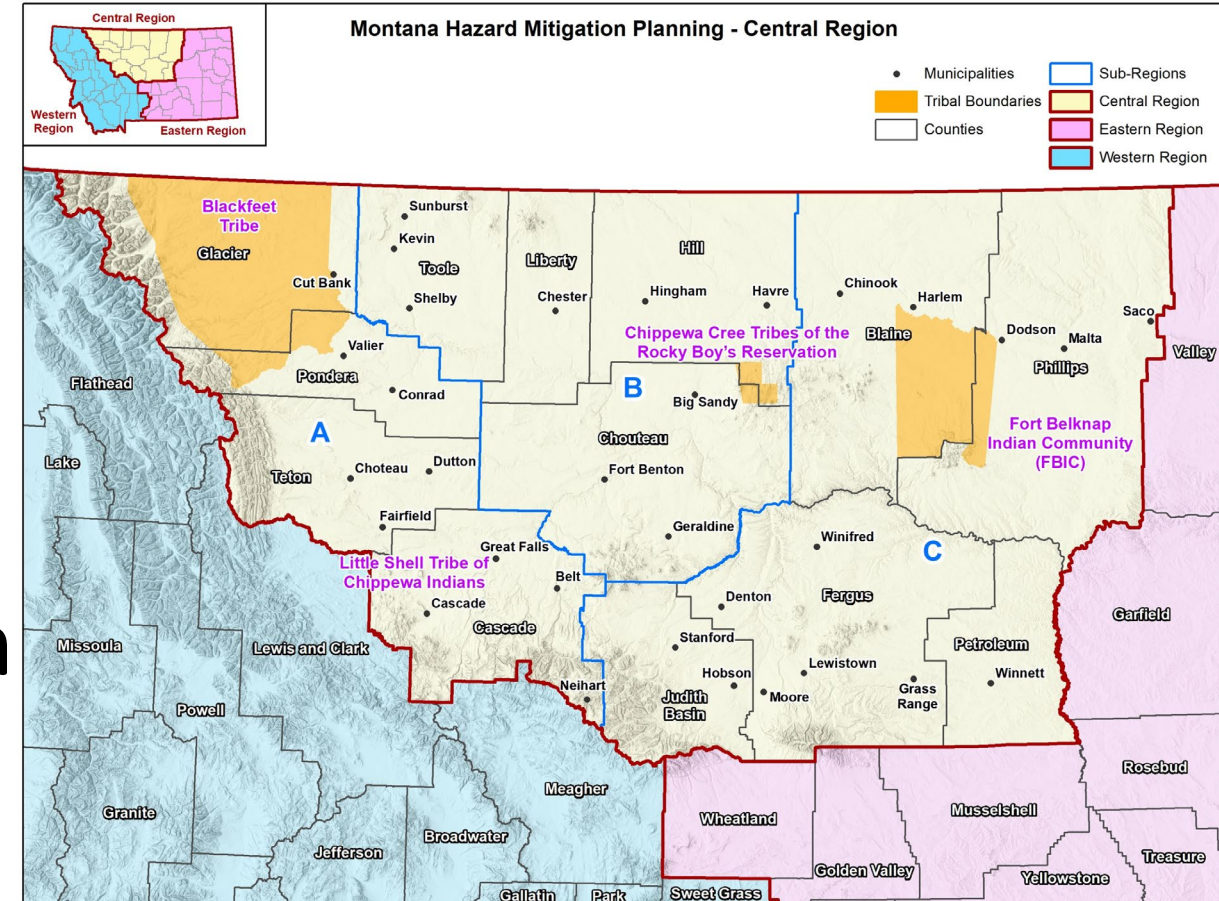


State of Montana Central Region Hazard Mitigation Plan

Hazard Mitigation Planning Team –

Meeting #3 – Mitigation Strategy

October 11-13, 2022 – 10:00 AM – 3:00 PM



Agenda

1. Introductions
2. Planning process update
3. Review of possible mitigation activities and alternatives
4. Discuss criteria for mitigation action selection and prioritization
5. Funding mitigation options
6. Review of progress on existing mitigation actions (working lunch- provided)
7. Brainstorming Session: Development of new mitigation actions (group process)
8. Prioritize mitigation actions (group process)
9. Preview of draft HIRA
10. Discuss plan implementation and maintenance
11. Next steps



