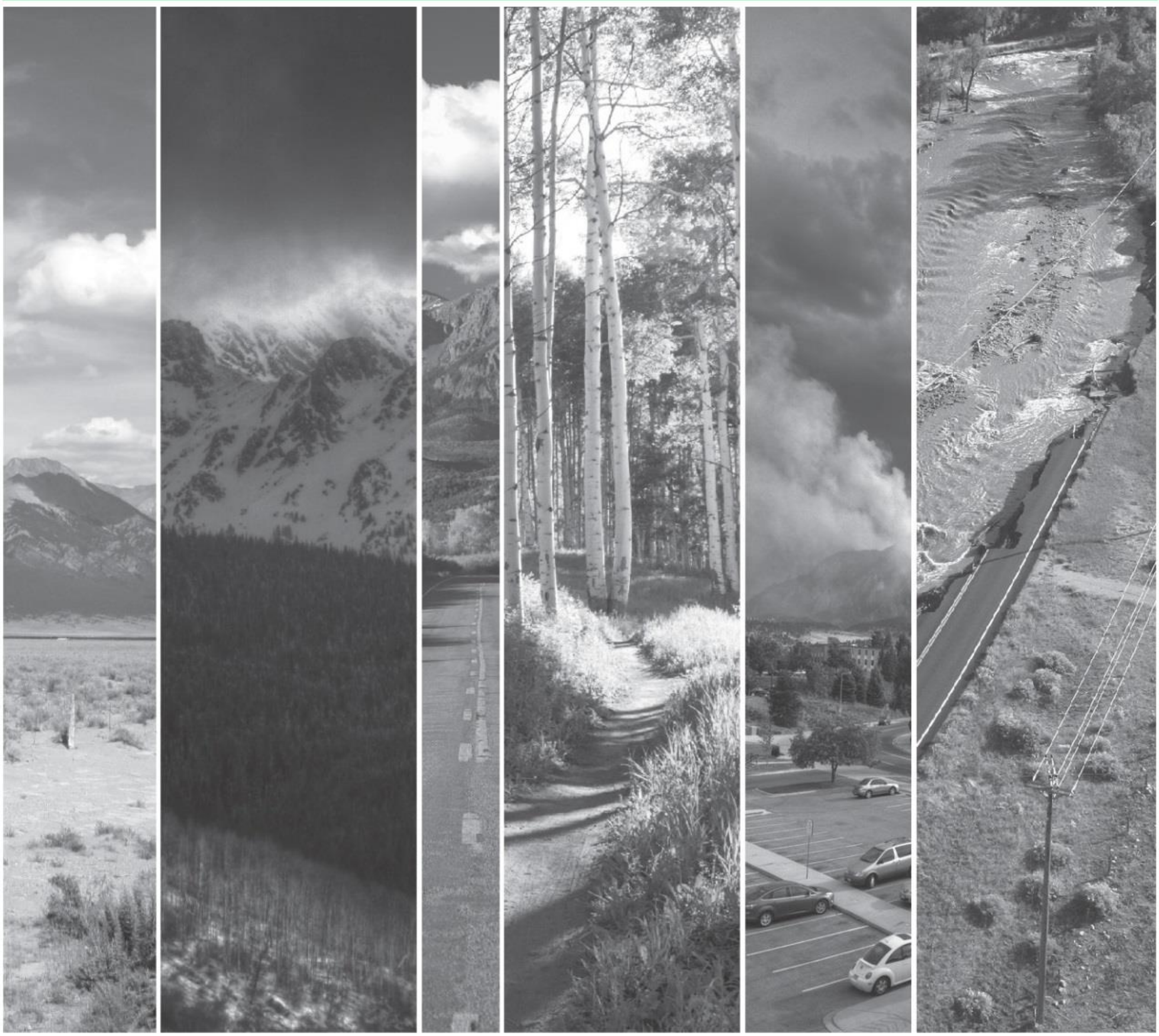
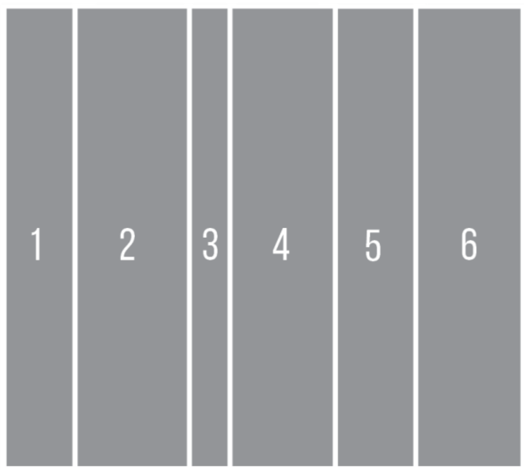
PLANNING FOR HAZARDS
Land Use Solutions for Colorado

WORKBOOK

VERSION 2, JUNE 2019





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FRAMEWORK AND PURPOSE

WELCOME

This workbook was developed by the Colorado Department of Local Affairs (DOLA) to facilitate and implement land use strategies for reducing risk in communities throughout the state (or beyond). This workbook provides your community with necessary background information and the tools to initiate a planning process (including sample agendas, discussion questions, and suggestions for further reading) to prepare for and mitigate hazards by integrating resilience and hazard mitigation principles into local plans and regulations.

Planning for hazards will leave a lasting impact on your community by reducing risk to hazards while addressing other critical planning needs. ***Thank you for your desire to strengthen your community!***

OVERVIEW OF THE WORKBOOK

This workbook is a step-by-step guide to initiating and participating in the planning process, including templates that can be tailored to meet your community's specific needs.

RELATIONSHIP TO THE 2016 PLANNING FOR HAZARDS GUIDE

In 2016, DOLA developed *Planning for Hazards: Land Use Solutions for Colorado,* a guide that enables counties and municipalities to prepare for and mitigate multiple hazards by integrating resilience and hazard mitigation principles into plans, codes, and standards related to land use and the built environment. The guide provides detailed, Colorado-specific information about how to assess a community's risk level to hazards and how to identify the most appropriate land use planning tools and strategies and implement those tools to reduce a community's risk. In addition to the printed guide, DOLA developed a website that allows the user to browse the content of the guide and view additional media content such as webinars and videos.

A snapshot of the planningforhazards.com homepage

Rather than repeating information that is presented in the *Planning for Hazards* guide, this workbook provides cross-references to relevant information where appropriate.

You can familiarize yourself with the *Planning for Hazards* guide at:

www.planningforhazards.com

OVERVIEW OF THE WORK SESSIONS

PURPOSE OF THE WORK SESSIONS

This workbook is organized around a series of five work sessions, each with a defined set of meeting objectives and outcomes and includes the supporting materials necessary to facilitate or participate in the work session. By the end of the fifth work session, the community should have successfully implemented one or more planning tools that reduce risk to hazards.

The work sessions are intended to convene the working group at key milestones of the project, such as discussing the Hazard Identification and Risk Assessment (HIRA) and prioritizing planning implementation tools. The work sessions are an opportunity to solicit feedback from the working group, to brainstorm strategies, and to follow up on actions from previous work sessions or related projects. Actions necessary for completing the major tasks of the project will also occur between work sessions.

TAILORING WORK SESSIONS TO YOUR COMMUNITY

There is not a one-size-fits-all approach to planning. This workbook provides a basic template to provide structure to the work sessions; however, some communities may choose to adjust their work sessions based on local factors such as the capacity and size of the working group, the status of the community's HIRA or local risk assessment, and whether or not an outside consultant is hired to assist with the project.

The risk assessment is a key component to planning for hazards and is an important up-front consideration for tailoring the work sessions to your community. Few communities initiating this process will be starting from scratch when identifying hazards and assessing risk to those hazards. Many Colorado communities address risk at some level through a HIRA in an existing FEMA-approved hazard mitigation plan. However, some municipal jurisdictions within a countywide hazard mitigation plan may not have sufficient local risk assessment data to make local planning decisions and may require a more fine-grained risk assessment approach.

This workbook and the respective work sessions build on the FEMA hazard mitigation planning guidance as it pertains to the HIRA but are designed for communities with minimal previous experience assessing and planning for hazards, and that have not recently completed a local risk assessment. Communities with extensive planning and a current risk assessment may choose to streamline this process by consolidating or removing work sessions to accommodate local needs and schedules.

SUGGESTED TIMELINE

The following is a suggested overall project schedule to consider for a planning for hazards project, including the five work sessions. This suggested one-year timeline should be tailored to your community depending on local capacity, the level of effort required to prepare a risk assessment, and the types and complexity of planning tools selected for implementation. Some communities may consider a separate adoption process outside of this suggested timeline.

	Months											
Tasks and Work Sessions	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Work Session 1 – Provide Introduction and Framework, & Assess Community Vulnerability		★										
Prepare Risk Assessment/HIRA; Prepare Stakeholder Engagement Strategy												
Work Session 2 – Assess Capabilities and Develop Planning Strategies				★								
Prepare Assessment Memo												
Work Session 3 – Prioritize Planning Implementation Tools						★						
Refine Assessment Memo; Develop Implementation Tools												
Work Session 4 – Review and Refine Draft Planning Implementation Tools									★			
Work Session 5 –Establish Implementation and Maintenance Procedures											★	
KEY: ★ = work session = ongoing work												

DESCRIPTIONS OF INDIVIDUAL WORK SESSIONS

The five proposed work sessions are summarized below, and each is estimated to be approximately two to three hours in duration (though some may require more time).

Work Session 1 – Provide Introduction and Framework, and Assess Community Vulnerability
This first work session should be considered the project kick off for the working group. During this work session, the working group will discuss overall project objectives and individual roles, an overview of the risk assessment and data collection process and will begin developing a stakeholder engagement strategy. Following the initial framing of the project, the working group will assess community vulnerability and develop problem statements, which will be used in subsequent work sessions to identify specific planning implementation tools. The results of this meeting will also shape the development of the risk assessment, which will be developed after this work session.

Key issues to discuss at meeting:

- Identify community issues and relevant current projects underway
- Frame the risk assessment process and identify hazards to be addressed
- Assess community vulnerability
- Develop problem statements

Work Session 2 – Assess Capabilities and Develop Planning Strategies
This work session is intended to explore how the HIRA can be used to reduce and mitigate hazard risk by developing or modifying the community's land use tools and strategies. Participants will identify

gaps in current programs, plans, and regulations based on the community's vulnerability to hazards, and generate a list of planning strategies for consideration.

Key issues to discuss at meeting:

- Discuss draft HIRA or local risk assessment
- Review community capabilities
- Discuss initial planning implementation strategies

Work Session 3 – Prioritize Planning Implementation Tools
The intent of this work session is to prioritize potential land use implementation tools to reduce risk to hazards. This work session can also be used to begin developing an action plan for drafting selected implementation tools. Following this work session, the project manager will lead the development of the selected planning implementation tools with involvement from working group participants and/or outside consultants and will present drafts of the tools during Work Session 4.

Key issue to discuss at meeting:

- Planning implementation tools prioritization exercise

Work Session 4 – Review and Refine Draft Planning Implementation Tools
The intent of this work session is to review and refine the draft planning implementation tools (such as draft ordinances) and develop a process for formal adoption or implementation of the tool once complete. Draft planning implementation tools should be distributed well in advance of this work session (two or three weeks depending on length and complexity of the tools). This work session requires the most tailoring since the focus of the meeting will depend on the types of tools selected.

NOTE: *Depending on the types of tools selected, review and refinement of the drafts may require one or more additional meeting(s).*

Key issues to discuss at meeting:

- Review draft implementation tools
- Identify outstanding tasks
- Develop outreach strategy and process for approval and/or adoption

Work Session 5 – Establish Implementation and Maintenance Procedures
The purpose of this final work session is to establish protocols for implementation and maintenance of the planning tools and to discuss next steps in your community's hazard risk reduction efforts. Prior to this work session, the working group will receive final drafts of the planning tools and will discuss how the tools will be administered, monitored, and amended over time and how the working group will continue to be involved.

Key issues to discuss at meeting:

- Discuss final draft implementation tools
- Establish protocols for ongoing administration and maintenance
- Identify future risk reduction projects

GETTING STARTED

THE WORKING GROUP

Working group participants are selected because of their expertise in land use planning, hazard mitigation, or both. Participants may be planners, emergency or floodplain managers, elected or appointed officials, or citizen advocates for the community. Participants will work with others who have the expertise or play a role in contributing to a safer community by implementing strategies via planning and land use regulations. The working group will participate in the five work sessions summarized earlier to implement planning strategies that reduce your community's risk to hazards.

PROJECT MANAGERS AND FACILITATORS

In some instances, the workbook refers to a "project manager" either in addition to or instead of the "facilitator." This is an important distinction. In some communities, the local project manager may also be the facilitator, whereas in other communities there could be a separate facilitator that is either an employee of the community or an individual or firm hired by the community to conduct the work sessions and develop planning implementation tools.

We suggest that the project be managed locally by a staff planner. Planners are trained to manage large projects and can identify linkages between local land use policies and other potentially competing interests. For communities without staff planners, the project should be managed by an individual or team best suited to facilitate dialogue related to land use planning and its connection to reducing risk to hazards.

