



# Develop a Mitigation Strategy

Evaluate Solutions and Plan  
for Implementation



FEMA



**Cal OES**  
GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES

# Housekeeping and Virtual Tour

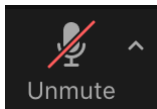
- **Technology Tour:**
  - Polls.
  - Menti Board.
  - Annotation.
  - Chat and comment function.
  - Breakout rooms.
- Remember to mute!
- Recording.
- **Follow-up:**
  - Slides will be shared!
  - We will be providing an electronic certificate.

*For any tech issues, message Toby Davine directly using the chat.*

# We will be Recording this Presentation

- Please be advised that FEMA and CalOES (through their contractor) will be recording this course.
- The purpose of the recording will be to use for future reference, share with individuals who were unable to attend the presentation, and potentially otherwise at the agencies' discretion.
- By attending this course you are consenting to these conditions. Please be advised you can choose to self-identify or not during the Q&A.

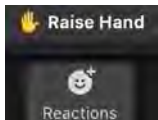
# Housekeeping and Virtual Tour



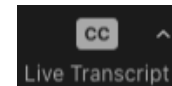
- Please mute yourself when not speaking. To mute and unmute, select the microphone icon, or press \*6 on a phone. Please only use one method to mute/unmute yourself to avoid 'double muting'.



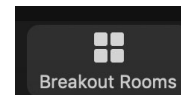
Use video, if possible, to promote face to face communication. Click the video icon to turn on your webinar camera.



- If you have a question or comment, please use the chat box or the Raise Hand function on the top of your screen. This alerts the facilitator that you would like to speak. Click again to lower your hand after speaking.



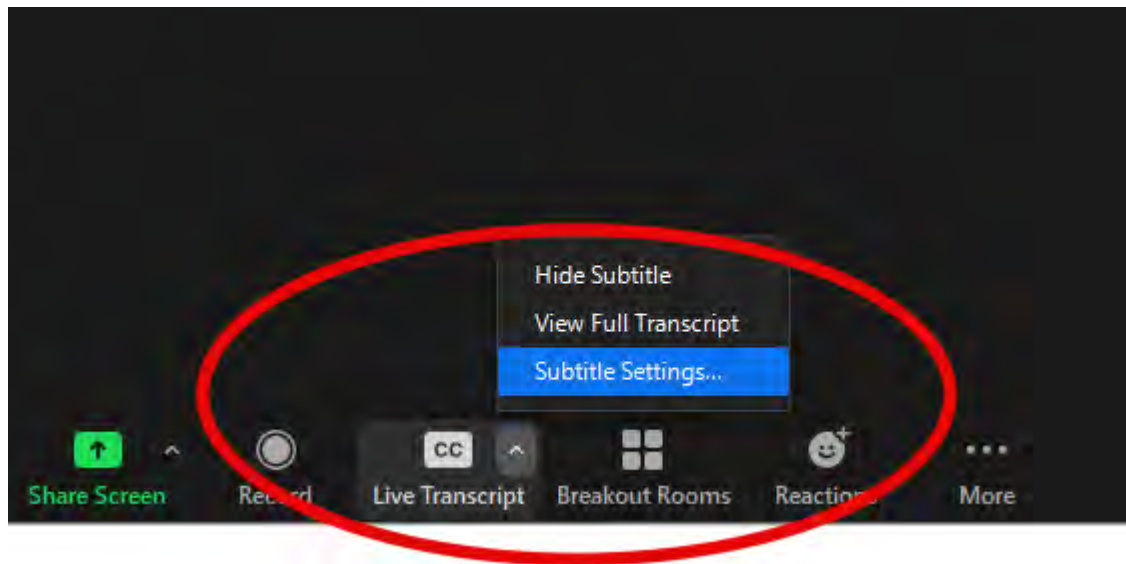
Live Transcript available.



Join a breakout room.

***For any tech issues, message Toby Davine directly using the chat.***

# Live Transcript



- Zoom application settings allow customization of subtitles.

*For any tech issues, message Toby Davine directly using the chat.*

# Let us know: What did you eat for breakfast?

- Enter your answer on Menti:
- Follow link in chat, or
- Take a photo of this QR code with your phone.



# Welcome!

## Virtual G-318 Workshop: Local Mitigation Planning

- Module 1: The Planning Process
- Module 2: Conducting a Risk Assessment
- **Module 3: Developing a Mitigation Strategy**
- Module 4: Plan Maintenance and Implementation

# Welcome!

Thank you for joining **Module 3: Developing a Mitigation Strategy.**

Today, we'll discuss:

- Mitigation Strategy Overview.
- Assessing Capabilities.
- Developing Mitigation Goals.
- Identifying and Evaluating Mitigation Actions.
- Preparing the Action Plan.

This will be followed by the Office Hour and an introduction to the Resource Library.



# Today's Agenda

9:00 AM – 9:15 AM	Welcome and Technology Tour
9:15 AM – 11:30 AM	Developing a Mitigation Strategy <ul style="list-style-type: none"><li>• Learning Sessions</li><li>• Activities and Breakout Rooms</li><li>• Breaks</li></ul>
11:30 AM	Module Evaluation
11:30 AM – 12:00 PM	Office Hour/Resource Library Walk-through