Introductions



Introductions

- **Montana Disaster and Emergency Services**

- Sara Hartley – State Hazard Mitigation Officer
- Hannah Shultz – Mitigation Coordinator
- J. Lee Okeson – Central Region Supervisor
- Joey Zahara – Central Region Field Officer
- Ed Greiberis – Central Region Field Officer

- **County/Tribal Emergency Management Coordinators**

- **Federal & State Partners**

- **Other Stakeholders**

- **Wood Project Team**

- Jeff Brislawn – Project Manager
- Scott Field – Lead Planner, Central Region
- Bob Vince – Project Principal, Local Support
- Juliana Prosperi – Lead Planner, East Region
- Amy Carr – Lead Planner, West Region
- Mack Chambers – Lead GIS Analyst
- Cameron Nelson – Hazard Mitigation Specialist
- Chris Johnson – Hazard Mitigation Planner/GIS
- Natalie Schoen – Hazard Mitigation Planner
- Emily Geery – SWCA Wildfire Risk Assessment Support
- Victoria Amato – SWCA Wildfire Planning Specialist

Planning Process Update



FEMA's Nine-Step Planning Process

Step 1 Determine the Planning Area and Resources

Step 2 Build the Planning Team

Step 3 Create an Outreach Strategy

Step 4 Review Community Capabilities

Step 5 Conduct a Risk Assessment

Step 6 Develop a Mitigation Strategy

Step 7 Keep the Plan Current

Step 8 Review and Adopt the Plan

Step 9 Create a Safe and Resilient Community

Progress So Far

- Kickoff meeting held March 31, 2022
- Online public survey closed August 8th, 2022
 - 265 total responses received
- Risk Assessment Meeting held August 17th, 2022
- GIS analysis & mapping completed
- Draft HIRA being completed

Review of Possible Mitigation Activities and Alternatives



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



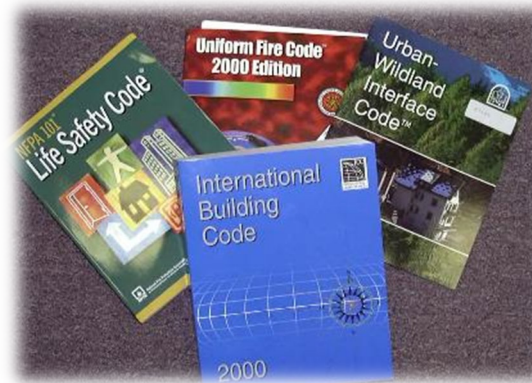
MITIGATION: Home Removed from Landslide Area



RESPONSE: Purchase of Police Command Vehicle

Review 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 and gates
- Debris Nets and Basins
- Drainage improvements
- Channels and culverts
- Firebreaks



Review Mitigation Alternatives

► **Avoid the Hazard**

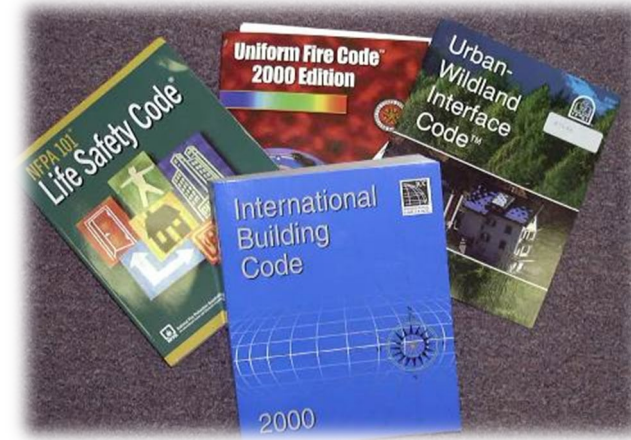
- Acquisition
- Relocation
- Open space
- Land use designation
- Natural system protection



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



Mitigation Action Categories

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

FEMA Community Lifelines



Flood Mitigation, Evacuation Structure, Wildfire protection



Relocation or protection water supply system, Pumping Station



Mitigation of risks to Hospitals



Microgrid, Electrical or Gas utilities relocation or protection



Upgrades to Emergency communications infrastructure due to risks from natural hazards