THE PARTICIPANT'S ROLE

During the first work session, the facilitator will describe in further detail the individual roles of the working group participants. At a minimum, the working group participant will contribute by:

1. Actively participating in approximately five work sessions;
2. Providing meaningful feedback on draft deliverables;
3. Serving as a local advocate for planning for hazards; and
4. Reporting back to coworkers and people in their community.

Some participants may be asked to play a specific role depending on their relationship to the project activities and their expertise. For example, during data collection, the team will rely heavily on planners and GIS experts to coordinate data transfers. As another example, the team will rely heavily on emergency management personnel to contribute substantially to the development of the HIRA.

REVIEW THE PLANNING FOR HAZARDS GUIDE

To establish initial common ground, each participant should review *Planning for Hazards: Land Use Solutions for Colorado* by visiting planningforhazards.com. At a minimum, participants should focus on the following key elements of the guide (page numbers refer to the printed version and hyperlinks link to the corresponding information on the website):

- Chapter 2 – Planning Framework (pp. 2-12) planningforhazards.com/planning-framework
- Summary of Planning Tools and Strategies (pp. 28-29) planningforhazards.com/planning-tools-and-strategies
- Introductions to the six types of planning tools discussed in the guide:
  - Addressing Hazards in Plans and Policies (pp. 31-32) planningforhazards.com/addressing-hazards-plans-and-policies
  - Strengthening Incentives (p. 77) planningforhazards.com/strengthening-incentives
  - Protecting Sensitive Areas (pp. 103-104) planningforhazards.com/protecting-sensitive-areas
  - Improving Site Development Standards (pp. 145-146) planningforhazards.com/improving-site-development-standards
  - Improving Buildings and Infrastructure (pp. 179-180) planningforhazards.com/improving-buildings-and-infrastructure
  - Enhancing Administration and Procedures (p. 195) planningforhazards.com/enhancing-administration-and-procedures
- Glossary – List of acronyms and defined terms (for reference throughout this process) (pp. 227-234) planningforhazards.com/glossary

OTHER READINGS AND ACTION ITEMS

For each work session, the workbook identifies readings and assigned tasks to help prepare the working group participants for each work session. These are included in the following sections.

- **"To prepare for this work session."** This section describes the recommended readings or tasks that are intended to better prepare the facilitator and participants for the work session.
- **"Post work session action items."** This section looks ahead to the next work session and provides readings that preview topics to be covered at the following session and specific action items identified during the previous work session that need to be completed before the next work session.

Facilitator Note: Establishing the Working Group

It is the project manager/facilitator's role to put together the Planning for Hazards working group. Here are some tips for that process:

STEP 1 – Identify Key Stakeholders

1. **Cast a wide net.** Consider individuals who are either directly or indirectly involved in hazard mitigation activities. This may include building code enforcement, emergency mangers, fire districts, parks and recreation, public works, and representatives from regional or state agencies.
2. **Don't go too big.** Although the first recommendation is to cast a wide net, the community should identify specialized areas of interest and expertise that will add the most value to the project. Large working groups can be challenging to manage in terms of scheduling and simply getting through the meeting agendas. We suggest a manageable working group size of approximately 7-10 people.
3. **Identify gaps in working group**. If it is obvious after a meeting or two that a perspective is missing, try to identify the appropriate individuals to fill that gap. Additional subject matter experts may need to be added to the working group depending on which planning strategies are pursued.

STEP 2 – Invite Participants and Assign Key Roles

1. **Introduce goals and answer "why me?"** It is important in your initial communication to potential working group participants to clearly state the goals of the project, and make it interesting! Also, they will immediately wonder "why me," so include a statement of why they were invited to the table.
2. **Clearly outline expectations.** During the first work session, the facilitator should clearly summarize the expectations of the participants. Explain the level of commitment expected, including the number of work sessions and the general content of those work sessions.
3. **Distribute background materials.** Participants should be given enough notice of the background materials to allow for meaningful preparation for the first meeting. The materials have been designed to focus on essential background information without inundating the working group.
4. **Consider alternates.** Try to identify early if any working group participants may be unable to fully participate in the planning process, and if so whether an alternate should be identified.

Facilitator Note: Meeting Format and Logistics

Manage Schedules Effectively. People are busy and their time should be respected. Be aware of regular Planning and Zoning Commission or City Council meetings, since these often involve substantial staff preparation time. Consider approaches for managing the overall schedule and for scheduling meeting times with the stakeholders. For example, some meeting organizers prefer using online scheduling tools to effectively schedule meetings without overburdening a stakeholder group with emails.

Develop a Clear and Concise Agenda. Although this workbook provides sample agendas, some communities may wish to vary from the templates. It is important that regardless of the content of the meeting, the length of the agenda is reasonable given the scheduled time. In this workbook, we suggest that all work sessions are two hours or shorter. It should be obvious from a quick read of the agenda what will be covered during the meeting and who is responsible for leading each topic discussion (if multiple speakers are involved).

Set up the Room for Success. Setting up the meeting room appropriately can make a big difference in terms of level of engagement. If participants are expected to have equal speaking roles, then try to arrange the room in a manner that facilitates eye contact among all participants (e.g., horseshoe or circle). If small group exercises will be conducted, then make sure there is adequate space to break out into those groups without too much interference from other groups.

Facilitate Like a Pro. Good facilitators share some common approaches: They are engaging speakers, they are good listeners, they keep the group on task, and they report back to participants to validate perspectives. Facilitating like a pro means paying close attention to body language, and being flexible enough to try a different approach if the meeting objectives are not being met. Good facilitators also know when to say "I don't know," and follow-up on promised action items.

The Facilitator's Toolbox. Maintain a box with some facilitation tools that can quickly be transferred from meeting to meeting. Some things that often come in handy include: notecards, markers, easel and easel pad, name tags or placards, tape, extra pens, flash drive, business cards, and an extension cord.

Additional Resources for Facilitation:

- *Introduction to Planning and Facilitating Effective Meetings,* *coast.noaa.gov/data/digitalcoast/pdf/effective-meetings.pdf*
- *Gather: The Art & Science of Effective Convening,* *assets.rockefellerfoundation.org/app/uploads/20130626174021/Gather-The-Art-and-Science-of-Effective-Conveing.pdf*

WORK SESSION 1 – PROVIDE INTRODUCTION AND FRAMEWORK, & ASSESS COMMUNITY VULNERABILITY

PURPOSE

This first work session should be considered the project kick off for the working group. During this work session, the working group will discuss overall project objectives and individual roles, an overview of the risk assessment and data collection process and will begin developing a stakeholder engagement strategy. Following the initial framing of the project, the working group will assess community vulnerability and develop problem statements, which will be used in subsequent work sessions to identify specific planning implementation tools. The results of this meeting will also shape the development of the risk assessment, which will be developed after this work session.

TIMING

The first work session should occur during the first couple of months of the project.

SUPPORTING MATERIALS FOR THIS WORK SESSION

The following materials are provided for this work session:

- Sign-in Sheet
- Agenda
- Handout 1 – Hazard frequency and severity chart
- Handout 2 – HIRA summary outline and responsibilities
- Handout 3 – Initial data collection checklist
- Handout 4 – Identifying community assets
- Handout 5 – Developing problem statements based on HIRA

ANNOTATED AGENDA

Supporting materials (e.g., agenda, handouts, etc.) for Work Session 1 are provided in the Appendix.

1. **Welcome and introductions (10 minutes)**

> **Facilitator Note:**
> The facilitator should introduce themselves and encourage participants to share their name, agency, and experience related to land use planning and hazard mitigation. The facilitator could also ask about participant's current projects to get a sense for their expertise and capacity.

2. **Project overview (30 minutes)**
    a. **Project background and goals**. Discuss project goals and the rationale for embarking on this project. Why this community? Why now?

    Facilitator Note: Get Feedback on Participant Goals
    Ask participants what their goals are for the project. Explain clearly what the project will NOT include, such as infrastructure, roads, engineering, or actual physical mitigation improvements. Sample discussion questions may include:

    1. "What is your definition of success for this project?"
    2. "What is most important to you that we achieve in this project?"

    b. **Timeline**. Discuss project schedule and identify any potential constraints.

    Facilitator Note: Scheduling Constraints
    If there is a specific timeline that has already been identified, share that with the group. Try to nail down specific dates to the extent possible by identifying scheduling constraints. Facilitate a discussion on the best meeting dates, times, and locations for future work sessions.

    c. **Individual roles and expectations.** Discuss the roles of the working group with participants.

    Facilitator Note: Individual Roles and Expectations
    Explain to the group why each stakeholder was invited to the table. It is important to clearly communicate expectations at this first work session.

3. **Identify community issues and relevant current projects underway (20 minutes)**
Highlight other relevant projects that are either underway or are planned in the next few months. Further guidance for this discussion is provided below under "key issues to discuss at meeting."

4. **Frame the HIRA process and identify hazards to be addressed (30 minutes)**
The facilitator will provide a brief presentation of the HIRA methodology as recommended by FEMA. This presentation will also identify any existing local information that may be relevant to the HIRA process. Further guidance for this discussion is provided below under "key issues to discuss at meeting."

5. **Assess community vulnerability (75 minutes)**
Discuss the types of hazards that may affect the community. This discussion should be highly interactive, with maps to record working group notes on. The facilitator will present the results of each hazard profiled in the hazard frequency and severity analysis, and then use maps to identify any necessary updates based on local knowledge. Following the discussion on hazards, the participants should spend the remaining time identifying key community assets and critical facilities (e.g., schools, hospitals, roads, bridges, grocery stores, theaters, emergency operations centers, city hall, etc.) that may influence future land use regulations and programs. Many times, these assets can be identified in the community's comprehensive plan. Further guidance for this discussion is provided below under "key issues to discuss at meeting."

6. **Develop problem statements (20 minutes)**
The working group will develop problem statements related to hazards and community vulnerabilities. Further guidance for this discussion is provided below under "key issues to discuss at meeting."

7. **Next steps (5 minutes)**
   Summarize any action items from the work session, provide a quick overview of what will be covered at the next work session, and discuss assignments and background reading to complete prior to the next work session.

TO PREPARE FOR THIS WORK SESSION

BACKGROUND MATERIALS FOR PARTICIPANTS AND FACILITATORS

Planning for Hazards Guide

- Read Chapter 2 - The Planning Framework – pp.5-12 planningforhazards.com/planning-framework
- Read "We don't have GIS. How can we map our hazard risk?" – sidebar discussion on page 16 planningforhazards.com/how-do-i-assess-local-risks-hazards
- Read Summary of Common Data Sources – pp. 20-22 planningforhazards.com/what-hazards-may-affect-my-community
- Read Chapter 3 – Hazard Identification and Risk Assessment in the *Planning for Hazards* guide – pp. 13-22, or online at planningforhazards.com/hazard-identification-and-risk-assessment (This material will walk you through identifying which hazards may affect your community, and assessing local risks to those hazards.)
- Browse the *Planning for Hazards* guide appendix for descriptions of each hazard profiled in the guide. planningforhazards.com/hazard-identification-and-risk-assessment
- Browse "Interdepartmental coordination- getting them involved; keeping them involved" – sidebar discussion on page 32 planningforhazards.com/addressing-hazards-plans-and-policies
- Browse Forming a Network – pp.216-217 planningforhazards.com/implementing-planning-tools-and-strategies

Other Resources

- Colorado Resiliency Resource Center: coresiliency.com. This is an online interactive hub for resiliency knowledge and resources in Colorado and provides some supplementary implementation strategies to the *Planning for Hazards* guide.
- FEMA's *Local Mitigation Handbook*, Task 3 "Create an Outreach Strategy" – pp. 3-1 to 3-10, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
- FEMA's *Local Mitigation Handbook*, Task 5 – pp. 5-1 to 5-20, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
- Colorado Natural Hazard Mitigation Plan, Section 3 – Hazard Identification and Risk Assessment colorado.gov/pacific/mars/colorado-natural-hazard-mitigation-plan
- *Planning for Community Resilience: A Handbook for Reducing Vulnerability to Disasters*, available from Island Press, islandpress.org/book/planning-for-community-resilience

COLLECT AND REVIEW BACKGROUND INFORMATION AND DATA – LED BY PROJECT MANAGER

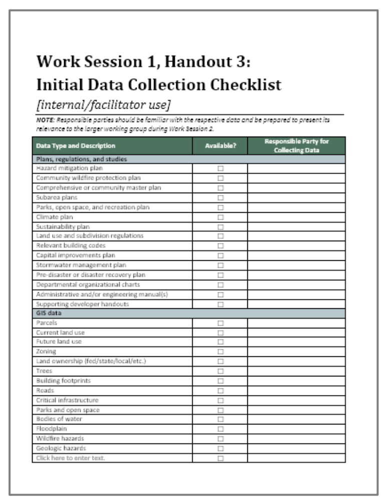
[Handout 3: Initial Data Collection Checklist]

Another priority following this first work session is to identify and collect necessary data for background review, mapping, and assessing the community's risks and vulnerabilities. Depending on your community, the facilitator and/or project manager may have already assembled a substantial amount of background information and data, therefore requiring minimal discussion on this topic with working group participants.