# Today's Speakers

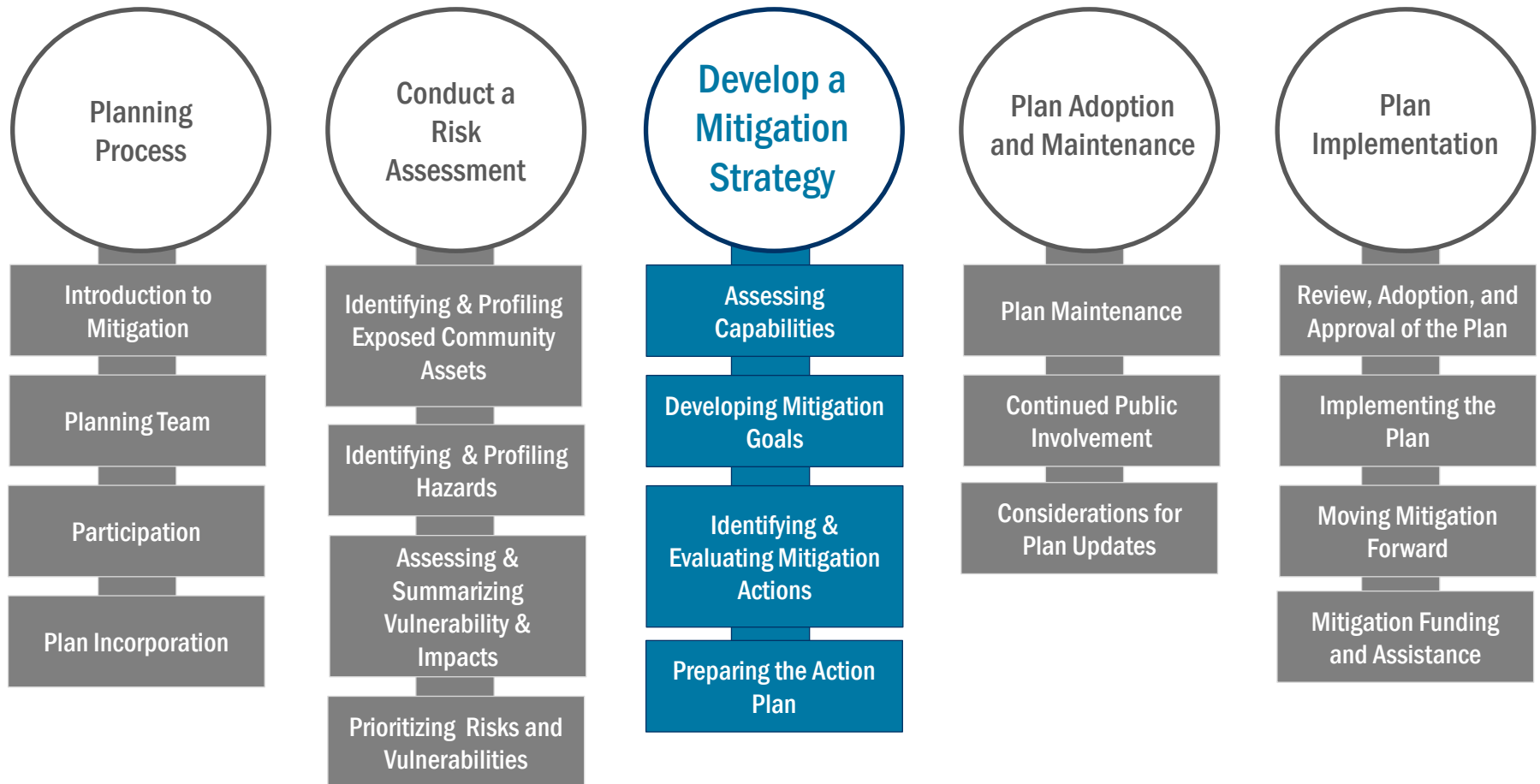
**We'll hear from:**

- **Emma Reed, Community Planner, FEMA Region 9**
- **JoAnn Scordino, Community Planner, FEMA Region 9**
- **Xing Liu, Community Planner, FEMA Region 9**



# Mitigation Strategy Overview

# Mitigation Training and Technical Assistance Modules



# Mitigation Strategy Overview

- Reflect local capabilities
- Align goals with what the community needs and wants
- Identify and evaluate a comprehensive list of actions to address identified problems
- Set up the community for successful implementation and long-term resilience





# First, Look at the Current, Approved HMP

- Did FEMA or the State make recommendations for improvement in the Plan Review Tool?
- What process did you use to identify and evaluate alternatives? Did it work well?
- What would you like to do differently this time?
- Updated Plan Review Tool template with HHPD is available [here](#)

## APPENDIX A: LOCAL MITIGATION PLAN REVIEW TOOL

The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The *Regulation Checklist* provides a summary of FEMA's evaluation of whether the Plan has addressed all requirements.
- The *Plan Assessment* identifies the plan's strengths as well as documents areas for future improvement.
- The *Multi-jurisdiction Summary Sheet* is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

Jurisdiction:	Title of Plan:	Date of Plan:
Local Point of Contact:	Address:	
Title:		
Agency:		
Phone Number:	E-Mail:	
State Reviewer:	Title:	Date:
FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region (insert N/A)		
Plan Not Approved		
Plan Approvable Pending Adoption		
Plan Approved		

Local Mitigation Plan Review Tool

A-1

# Example Plan Assessment Section

## SECTION 2: PLAN ASSESSMENT

**INSTRUCTIONS:** The purpose of this Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The Plan Assessment must be completed by FEMA.

The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the plan; 2) specific sections in the plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically Risk MAP and Hazard Mitigation Assistance programs.

The Plan Assessment is divided into two sections:

- 1) Plan Strengths and Opportunities for Improvement
- 2) Resources for Implementing Your Approved Plan

***Plan Strengths and Opportunities for Improvement*** is organized according to the plan elements listed in the Regulation Checklist. Each element includes a series of italicized bulleted items that are suggested topics for consideration while evaluating plans, but it is not intended to be a comprehensive list. FEMA Mitigation Planners are not required to answer each bullet item, and should use them as a guide to paraphrase their own written assessment (2-3 sentences) of each element.

The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in nature, and should be open-ended and to provide the community with suggestions for improvements or recommended revisions. The recommended revisions are suggestions for improvement and are not required to be made for the plan to meet Federal regulatory requirements. The italicized text should be deleted once FEMA has added comments regarding strengths of the plan and potential improvements for future plan revisions. It is recommended that the Plan Assessment be a short synopsis of the overall strengths and weaknesses of the Plan (no longer than two pages), rather than a complete recap section by section.

***Resources for Implementing Your Approved Plan*** provides a place for FEMA to offer

### A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

#### Element A: Planning Process

##### Strengths:

- 1) The City did a nice job of involving the public through both a public meeting and surveys.
- 2) The City clearly incorporates the review of existing studies, reports, and technical information into the plan.

##### Opportunities for Improvement:

- 1) In future plans, please provide documentation such as sign-in sheets or # of surveys received that evidence how the public was given the opportunity to be involved in the HMP development process.
- 2) With respect to monitoring plan implementation, in future plans, consider describing the system by which the status of actions will be tracked – this could be as simple as a spreadsheet or a more complex web-based tool.
- 3) In addition to the avenues for public involvement listed in the plan, consider celebrating successes with the community, such as sharing with the public when the plan is approved, or when a mitigation action is successfully completed, through avenues such as websites, newsletters, or social media.

#### Element B: Hazard Identification and Risk Assessment

##### Strengths:

- 1) The plan contains succinct and clear descriptions of the hazards that can affect the City, and comprehensive descriptions of potential impacts and previous occurrences.

##### Opportunities for Improvement:

- 1) The plan includes a well-developed community profile section. In future plans, consider weaving these community aspects in with the discussion of vulnerabilities for each hazard. This was done nicely with wildfire hazard – connecting development growth into WUI areas and the vulnerabilities associated with wildfire. Are there other unique sectors of communities within Arcadia that are particularly vulnerable to the other hazards potentially



# Assessing Capabilities

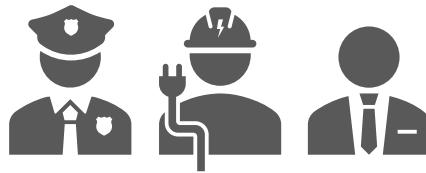


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# What is a Capability Assessment?

- Every community has a unique set of capabilities to make them stronger and safer
  - For plan updates, review the previous capabilities section
- Multi-jurisdictional plans need capability assessment for each participating jurisdiction



**Planning and  
Regulatory**

**Administrative  
and Technical**

**Financial**

**Education and  
Outreach**

INTRO

**CAPABILITIES**

GOALS

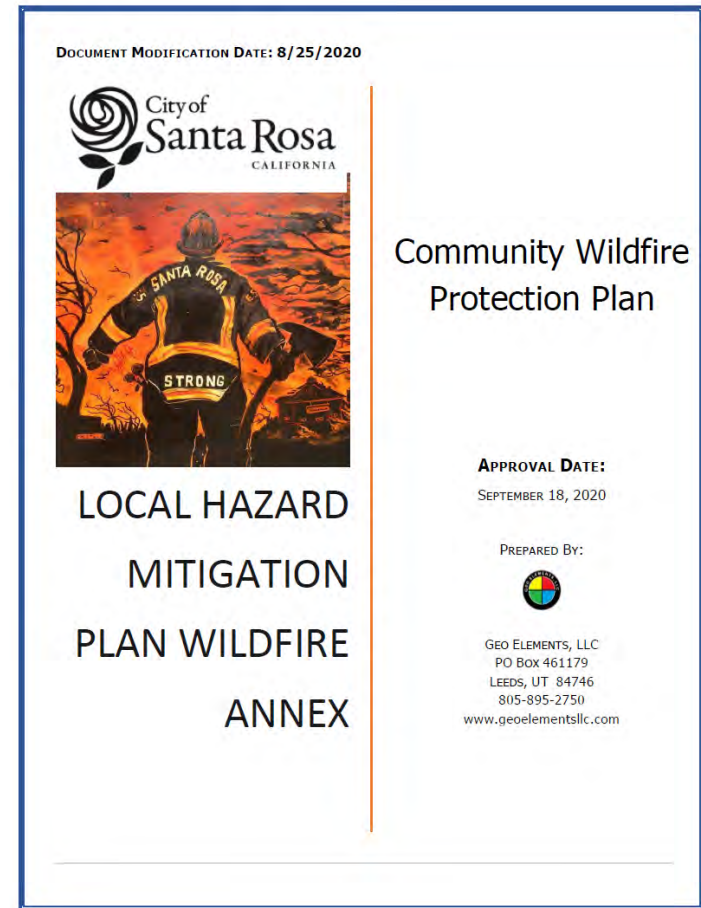
ACTIONS

ACTION PLAN

# Planning and Regulatory Capabilities

## Examples of policies, processes, and programs that guide development:

- Comprehensive plans, other land use and development plans and standards
- Land use administration and procedures
- Coastal plans
- Climate action plans
- Building codes and ordinances
- Economic development plans
- Floodplain management plans
- Community Wildfire Protection Plans (CWPP)
- Environmental review process
- Transportation plans
- Emergency Action Plans
- Recovery plans



INTRO

**CAPABILITIES**

GOALS

ACTIONS

ACTION PLAN

# Administrative and Technical Capabilities

- Staff and skills for planning and mitigation such as:
  - Planners (land use, community development, housing, sustainability, open space, etc.)
  - Emergency managers
  - Engineers
  - Floodplain managers
  - GIS analysts
  - Code enforcement staff
  - Natural resource managers



# Administrative and Technical Capabilities

Also includes staff, skills, and resources related to securing and administering funding for mitigation such as:

- Grant writers
- Grant administrators
- Budget analyst
- Local finance expert

# Financial Capabilities

Resources available to fund mitigation actions such as:

- Operating budgets
- Grants resources
- Capital projects
- Special or limited taxes, bonds, fees, etc.



# Financial Capabilities

- **Federal departments and programs**
  - Environmental Protection Agency
  - Housing and Urban Development
  - U.S. Army Corps of Engineers
  - Silver Jackets
  - National Oceanic and Atmospheric Administration
  - Economic Development Administration
  - USDA/ NRCS/ U.S. Forest Service / Rural Development
- **State programs**
  - State environmental, conservation/recreation, emergency management programs
  - State-administered federal programs: Community Development Block Grants, Clean Water Loan Funds, etc.
  - IRWM (Integrated Regional Water Management) grant (CA DWR)
- **Non-profits and foundations**

# Education and Outreach Capabilities

## Communicating risk and supporting mitigation:

- Hazard awareness campaigns
  - Firewise
  - ShakeOut earthquake drills
  - Water conservation programs
  - Storm Ready
  - Flood Awareness Week
  - High Water Marks Campaign
  - School programs
  - Public events (e.g., county fairs)
- Social media
- Community newsletters
- Local news



# Activity #1: Capabilities

**What capabilities does your community have for implementing mitigation for your natural hazards?**

Enter your answer on Menti:

- Follow link in chat, or
- Take a photo of this QR code with your phone.





# Mitigation Plans and the NFIP

- For each jurisdiction adopting the plan, describe their participation in the NFIP
- Special districts are not NFIP participants- include a blanket statement about that in your LHMP
- Describe how will they remain in good standing with the program:
  - Enforcing floodplain regulations
  - Community assistance and monitoring
  - Identifying and mapping floodplains
  - Risk MAP projects

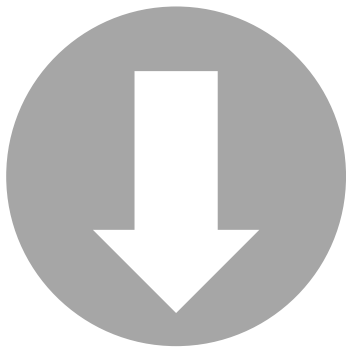


# Common Higher Regulatory Standards

- Freeboard
- Community-Identified Flood Hazard Areas
- Non-Conversion Agreement
- Flood Protection Setback
- Historic Structures
- Prohibition
  - Development in Special Flood Hazard Areas
  - Manufactured Homes in Special Flood Hazard Areas
  - Fill in Special Flood Hazard Areas
- Examples for Other Hazards?

# Community Rating System (CRS)

- The CRS is a voluntary program that recognizes and encourages communities that exceed the minimum NFIP requirements



1. Reduce flood damage to insurable property.



2. Strengthen and support the insurance aspects of the NFIP.



3. Encourage a comprehensive approach to floodplain management.

# CRS Activity 510 and Mitigation Planning

Element	Maximum Credits
1. Organize	15
2. Involve the public	120
3. Coordinate	35
4. Assess the hazard	35
5. Assess the problem	52
6. Set goals	2
7. Review possible activities	35
8. Draft an action plan	60
9. Adopt the plan	2
10. Implement, evaluate, revise	26

LHMP Planning Element	CRS Counterpart	CRS Step Details
<b>ELEMENT A. PLANNING PROCESS</b>		
<b>A1.</b> Document the planning process	<b>Step 1.</b> Organize to prepare the Plan	<p><b>Prerequisites:</b></p> <ul style="list-style-type: none"> <li>CRS requires a <b>Floodplain Management Plan (FMP) committee</b>.</li> </ul> <p><b>Key Differences:</b></p> <ul style="list-style-type: none"> <li>The FMP committee can be the LHMP planning committee or can be a separate FMP committee that focuses on flooding.</li> <li>The <b>FMP committee must meet at least five times</b>.</li> <li>Multi-jurisdictional plans, each community that wants to earn CRS points must have <b>two staff representatives on the FMP committee</b>.</li> <li>At least <b>half of the representatives must attend all meetings</b> of the FMP committee.</li> </ul> <p><b>Maximize Points:</b></p> <ul style="list-style-type: none"> <li><b>Involve staff from multiple departments.</b> One point is provided for each office represented; full credit is given for staff representing all six categories of CRS flood mitigation activities (see Table 1 below).</li> <li><b>Formally establish the planning process.</b></li> </ul>
<b>A3.</b> Public involvement during the planning process	<b>Step 2.</b> Involve the public	<p><b>Prerequisites:</b></p> <ul style="list-style-type: none"> <li>CRS requires a <b>Public Planning committee</b>, which can be also be the LHMP stakeholder group.</li> </ul> <p><b>Key Differences:</b></p> <ul style="list-style-type: none"> <li>An LHMP requires the opportunity for stakeholders to participate; <b>CRS requires active stakeholder participation</b>.</li> </ul> <p><b>Maximize Points:</b></p> <ul style="list-style-type: none"> <li>Full credit is given if <b>at least half the committee members are from outside the local government</b>.</li> <li>At least one <b>public information meeting is held in the affected area(s)</b> within the first two months of the planning process (separate from the planning committee meetings).</li> <li>Hold at least one <b>public meeting to obtain input on the recommended plan</b>.</li> <li>Five points is given for each <b>additional public information</b> activity that explains the planning process and encourages input.</li> </ul> <p><b>Commonly Missed:</b> CRS's definition of stakeholder/public involvement is more structured than what is provided in the local mitigation plan guidance.</p>

Check out FEMA's Technical Bulletin on CRS and Mitigation Planning [here](#) at the Resource Library!

# Questions?



**Break**



**FEMA**





# Developing Mitigation Goals

# What Are Plan Goals?

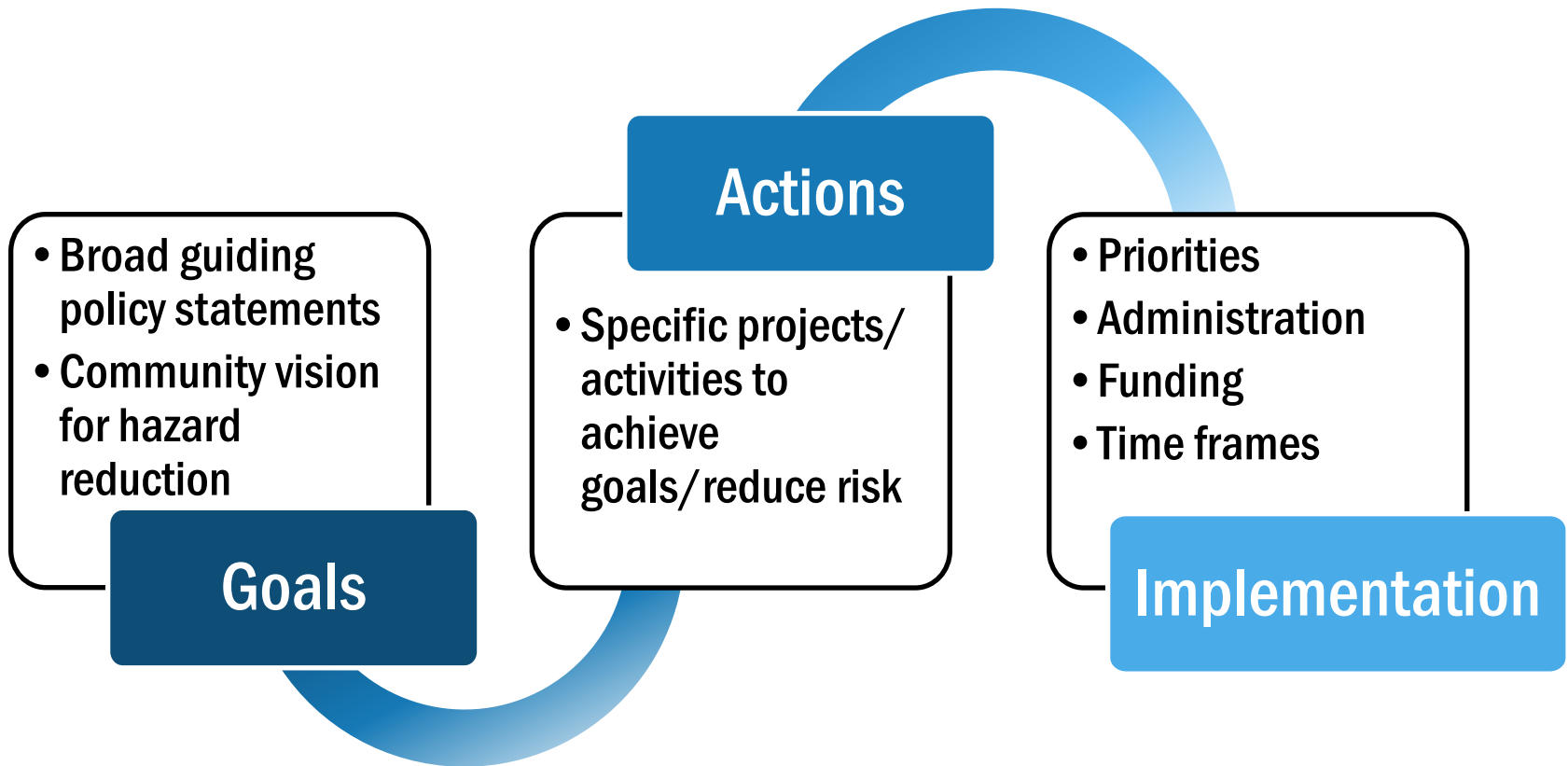
- **Goals are general guidelines and broad policy statements that explain what you want to achieve**
  - **Link risk and capability assessment results and related mitigation actions**
  - **Provide a blueprint to reduce/avoid long-term vulnerabilities to identified hazards**
- **For plan updates, review and validate the goals in the current plan**
  - **Change or add goals based on any changes in priority**





# Why is Developing Goals Important?

Goals help guide the remaining steps in the planning process



# Updating Goals and Priorities

Planning goals and priorities may shift over time

- In response to changes in community characteristics and risks
- To take advantage of available resources



# Examples of Plan Goals

- Minimize and prevent damage to public and private buildings and infrastructure.
- Increase cooperation and coordination amongst private entities, local, State, and Federal agencies.
- Increase education, outreach, and awareness.
- Protect natural and cultural resources.



Source: California Governor's Office of Emergency Services

INTRO

CAPABILITIES

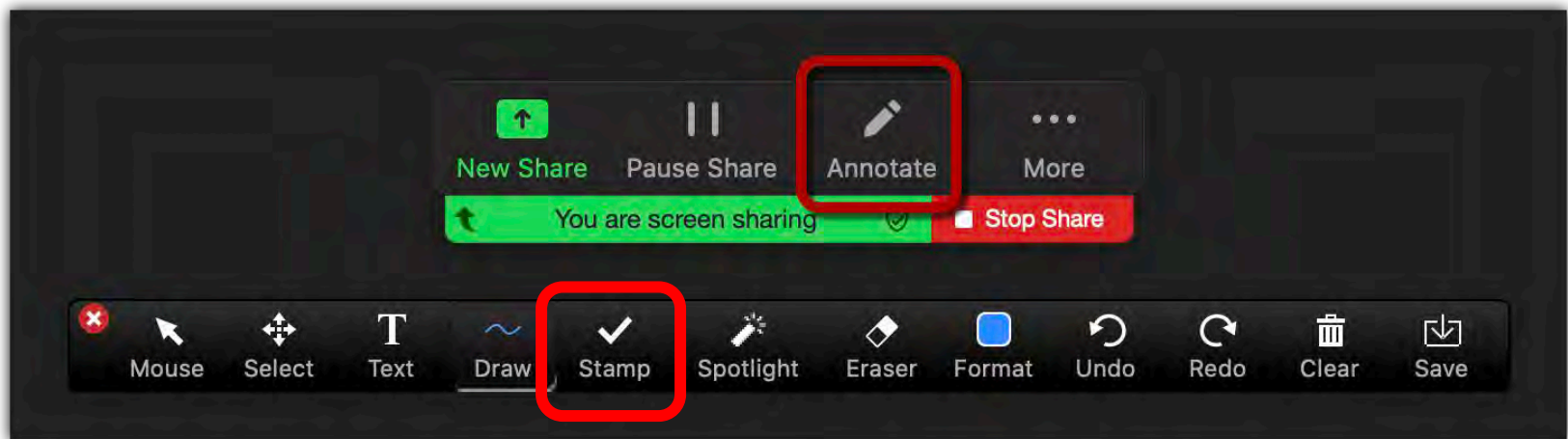
GOALS

ACTIONS

ACTION PLAN

# Zoom Annotation Tool

1. Click View Options then Annotate at the top.



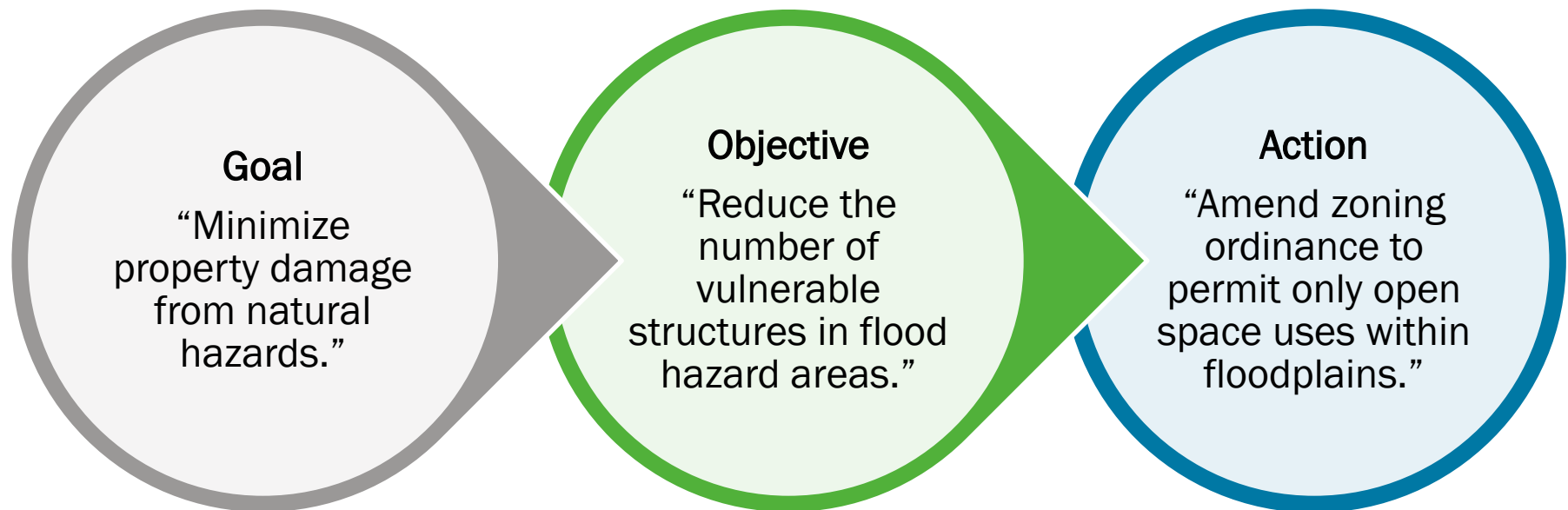
2. Click Stamp.

## Activity #2: Is this a goal, action, or neither?

Use the annotation tool **STAMP** to mark which box is most appropriate for each of 5 following statements:

	Goal	Action	Neither
"Adopt and implement city building codes and ordinances that protect people and structures from drought, earthquake, flood, landslide, severe weather, and wildfire."			
"Reduce deaths, injuries and structural damage through the use of planning, regulations and preventative measures. "			
"Promote increased and ongoing county involvement in hazard mitigation planning and projects."			
"Develop the data sets that are necessary to test hazard scenarios and mitigation tools, including HAZUS MH."			
"Maintain NFIP and HMA eligibility."			

# Goals, Objectives, and Mitigation Actions







# Identifying and Evaluating Mitigation Actions

# Identify Mitigation Actions

- All prioritized hazards must have corresponding mitigation action.
- Mitigation actions should address specific problems identified in the Risk Assessment
  - Start from your Problem Statements
- Consider actions that reduce risk to:
  - Life and human safety
  - Existing buildings and infrastructure
  - New development and redevelopment
  - Lifelines





# How to Identify Mitigation Actions

## Review Risk Assessment and Develop Problem Statements and Goals

- Hazards
- Community Assets

## Assess Capabilities

- Planning and Regulatory
- Financial
- Administrative and Technical
- Education and Outreach

## Review Status of Previously Identified Mitigation Actions

- Per current approved HMP

## Identify Mitigation Actions

- Based on all of the preceding steps

# What is the Status of Previously Identified Mitigation Actions?

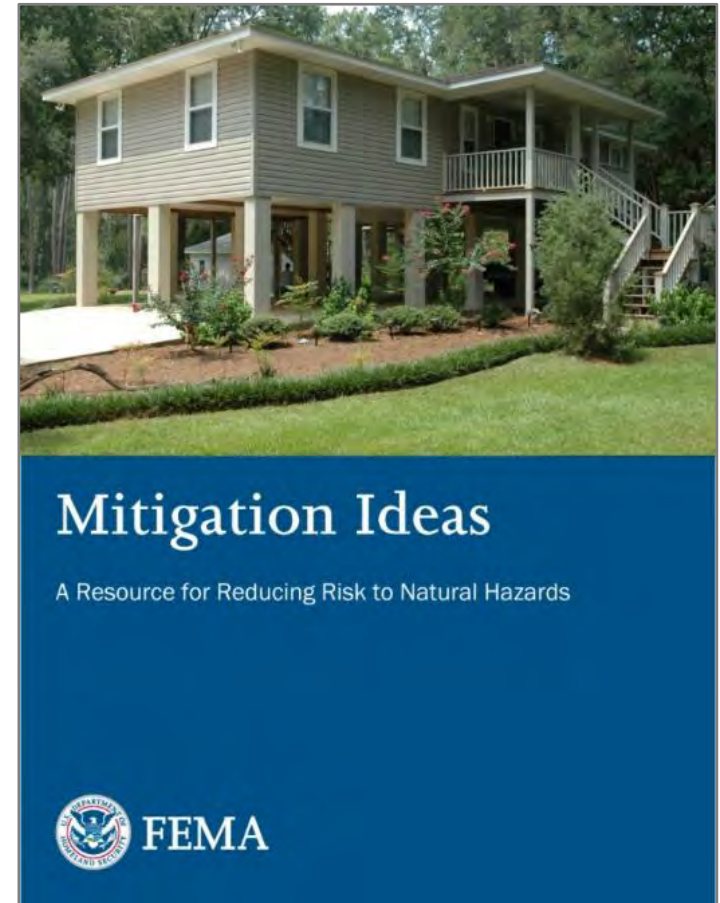
- Every action from the existing plan must be accounted for.
- Do any previous actions address current problems?
- If an action hasn't been completed, why not? What were the barriers, and are they still applicable?
- Celebrate the success of completed or ongoing actions!



Reviewing your plan annually can help determine the status of mitigation actions

# How Do You Identify Mitigation Actions

- Ask your partners, stakeholders, experts, and the public
- Review actions from other existing plans, studies, programs
- Talk to neighboring communities
- Research Federal and State guides and resources
- Ask your State Hazard Mitigation Officer
- Talk to your workforce



# Types of Mitigation Actions



## Local Plans and Regulations (LPR)

Government authorities, policies, or codes that influence the way land and buildings are developed and maintained



## Structure and Infrastructure Projects (SIP)

Modifying existing infrastructure to remove it from a hazard area or construction of new structures to reduce impacts of hazards



## Natural Systems Protection (NSP)

Actions that minimize damage and losses and also preserve or restore the functions of natural systems



## Education and Awareness Programs (EAP)

Sustained programs to educate the public and decision makers about hazard risks and community mitigation programs

# Example Problem Statement

- In wildland-urban interface areas, two critical facilities (school and county maintenance shop) and \$500 million in property value are at risk, and there is increasing development pressure.



# Example Actions by Type

LPR



Adopt a wildfire mitigation code

SIP



Retrofit school and maintenance shop with fire-resistant materials

NSP



Identify land for acquisition by Parks Department for trails and open space

EAP



Implement Firewise programs to educate property owners



# Consider a Variety of Mitigation Actions

- For each high risk hazard and/or problem statement, identify multiple alternative mitigation actions
- Think “outside the box;” address root causes, not just symptoms
  - Not every mitigation action needs to be “brick and mortar”
- Identify “multi-jurisdictional” mitigation actions requiring partnerships with other agencies
  - This can help solve common issues



# Mitigation Action Portfolio

- Showcases mitigation projects with examples of activities that integrate The National Mitigation Investment Strategy's goals and reflect the guiding principles of the Disaster Recovery Reform Act of 2018 (DRRA).
- Connects case studies to Community Lifelines
- Provides examples of Nature Based Solutions



Link:

[https://www.fema.gov/sites/default/files/documents/fema\\_mitigation-action-portfolio-support-document.pdf](https://www.fema.gov/sites/default/files/documents/fema_mitigation-action-portfolio-support-document.pdf)

# Mitigation Action Portfolio

## Berkeley Seismic Vulnerability Retrofits

In 2018, the City of Berkeley received a \$1.2 million Hazard Mitigation Grant Program (HMGP) grant from FEMA to create a grant program for building owners to retrofit seismically vulnerable buildings to better withstand earthquake impacts. The program provides grants, paid out as reimbursements, for upgrades for certain types of commercial and multi-family residential buildings (including buildings with nonductile concrete, tilt-up, soft story, and unreinforced masonry).

The program is designed to encourage property owners to be proactive, rather than reactive, in implementing seismic retrofits by offering direct compensation for a large percentage of total costs incurred to the building owner. Grants from the program pay for up to 75 percent of design and 40 percent of construction costs, depending on the project. If implemented properly, this program could not only prevent serious property damage from earthquakes, but also prevent injuries and even loss of life due to structures not being properly secured against earthquake impacts. To date, the program has contributed to seismic retrofits of 48 buildings containing over 400 apartment units.

### Addressed Hazards



**PRIMARY HAZARD**  
Earthquakes

### Incentivizing Retrofits to Reduce Vulnerability

By leveraging federal funds, this program incentivizes proactive mitigation measures for commercial and multi-family building owners who want to make their buildings safer and more resilient to earthquakes.



Berkeley, CA  
Source: Shutterstock



Berkeley, CA  
FEMA Region IX



### Community Lifelines

Hover over the Primary Lifeline to learn more.



Safety & Security

PRIMARY LIFELINE



Food, Water, Sheltering



# Mitigation Action Portfolio

## Blue Lake Rancheria Tribe Microgrid

The Blue Lake Rancheria (BLR) is a Native American reservation located in an area subject to heavy rainstorms, forest fires, and frequent power outages. The reservation constructed a low-carbon community microgrid in 2017 to bolster its resilience to these outages. It helps power government offices, economic enterprises, and several Red Cross safety shelter-in-place facilities. The BLR microgrid integrates a solar array, battery storage, and control systems to allow the Rancheria campus to operate in tandem with, or islanded from, the main utility grid. This provides resiliency to the community because if the main grid experiences a power outage, the microgrid will automatically disconnect and go into island mode.

The system prioritizes clean generation, but if needed it will bring a 1-megawatt isochronous backup generator online to support the photovoltaic (PV) array and battery. The solar array also generates renewable energy regardless of whether or not it is in island mode, providing both carbon emission and electricity cost savings. The microgrid is projected to save \$150,000 a year and reduce 150 tons of carbon dioxide emissions annually.

### Addressed Hazards



### Innovative Energy Solution Tested and Proven in 2019

When a nearby wildfire caused a power outage in October 2019, the microgrid successfully islanded and kept the facilities from experiencing a blackout. During the outage, the microgrid served 10,000 people, about 10 percent of the county's population, and is credited with saving four lives.

### Leveraging Partnerships for Tribal Lifeline Resilience

By leveraging public and private partnerships, this project utilizes the latest in microgrid technology to mitigate cascading impacts to an entire tribal community.



Workers installing the racking for the Blue Lake Rancheria's 500-kilowatt solar system in June 2016. The solar system is a cornerstone of the tribe's low-carbon community microgrid project.



Humboldt  
Bay, CA  
FEMA Region IX

**Community Lifelines**  
Hover over the Primary Lifeline to learn more.



Safety & Security



Food, Water, Sheltering

**PRIMARY LIFELINE**



Energy (Power & Fuel)

# Activity #3: Identifying Mitigation Actions

**We will spend the next 20 minutes in small groups discussing problem statements identified in Module 2.**

-

**You'll be randomly sorted into breakout rooms.**

-

**Afterward, we will reconvene, and each group will have the opportunity to share ONE action with the group. Please identify someone to report out to the larger group.**

# Activity #3: Identifying Mitigation Actions

- Your facilitator will have a problem statement prepared from yesterday.
- The goal is to identify mitigation actions that fall into the following different categories:
  - Local Plans and Regulations.
  - Natural Systems Protection.
  - Structure and Infrastructure Projects.
  - Education and Awareness Programs.
- Be sure to write down 3 mitigation actions that would help address these problems - think outside the box!



# Activity #3: Problem Statements from Module 2

- The facility serving at risk populations with limited mobility such as children or the elderly are located in hazard zones, and should be evaluated for structural safety and access. The elementary school might not have defensible space, and might be constructed with materials that are not fire safe.
- There are 100 residents plus staff in an assisted living center in a high risk flood zone. There are mobility issues that impact evacuation impacts to the substation could result in harm to multiple community members and result in additional risk to life and property. Additionally, the bridge is aging and gets flooded annually. The community needs the bridge to access lifeline.
- Within this neighborhood, both flood and fire pose a threat to important community's assets. The old wooden bridge which provides exit route and access for fire and emergency services to the Assisted Living Facility (with 300 residents) and the neighborhood (property values estimated to be around \$10,000,000) is equally at risk of being washed out in a flood as being burned down in a fire. Loss of the bridge would delay critical response time in upwards of 45 minutes. Estimated cost of repair of the bridge is \$50,000, cost of replacement of the bridge by a larger concrete bridge will be \$250,000.

# Activity #3: Identifying Mitigation Actions

## Report Out

Remember to share ONE action from your breakout group.

# Questions?



# Preparing the Action Plan

# Making the Actions Happen

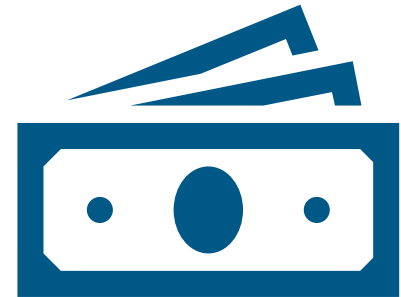
- The action plan provides a blueprint of what you want to achieve over the next 5 years



Who is responsible?



What is the timeline?



How will it be funded?

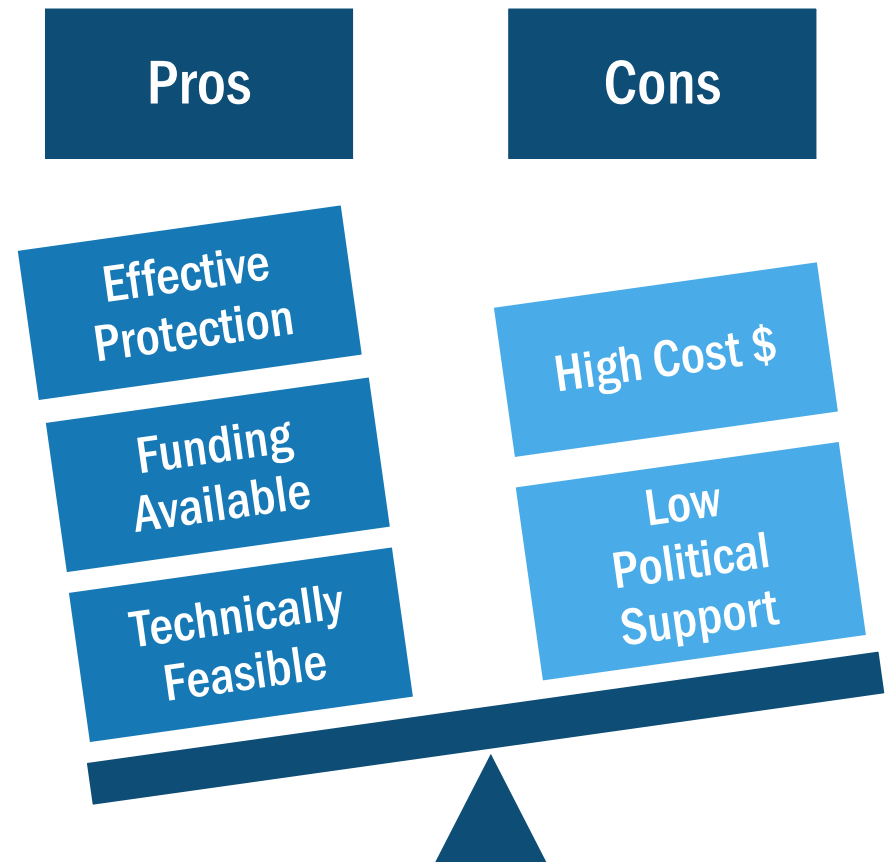


# Charting the Implementation Plan

Action No.	Description	Priority	Responsible Agency	Potential Funding	Time Frame
1	Floodproof pump stations	Medium	Public Works Department	FEMA HMA	2-4 years
2	Inspect schools for seismic retrofit	High	School Board Facilities Management	Staff time	1-3 years
3	Implement wildfire vegetation management program	Medium	Natural Resources Department	Staff time	1-3 years

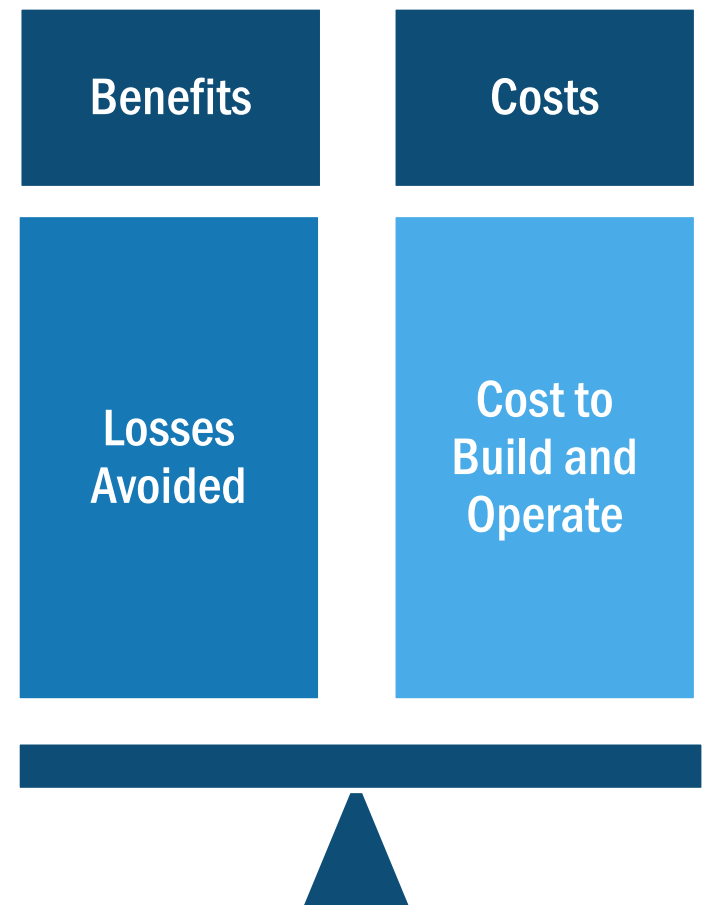
# Things to Think About When Deciding to Put an Action In the Plan

- Anticipated Effectiveness
- Technical Feasibility
- Administrative Capabilities
- Political Will / Local Champion
- Legal Authority
- Environmental Constraints
- Social Considerations
- Other Community Objectives, as stated in Community Plans
- Benefits versus Costs



# Benefit-Cost Analysis (BCA)

- Are costs reasonable compared to probable benefits?
- Consider quantitative (\$) and qualitative analyses
- Benefit-Cost Analysis using FEMA's BCA module is not required for an HMP, but is for HMA grants



# How do you Prioritize Mitigation Actions?

Prioritization schemes can include:

- Hazard ranking
- A numerical ranking
- A high, medium, or low designation
- Chronologically by anticipated date of implementation, i.e., short-term versus long-term
- Other methods per community preference



# Plan for Continued NFIP Compliance

- **How will each community continue to comply with the NFIP's standards? There are many ways of describing this:**
  - Describe each community's adoption and enforcement of floodplain management
  - Describe how staff implement permitting or building inspections
  - Talk about flood insurance coverage
  - There may be education and outreach activities in your community that could be discussed
- **The floodplain administrator is often the primary source for this information**



# Why is Integration Important?



Achieve multiple objectives



Send a consistent message



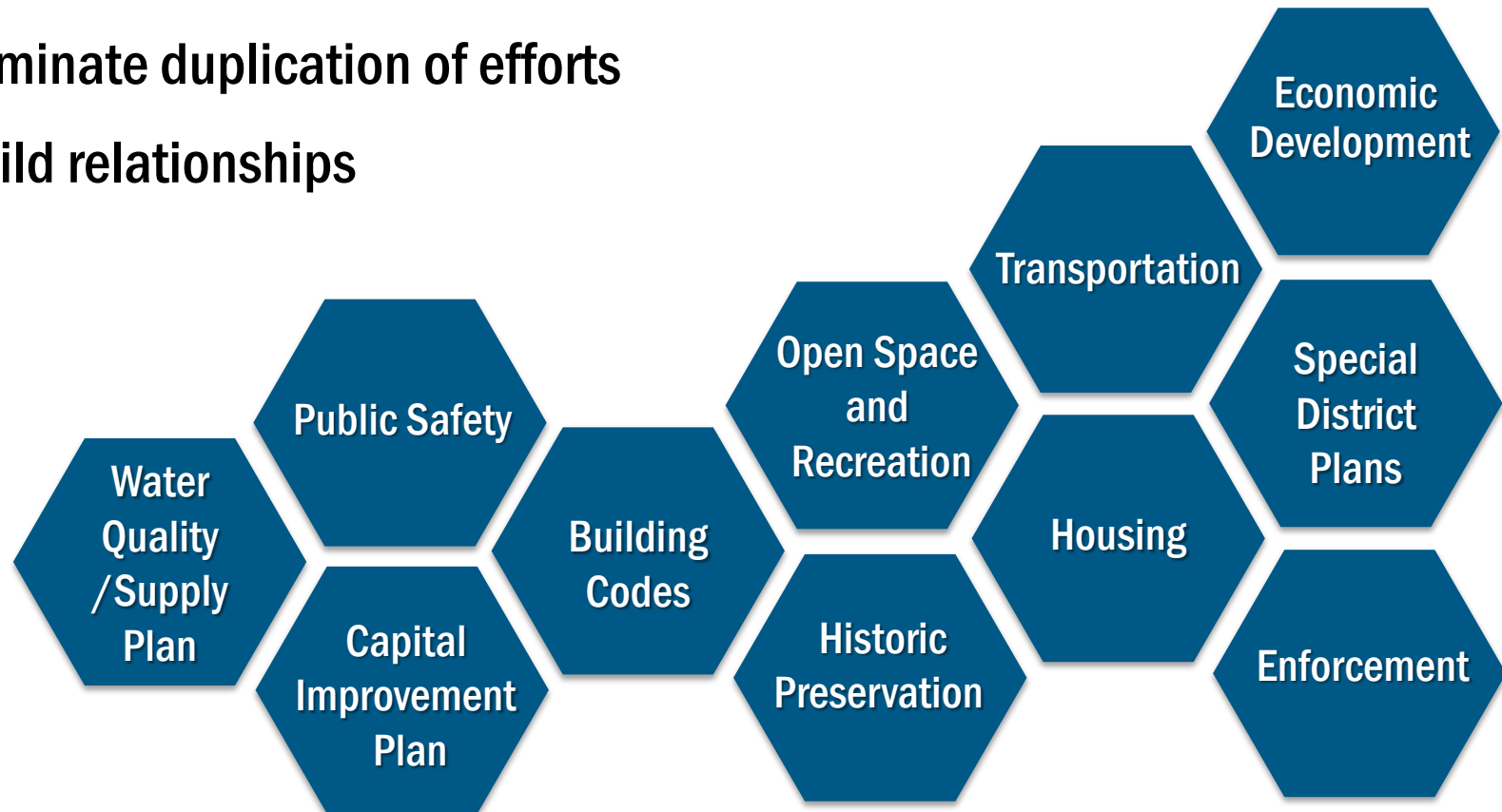
Leverage resources



Increase political acceptance of mitigation objectives

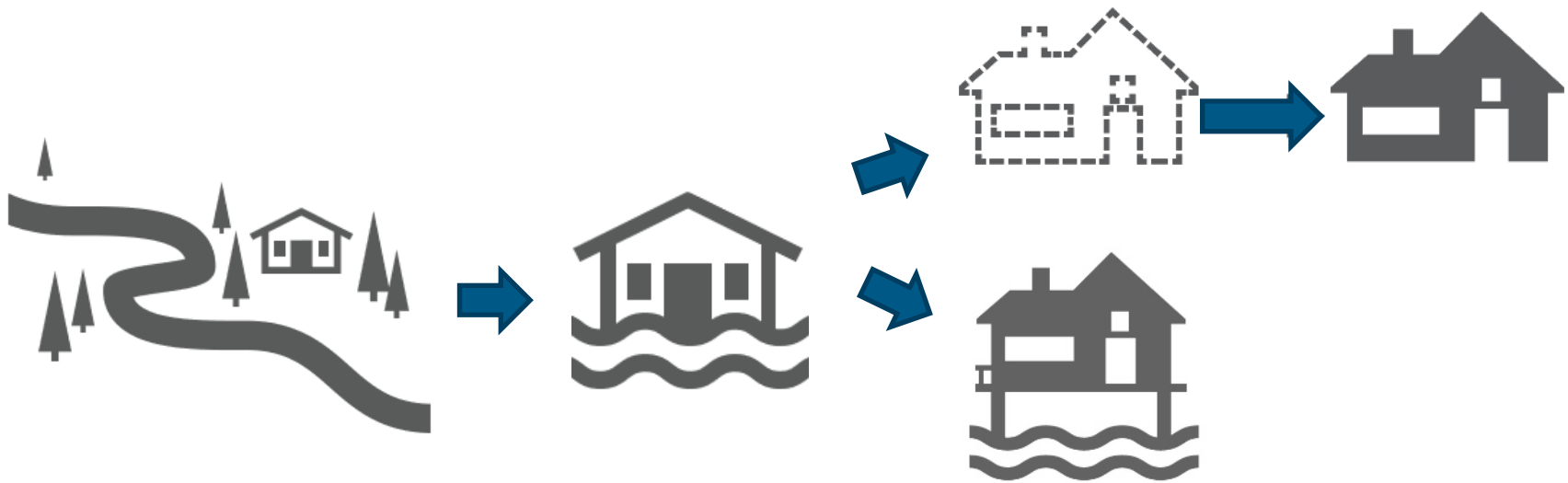
# Integrating Mitigation

- Align community goals, objectives, and prime concerns
- Eliminate duplication of efforts
- Build relationships



# Integrating into Long-Range Visions

- If the community's long-range vision is to enhance green space, then acquiring floodprone properties may be consistent with the vision
- However, if the community's long-range vision is to maintain existing character, then elevating floodprone structures may be more consistent with the vision



# Questions?

# Module Evaluation

Visit the Resource Library at: [Hazard Mitigation Local Hazard Mitigation Program](#)