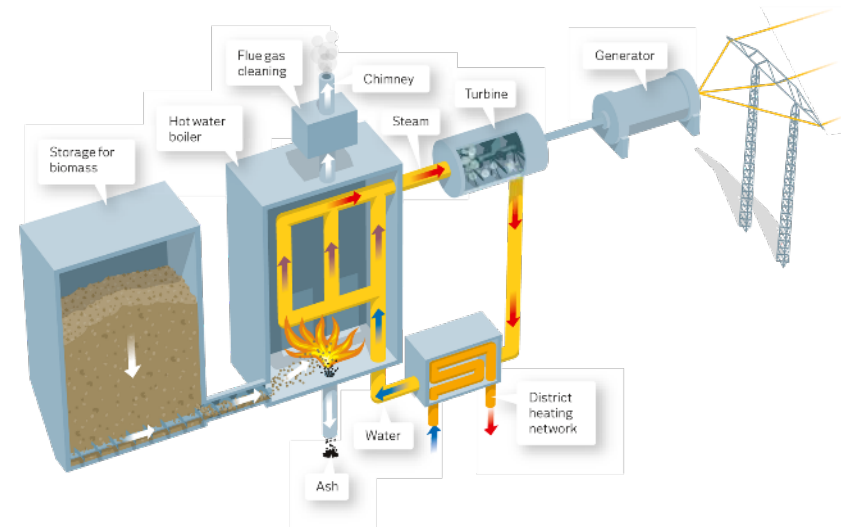
Bridge improvements, Road elevation and/or protection, Transit authorities



Waste transfer station, Wastewater treatment plant

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
- Biomass Plant



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 – Winter Storm

- Ensure development and enforcement of building codes for snow loads
- Burying/hardening overhead power lines
- Informing the public about severe winter weather impacts
- Organizing outreach to vulnerable populations including establishing and promoting accessible heating centers
- Retrofitting public buildings to withstand snow loads and prevent roof collapse



Projects Eligible for FEMA Funding (Other Hazards)

- Landslides/geologic hazards
 - Channel or slope stabilization - protection of critical facilities
 - Property acquisition
- Utility protection/ infrastructure retrofit
- Safe rooms
- Generators
- Microgrids/smart grids
- Seismic building/infrastructure retrofit
- Climate resilient mitigation activities
 - Groundwater recharge
 - Green infrastructure



Things FEMA Will Not Count Towards The Requirement

"Conduct routine maintenance..."

"Develop a program..."

"Conduct a study..."

"Improvements were recently completed on..."

"Identify projects to reduce risk..."

Discuss Criteria for Mitigation Action Selection and Prioritization



Mitigation Action Selection and Prioritization

STAPLEE

- ▶ **S**ocial
- ▶ **T**echnical
- ▶ **A**ministrative
- ▶ **P**olitical
- ▶ **L**egal
- ▶ **E**conomic
- ▶ **E**nvironmental

Other Things to Consider

- ▶ Life Safety
- ▶ Vulnerable Populations
- ▶ Addressing High Risk Hazards
- ▶ Protect Critical Facilities/Assets
- ▶ Multiple Goals/Hazards

Funding Mitigation Options



Funding Sources

- Federal & state grants
- Local/tribal budgets
- Capital improvement budget
- Healthcare Coalition
- Public-private partnerships
- Conservation coalitions
- Fees/assessments/levies
- Other?

FEMA Hazard Mitigation Grants

- Projects must be tied directly to the mitigation goals, objectives, and specific actions in your HMP.
- Most have 25% local match
 - **HMGP**: Hazard Mitigation Grant Program, post-disaster, all natural hazards
 - **HMGP Post-Fire**: available following an FMAG declaration
 - **PA 406**: Public Assistance Program Section 406, post-disaster, add mitigation measures to PA projects to avoid/reduce future damage
 - **BRIC**: Building Resilient Infrastructure & Communities, pre-disaster/annual cycle, all natural hazards, infrastructure emphasis
 - **FMA**: Flood Mitigation Assistance, pre-disaster/annual cycle, flood hazard, NFIP insured structures & communities
 - **HHPD**: High Hazard Potential Dam Program, pre-disaster/annual cycle, for non-Federal high hazard dams rated Unsatisfactory. (local match varies)