Facilitator Note: Assembling Data and Background Information
Try to assemble as much background information and data as possible prior to the first work session. If you have already familiarized yourself with the background documents and data, then adjust the work session to confirm your understanding, identify what is missing, and focus more on the overview of the project. Seek additional information from the working group aside from what data is readily available. For example, instead of simply collecting a copy of the comprehensive plan, start collecting excerpts from the plan that relates specifically to the project.

Types of Data and Information

Many sources of data and information can help inform this planning for hazards implementation process. A summary of common hazard data sources is included in the *Planning for Hazards* guide beginning on page 20 (or online: planningforhazards.com/what-hazards-may-affect-my-community). Descriptions of some local data sources are provided below. For more specific information related to data collection, see the data collection checklist.


Work Session 1, Handout 3:
Initial Data Collection Checklist
[internal/facilitator use]

***NOTE:** Responsible parties should be familiar with the respective data and be prepared to present its relevance to the larger working group during Work Session 2.*

Data Type and Description	Available?	Responsible Party for Collecting Data
Plans, regulations, and studies		
Hazard mitigation plan	☐	
Community wildfire protection plan	☐	
Comprehensive or community master plan	☐	
Subarea plans	☐	
Parks, open space, and recreation plan	☐	
Climate plan	☐	
Sustainability plan	☐	
Land use and subdivision regulations	☐	
Relevant building codes	☐	
Capital improvements plan	☐	
Stormwater management plan	☐	
Pre-disaster or disaster recovery plan	☐	
Departmental organizational charts	☐	
Administrative and/or engineering manual(s)	☐	
Supporting developer handouts	☐	
GIS data		
Parcels	☐	
Current land use	☐	
Future land use	☐	
Zoning	☐	
Land ownership (fed/state/local/etc.)	☐	
Trees	☐	
Building footprints	☐	
Roads	☐	
Critical infrastructure	☐	
Parks and open space	☐	
Bodies of water	☐	
Floodplain	☐	
Wildfire hazards	☐	
Geologic hazards	☐	
Click here to enter text.	☐	

A data collection checklist is included in the supporting materials

- **Planning and regulatory documents.** Determine relevant planning documents that should be reviewed. These include adopted plans and policies, land use regulations, and any other relevant ordinances or resolutions that could inform the project. Especially important is the community's comprehensive or master plan, and whether such plan provides support for implementing planning tools that reduce risk to hazards.
- **GIS data.** Determine whether the community uses Geographic Information Systems (GIS), and if so, how much data is readily available for use in preparing or updating the Hazard Identification and Risk Assessment. If necessary, establish a data-sharing agreement between the data holder and the working group facilitator, firm, or individual who will be using such data.
- **Administrative data.** It may also be helpful to obtain supporting administrative documents relevant to land use procedures such as departmental organizational charts, explanatory handouts for developers, or administrative manuals containing engineering standards or procedural guidance. These should be discussed with the appropriate stakeholders either during the first work session or shortly after.
- **Community data.** Useful data about your community could include demographic information and data on the number and types of permits issued each year.

- **Hazard data.** Information about the frequency and severity of hazards can be found in existing local plans including but not limited to hazard mitigation plans, community wildfire protection plans, and stormwater master plans.

What Do I Do with the Data?

For each piece of data collected, the assigned responsible party should be familiar enough with the information to share it with the larger working group. For example, whoever is tasked with collecting and distributing the community's comprehensive plan should be prepared to report on that plan's relationship to this project, including:

- Does the plan have a hazard mitigation component?
- Does the future land use map indicate hazardous areas?
- Are there policies in the plan that will inform this project?

For other types of data, such as GIS data, the distributor of such data should be able to provide details about the data (e.g., how it was created) and identify areas where the data could be improved (e.g., more accurate at the parcel-level).

Facilitator Note: Maps for Work Session 1
Relevant maps should be gathered and prepared to facilitate discussion on assessing community vulnerabilities and identifying initial risk areas for various hazards. These maps should be in large enough format for display and potential marking up by the working group participants.

Discussion Questions

1. Are copies of planning documents readily accessible online?
2. Do you have GIS data that can be shared with the working group?
3. Does use of GIS data require a user agreement?
4. Are there other data sources that are not on the handout that may be useful to the working group?
5. How should data be distributed and shared among the working group (e.g., Google docs, Dropbox, or other software, or assign a point person to email the data)?

Facilitator Note: File Sharing
Consider establishing a shared file management system where the project managers, facilitators, and participants can access and upload files throughout the project.

PREPARE A STAKEHOLDER ENGAGEMENT STRATEGY FOR THE HIRA PROCESS – LED BY PROJECT MANAGER

Prior to the first work session the project manager and/or facilitator should develop a stakeholder engagement strategy for the HIRA process, which will communicate important information about the project to stakeholders and the broader public, beyond the working group. Suggested steps for preparing the stakeholder engagement strategy are provided below:

- **STEP 1 – Identify Who Will be Engaged.** The project manager and/or facilitator should determine how the broader community will be engaged throughout the project. Some communities may determine that convening the working group itself is sufficient, and that wider public engagement is not necessary. Other communities may wish to develop a more expansive outreach strategy that includes a wide range of community stakeholders. Under either scenario, it is essential to keep local elected and appointed officials and other leadership staff up to speed on the project to improve buy-in and to avoid unnecessary delays toward adoption of the implementation tools. For more on communicating with elected and appointed officials, see page 24 of the *Planning for Hazards* guide or visit: planningforhazards.com/how-do-i-apply-risk-assessment-results-planning

- **STEP 2 – Identify Appropriate Milestones for Stakeholder Outreach.** Develop a list of the milestones where broader public outreach may be important. For example, presenting the results of the HIRA could be a good time to share the technical results of the working group meetings more broadly. Additional milestones should be revisited once the planning implementation tools have been selected.
- **STEP 3 – Establish Outreach Strategy and Process.** The project manager and/or facilitator should document a strategy summarizing exactly how those stakeholders will be involved. The strategy should consider the following:
    - **Messaging and branding**. Is it necessary to develop a brand for the project, including a project logo or other communication tools, such as a project website? Also, develop a clear message so that all project participants are unified in their descriptions to other individuals throughout the community. This will help build community support and buy-in for the project.
    - **Communications strategy**. How will stakeholders be notified of draft deliverables or upcoming events? Will there be a project listserv or other regular announcements? What about questionnaires or social media posts?
- **STEP 4 – Develop Outreach Materials**. Start developing outreach materials so that they can be easily implemented when the time is right. Identify potential meeting or outreach dates to the extent possible so that the community can start planning.

The working group will discuss the extent of outreach and appropriate methodologies. Some working group participants may also be asked to contribute to the development of the stakeholder engagement strategy through individual writing assignments (e.g., a paragraph on social media use) or by seeking additional information (e.g., questions for the Town Administrator or the public information officer) to assist with development of the strategy.

Documenting the Strategy

The stakeholder engagement strategy should be memorialized through a memorandum or a brief plan that documents the agreed upon approach that can be amended as the project progresses and modified depending on the type of planning tools chosen later in the project.

Facilitator Note: Stakeholder Engagement Strategy
The facilitator and/or project manager should be prepared to make recommendations for each of the components of the stakeholder engagement strategy (key stakeholders, milestones, and methods of communication). Following this work session, distribute the draft engagement strategy to the working group in advance of Work Session 2.

Key Considerations

1. Who in the community, either staff, elected officials, or members of the community should be involved with this project?
2. What level of involvement will be required for appointed and elected officials (e.g., further education, frequent updates, or formal adoption)?
3. What are the key project milestones where additional outreach or engagement is expected?
4. Does this project follow another planning process (e.g., comprehensive plan update) or event (e.g., recent flooding) that can be used to provide a framework or further justification for the project?
5. What types of outreach have worked in the past (e.g., email blasts, website, public hearings, open house meetings, flyers, newspaper)?

KEY ISSUES TO DISCUSS AT MEETING

IDENTIFY COMMUNITY ISSUES AND CURRENT PROJECTS UNDERWAY

[AGENDA ITEM 3]

The facilitator will lead a discussion on the various related projects that are currently underway in the community, which will help identify potential areas of overlap and may influence the project schedule. For example, if the community is currently updating its zoning ordinance, any strategies that may be addressed through this planning for hazards project could potentially be coordinated with the zoning ordinance update. Ongoing projects are not limited to planning processes but may also include capital and/or development projects. It is helpful to be aware of major public works projects, plans for new critical infrastructure, or major subdivisions or developments that may impact, or be impacted by the project.

The facilitator will also lead a discussion on other issues facing the community. For example, a stakeholder may be aware of a City Council policy discussion on affordable housing that may need special consideration when developing potential land use planning strategies through this project.

Facilitator Note: Round-Robin Discussion
Consider conducting a "round-robin" discussion if participants are not actively engaging in the conversation. A round-robin discussion means beginning with one participant and allowing each person to speak in order, working your way around the room until all participants have shared. This discussion should be captured in notes for later reference if necessary.

Discussion Questions

1. What are the biggest issues facing the community in the next 5 years?
2. What other projects are currently underway that should be coordinated with for *this* planning for hazards project?
3. Which, if any, planning projects or improvements could be integrated with this effort?
4. Do you have, or are you aware of any other major projects planned in the next 6 months?
5. Are there any scheduling constraints for this project (e.g., budget cycle, elections, or other project commitments)?
6. What do you see as the biggest opportunities and challenges facing this project?

FRAME THE RISK ASSESSMENT PROCESS AND IDENTIFY HAZARDS TO BE ADDRESSED

[AGENDA ITEM 4; Handout 1: Hazard Frequency and Severity Chart; Handout 2: HIRA Summary Outline and Responsibilities]

The facilitator will provide an overview of the HIRA (or local risk assessment) process and solicit feedback on the types of hazards and local issues that may influence development of a local risk assessment. Many communities will be starting from an existing FEMA-approved hazard mitigation plan for this exercise. For those communities, this discussion should focus on the types of hazards that should be emphasized through this planning for hazards project and identify any gaps to be addressed. For communities that do not have any existing hazard identification or risk assessment, the facilitator will go through the list of hazards from the State Hazard Mitigation Planning Office and the Planning for Hazards guide/website to begin the dialogue.

Facilitator Note: Review the Existing Hazard Mitigation Plan
If the community already has an approved hazard mitigation plan, review the HIRA and distribute it to the working group (either before or during the meeting) with any initial notes or commentary on the HIRA's applicability at the local level. If there are obvious shortcomings, those should be pointed out during this overview so that the team can obtain or generate additional data where necessary.

The facilitator will lead the working group through an exercise to determine the types, location, and extent of hazards and to review previous occurrences and discuss probability of future events. The discussion may also include identifying additional stakeholders or resources that may help inform the HIRA. The hazard frequency and severity chart handout allow the meeting participants to document the probability and the potential severity of each type of hazard event in the community. For communities that already have a recent HIRA, this chart can be populated by information that was included in the existing HIRA.

Discussion Questions

1. What are the biggest threats to the community?
1. Should human-caused hazards be considered with the HIRA? If so, which?
2. Are there local subject matter experts that can assist with the risk assessment?
3. When considering each hazard, do they occur in a specific geographic location that can be mapped?

ASSESS COMMUNITY VULNERABILITY

[AGENDA ITEM 5; Handout 4: Identifying Community Assets]

Review and Refine the Hazard Identification Component of the Risk Assessment

The bulk of Work Session 2 should be spent discussing local hazards identified and assessing community vulnerability. The facilitator will present the initial analysis of hazards to the working group and use large maps to record local refinements. For example, desktop analysis of landslide hazards in a community may reveal only a portion of slide risks. The maps allow for the working group to identify additional locations and/or refine identified slide locations to be more accurate at the local level.

Identifying Community Assets

The next focus area of Work Session 2 is to discuss community assets, or anything important to the character or function of the community. Assets may include people, the economy, the built environment, or the natural environment. For detailed descriptions of identifying community assets, refer to FEMA's *Local Mitigation Handbook,* pp. 5-9 to 5-12. For a more detailed description on assessing vulnerable populations, please refer to the *Planning for Hazards* guide, pp. 16-17 or visit planningforhazards.com/how-do-i-assess-local-risks-hazards.

People
People are certainly the most valuable asset in a community. As part of the HIRA, it is imperative to identify vulnerable populations so that the working group can compare risk to hazard with locations of vulnerable populations to the extent possible.

Economy
The participants should discuss major employers and employment sectors in the community. Consider how the impacts of a hazard or a disaster could result in direct or indirect economic losses.

Built Environment
Consider not only existing structures, but also infrastructure and critical facilities. Review of these community assets should include a discussion on the age of such assets and the level of dependency on these assets should a hazard occur. Consider areas of growth and development or redevelopment in the community.

Natural Environment
Important natural areas may include critical habitat and other areas that serve to reduce the magnitude of hazard events (such as protected open space). Participants should consider how these areas are linked to other community assets such as the economy and vulnerable populations.

Review Assets and Risk against the Future Land Use Map (FLUM) and Zoning Map

The future land use map (when available) should be considered when assessing the community's vulnerability to hazards. The future land use map identifies potential growth areas and is an essential consideration when making future land use planning decisions. When growth areas are overlaid with known hazard areas, the working group can identify potential conflicts and can use subsequent work sessions to develop solutions to mitigate those issues. The zoning map should also be reviewed to identify areas where greater densities may conflict with other policies related to hazard mitigation.