FEMA Preparedness Grants

- Emergency Management Performance Grant
- Homeland Security Grant Program
- Tribal Homeland Security Grant
- Nonprofit Security Grant
- Transit Security Grant/Intercity Bus Security Grant
- Port Security Grant
- Assistance to Firefighters Grants
- Regional Catastrophic Grant Program
- National Earthquake Hazards Reduction Program Grant
- Community Assistance Program

Other Grants

- US DOT
- BIA
- HUD
- EPA
- USDA
- USFW
- CDC
- BOR
- USACE
- NOAA/NWS
- SBA
- State of Montana grants?

Review of Progress on Existing Mitigation Actions



Mitigation Actions from Previous Plans

#	Jurisdiction	Action/Project Name & Description	Hazards Mitigated	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding Sources	Schedule/ Timeline	Old Priority
1.1	Chester	Address repeated road and property flash flooding by enhancing storm-water drainage system	Flood	City of Chester		High	City of Chester, MT DES, FEMA		High
1.2	Chester	Replace the one existing siren for the city, enhance coverage for whole city.	All	City of Chester,	County DES	Meduim	City of Chester, County		Medium
1.3	Chester	Continue participation in NFIP. Find assistance to administer regulations so that development complies	Flood	City of Chester,	County DES	Medium	City of Chester, MT DES, Co DES		Medium
2.1	Liberty County	Identify methods, adopt, and educate people on how to receive warning/alert information.	All	County Commissioners,	City of Chester, LEPC, County DES	Low	Existing budgets		High
2.2	Liberty County	Manage forest fuels on Mt. Royal communications site	Wildland Fire	County Fire Warden,	County Commissioners	Medium	DNRC, County, MT DES		High
2.3	Liberty County	Update the hazardous materials flow study	Hazmat	LEPC,	County DES	Medium	FEMA, MT DES, County DES		High
2.4	Liberty County	Offer a CPR and First Aid course	All	Hospital,	LEPC	High	Hospital Attendees		High
2.5	Liberty County	Complete rural addressing system and install fireproof road signs	All	County Planning and Road Dept		High	County		Medium
2.6	Liberty County	Continue to enhance radio availability.	All	County		Medium	County DES and Fire, MT DES, DNRC		Medium
2.7	Liberty County	Purchase radios for Joplin	All	County Commissioners,	DES	Medium	County, DNRC		Medium
2.8	Liberty County	Educate school children on what to during a natural disaster	All	County DES,	LEPC	Low	Existing budgets		Medium

Prior Mitigation Actions

- **Not Started:** Work has not begun
- **In Progress:** Work has begun but is not completed
- **Completed:** The action has been finished
- **Annual Implementation:** Ongoing with no specific end date
- **Deleted:** The action is no longer relevant or cancelled due to changing priorities, lack of funds, etc.

There is no requirement or expectation to have completed any/all previous actions.

Activity: Mitigation Status Updates

- Break into groups by County/Tribe.
- Spreadsheets showing the actions from your previous plans will be distributed.
- Review and update the status of those actions you can.
 - We don't expect 100% today
 - ...but we will need 100% before we can submit to FEMA.
- Make notes of who you may need to follow up with after the meeting.
- Electronic copies will be emailed out next week.

Mitigation Actions Status Update

- 2022 Status
 - Not Started
 - In Progress
 - Completed
 - Annual Implementation
 - Deleted
- 2022 Priority
 - High
 - Medium
 - Low
- 2022 Implementation Notes
 - When was it completed?
 - Why are you deleting it?
 - What has been accomplished so far?
 - What roadblocks have prevented implementation?
- Update other columns where possible
 - Schedule/Timeline
 - Budget
 - Partner Agencies
 - Etc.

Development of New Mitigation Actions



Disaster Mitigation Act Requirements

- ▶ Must have at least one new action
- ▶ Must have at least one action for each applicable hazard
- ▶ Must be “true” mitigation to meet FEMA requirements
 - ▶ Preparedness & response actions may also be included
- ▶ Must address one or more mitigation goals/objectives
- ▶ Actions must be prioritized
- ▶ Actions must have detail on implementation & administration
- ▶ Actions must have a basic review of benefit vs cost
- ▶ Must include actions that address existing and future development

New Mitigation Actions Are Not “Binding”

The mitigation strategy is a “wish list”
not a commitment of resources.

DRAFT Central Region Mitigation Goals

1. Reduce impacts to people, property, the environment, and the economy from hazards.
2. Protect community lifelines and critical infrastructure to ensure the continuity of essential services.
3. Increase public awareness and participation in hazard mitigation.
4. Sustain and enhance jurisdictional capabilities to enact mitigation activities.
5. Integrate hazard mitigation into other plans, processes, and regulations.
6. Promote regional cooperation and leverage partnerships in mitigation solutions where possible.

Mitigation Strategy Elements

Goals

General guidelines that explain what you want to achieve

Usually broad policy/vision statements

Objectives (optional)

Define strategies or implementation steps to attain goals

Specific and measurable

Actions

Specific projects/activities to achieve goals & objectives



Central Region Hazards – DRAFT Significance Rankings

Hazard	Geographic Area	Magnitude/ Severity	Probability	Significance
Communicable Disease	Extensive	Critical	Occasional	Medium
Cyber-Attack	Significant	Critical	Likely	Medium
Dam Failure	Significant	Critical	Occasional	Medium
Drought	Extensive	Critical	Likely	Medium
Earthquake	Significant	Limited	Likely	Low
Flooding	Limited	Critical	Likely	Medium
Hazardous Material	Limited	Negligible	Likely	Low
Landslide	Limited	Negligible	Likely	Low
Severe Summer Weather	Extensive	Limited	Highly Likely	Medium
Severe Winter Weather	Extensive	Critical	Highly Likely	High
Human Conflict	Significant	Limited	Occasional	Low
Tornadoes/Windstorms	Extensive	Limited	Highly Likely	Medium
Transportation Accidents	Limited	Limited	Highly Likely	Low
Volcanic Ash	Extensive	Limited	Unlikely	Low
Wildland/Rangeland Fire	Extensive	Critical	Highly Likely	High