Discussion Questions

4. What areas are expected to see more development and/or redevelopment?
5. Will future population growth and development place more people in hazardous areas?
6. Who are the vulnerable populations in the community? Why are they vulnerable?
7. Can any identified vulnerable populations be isolated to a particular geography, or are they located throughout the community?
8. What are our most important economic drivers that could be impacted by a hazard event?
9. What are our most critical facilities in the community?
10. Do we have aging infrastructure systems that are of concern during a hazard event?
11. What types of cultural resources are significant to the community?
12. What are the most valuable natural areas in the community?

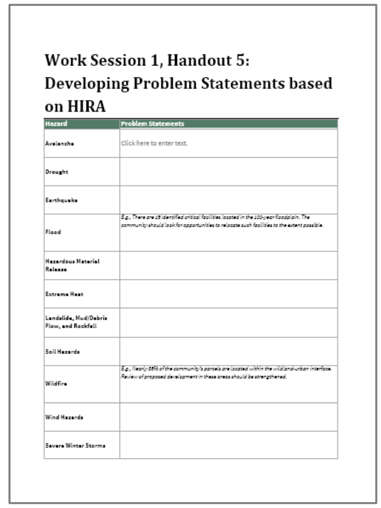
13. Are there any areas where the zoning is incompatible with hazard risk levels?

DEVELOP PROBLEM STATEMENTS

[AGENDA ITEM 6; Handout 5: Developing Problem Statements based on HIRA]

Based on the results of the hazard identification and the initial assessment of the community's vulnerabilities, the working group should develop problem statements that reflect the primary concerns related to each hazard. Problem statements summarize the risk to the planning area presented by each hazard and can include possible methods to reduce that risk. For example, "*There are ___ properties at immediate risk to landslide in the ______ subdivision. Future development in this area will increase vulnerability to landslides. If development is pursued here, it should include adequate mitigation designed by a licensed engineer.*"

In subsequent work sessions, the working group will refer to these problem statements to develop land use planning strategies and specific tools to address such problems. For communities that have an adopted hazard mitigation plan, any problem statements in that plan should be reviewed and the working group should identify gaps or necessary updates to those statements to reflect local conditions. FEMA-approved hazard mitigation plans often include mitigation actions in several categories to address problem statements (e.g., local planning and regulations, structural and infrastructure, natural systems, and education and awareness). This project should emphasize only those actions associated with land use planning and land use regulations.


Work Session 1, Handout 5: Developing Problem Statements based on HIRA

Hazard	Problem Statements
Avalanche	Click here to enter text.
Drought	
Earthquake	
Flood	*E.g., There are [illegible] identified critical facilities located in the 100-year floodplain. The community should look for opportunities to relocate such facilities to the extent possible.*
Hazardous Material Release	
Extreme Heat	
Landslide, Mud/Debris Flow, and Rockfall	
Soil Hazards	
Wildfire	*E.g., Nearly [illegible] of the community's parcels are located within the wildland-urban interface. Review of proposed development in these areas should be strengthened.*
Wind Hazards	
Severe Winter Storms	

A worksheet for developing problem statements is provided as a handout.

POST WORK SESSION ACTION ITEMS

NEXT STEPS

Before Work Session 2:

1. Read FEMA's *Local Mitigation Handbook*, Task 5 – pp. 5-1 to 5-20, [fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf]
2. Start preparing the HIRA (*See further discussion below*).
3. If you were assigned a plan review or data collection role, please collect and distribute prior to the next work session.
4. If you were given a writing assignment for the stakeholder engagement strategy, be prepared to report to the working group during the next working session.
5. Facilitator: Draft and distribute the stakeholder engagement strategy.
6. Read "Practice Safe Growth Audits." planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/zoningpractice/open/pdf/oct09.pdf

7. Read "Choosing appropriate planning tools and strategies" in the *Planning for Hazards* guide – pp. 213-214. planningforhazards.com/choosing-appropriate-planning-tools-and-strategies
8. Browse the *Planning for Hazards* guide Chapter 4, Planning Tools and Strategies – pp. 23-211 to explore the types of tools to consider implementing. planningforhazards.com/planning-tools-and-strategies
9. Browse the applicable planning tools and strategies related to your community's highest risk hazards in the Planning for Hazards guide appendix, pp. A-1 to A-47. planningforhazards.com/hazard-identification-and-risk-assessment
10. Browse FEMA's *Local Mitigation Handbook*, Task 4 – pp. 4-1 to 4-5, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
11. Browse FEMA's *Local Mitigation Handbook*, Task 6 – pp. 6-1 to 6-13, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
12. Prepare the remaining components of the HIRA or local risk assessment (may require working group member participation).

Facilitator Note: Preparing the Bubble Map
Following the interactive mapping exercise and refinement of the hazard identification and vulnerability assessment with the working group, the facilitator should record the results of those discussions and prepare a "bubble map" that conveys problem areas within the community as well as important assets to protect. This bubble map will be used in subsequent work sessions as a foundation for developing planning strategies.

CONSIDERATIONS BEFORE BEGINNING THE HIRA OR LOCAL RISK ASSESSMENT PROCESS

There are some important considerations prior to developing a HIRA or local risk assessment:

1. **Is the community covered by a hazard mitigation plan?** Most counties in Colorado have an adopted local mitigation plan, and counties conducting this process can use the mitigation plan to gain valuable information on hazard risks. Municipalities may be included under the county plan. To learn more about determining whether or not your community is covered by a local hazard mitigation plan, see page 19 of the *Planning for Hazards* guide, or visit planningforhazards.com/how-do-i-assess-local-risks-hazards. If the community is already covered by an existing local mitigation plan, then this process may only require your community to update the risk assessment to focus more on local issues rather than the countywide scale.

2. **Did the community prepare a local Hazard Identification and Risk Assessment?** In addition to or as part of a local hazard mitigation plan, your community may have recently prepared a local HIRA. If that is the case, then there may be minimal effort required to update that HIRA or to develop new problem statements to start the selection process for planning

implementation tools (in Work Session 3). Minor updates to an existing HIRA may include collecting additional data or conducting additional mapping to more fully understand the potential impacts of one or more hazards within your community.

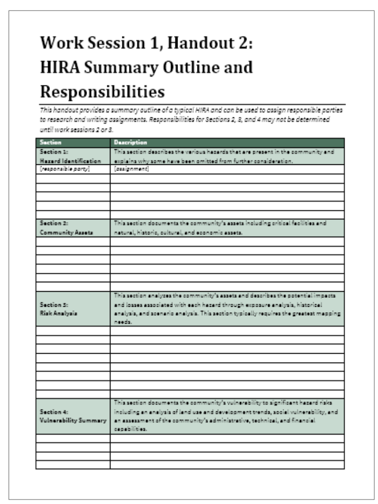
3. **What are the mapping needs?** Before going too far down the road of preparing a HIRA, you should determine the level of effort required to map local hazards. For example, perhaps you already have accurate floodplain mapping through a recent FEMA mapping process, but you could still improve landslide and/or wildfire hazard area mapping. The more localized you can map hazard areas, the more targeted you can be with your planning implementation tools. For mapping needs, determine if your community will require outside mapping assistance or if some of the mapping effort can be completed in house. Because not all hazards can be mapped, the community should determine where to focus mapping resources. Of the hazards included in the Planning for Hazards guide, the following location-specific hazards can be mapped to specific geographies:
   - Avalanche
   - Earthquake (based on known faults)
   - Flood
   - Landslide, mud/debris flow, and rockfall
   - Soil hazards
   - Wildfire

Based on these considerations, the facilitator will present such findings during Work Session 1 and tailor the meeting accordingly.

Facilitator Note: Design Work Session to Adjust to Community's Progress
Considerable legwork should be completed prior to Work Session 1 to answer the questions identified above. These considerations should be addressed as one of the first steps for the project manager and/or facilitator so that Work Session 2 can be adjusted as necessary.

For example, if the community has recently adopted a hazard mitigation plan and already has a localized HIRA prepared, then Work Session 1 could be revised to present the existing HIRA to the working group and solicit feedback. If the community is covered by a hazard mitigation plan, but wishes to update their HIRA to be more accurate at the local level, then Work Session 1 should be adjusted to focus more on identifying areas within the HIRA that need to be updated rather than starting a new HIRA from scratch.

PREPARING THE HIRA OR LOCAL RISK ASSESSMENT


Work Session 1, Handout 2: HIRA Summary Outline and Responsibilities

This handout provides a summary outline of a typical HIRA and can be used to assign responsible parties to research and writing assignments. Responsibilities for Sections 2, 3, and 4 may not be determined until work sessions 2 or 3.

Section	Description
Section 1: Hazard Identification	This section describes the various hazards that are present in the community and explains why some have been omitted from further consideration.
[responsible party]	*[assignment]*
Section 2: Community Assets	This section documents the community's assets including critical facilities and natural, historic, cultural, and economic assets.
Section 3: Risk Analysis	This section analyzes the community's assets and describes the potential impacts and losses associated with each hazard through exposure analysis, historical analysis, and scenario analysis. This section typically requires the greatest mapping needs.
Section 4: Vulnerability Summary	This section documents the community's vulnerability to significant hazard risks including an analysis of land use and development trends, social vulnerability, and an assessment of the community's administrative, technical, and financial capabilities.

A summary outline of the HIRA is provided as a handout, and the working group can use this to assign research and writing responsibilities.

Following Work Session 1, the community should begin preparing a draft HIRA (or local risk assessment) for consideration by the larger working group. Depending on the scope and scale of the project your community may choose to seek outside assistance for developing or updating the HIRA.

During Work Session 1, it is essential to start assigning individual roles for preparation of the HIRA to working group participants or to consultants depending on local capacity. For example, you may assign a GIS expert on your working group to mapping wildfire risk areas at the parcel level, or you may assign a staff planner to research critical facilities and identify other community assets.

A summary outline of a HIRA is provided as a handout and can be used to assign research and writing responsibilities if drafting the HIRA will be a group effort undertaken by the working group participants. This workbook suggests drafting the HIRA in several steps by breaking the drafting into manageable components, beginning with the hazard identification analysis. The hazard identification component should be distributed to the working group at least two weeks in advance of Work Session 1. A typical HIRA includes the following primary components:

- **Section 1: Hazard Identification.** This section describes the various hazards that are present in the community and explains why some have been omitted from further consideration.
- **Section 2: Community Assets.** This section documents the community's assets including critical facilities and natural, historic, cultural, and economic assets.
- **Section 3: Risk Analysis.** This section analyzes the community's assets and describes the potential impacts and losses associated with each hazard through exposure analysis, historical analysis, and scenario analysis. This section typically requires the greatest mapping effort.
- **Section 4: Vulnerability Summary.** This section documents the community's vulnerability to significant hazard risks including an analysis of land use and development trends, social vulnerability, and an assessment of the community's administrative, technical, and financial capabilities.

As part of the HIRA, the project manager and/or facilitator (or potentially a working group designee) should prepare one or more base maps that identify key structures and assets within the community. If available, the maps should also identify hazard areas and future land use categories. The base mapping will provide a foundation for transitioning from the risk assessment into determining specific hazard impacts and vulnerabilities.

WORK SESSION 2 – ASSESS CAPABILITIES AND DEVELOP PLANNING STRATEGIES

PURPOSE

This work session is intended to explore how the HIRA can be used to reduce and mitigate hazard risk by developing or modifying the community's land use tools and strategies. Participants will identify gaps in current programs, plans, and regulations based on the community's vulnerability to hazards, and generate a list of planning strategies for consideration.

TIMING

The second work session should occur after the full draft HIRA has been distributed to the working group, or approximately during the fourth month of the project.

SUPPORTING MATERIALS FOR THIS WORK SESSION

The following materials are provided for this work session:

- Agenda
- Handout 1 – Problem statements from HIRA (completed by the working group in Work Session 1 and refined by the facilitator prior to Work Session 2).

ANNOTATED AGENDA

Supporting materials (e.g., agenda, handouts, etc.) for Work Session 2 are provided in the Appendix.

1. **Welcome and updates (10 minutes)**
   Share relevant updates with the larger group. Discuss any upcoming community engagement activities related to the project.

2. **Follow up on Work Session 1 (10 minutes)**
   Recap Work Session 1 and follow up on remaining data collection and the engagement strategy. Discuss any upcoming community engagement activities relevant to this project.

   Facilitator Note: Distribute Engagement Strategy
   The draft engagement strategy should be distributed to the working group in advance of Work Session 2 so that feedback can be collected during this portion of the agenda.

3. **Discuss draft HIRA or local risk assessment (30 minutes)**
   Discuss the full draft HIRA or local risk assessment with the working group and identify any additional gaps or opportunities to address.

4. **Review community capabilities (45 minutes)**
   Discuss the community's current capabilities for addressing hazards based on the results of the HIRA and the problem statements from the previous work session. Further guidance for this discussion is provided below under "key issues to discuss at meeting."