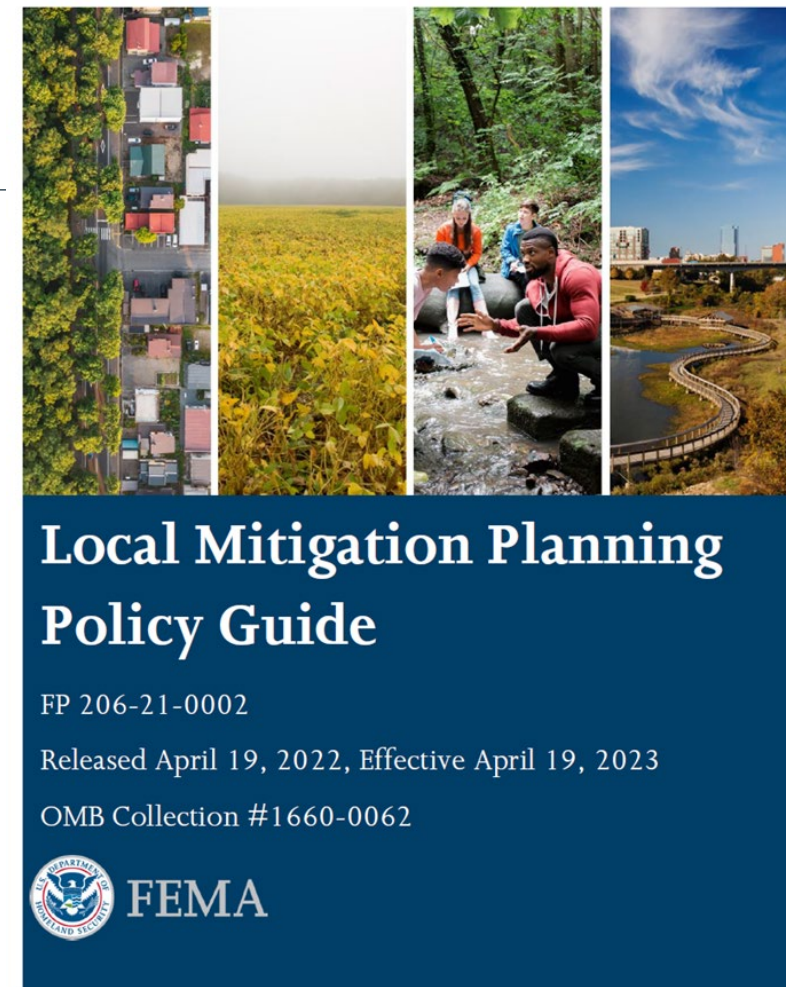
FEMA Community Lifelines

 Safety and Security	 Food, Water, Shelter	 Health and Medical	 Energy	 Communications	 Transportation	 Hazardous Material
 Law Enforcement/Security	 Food	 Medical Care	 Power	 Infrastructure	 Highway/Roadway	 Facilities
 Search and Rescue	 Water	 Patient Movement	 Fuel	 Alerts, Warnings, and Messages	 Mass Transit	 Non-Fixed Sites
 Fire Services	 Shelter	 Public Health		 911 and Dispatch	 Railway	
 Government Services	 Agriculture	 Fatality Management		 Responder Communications	 Aviation	
 Community Safety		 Medical Supply Chain		 Financial Services	 Maritime	

Sources of Ideas for Mitigation Actions

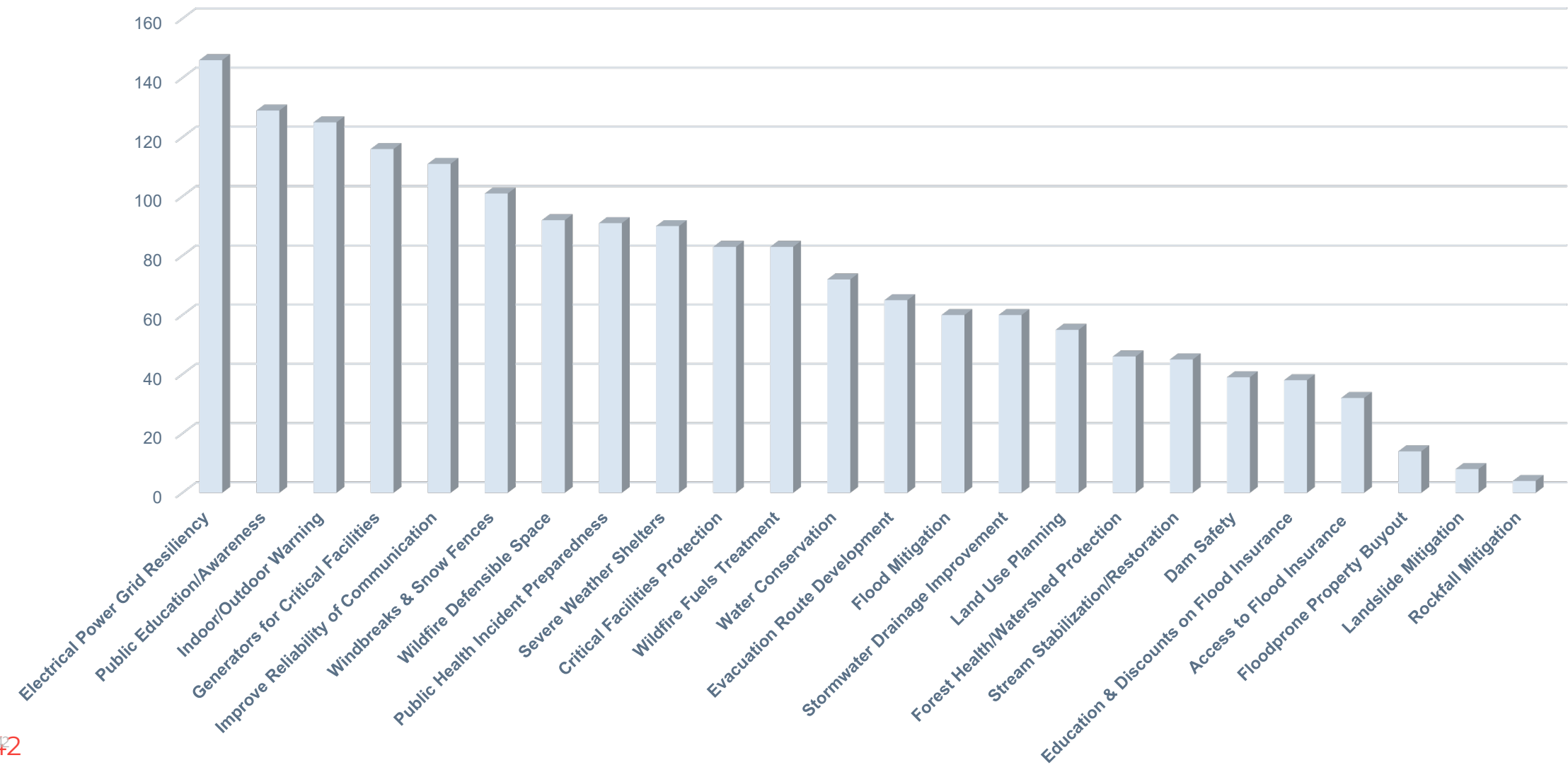
- ▶ Draft Hazard Identification & Risk Assessment
- ▶ Handout on action alternatives by hazard & category
- ▶ Public survey input
- ▶ Water protection & usage plans, watershed plans, drainage plans, etc.
- ▶ Capital Improvement Plan
- ▶ Community Wildfire Protection Plan
- ▶ FEMA 'Mitigation Action Portfolio' publication

https://www.fema.gov/sites/default/files/2020-08/fema_mitigation-action-portfolio-support-document_08-01-2020_0.pdf



Public Survey Results

Please indicate the types of mitigation actions that you think should have the highest priority.



Suggested Ideas for New Mitigation Actions

- Provide indoor NOAA weather radios to critical facilities, community shelters, city facilities, schools and other identified areas.
- Install additional snow fences at strategic locations to minimize roadway impacts and transportation incidents
- Create a water conservation public awareness and educational campaign, including educational materials on water conservation measures to implement during drought periods.
- Implement the high priority projects identified in CWPPs
- Notification system for tourists for thunderstorms, fire, floods, and dam failure as visitors may not get emergency notifications on their phones.
- Strategic grassland fuels reduction efforts surrounding vulnerable communities
- Ensure critical communication infrastructure is grounded to mitigate lightning strikes.

Activity: Develop New Mitigation Actions

- What new mitigation actions should be added to the Plan?
- Write one idea for each new action on a blank worksheet
- You are encouraged to collaborate with other agencies or jurisdictions
- Include details where you can, but it's okay if you don't know or can elaborate later.
- Include the Jurisdiction and Lead Agency
- Feel free to submit more than one
- Review each other's suggestions

2023 Montana Regional Hazard Mitigation Plans 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.

Mitigation Action/Project Title	
Project Description, Issue/Background/Benefit	
Hazards Mitigated (Include all that apply)	
Goal(s) Addressed	
Priority (High, Medium, Low)	
Responsible Department/ Agency and partners	
Timeline for Completion	
Cost Estimate	
Potential Funding	
Which infrastructure lifelines does this project address?	

Prepared by: _____
Jurisdiction: _____
Title/Dept: _____
Phone: _____
Email: _____

Please return worksheets by email to:
Natalie Schoen
natalie.schoen@woodplc.com
Phone: 563 581-4283

Prioritization of Mitigation Actions



Mitigation Action Selection and Prioritization

STAPLEE

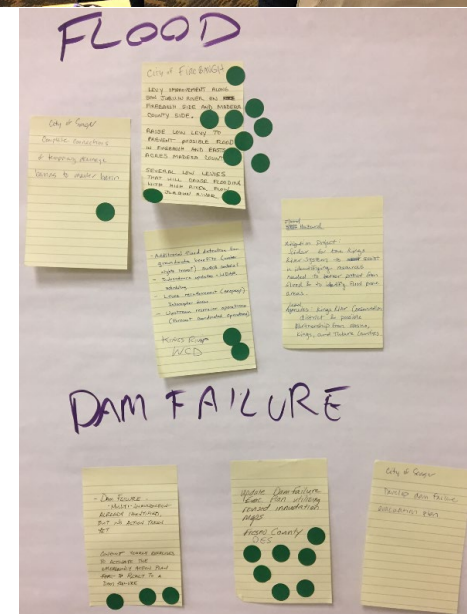
- ▶ Social
- ▶ Technical
- ▶ Administrative
- ▶ Political
- ▶ Legal
- ▶ Economic
- ▶ Environmental

Other Factors to Consider

- ▶ Life safety
- ▶ Addressing high risk hazards
- ▶ Protect critical facilities
- ▶ Multiple goals/hazards
- ▶ Vulnerable populations and equity

Activity: New Mitigation Action Prioritization

- ▶ Connect the Dots!
- ▶ 4 Dots per Person
- ▶ Indicate which should be priority mitigation actions with a dot, keeping STAPLEE Criteria in mind
- ▶ Dots will later be converted into a High, Medium, Low initial prioritization



Preview of Draft HIRA



DRAFT Hazard Identification & Risk Assessment

- Coming soon for planning team review
- It is critical we get your feedback and input – it's YOUR plan!
- Review both for the region as a whole and for your jurisdiction specifically
- Feedback will be incorporated into full draft and resent for review

Regional HMP Table of Contents

1. Introduction
2. Community Profile
3. Planning Process
4. **Hazard Identification & Risk Assessment**
5. Mitigation Strategy
6. Plan Implementation & Maintenance
 - Jurisdictional Annexes
 - Appendices

HIRA Contents

- Hazard Identification
 - Disaster Declaration History
 - Hazards Considered
 - Methodology
 - Climate Change
 - Hazard Rankings/Summary
- Assets At Risk
 - Population
 - General Property
 - Critical Facilities & Lifelines
 - Cultural, Historical and Natural Resources
- **Hazard Profiles**

Hazard Profiles

- Hazard Description
- Geographical Area Affected
- Past Events
- Magnitude/Severity
- Frequency/Likelihood of Occurrence
- **Vulnerability Assessment**
- Risk Summary

Hazard Vulnerability Assessments

- People
- Property
- Critical Facilities & Lifelines
- Economy
- Historic & Cultural Resources
- Natural Resources
- Development Trends

Plan Implementation and Maintenance



Plan Implementation & Maintenance

The plan must describe how, when, and by whom the plan will be:

Monitored:

- Tracking implementation of mitigation actions
- Identifying new actions as needed
- Losses avoided due to mitigation activities

Evaluated

- Effectiveness at achieving goals and objectives
- What hindered implementation?
- What factors contributed to success?

Updated

- Reviewed & revised at least once every five years.

Continued Public Involvement

- Engaged and given opportunity to provide input

Plan Implementation & Maintenance

The following tasks should be conducted “regularly”, at least annually

- HIRA review – changes to hazards or vulnerabilities
- Review of recent hazard incidents
- Updates on mitigation actions
- Assess effectiveness of completed mitigation actions

Annual face to face meeting of Hazard Mitigation Planning Team to discuss updates on mitigation actions and/or significant impactors/events

- Target is first quarter of each year?

Job aids:

- Sample agenda for annual meeting in appendix

Incorporation into Other Planning Mechanisms

- Mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and development.
- Implementation through existing plans and/or programs is recommended wherever possible:
 - Comprehensive Plan
 - Zoning/Subdivision Ordinances
 - Floodplain Ordinance
 - Capital Improvements Plan
 - Emergency Operations Plan
- Discussion: Provide at least one opportunity to incorporate or cross reference the HMP into other planning mechanisms

FEMA Requirement – Element C6
a. Does the plan identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated?
b. Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?
c. The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.

Next Steps



Project Schedule



Project Milestones	Anticipated Timeline
Meeting #2 HIRA review	August
Meeting #3 Mitigation Strategy	October
HIRA Draft for HMPC review	October
Full Draft for HMPC review	November
Public Review Draft	December
DHSEM Review Draft	January – February 2023
Final Plan for FEMA Review (estimated)	March – April 2023
Final Approved HMP for local adoption	May-July 2023

Next Steps

- Please return Plan Update Guide if you haven't already
- Provide input on mitigation action statuses
- Submit additional new mitigation actions
- Review and comment on HIRA and full draft plan when available
- Think about what local-level Objectives you may want to adopt to supplement the plan's Goals
- Stay informed by email of upcoming meetings

Questions? Thank you!

**Central Region Project Manager/
Mitigation Coordinator**

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