5. **Discuss initial planning implementation strategies (60 minutes)**
   Develop goals and objectives based on the results of the HIRA and discuss the types of planning tools and strategies that could address concerns in the community. Using the *Planning for Hazards* guide as a benchmark for discussion, identify which potential strategies may be most critical or beneficial to consider during this implementation project. Further guidance for this discussion is provided below under "key issues to discuss at meeting." During this time, participants should report back on their review earlier assignments to review existing plans, regulations, policies, and data as they relate to hazard mitigation.

6. **Next steps (5 minutes)**
   Summarize any action items from the work session, provide a quick overview of what will be covered at the next work session, and discuss assignments and background reading to complete prior to the next work session.

TO PREPARE FOR THIS WORK SESSION

Planning for Hazards Guide

- Read "How Do I Apply Risk Assessment Results to Planning?" – pp. 23-25 planningforhazards.com/how-do-i-apply-risk-assessment-results-planning
- Review summary table of planning tools and strategies – pp. 28-29 planningforhazards.com/planning-tools-and-strategies
- Read "Choosing appropriate planning tools and strategies" – pp. 213-214 planningforhazards.com/choosing-appropriate-planning-tools-and-strategies
- Browse Chapter 4, Planning Tools and Strategies – pp. 23-211 to explore types of tools to consider implementing. planningforhazards.com/planning-tools-and-strategies
- Browse the applicable planning tools and strategies related to your community's highest risk hazards in the appendix, pp. A-1 to A-47. planningforhazards.com/hazard-identification-and-risk-assessment

Other Resources

- Read the draft HIRA distributed by the facilitator or project manager prior to the work session.
- Read "*Practice Safe Growth Audits.*" planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/zoningpractice/open/pdf/oct09.pdf
- Browse FEMA's *Local Mitigation Handbook*, Task 4 "Review Community Capabilities" – pp. 4-1 to 4-5, and Task 6 "Develop a Mitigation Strategy" – pp. 6-1 to 6-13. fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf

KEY ISSUES TO DISCUSS AT MEETING

DISCUSS DRAFT HIRA OR LOCAL RISK ASSESSMENT

[AGENDA ITEM 3]

The working draft HIRA or local risk assessment, including the hazard identification, vulnerability assessment, and any completed portions of the community capabilities assessment should be reviewed with the working group. Following this Work Session 2, the HIRA or local risk assessment should be updated to include any additional information especially as it relates to community capabilities. A final draft HIRA or local risk assessment should be distributed to the working group for use in subsequent work sessions.

REVIEW COMMUNITY CAPABILITIES

[AGENDA ITEM 4; Handout 1: Community Capability Assessment Questions]

Review Problem Statements, Goals, and Objectives from HIRA (10 minutes)

The facilitator will provide a brief overview of the problem statements and any other goals or planning objectives that were developed in Work Session 1.

Facilitator Note: Aligning Goals and Strategies
Make sure that any existing goals and policies are identified and presented to the working group prior to developing additional goals and objectives. It is important not to reinvent the wheel and to respect previous policy discussions in the community. For example, relevant goals from the comprehensive plan and the hazard mitigation plan should be coordinated and summarized during this work session.

Assess the Community's Capabilities for Addressing Hazards and Risk (35 minutes)

The first primary focus area of Work Session 2 is to review and assess the community's current capabilities for addressing hazards and risk. For communities with an adopted hazard mitigation plan, the working group should review and evaluate the planning and regulatory actions identified in the existing mitigation strategy and identify any gaps or necessary updates. A review of the community's regulatory and policy documents prior to Work Session 2 will reveal any gaps or opportunities to address hazard mitigation. Those gaps and opportunities should be part of this discussion. A handout (Work Session 2 – Handout 1) is included in the supporting materials to assist with this task. For more information on assessing capabilities, read FEMA's *Local Mitigation Handbook* Task 4 – Review Community Capabilities, pp. 4-1 to 4-5.

Facilitator Note: Assessing Policies and Regulations
The facilitator and/or the project manager should conduct a thorough assessment of the current regulations and policies to evaluate their effectiveness in reducing risk to hazards in advance of this work session. For example, conduct an in-depth review of the subdivision and zoning ordinances to consider whether additional development standards or review criteria should be introduced that would improve risk reduction efforts. Also consider if new procedures should be adopted (e.g., conservation subdivision or overlay zoning) that would implement comprehensive plan policies while also addressing mitigation strategies in the hazard mitigation plan. The facilitator should provide as much analysis as possible on the front end to lead this discussion effectively with the working group. Some members of the working group may be given assignments to assist with this effort in previous work sessions. If so, those members should be prepared to report back on their findings during this work session.

Discussion Questions

1. How well do adopted policies address hazard-related issues?

2. Are the mitigation actions in the hazard mitigation plan still accurate and relevant?
3. How well do the land development regulations address hazard-related issues?
4. Are there other concurrent planning projects that could benefit by introducing a risk-reduction component?

DISCUSS INITIAL PLANNING IMPLEMENTATION STRATEGIES

[AGENDA ITEM 5]

Framework for Developing Planning Strategies

There are two primary organizing frameworks that were discussed in detail in the *Planning for Hazards* guide that should be considered by the working group when developing goals and planning strategies.

Planning Approaches

The first organizing framework is a high-level consideration of approaches to planning for hazards, as discussed on pages 5-6 in the guide:

1. **Prevent development in hazardous areas.** What types of planning strategies could help the community avoid development in areas identified as at-risk to one or more hazards per the risk assessment?
2. **Direct future growth to safer areas.** How can future investment be directed toward areas that are not at risk or are at minimal risk to hazards?
3. **Protect existing development in hazardous areas.** How can development that is already located in hazardous areas be strengthened through additional policies or regulations?
4. **Avoidance.** Should the community strictly prohibit development in any area within a hazard zone?

Categories of Planning Strategies

The second organizing framework to consider is the types of planning strategies that can be developed within each of the different planning approaches. The specific planning tools that will be selected in Work Session 3 fall within various planning strategies. The *Planning for Hazards* guide organizes 28 planning tools into six primary planning strategies, including:

- Addressing hazards in plans and policies
- Strengthening incentives
- Protecting sensitive areas
- Improving site development standards
- Improving buildings and infrastructure
- Enhancing administration and procedures

Each of these strategies is discussed in further detail in the *Planning for Hazards* guide, Chapter 4, planningforhazards.com/planning-tools-and-strategies. Although this list is thorough, these planning strategies are only a starting point for discussion. Some communities may evaluate planning tools and strategies that are not yet profiled in the *Planning for Hazards* guide.

For communities pursuing zoning or subdivision updates as part of this process, an important consideration is whether to adopt a comprehensive update that addresses hazard mitigation throughout the ordinance (e.g., procedures, development standards, and zoning districts), or a more targeted approach that addresses a specific component (e.g., landscaping standards). These decisions impact the overall level of effort required and the project timing for drafting and adoption.

Discussion Questions

1. How well is our community mitigating risk to hazards within each of the planning strategy categories (as described above)?
2. Are there certain types of planning strategies that have been successful in the past, or that you think would be successful?
3. What would help prevent growth and development in high hazard areas in the community?
4. What would help direct growth to safer areas within the community?
5. Any other ideas for reducing hazard risk through land use planning?
6. Are there current projects underway that could help address the HIRA problem statements?
7. Are any additional updates necessary to the HIRA? (E.g., additional maps, data correction, other improvements?)

POST WORK SESSION ACTION ITEMS

NEXT STEPS

Before Work Session 3:

1. Review the summary table of planning tools and strategies – pp. 28-29 planningforhazards.com/planning-tools-and-strategies
2. Read Chapter 5 – Moving Forward in the *Planning for Hazards* guide – pp. 213-225 planningforhazards.com/moving-forward
3. Read FEMA's *Local Mitigation Handbook*, Task 6, subsections on evaluation criteria and action prioritization – pp. 6-7 to 6-8, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
4. Review FEMA's *Integrating Hazard Mitigation into Local Planning*, Table 2-1 beginning on page 2-4, fema.gov/media-library-data/20130726-1908-25045-0016/integrating_hazmit.pdf
5. Finalize HIRA or local risk assessment (may require working group member participation).

PREPARE AN ASSESSMENT OF CURRENT POLICIES AND REGULATIONS (LED BY PROJECT MANAGER)

Prior to Work Session 3, the project manager and/or facilitator should prepare an assessment memorandum of the community's planning policies and regulations and their ability to address the identified gaps and opportunities related to hazard mitigation. The assessment will be presented to the working group in Work Session 3. Following the prioritization of specific planning tools in Work Session 3, the assessment memo should be updated accordingly and presented to appointed and elected officials and the general public. The assessment provides the community a roadmap for any future code or policy updates – thus avoiding any major surprises during the drafting process. An example outline for the assessment memorandum is provided below:

I. *Project background*
   a. *Purpose*
   b. *Goals and expected outcomes*
   c. *Timeline*
II. *Relationship to policies (comp plan)*
III. *Gaps and opportunities*
   a. *Problem statements from HIRA*
   b. *Policy updates necessary?*
   c. *Code updates necessary?*
IV. *Key recommendations (following Work Session 3)*
   a. *Solutions*
   b. *Options for consideration*
V. *Next Steps*
   a. *Process*
   b. *Timeline*

WORK SESSION 3 – PRIORITIZE PLANNING IMPLEMENTATION TOOLS

PURPOSE

The intent of this work session is to prioritize land use implementation tools to reduce risk to hazards. This work session can also be used to begin developing an action plan for drafting selected implementation tools. Following this work session, the project manager will lead the development of the selected planning implementation tools with involvement from working group participants and/or outside consultants and will present drafts of the tools during Work Session 4.

TIMING

The third work session should occur about two months following Work Session 2, or approximately during the sixth or seventh month of the project.

SUPPORTING MATERIALS FOR THIS WORK SESSION

The following materials are provided for this work session:

- Agenda
- Draft assessment memorandum (prepared by project manager/facilitator between Work Sessions 2 and 3)
- Handout 1 –Prioritization criteria (use one form for each tool under consideration)

ANNOTATED AGENDA

Supporting materials (e.g., agenda, handouts, etc.) for Work Session 3 are provided in the Appendix.

1. **Welcome and updates (10 minutes)**
   Share any relevant updates with the larger group. Discuss any upcoming community engagement activities relevant to this project.

2. **Discuss draft assessment memorandum (20 minutes)**
   The project manager/facilitator will present the draft assessment memo to the working group to inform the prioritization process.

3. **Planning implementation tools prioritization exercise (120 minutes)**
   Confirm the planning implementation tools to develop and/or update as part of this project. The facilitator will lead the group through a prioritization exercise to assist with the selection of

implementation tools. Further guidance for this discussion is provided below under "key issues to discuss at meeting."

4. **Next steps (10 minutes)**
   Summarize any action items from the work session, provide a quick overview of what will be covered at the next work session, and discuss assignments and background reading to complete prior to the next work session.

NOTE: *The planning implementation tools will be developed following this work session. If there is enough time left on the agenda, the facilitator may involve the working group in further scoping and development of an action plan for the selected planning implementation tools.*

TO PREPARE FOR THIS WORK SESSION

Planning for Hazards Guide

- Review the summary table of planning tools and strategies – pp. 28-29 planningforhazards.com/planning-tools-and-strategies
- Read Chapter 5 – Moving Forward – pp. 213-225 planningforhazards.com/moving-forward

Other Resources

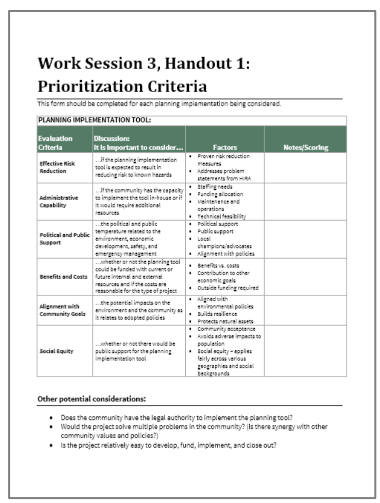
- Read FEMA's *Local Mitigation Handbook*, Task 6 subsections on evaluation criteria and action prioritization – pp. 6-7 to 6-8 fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
- Review FEMA's *Integrating Hazard Mitigation into Local Planning*, Table 2-1 beginning on page 2-4, fema.gov/media-library-data/20130726-1908-25045-0016/integrating_hazmit.pdf

KEY ISSUES TO DISCUSS AT MEETING

PLANNING IMPLEMENTATION TOOLS PRIORITIZATION EXERCISE

[AGENDA ITEM 3; Handout 1: Prioritization Criteria]

Based on the results of Work Session 3, the working group should narrow down the list of potential implementation tools to pursue. The facilitator will walk the working group through a prioritization exercise, including methodology for evaluating potential mitigation actions (as discussed in FEMA's *Local Mitigation Handbook* evaluation criteria in Task 6, pp. 6-7 to 6-8), consideration of existing planning policies and regulations, and evaluation of the community's ability to develop an implementation tool in a reasonable time frame. These evaluation criteria ensure that mitigation actions are likely to reduce risk and consider potential administrative, political, economic, environmental and social impacts.



Work Session 3, Handout 1: Prioritization Criteria

This form should be completed for each planning implementation being considered.

PLANNING IMPLEMENTATION TOOL:

Evaluation Criteria	Discussion: It is important to consider…	Factors	Notes/Scoring
Effective Risk Reduction	…if the planning implementation tool is expected to result in reducing risk to known hazards	• Proven risk reduction measures • Addresses problem statements from HIRA	
Administrative Capability	…if the community has the capacity to implement the tool in-house or if it would require additional resources	• Staffing needs • Funding allocation • Maintenance and operations • Technical feasibility	
Political and Public Support	…the political and public temperature related to the environment, economic development, safety, and emergency management	• Political support • Public support • Local champions/advocates • Alignment with policies	
Benefits and Costs	…whether or not the planning tool could be funded with current or future internal and external resources and if the costs are reasonable for the type of project	• Benefits vs. costs • Contribution to other economic goals • Outside funding required	
Alignment with Community Goals	…the potential impacts on the environment and the community as it relates to adopted policies	• Aligned with environmental policies • Builds resilience • Protects natural assets	
Social Equity	…whether or not there would be public support for the planning implementation tool	• Community acceptance • Avoids adverse impacts to population • Social equity – applies fairly across various geographies and social backgrounds	

Other potential considerations:

- Does the community have the legal authority to implement the planning tool?
- Would the project solve multiple problems in the community? (Is there synergy with other community values and policies?)
- Is the project relatively easy to develop, fund, implement, and close out?

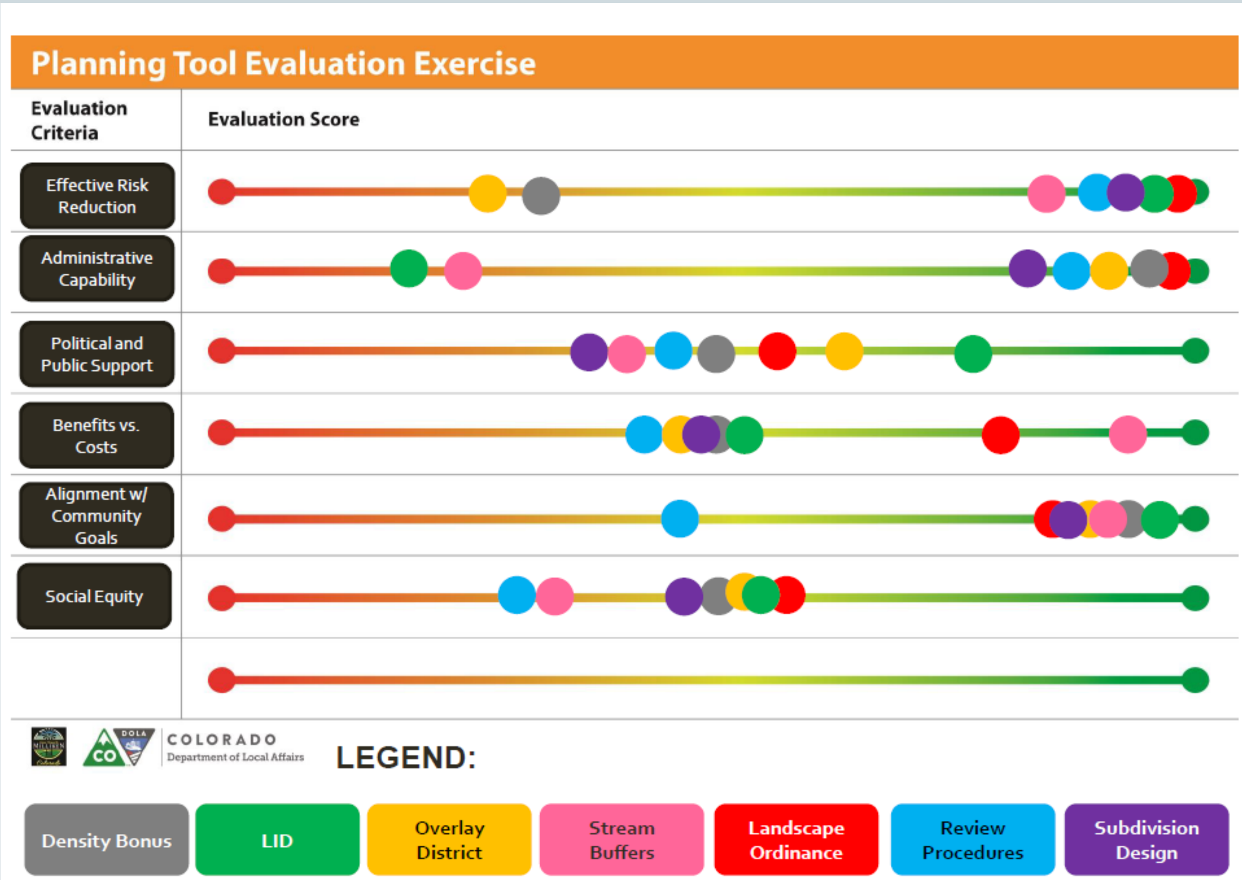
A handout describing the prioritization criteria is included in the supporting materials.

For example, the working group may establish a need to better address wildfire hazard through zoning and subdivision regulations as an overarching need. To develop priority solutions that address that need, the working group should develop a list of planning tools that could address wildfire through zoning and subdivision (using the *Planning for Hazards* guide as a foundation). If the short list ends up including both overlay zoning and cluster subdivision, then the working group can use the prioritization process to determine which of the two may add more value or may more directly result in risk reduction to wildfire.

Facilitator Note: Group Prioritization Exercise

Facilitating the exercise for prioritizing potential planning implementation tools should be carefully thought out well in advance of Work Session 3. Any additional methodologies or handouts should be distributed to the working group at least one week in advance of the work session. Because this work session will be more interactive, it may be helpful to assign a member of the working group to assist with note-taking or other facilitation needs.

An example is provided below from a community that used PowerPoint to discuss the tools with the working group and then update priority tools as they relate to the evaluation criteria in real time.



Discussion Questions

1. Are there any planning implementation tools that are not on the list that should be considered?
2. What types of projects could address multiple problem statements and community objectives?
3. Do we have enough capacity among staff and the working group to develop the implementation tool without outside assistance?
4. How long will it take to develop the implementation tool?

5. Do any of the planning implementation tools require coordination with other jurisdictions?
6. Who else (outside the working group) should be involved in the development and/or review of the draft tool(s)?
7. Are there other Colorado examples of this tool, and who can reach out to them to learn more?
8. How much will it cost to develop the implementation tool?
9. Are there grants or other resources available that could be used toward the development of the implementation tool?
10. Are there social impacts associated with any of the planning implementation tools?
11. Are there any potential legal challenges associated with any of the planning implementation tools?

See other discussion questions on the prioritization criteria handout.

Facilitator Note: Develop an Action Plan
Once the working group has made a final selection of planning implementation tool(s) to pursue, the facilitator and/or project manager should develop an action plan for implementation. Developing an action plan can be a time-consuming process. If there is time remaining on the agenda, the working group could be involved in this process. Otherwise, a separate scoping meeting should be scheduled with project leadership to draft the action plan. The action plan should contain the following information at a minimum:

1. Identify individual working group participants that should be involved with implementation.
2. Identify responsible parties for research assignments or for developing draft tools (or portions of draft tools).
3. Identify timelines for completion of research and/or draft materials.
4. Coordinate development of draft tools with the stakeholder engagement strategy.
5. Identify funding mechanisms for developing draft implementation tools.
6. Identify steps and timelines for review and adoption process.

To prepare for the scoping meeting and action plan, review any guidance for a particular planning tool in Chapter 4 of the *Planning for Hazards* guide, or online planningforhazards.com/planning-tools-and-strategies. Many of the tools have model language as a starting point that should be tailored to the community.

POST WORK SESSION ACTION ITEMS

NEXT STEPS

Before Work Session 5:
1. Depending on the planning implementation tools selected, read the respective tool profiles and model code language (where applicable) in the Planning for Hazards guide, Chapter 4 – pp. 23-211 planningforhazards.com/planning-tools-and-strategies
2. Contact individuals that should be involved in drafting and/or reviewing tool(s).

3. Prepare draft planning implementation tools and distribute to working group. (*See further discussion below.*)
4. Review draft planning implementation tools once distributed to the working group. Prepare to share feedback during Work Session 5.
5. Participate in interim meetings if playing an integral role in the development of the planning tools selected.

DEVELOPING PLANNING IMPLEMENTATION TOOLS

Getting Organized

Following Work Session 3, the assessment memo should be updated with the priority planning tools and should include an annotated outline that provides a high-level summary of the contents of a proposed tool, with commentary on the content to be included within each section and a summary of various approaches the community could consider. The assessment memo and annotated outline should be presented to the community's appointed and elected officials at this time. This interim step provides a transparent roadmap for the updates and allows the community to provide initial feedback to ensure that the tool will effectively address local concerns.

The project manager (and perhaps individual working group participants and/or outside consultants) should facilitate additional scoping meetings outside the working group. The scoping meeting(s) will provide a detailed work plan for developing the selected planning tools, including timing, responsibilities, public engagement, and budget or required resources. Interim meetings may also be held during the development of the draft tools prior to Work Session 4.

NOTE: Remember to refer to the *Planning for Hazards* guide when developing the tools. The guide includes model language for 15 of the 28 planning tools profiled, including:

- Development agreement
- Transfer of development rights
- 1041 regulations
- Cluster subdivision
- Overlay zoning
- Stream buffers and setbacks
- Stormwater ordinance
- Subdivision and site design standards
- Use-specific standards
- Application submittal requirements
- Post-disaster building moratorium
- Density bonus
- Site-specific hazard assessment
- Landscaping ordinance
- Building code

These models can be used as a starting point yet should be tailored to your community.

Some Tips on Drafting Regulations

Regulatory tools require a different type of care and feeding compared to other planning implementation tools. Following the approach identified in the assessment memorandum, the project manager/facilitator (or outside consultant) will begin drafting regulations. It is important to identify the drafting and adoption strategy during scoping meetings.

- **Draft in Installments**. For communities making more comprehensive updates to land use regulations, the updates may be drafted in installments. For example, starting with updates to zoning districts and uses prior to presenting updates to procedures or administration. Generally, it is a good idea to provide interim drafts (or “staff” drafts) to be reviewed by only a core team of staff and practitioners, including the local government’s attorney. Following comments on the staff draft, a revised public draft should be prepared for wider distribution and presentation to the working group, appointed and elected officials, and the general public.
- **Seek Expertise**. Depending on the ordinance(s) being updated or introduced, it may also be necessary to seek professional advice or consulting from subject matter experts. For example, geologic hazards mitigation is a specialized and highly technical field that requires engineering coordination to integrate appropriate land use regulations. Another example includes planning for the wildland-urban interface, where subject matter experts can provide linkages between life safety concerns and land use regulations.
- **Plan for public outreach**. Often community members won’t provide any feedback (or even attend meetings) until a draft is available or presented for adoption. You may not receive valuable input during the assessment phase because the devil is in the details. Plan to include at least one topic-specific work session or public open house or series of meetings for something that may come up during the drafting process. For example, the applicability of new regulations to existing properties often generates public interest. Hosting a meeting to walk through how new standards may apply to various development scenarios can go a long way in bringing the community along during the drafting.

WORK SESSION 4 – REVIEW AND REFINE DRAFT PLANNING IMPLEMENTATION TOOLS

PURPOSE

The intent of this work session is to review and refine the draft planning implementation tools (such as draft ordinances) and develop a process for formal adoption or implementation of the tool once complete. Draft planning implementation tools should be distributed well in advance of this work session (two or three weeks depending on length and complexity of the tools). This work session requires the most tailoring since the focus of the meeting will depend on the types of tools selected.

NOTE: *Depending on the types of tools selected, review and refinement of the drafts may require one or more additional meetings.*

TIMING

The fourth work session should occur about two months following Work Session 3, or approximately during the ninth or tenth month of the project. The timing depends on the types of planning implementation tools selected by the working group. For example, developing a new cluster subdivision ordinance may take two months to prepare a working draft, whereas developing a new Wildland-Urban Interface (WUI) Code could take up to six months or longer. The timing of this work session will depend on how soon draft deliverables can be distributed to the working group for review and feedback.

Facitator Note:
When draft implementation tools are distributed, it is helpful to include a transmittal memorandum including the following information:

1. Identify major changes to the current system (e.g., if existing regulations were modified).
2. Highlight the main features that the reader should focus on.
3. Offer "questions for consideration" that the reader should be thinking about as they review the documents.
4. Discuss expectations for feedback (e.g., how should the working group provide feedback? when are comments due?).

SUPPORTING MATERIALS FOR THIS WORK SESSION

The following materials are provided for this work session:

- Agenda
- Handout 1 – Template (to be tailored to community)

ANNOTATED AGENDA

Supporting materials (e.g., agenda, handouts, etc.) for Work Session 4 are provided in the Appendix.

1. **Welcome and updates (10 minutes)**
   Share any relevant updates with the larger group. Discuss any upcoming community engagement activities relevant to this project.
2. **Review draft implementation tools (90 minutes)**
   The facilitator will provide an overview of the draft implementation tools and then facilitate discussion and solicit feedback for each tool. Further guidance for this discussion is provided below under "key issues to discuss at meeting."
3. **Develop outreach strategy and process for approval and/or adoption (20 minutes)**
   Discuss further tool refinement and the official adoption process (if applicable), as well as immediate tasks following adoption for successful implementation and transition into using the new (or refined) planning tool. The stakeholder engagement plan may need to be revisited at this time to identify essential steps for the adoption and/or approval process.
4. **Next steps (10 minutes)**
   Summarize any action items from the work session, provide a quick overview of what will be covered at the final work session, and discuss assignments and background reading to complete prior to the final work session.

TO PREPARE FOR THIS WORK SESSION

- Review the draft planning implementation tools distributed by the facilitator or project manager prior to the work session and be prepared to discuss feedback on the drafts.
- Read the respective tools profiles and model code language (where applicable) in the Planning for Hazards guide, Chapter 4 – pp. 23-211 planningforhazards.com/planning-tools-and-strategies,

KEY ISSUES TO DISCUSS AT MEETING

REVIEW DRAFT IMPLEMENTATION TOOLS

[AGENDA ITEM 2; Handout 1 (template)]

The facilitator will present an overview of the draft planning implementation tools, including a description of the tool's intent and purpose, applicability, and how the tool modifies existing policy or regulation, if applicable. The working group will discuss each draft planning tool to share initial feedback, identify gaps in the policies or regulations, and offer technical expertise as to required changes for subsequent iterations.

Discussion Questions

Discussion questions should be tailored to the specific type of planning tool developed. Some common questions to generate discussion may include:

1. Does the draft planning tool directly respond to the stated goals and objectives discussed in earlier work sessions?

2. Is something missing from the draft(s) that should have been included?
3. How does the draft tool affect existing programs, plans, or regulations?
4. Are there any policies and/or provisions that are not clearly understood after a thorough read?
5. Are there other examples that should be explored to inform the draft tool(s)?
6. Does the tool impact any other regulations (and need to be cross-referenced)?

IDENTIFY OUTSTANDING TASKS

[AGENDA ITEM 2]

As part of the review and discussion of the draft planning tools, any outstanding tasks or issues yet to address should be noted and assigned to either the project manager or a member of the working group.

Discussion Questions

Again, discussion questions should be tailored to the specific type of planning tool developed, and the level of edits necessary to the drafts. Questions may include:

1. How long will updates to the drafts take?
2. Who is responsible for making edits to the drafts?
3. Are additional resources necessary to finalize the drafts (e.g., legal and/or engineering review)?
4. What further steps are required to approve the drafts (e.g., resolution, adoption, staff approval)?

DEVELOP OUTREACH STRATEGY AND PROCESS FOR APPROVAL AND/OR ADOPTION

[AGENDA ITEM 3]

The facilitator and/or project manager should revisit the stakeholder engagement strategy with the working group based on the drafting/implementation process. The group should confirm the number of meetings and the types of meetings appropriate for the planning tools, prior to seeking official approval or adoption.

Depending on the types of tools selected, establishing a formal adoption process in the community may require meetings with elected and appointed officials, and may require public notice of such meetings. The facilitator and/or project manager should work with the appropriate staff within the community to ensure that the necessary checkpoints are met, including public meetings, public hearings, public notifications, and required staff reports. Agendas for public meetings and hearings fill up quickly, so planning ahead is essential. The approval and/or adoption process should be refined following this work session and with Work Session 5 as additional details become available.

Facilitator Note: Approval and/or Adoption Could be Deferred to Work Session 5
Depending on available time remaining in this Work Session 4, the facilitator may choose to defer the discussion on approval and/or adoption to Work Session 5.

POST WORK SESSION ACTION ITEMS

Before Work Session 5:

1. Read the "Implementation and Enforcement" subsection under "Implementing Planning Tools and Strategies"- pp.214-218 in the *Planning for Hazards* guide, planningforhazards.com/implementing-planning-tools-and-strategies
2. Browse FEMA's *Local Mitigation Handbook*, Task 7 Keep the Plan Current – pp. 7-1 to 7-38, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
3. Submit additional feedback related to draft implementation tools to the facilitator and/or project manager.
4. Establish timeline for adoption/approval of planning implementation tools.

WORK SESSION 5– ESTABLISH IMPLEMENTATION AND MAINTENANCE PROCEDURES

PURPOSE

The purpose of this final work session is to establish protocols for implementation and maintenance of the planning tools and to discuss next steps in your community's hazard risk reduction efforts. Prior to this work session, the working group will receive final drafts of the planning tools and will discuss how the tools will be administered, monitored, and amended over time how the working group will continue to be involved.

TIMING

The fifth (and final) work session should occur after final draft implementation tools have been distributed, or approximately one or two months after Work Session 4. Some communities may opt not to reconvene the working group for this final work session, especially those that identified a post-adoption strategy during earlier work sessions or offline conversations.

SUPPORTING MATERIALS FOR THIS WORK SESSION

The following materials are provided for this work session:

- Agenda
- Handout 1 – Ongoing Administration and Maintenance

ANNOTATED AGENDA

Supporting materials (e.g., agenda, handouts, etc.) for Work Session 5 are provided in the Appendix.

1. **Welcome and updates (10 minutes)**
   Share any relevant updates with the larger group. Discuss any upcoming community engagement activities relevant to this project.

2. **Discuss final draft implementation tools (45 minutes)**
   The facilitator will provide a brief overview of the final draft implementation tools, noting changes from the previous drafts. The working group will have the opportunity to provide any final comments on the draft materials prior to moving forward through the approval process. Further guidance for this discussion is provided below under "key issues to discuss at meeting."

3. **Discuss adoption and/or approval procedures (15 minutes)**
   Discuss the process to obtain final approval of the implementation tool(s), whether adoption of an ordinance through city council, or by memorandum to the county administrator, for example.

The schedule for making any necessary revisions and other requirements associated with the approval procedures should be clearly communicated to the working group and individual roles assigned where appropriate.

NOTE: *This agenda item may have already been addressed in Work Session 4. If so, this Work Session 5 could be a quick review with updates to the adoption/approval procedures.*

4. **Establish protocols for ongoing administration and maintenance (30 minutes)**
   Discuss the administration, enforcement, and long-term maintenance of the planning tool(s). The discussion should identify resources necessary to administer the tool(s) (e.g., additional staff, budget, or computer software). The working group should also determine how success will be measured and how often the tool(s) will be evaluated.
5. **Identify future risk reduction projects (15 minutes)**
   Discuss next steps for reducing risk in the community, which could include developing and implementing the next set of tools identified during earlier work sessions. Determine whether this working group will continue meeting or whether future projects would be carried forward by another group.
6. **Dismiss the working group (5 minutes)**
   Thank the working group for their participation and discuss any future convening related to planning for hazards.

TO PREPARE FOR THIS WORK SESSION

Review the final draft planning implementation tools distributed by the facilitator or project manager prior to the work session. Be prepared to discuss your feedback on the final drafts. Working group participants should also look back to Work Session 4 notes and handouts to consider which planning tools that were not developed as part of this project should be considered for future implementation. Additionally, review the following reading materials:

Planning for Hazards Guide

- Read the *Implementation and Enforcement* subsection under "Implementing Planning Tools and Strategies"- pp.214-218 planningforhazards.com/implementing-planning-tools-and-strategies

Other Resources

- Browse FEMA's *Local Mitigation Handbook*, Task 7 Keep the Plan Current – pp. 7-1 to 7-38, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf

KEY ISSUES TO DISCUSS AT MEETING

DISCUSS FINAL DRAFT IMPLEMENTATION TOOLS

[AGENDA ITEM 2]

This is the last opportunity for the working group to discuss any final edits or refinements to the draft planning implementation tools. The facilitator will provide an overview of the primary changes since previous drafts and will open a discussion with the working group to solicit final feedback.

Facilitator Note: Additional Edits
If substantial edits are required to the drafts based on feedback from the working group, then additional work sessions may need to be arranged until the drafts are ready to begin the approval process.

ESTABLISH PROTOCOLS FOR ONGOING ADMINISTRATION AND MAINTENANCE

[AGENDA ITEM 4; Handout 1: Implementation and Maintenance Worksheet]

Planning tools are only as good as the administration, enforcement, and maintenance that support them. The working group should establish a plan for ongoing administration and maintenance of the planning tools. A handout is included in the supporting materials that will help the working group identify important considerations for long-term maintenance of the tools.

Discussion Questions

Some of the discussion questions may have been answered during earlier work sessions where implementation tools were evaluated and prioritized.

1. Who is responsible for administering the planning tool? An individual staff person? A department?
2. What types of resources will be required to effectively administer the tool (e.g., additional FTEs, increase in budget)?
3. Will the tool require frequent updates?
4. Is additional mapping required prior to being able to administer the tool?
5. How will the performance of the tool be measured over time?
6. How often should the tool be evaluated for its effectiveness?
7. What does success look like as it pertains to the planning tool?
8. What types of performance metrics should be established?
9. Is data available (or can it be collected) to determine compliance with performance metrics?
10. Who will be responsible for measuring the performance of a tool?
11. What other departments and/or individuals should be informed of the new tools?
12. When and how will the tool be updated?

IDENTIFY FUTURE RISK REDUCTION PROJECTS

[AGENDA ITEM 5]

The final discussion should focus on the next efforts that the community should pursue related to planning for hazards and risk reduction. The working group will discuss other planning tools that did not make the initial cut for this project but would be worth pursuing in the future. Identifying these “next up” projects establishes a long-term commitment to risk reduction.

Thank you again for your commitment to strengthening Colorado communities!

APPENDIX: WORK SESSION MATERIALS

Contents for Each Work Session:

- Sign-in sheets
- Agendas
- Handouts

WORK SESSION 1

Sign-in Sheet – Work Session 1

DATE:

Name	Agency/Department	Email	Phone

Agenda – Work Session 1

Provide Introduction and Framework, and Assess Community Vulnerability

Date:
Time:
Location:
Call-in #:

1. **Welcome and introductions (10 minutes)**

2. **Project overview (30 minutes)**

    a. **Project background and goals**
    b. **Timeline**
    c. **Individual roles and expectations**

3. **Identify community issues and relevant current projects underway (20 minutes)**

4. **Frame the risk assessment process and identify hazards to be addressed (30 minutes)**

5. **Assess community vulnerability (75 minutes)**

6. **Develop problem statements (20 minutes)**

7. **Next steps (5 minutes)**

Before Work Session 2:

ACTION ITEMS TO COMPLETE BEFORE NEXT WORK SESSION:

☐	Read FEMA's *Local Mitigation Handbook*, Task 5 – pp. 5-1 to 5-20, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf . This is a step-by-step guide to the FEMA process for conducting a risk assessment.
☐	Start preparing the HIRA (may require involvement by some working group participants)
☐	If you were assigned a data collection role, please collect and distribute and be able to report back to the working group on the relevance of such data to this project during the next work session.
☐	If you were given a writing assignment for the stakeholder engagement strategy, please complete that

	assignment by the agreed upon date and be prepared to report to the working group during the next working session.
☐	Read "Practice Safe Growth Audits." planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/zoningpractice/open/pdf/oct09.pdf
☐	Browse "Choosing appropriate planning tools and strategies" in the *Planning for Hazards* guide – pp. 213-214. planningforhazards.com/choosing-appropriate-planning-tools-and-strategies
☐	Browse the *Planning for Hazards* guide Chapter 4, Planning Tools and Strategies – pp. 23-211 to explore the types of tools to consider implementing. planningforhazards.com/planning-tools-and-strategies
☐	Browse the applicable planning tools and strategies related to your community's highest risk hazards in the *Planning for Hazards* guide appendix, pp. A-1 to A-47. planningforhazards.com/hazard-identification-and-risk-assessment
☐	Browse FEMA's *Local Mitigation Handbook*, Task 4 – pp. 4-1 to 4-5, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
☐	Browse FEMA's *Local Mitigation Handbook*, Task 6 – pp. 6-1 to 6-13, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
☐	Prepare the remaining components of the HIRA or local risk assessment (may require working group member participation).
☐	Follow up on stakeholder engagement tasks.

Work Session 1, Handout 1:
Hazard Frequency and Severity Chart

This handout should be populated as a group with the working group participants.

Check the box related to each hazard's probability and severity.

	Avalanche	Drought	Earthquake	Flood	Hazardous Materials	Extreme Heat	Landslide / Rockfall	Soil Hazards	Wildfire	Wind	Winter Storm	Other Hazard	Other Hazard
Frequency (is it likely to happen again?)													
Highly likely													
Likely													
Occasional													
Unlikely													
Severity (how much damage does it cause?)													
Catastrophic													
Critical													
Limited													
Negligible													

Probability/Frequency

Highly likely	Near 100 percent chance of occurrence next year or it happens every year.
Likely	10-100 percent chance of occurrence next year or it has a recurrence interval of 10 years or less.
Occasional	1-10 percent chance of occurrence in the next year or it has a recurrence interval of 11 to 100 years.
Unlikely	Less than 1 percent chance of occurrence in the next 100 years or it has a recurrence interval of greater than every 100 years.

Severity

Catastrophic	Extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, and/or government functions which includes sustained city and regional impacts; overwhelms the existing response strategies and state and local resources; and requires significant out-of-state and Federal resources.
Critical	Isolated deaths and/or multiple injuries and illnesses; major or long-term property damage that threatens structural stability; and/or interruption of essential facilities and services for 24-72 hours.
Limited	Minor injuries and illnesses; minimal property damage that does not threaten structural stability; and/or interruption of essential facilities and services for less than 24 hours.
Negligible	No or few injuries or illnesses; minor quality of life loss; little or no property damage; and/or brief interruption of essential facilities and services.

NOTES:

Work Session 1, Handout 2: HIRA Summary Outline and Responsibilities

This handout provides a summary outline of a typical HIRA and can be used to assign responsible parties to research and writing assignments. Responsibilities for Sections 2, 3, and 4 may not be determined until work sessions 2 or 3.

Section	Description
Section 1: Hazard Identification	This section describes the various hazards that are present in the community and explains why some have been omitted from further consideration.
[*responsible party*]	[*assignment*]
Section 2: Community Assets	This section documents the community's assets including critical facilities and natural, historic, cultural, and economic assets.
Section 3: Risk Analysis	This section analyzes the community's assets and describes the potential impacts and losses associated with each hazard through exposure analysis, historical analysis, and scenario analysis. This section typically requires the greatest mapping needs.
Section 4: Vulnerability Summary	This section documents the community's vulnerability to significant hazard risks including an analysis of land use and development trends, social vulnerability, and an assessment of the community's administrative, technical, and financial capabilities.

Work Session 1, Handout 3:
Initial Data Collection Checklist

[internal/facilitator use]

NOTE*: Responsible parties should be familiar with the respective data and be prepared to present its relevance to the larger working group during Work Session 2.*

Data Type and Description	Available?	Responsible Party for Collecting Data
Plans, regulations, and studies		
Hazard mitigation plan	☐	
Community wildfire protection plan	☐	
Comprehensive or community master plan	☐	
Subarea plans	☐	
Parks, open space, and recreation plan	☐	
Climate plan	☐	
Sustainability plan	☐	
Land use and subdivision regulations	☐	
Relevant building codes	☐	
Capital improvements plan	☐	
Stormwater management plan	☐	
Pre-disaster or disaster recovery plan	☐	
Departmental organizational charts	☐	
Administrative and/or engineering manual(s)	☐	
Supporting developer handouts	☐	
GIS data		
Parcels	☐	
Current land use	☐	
Future land use	☐	
Zoning	☐	
Land ownership (fed/state/local/etc.)	☐	
Trees	☐	
Building footprints	☐	
Roads	☐	
Critical infrastructure	☐	
Parks and open space	☐	
Bodies of water	☐	
Floodplain	☐	
Wildfire hazards	☐	
Geologic hazards	☐	
Click here to enter text.	☐	

Work Session 1, Handout 4: Identifying Community Assets

This handout should be used to identify community assets. Community assets can fall within several categories, including but not limited to people, economy, built environment, and natural environment. Many assets fall within more than one of those categories (for example, emergency services and healthcare are both important "people" as well as "built environment" critical facilities).

Critical Facilities, Infrastructure, and Assets	Examples	Our Community
Water	Reservoirs, stormwater system, wastewater facilities	
Emergency Services	Fire stations, police stations, etc.	
Communications	Telephone lines, radio towers, cellular service	
Gas/Electric	Natural gas lines, power lines, gasoline stations	
Healthcare and Public Health	Hospitals, urgent care facilities, doctor's offices	
Food/Grocery	Restaurants, grocery stores, markets	
Transportation	Major roads, bridges, bus stations, airports	
Banking	Banks and other financial institutions	
Government Facilities	City hall, schools, jails, military installations	
Nearby Dams	Dams (private and public)	
Computer Driven Technology	Fiber-optic and cable	
Nuclear Materials/Waste	Nuclear power plant, waste storage facility	
Chemical Facilities	Propane storage, other chemical storage	
Defense Industry Contractors	Staff support services to military installation	
Postal or Shipping	USPS offices, FedEx, UPS, others	
Critical Manufacturing	Manufacturing critical to local economy	
Monuments or Icons	Historic buildings, natural features, local icons	
Places of Assembly	Churches, public squares	
Natural Assets	Wetlands, endangered species, parks and open spaces	
Historic Assets	Registered historic properties or districts, historic landmarks	
Cultural Assets	Zoos, museums, libraries	
Economic Assets	Top employers in the region or local jurisdiction, other key economic assets	

Work Session 1, Handout 5: Developing Problem Statements based on HIRA

Hazard	Problem Statements
Avalanche	Click here to enter text.
Drought	
Earthquake	
Flood	*E.g., There are 18 identified critical facilities located in the 100-year floodplain. The community should look for opportunities to relocate such facilities to the extent possible.*
Hazardous Material Release	
Extreme Heat	
Landslide, Mud/Debris Flow, and Rockfall	
Soil Hazards	
Wildfire	*E.g., Nearly 38% of the community's parcels are located within the wildland-urban interface. Review of proposed development in these areas should be strengthened.*
Wind Hazards	
Severe Winter Storms	

WORK SESSION 2

Sign-in Sheet – Work Session 2

DATE:

Name	Agency/Department	Email	Phone

Agenda – Work Session 2

Assess Capabilities and Develop Planning Strategies

Date:
Time:
Location:
Call-in #:

1. **Welcome and updates (10 minutes)**

2. **Follow up on Work Session 1 (10 minutes)**

3. **Discuss the draft HIRA or local risk assessment (30 minutes)**

4. **Review community capabilities (45 minutes)**

5. **Discuss initial planning implementation strategies (60 minutes)**

6. **Next steps (5 minutes)**

ACTION ITEMS TO COMPLETE BEFORE NEXT WORK SESSION:

☐	Review the summary table of planning tools and strategies – pp. 28-29 planningforhazards.com/planning-tools-and-strategies
☐	Read Chapter 5 – Moving Forward in the *Planning for Hazards* guide – pp. 213-225 planningforhazards.com/moving-forward
☐	Read FEMA's *Local Mitigation Handbook*, Task 6, subsections on evaluation criteria and action prioritization – pp. 6-7 to 6-8, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
☐	Review FEMA's *Integrating Hazard Mitigation into Local Planning*, Table 2-1 beginning on page 2-4, fema.gov/media-library-data/20130726-1908-25045-0016/integrating_hazmit.pdf
☐	Finalize HIRA or local risk assessment (may require working group member participation).
☐	Follow up on stakeholder engagement tasks.

Work Session 2, Handout 1: Community Capability Assessment Questions

Adapted from the American Planning Association's "Practice Safe Growth Audits" – Zoning Practice Issue 10.09

Community Capability Assessment Questions	Yes/No	Actions
Comprehensive Plan		
Land Use		
Does the future land use map clearly identify natural hazard areas?		
Do the land use policies discourage development or redevelopment within natural hazard areas?		
Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas?		
Transportation		
Does the transportation plan limit access to hazard areas?		
Is transportation policy used to guide growth to safe locations?		
Are movement systems designed to function under disaster conditions (e.g., evacuation)?		
Environmental Management		
Are environmental systems that protect development from hazards identified and mapped?		
Do environmental policies maintain and restore protective ecosystems?		
Do environmental policies provide incentives to development that is located outside protective ecosystems?		
Public Safety		
Are the goals and policies of the comprehensive plan related to those of the FEMA Local Hazard Mitigation Plan?		
Is safety explicitly included in the plan's growth and development policies?		
Does the monitoring and implementation section of the plan cover safe growth objectives?		
Zoning Ordinance		
Does the zoning ordinance conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas?		
Does the ordinance contain natural hazard overlay		

Community Capability Assessment Questions	Yes/No	Actions
zones that set conditions for land use within such zones?		
Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use?		
Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?		
Subdivision Ordinance		
Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas?		
Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?		
Do the regulations allow density transfers where hazard areas exist?		
Capital Improvement Program and Infrastructure Policies		
Does the capital improvement program limit expenditures on projects that would encourage development in areas vulnerable to natural hazards?		
Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards?		
Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?		
Other		
Do small area or corridor plans recognize the need to avoid or mitigate natural hazards?		
Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces?		
Do economic development or redevelopment strategies include provisions for mitigating natural hazards?		
Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?		

NOTES:

WORK SESSION 3

Sign-in Sheet – Work Session 3

DATE:

Name	Agency/Department	Email	Phone

Agenda – Work Session 3

Prioritize Planning Implementation Tools

Date:

Time:

Location:

Call-in #:

1. **Welcome and updates (10 minutes)**

2. **Discuss draft assessment memo (20 minutes)**

3. **Planning implementation tools prioritization exercise (120 minutes)**

4. **Next steps (10 minutes)**

ACTION ITEMS TO COMPLETE BEFORE NEXT WORK SESSION:

☐	Depending on the planning implementation strategies selected, read the respective tool profiles and model code language (where applicable) in the Planning for Hazards guide, Chapter 4 – pp. 23-211 planningforhazards.com/planning-tools-and-strategies
☐	Contact individuals that should be involved in drafting and/or reviewing tool(s).
☐	Prepare draft planning implementation tools and distribute to working group.
☐	Review draft planning implementation tools once distributed to the working group. Prepare to share feedback during Work Session 5.
☐	Participate in interim meetings if you play an integral role in the development of the planning tools selected.
☐	Follow up on stakeholder engagement tasks.

Work Session 3, Handout 1: Prioritization Criteria

This form should be completed for each planning implementation being considered.

PLANNING IMPLEMENTATION TOOL:			
Evaluation Criteria	**Discussion: It is important to consider…**	**Factors**	**Notes/Scoring**
Effective Risk Reduction	…if the planning implementation tool is expected to result in reducing risk to known hazards	• Proven risk reduction measures • Addresses problem statements from HIRA	
Administrative Capability	…if the community has the capacity to implement the tool in-house or if it would require additional resources	• Staffing needs • Funding allocation • Maintenance and operations • Technical feasibility	
Political and Public Support	…the political and public temperature related to the environment, economic development, safety, and emergency management	• Political support • Public support • Local champions/advocates • Alignment with policies	
Benefits and Costs	…whether or not the planning tool could be funded with current or future internal and external resources and if the costs are reasonable for the type of project	• Benefits vs. costs • Contribution to other economic goals • Outside funding required	
Alignment with Community Goals	…the potential impacts on the environment and the community as it relates to adopted policies	• Aligned with environmental policies • Builds resilience • Protects natural assets	
Social Equity	…whether or not there would be public support for the planning implementation tool	• Community acceptance • Avoids adverse impacts to population • Social equity – applies fairly across various geographies and social backgrounds	

Other potential considerations:

- Does the community have the legal authority to implement the planning tool?
- Would the project solve multiple problems in the community? (Is there synergy with other community values and policies?)
- Is the project relatively easy to develop, fund, implement, and close out?

WORK SESSION 4

Sign-in Sheet – Work Session 4

DATE:

Name	Agency/Department	Email	Phone

Agenda – Work Session 4

Review and Refine Draft Planning Implementation Tools

Date:
Time:
Location:
Call-in #:

1. **Welcome and updates (10 minutes)**

2. **Review draft implementation tools (90 minutes)**

3. **Develop outreach strategy ad process for approval and/or adoption (20 minutes)**

4. **Next steps (10 minutes)**

ACTION ITEMS TO COMPLETE BEFORE NEXT WORK SESSION:

☐	Read the "Implementation and Enforcement" subsection under "Implementing Planning Tools and Strategies" – pp. 214-218 in the *Planning for Hazards* guide, planningforhazards.com/implementing-planning-tools-and-strategies
☐	Browse FEMA's *Local Mitigation Handbook*, Task 7 Keep the Plan Current – pp. 7-1 to 7-38, fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf
☐	Submit additional feedback related to draft implementation tools to the facilitator and/or project manager.
☐	Establish timeline for adoption/approval of planning implementation tools.
☐	Follow up on stakeholder engagement tasks.

Work Session 4, Handout 1: (template)

Review and Refine Draft Planning Implementation Tools

Click here to enter text.

Chapter/Section Number	Comments
Click here to enter text.	Click here to enter text.

NOTES:

WORK SESSION 5

Sign-in Sheet – Work Session 5

DATE:

Name	Agency/Department	Email	Phone

Agenda – Work Session 5

Establish Implementation and Maintenance Procedures

Date:
Time:
Location:
Call-in #:

1. **Welcome and updates (10 minutes)**
2. **Discuss final draft implementation tools (45 minutes)**
3. **Discuss adoption and/or approval procedures (15 minutes)**
4. **Establish protocols for ongoing administration and maintenance (30 minutes)**
5. **Identify future risk reduction projects (15 minutes)**
6. **Dismiss the working group (5 minutes)**

Thank you again for your commitment to strengthening Colorado communities!

Work Session 5, Handout 1: Implementation and Maintenance Worksheet

Identify the ongoing needs to effectively administer and maintain the planning tool(s).

Implementation Tool	Who Administers?	Ongoing Enforcement Required?	Performance Metric	Evaluation Period/Responsibility	Updates Required
[EXAMPLE] *Overlay zoning*	*Planning department*	*Yes, work with code enforcement division*	*Losses avoided within overlay; streamlined development procedures*	*Annually/Planning and Zoning Commission*	*12/24/17 – need to require defensible space within overlay*

NOTES: