



Local Hazard Mitigation

Guidance for Developing a
Local Hazard Mitigation Plan



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.

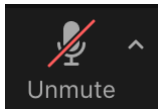
We will be Recording this Presentation

Please be advised that FEMA and CalOES (through their contractor) will be recording this course.

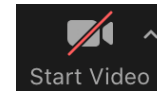
The purpose of the recording will be to use for future reference, share with individuals who were unable to attend the presentation, and potentially otherwise at the agencies' discretion.

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



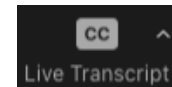
Please mute yourself when not speaking. To mute and unmute, select the microphone icon, or press *6 on a phone. Please only use one method to mute/unmute yourself to avoid 'double muting'.



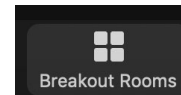
Use video, if possible, to promote face to face communication. Click the video icon to turn on your webinar camera.



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.



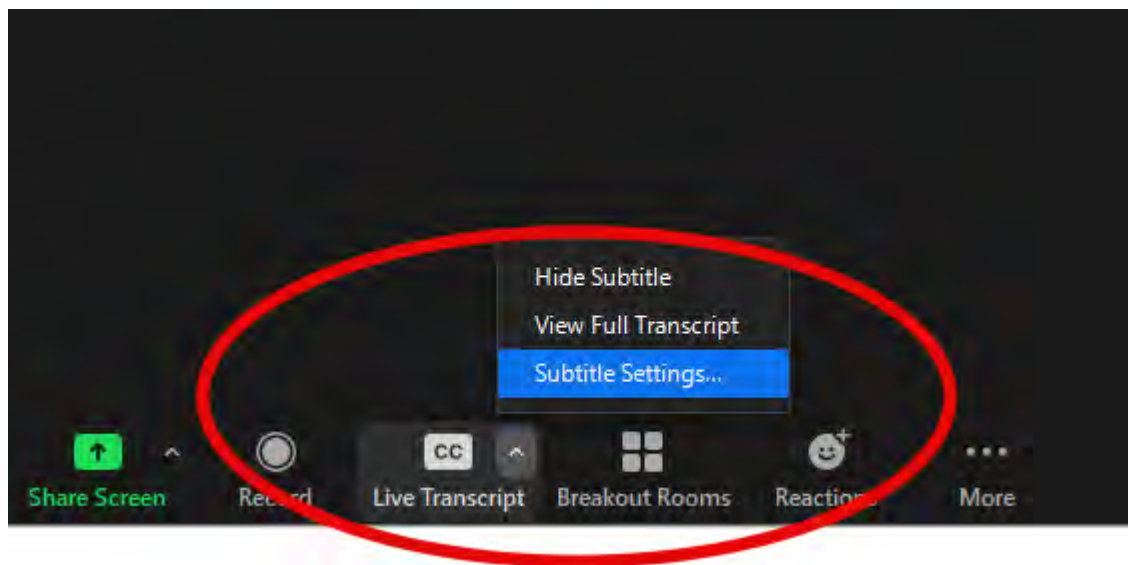
Live Transcript available.



Join a breakout room.

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

Live Transcript

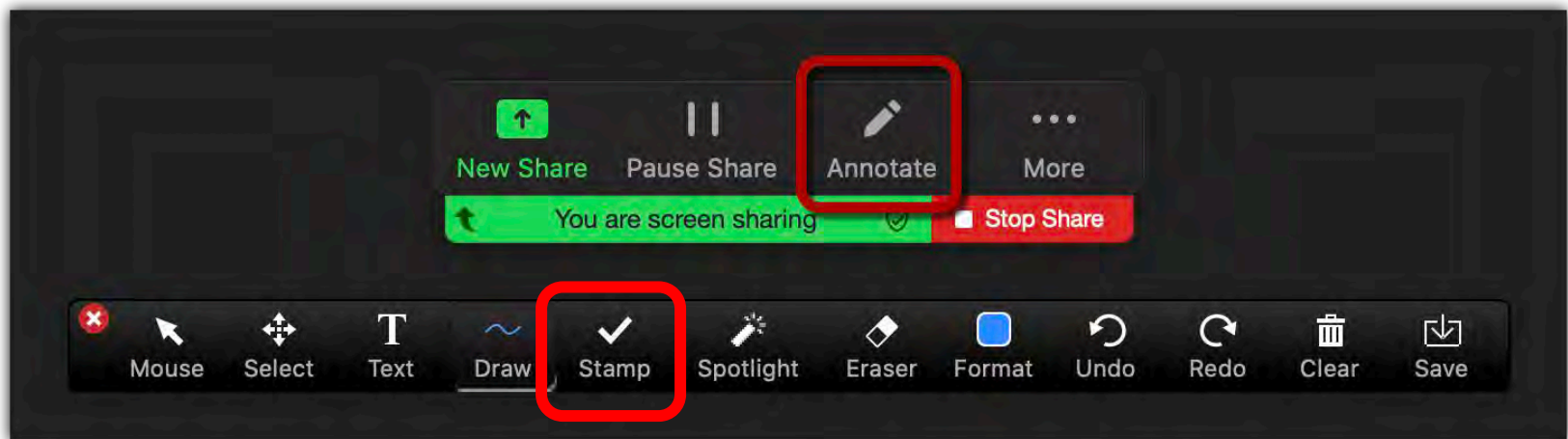


Zoom application settings allow customization of subtitles.

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

Zoom Annotation Tool

1. Click **View Options** then **Annotate** at the top.



2. Click **Stamp**.

Let us know: Where would you rather be sitting?

Use the annotation tool **STAMP** to mark where you'd like to be:



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 1: The Planning Process**

Today, we'll discuss:

- Details of the Planning Process.
- Building the Right Team.
- Participation and Engagement.
- Incorporating Plans, Studies, and Data.

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

Today's Agenda

9:00 AM - 9:10 AM	Welcome and Technology Tour
9:10 AM - 11:30 AM	<p>The Planning Process</p> <ul style="list-style-type: none">• Learning Sessions• Activities• Breaks
11:30 AM	Module Evaluation
11:30AM - 12:00 PM	Office Hour/Resource Library Walk-through

Today's Speakers

We'll hear from:

- Victoria LaMar-Haas, Program Manager, CalOES Local Mitigation Planning
- Ana Miscolta, Emergency Services Coordinator, CalOES Local Mitigation Planning
- Emma Reed, Community Planner, FEMA Region 9

Resilient Communities

What is a resilient community?

- Prepared for, and able to respond to, withstand, and recover from the effects of hazard events
- Equitable outcomes and whole community resilience



Hazard Mitigation Planning as a Tool for Resilience

Hazard Mitigation Plans help communities:

- **Engage and educate community members**
- **Identify local hazards**
- **Assess community vulnerability to hazards**
- **Identify community strengths**
- **Develop and implement solutions that reduce risks identified**

How does Mitigation Drive Resilience?



What is Hazard Mitigation?

Sustainable actions or strategies that reduce the adverse impacts of hazard events.

Hazard Mitigation vs. Preparedness

Actions

Preparedness

Acquire knowledge and resources to protect or maintain functionality *in anticipation of a disaster*

Mitigation

Influencing the built or natural environment in a way that reduces impact of hazards *to prevent disaster*

HAZARD EVENT

Outcomes

- Better response to disaster
 - Knowledge of how to react
 - Does not typically reduce hazard impacts on structures
-
- Helps prevent disasters
 - Reduced hazard impacts

Examples of Mitigation



Mitigation: Elevating a home by the river



Mitigation: Acquiring a property for non-use



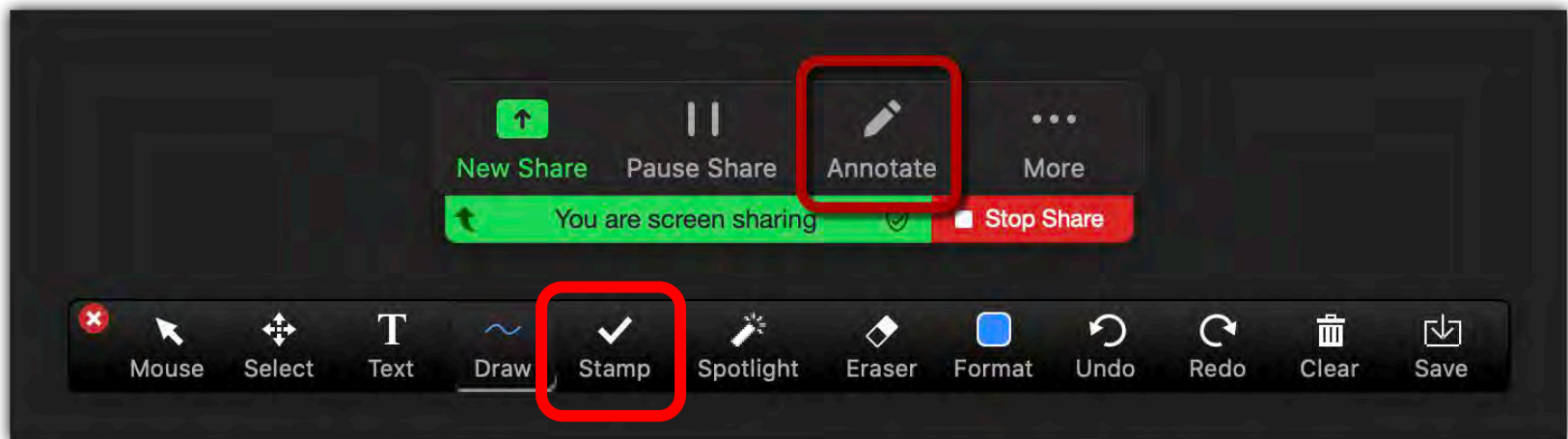
Mitigation: Adopting a Building code



Preparedness and Response: Purchasing a Police Command Vehicle

Zoom Annotation Tool

1. Click **View Options** then **Annotate** at the top.



2. Click **Stamp**.

Activity #1: Mitigation or Preparedness? – Part 1

Use the annotation tool **STAMP** to mark which of the following are considered “mitigation”:

Home Elevation

Defensible Space

Multi-Benefit Flood
Project

Seismic
Building
Code
Adoption

Flood Awareness
Week

Safety Fair

Earthquake Early
Warning System

Disaster
Preparedness
Kits

Buying a
Command
Vehicle

Emergency Drills

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Activity #1: Mitigation or Preparedness? – Part 2

Use the annotation tool **STAMP** to mark which of the following are “preparedness”:

Home Elevation

Defensible Space

Multi-Benefit Flood
Project

Seismic
Building
Code
Adoption

Flood Awareness
Week

Safety Fair

Earthquake Early
Warning System

Disaster
Preparedness
Kits

Buying a
Command
Vehicle

Emergency Drills

Activity #1: Mitigation or Preparedness?

Mitigation

Home Elevation

Defensible
Space

Multi-Benefit Flood
Project

Seismic
Building
Code
Adoption

Education and Outreach

Flood Awareness
Week

Safety Fair

Preparedness

Earthquake
Early Warning
System

Disaster
Preparedness
Kits

Buying a
Command
Vehicle

Emergency
Drills

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Mitigation is an Investment






- Prevent human injury and loss of life
- Protect community assets (structure/infrastructure, historic, and cultural)
- Reduce costs of disaster response/recovery



Improving Long-Term Financial Stability

Mitigation Saves:

Mitigation Saves up to \$13 per \$1 Invested

National Institute of BUILDING SCIENCES™		ADOPT CODE	ABOVE CODE	BUILDING RETROFIT	LIFELINE RETROFIT	FEDERAL GRANTS ¹
Overall Benefit-Cost Ratio		11:1	4:1	4:1	4:1	6:1
Cost (\$ billion)		\$1/year	\$4/year	\$520	\$0.6	\$27
Benefit (\$ billion)		\$13/year	\$16/year	\$2200	\$2.5	\$160
 Riverine Flood		6:1	5:1	6:1	8:1	7:1
 Hurricane Surge		not applicable	7:1	not applicable	not applicable	not applicable
 Wind		10:1	5:1	6:1	7:1	5:1
 Earthquake		12:1	4:1	13:1	3:1	3:1
 Wildland-Urban Interface Fire		not applicable	4:1	2:1	not applicable	3:1

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Hazard Mitigation Assistance

Hazard Mitigation Grant Program (HMGP)

Available Post-
Disaster- All
Hazards

Flood Mitigation Assistance (FMA)

Available Annually-
Flood Only

Building Resilient Infrastructure and Communities (BRIC)

Replaces Pre-
Disaster Mitigation
(PDM),
Available Annually
– All Hazards

Hazard Mitigation Planning

- A planning strategy that seeks to reduce the impacts of hazards through engagement, knowledge building, problem solving, and implementation.

Engage the whole
community to
understand risk

Come up with
solutions to reduce
risk

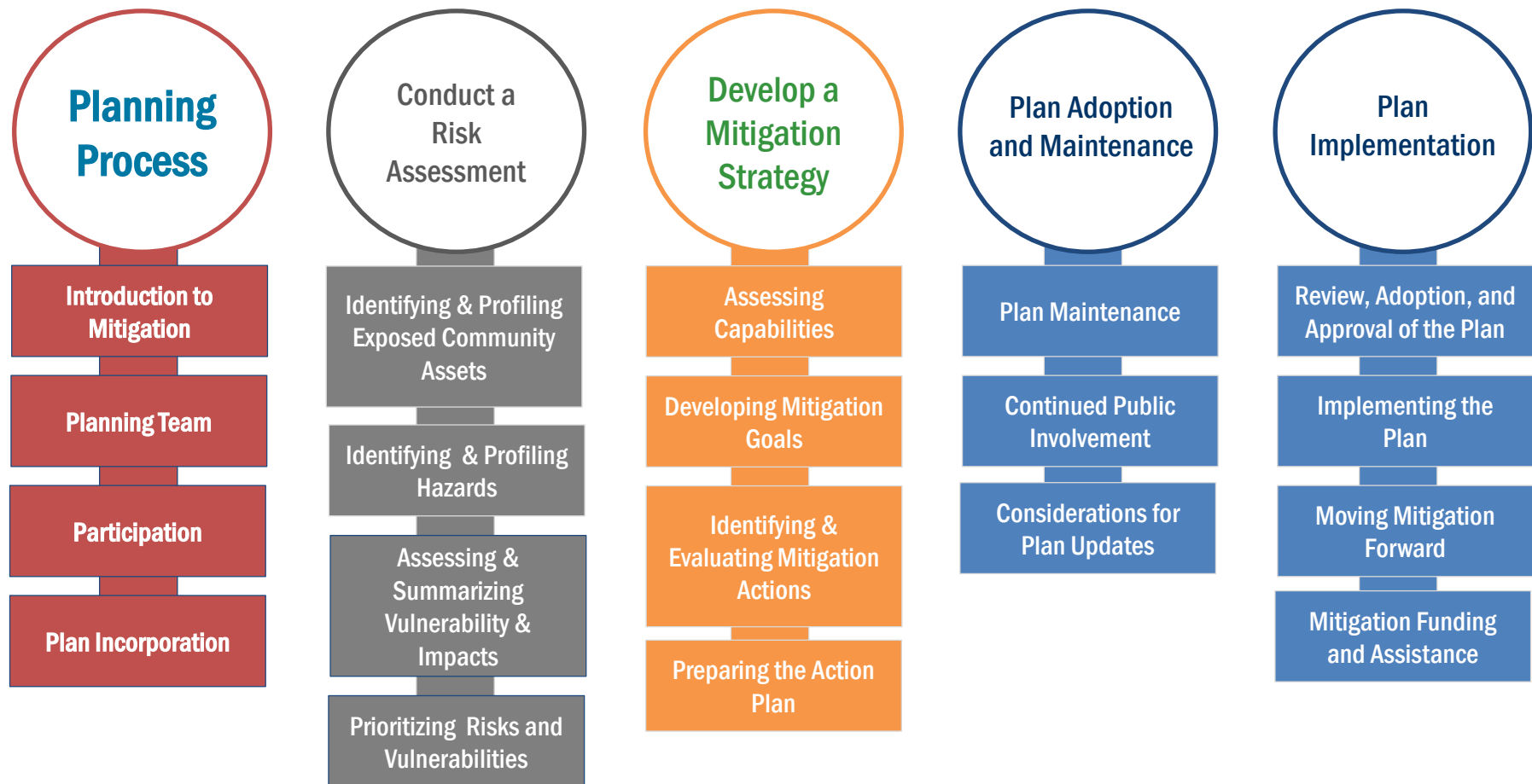
Create an action
plan to implement
the solutions

Successful Mitigation Planning

- Uses a process that:
 - Brings community leaders, members, and partners together
 - Evaluates risk for your community and the assets (people, places, infrastructure, etc.) that it cares about most
 - Determines how to achieve your community's greatest needs and enhance resilience
- Positions the community to reduce risk before disasters and recover more quickly following disasters



Five Stages of Plan Development



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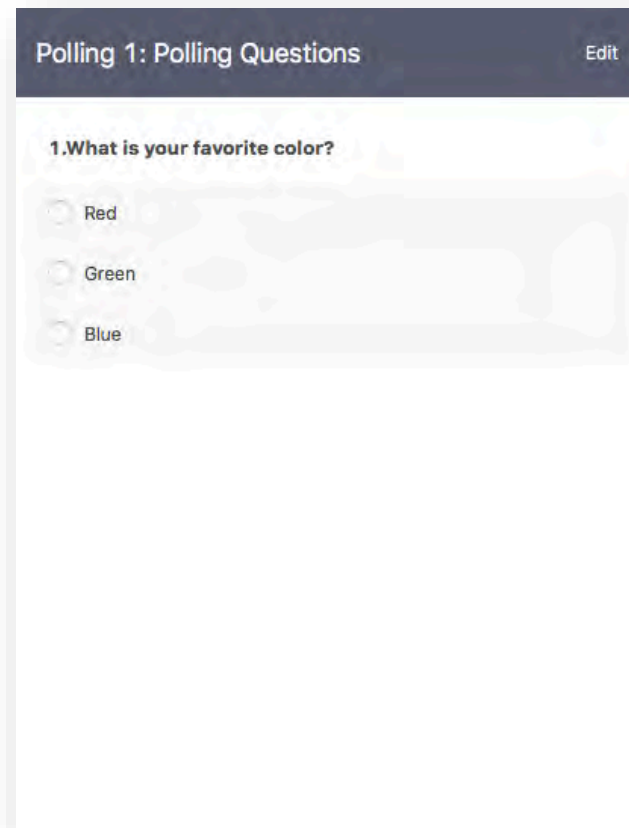
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Using Zoom Polls

When prompted on the screen, click on your preferred answer.

If the poll doesn't work, provide your answer in the chat.



Polling 1: Polling Questions [Edit](#)

1.What is your favorite color?

☐ Red

☐ Green

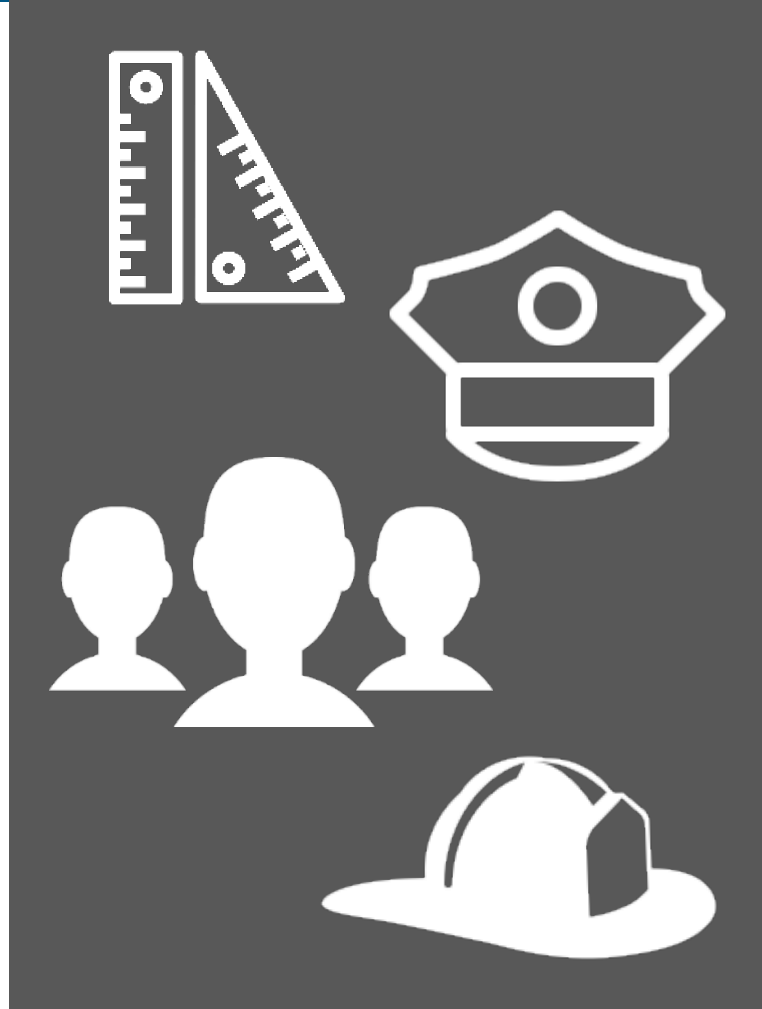
☐ Blue

Activity #2: Roles and Responsibilities

Answer the following question in the Poll:

Do you know your role?

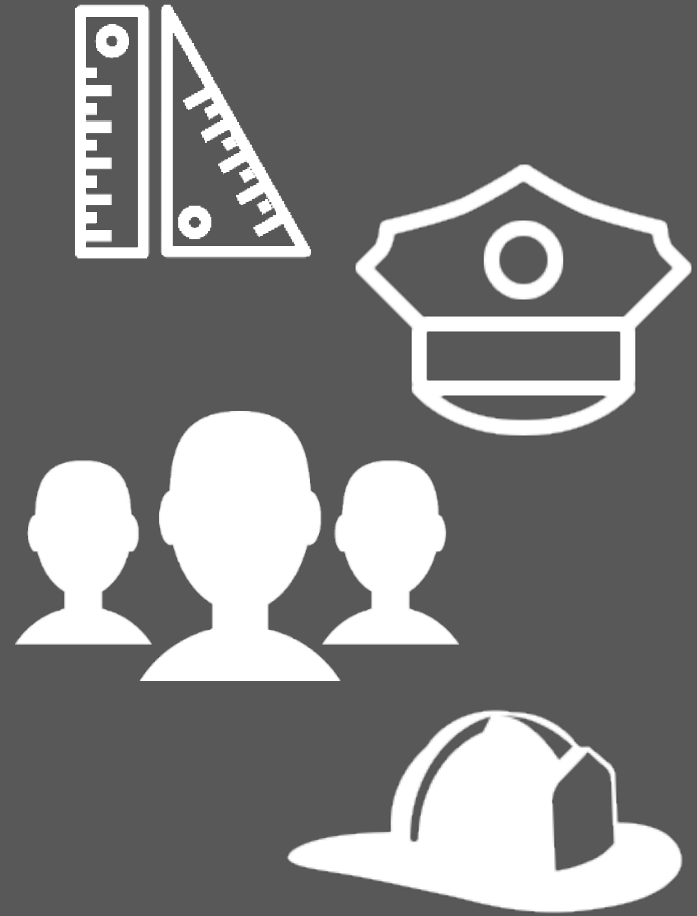
- a. Core Planning Team - Lead Jurisdiction.
- b. Core Planning Team - Participating Jurisdiction.
- c. Stakeholder Entity.
- d. Public.
- e. Planning Consultant.
- f. More than one.



Roles and Responsibilities

Many roles in hazard mitigation planning:

- Federal
- State
- Local
 - Lead Jurisdiction
 - Participating Jurisdiction(s)
 - Stakeholders
 - The Public
 - Planning Consultant



Roles and Responsibilities



FEDERAL EMERGENCY MANAGEMENT AGENCY

- Provide technical assistance when requested by States and Participating Jurisdictions
- Review and approve Hazard Mitigation Plans (HMPs) in concert with States

Roles and Responsibilities

STATES/TERRITORIES/ COMMONWEALTHS

- Maintain and update State Hazard Mitigation Plan
- Provide planning guidance and data sources
- Support plan implementation with funding and technical assistance
- Identify challenges and opportunities
- First review of local plans



Roles and Responsibilities



LEAD JURISDICTION

- Primary point of contact for plan submission and review
- Engage and support sustained involvement by Participating Jurisdictions
- Facilitate cooperative efforts between Participating Jurisdictions, where appropriate
- Manage grant and/or consultant

Roles and Responsibilities



JURISDICTIONAL REPRESENTATIVES

- Identify community partners to engage and include
- Identify hazards, vulnerabilities, and capabilities
- Develop equitable and effective solutions
- Follow through with the implementation of mitigation actions

Roles and Responsibilities

STAKEHOLDERS IN THE PLAN

Non-municipal partners:

- Contribute data, knowledge, and perspectives
- Provide technical expertise and share lessons learned
- Integrate mitigation with related initiatives



Roles and Responsibilities

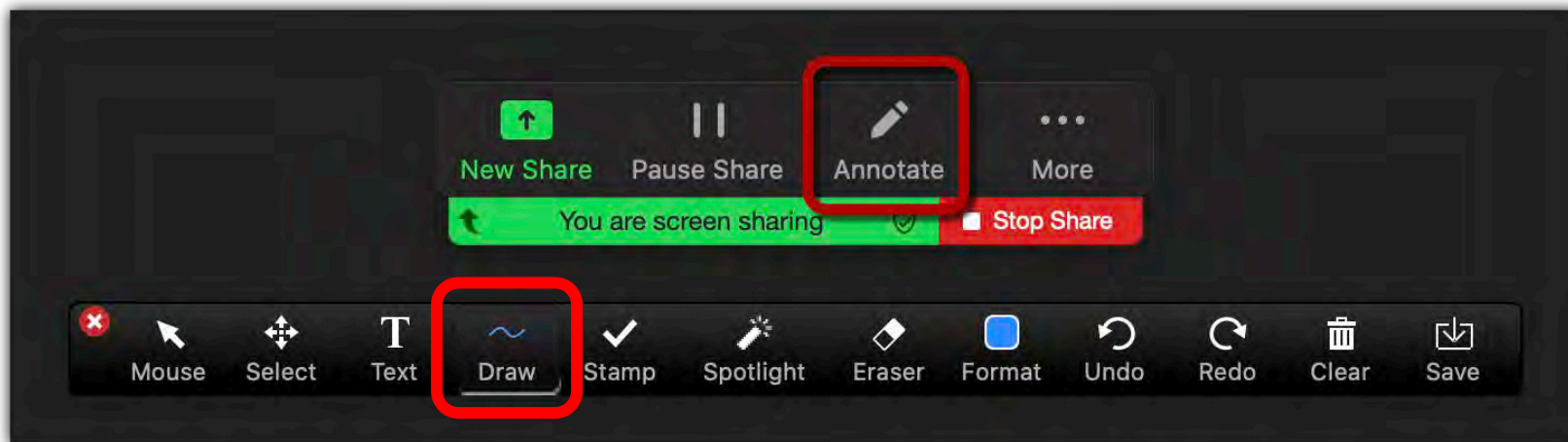
Public

- Attend planning meetings
- Provide information to planning team:
 - Lived experience with hazards and disasters
 - Your vision for a safer community
 - Solutions you would like to see implemented
- Read plan drafts and make comments for changes
- Follow up on action implementation!



Zoom Annotation Tool

1. Click **View Options** then **Annotate** at the top.



2. Click **Draw**.

Knowledge Check: What are your responsibilities?

Public

Planning Team

Stakeholder

State

FEMA

Determine public outreach strategy in the planning process

Do first review of the local hazard mitigation plan

Follow through with implementation of mitigation actions

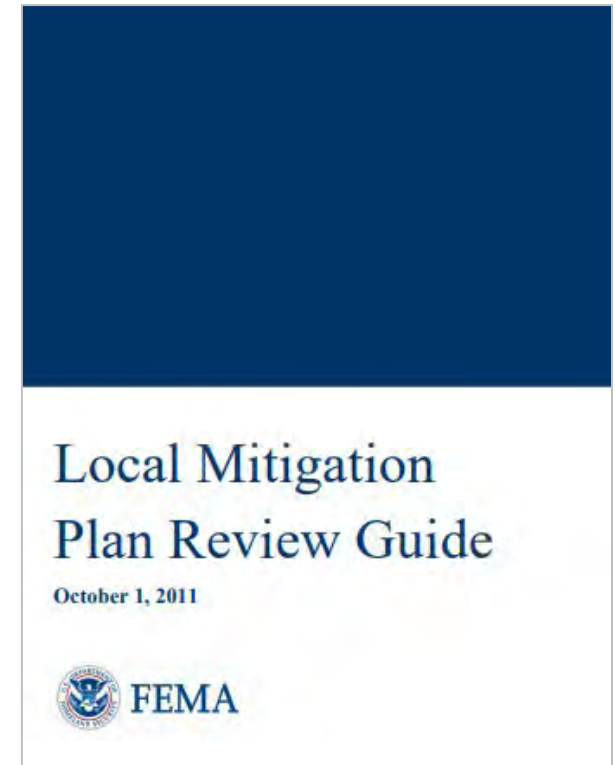
Contribute data and subject matter expertise

Issue formal approval of the local hazard mitigation plan

Maintain and update state hazard mitigation plan

Local Mitigation Planning Regulations and Plan Review Guide

- Requirements can be found at 44 Code of Federal Regulations (CFR) Section 201.6 and are outlined in the Guide
- Local Mitigation Plan Review Guide
- FEMA's official interpretation of local mitigation planning requirements
- Includes standard operating procedure for plan reviews





Break



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The Planning Process

A Thorough Planning Process will:

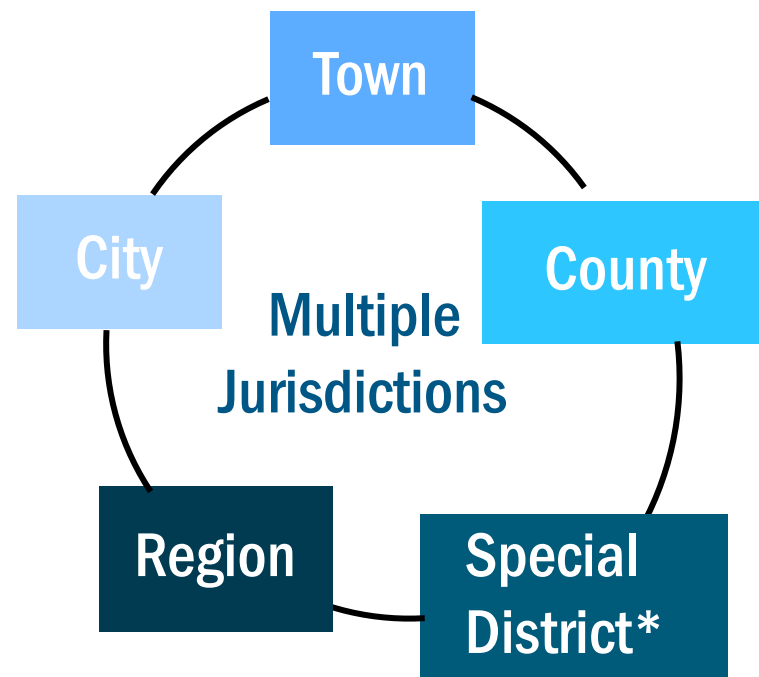


Single or Multi-Jurisdiction Plan

Each adopting governments must meet the mitigation planning requirements

One governing body

Single Jurisdiction



Multi-Jurisdiction Requirements

- Each jurisdiction seeking plan approval must:
 - Participate in the planning process
 - Assess unique risks
 - Identify specific mitigation activities
 - Adopt the plan



Benefits and Challenges of Multi-Jurisdictional Plans

■ Benefits

- Improves communication and coordination
- Enables comprehensive and regional mitigation approaches
- Maximizes economies of scale by sharing costs and capabilities
- Avoids duplication of effort
- Provides organizational structure
- Broader opportunities for stakeholder engagement

■ Challenges

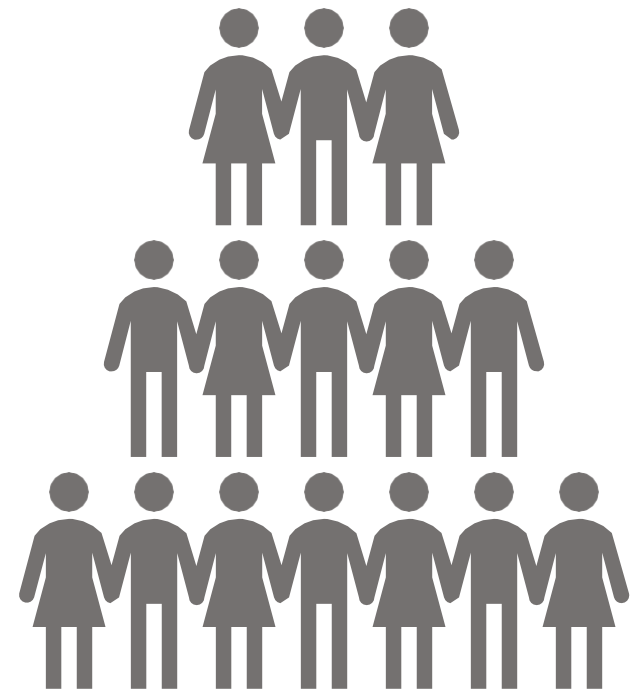
- Reduces individual control over process
- Involves coordinating and timing the process with multiple jurisdictions (with past histories)
- Getting a detailed assessment of risks, specific mitigation actions, and involvement by jurisdictions
- Requires organization of large amounts of information into a single document

This is Your Community's Plan

- The process is as important as the plan
- The plan is only as good as the involvement and buy-in that goes into it
- Develop the plan to serve your whole community
- The plan should represent the current needs and values of the community



You develop the process and determine your approach





Building the Right Teams

Team Roles



Planning Team

- Agencies involved in hazard mitigation activities
- Agencies with authority to regulate development



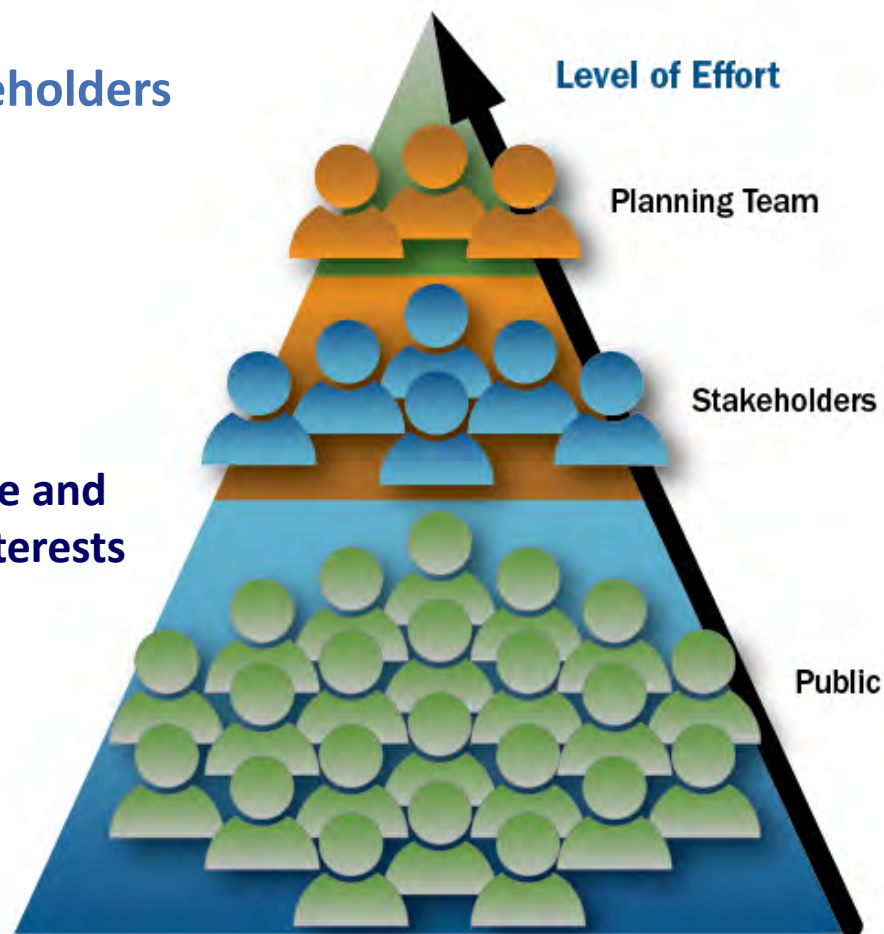
Stakeholders

- Neighboring jurisdictions
- Businesses
- Academia
- Other private and nonprofit interests



Public

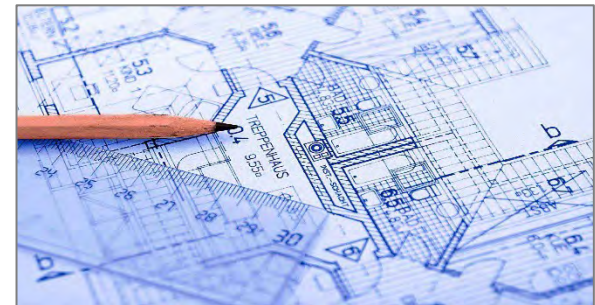
- Residents
- Business owners
- Local workers



Who Should be on the Planning Team?

Key participants should include:

- Planning and zoning staff
- Floodplain Administrators
- Building Code Officials
- Emergency managers
- Administrative staff and grant managers
- Geographic Information System (GIS) specialists
- Community leaders
- Business community representatives
- Other hazard specialists (Fire and water conservation districts, etc.)
- School Districts



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Who Should be a Stakeholder?

Valuable partners and stakeholders can also include:

- Local and regional agencies and non-governmental organizations (NGOs) involved in emergency management
- Social services agencies
- Local colleges, universities, and major landholders/population centers
- State and Federal agencies



Building the Right Planning Team will:



Initial Planning Team Tasks

- Review the current mitigation plan (if applicable)
- Determine plan scope and schedule
- Develop an outreach strategy

**Gather data, plans, reports,
and studies**

Document, Document, Document

Documenting the planning process includes:

- Existing authorities, policies, programs, and resources
- Participation
- Methodologies and results
- Updates



By documenting progress now, you can inspire more action in the future.

Check Proposed Deliverables, Tasks, and Schedule

- Are all deliverables identified?
- Are tasks feasible?
- Do tasks make sense, given time and budget limits?
- Is the schedule adequate?
- How is a Planning Consultant involved (if applicable)?



Plan Updates: First, Look at the Current, Approved HMP

- Find your previous plan review tool from FEMA
- Look at their recommendations to strengthen your plan
- Incorporate any changes from the last 5 years



Changes in leadership



New hazards or disaster activity



Progress towards actions



Changes in development

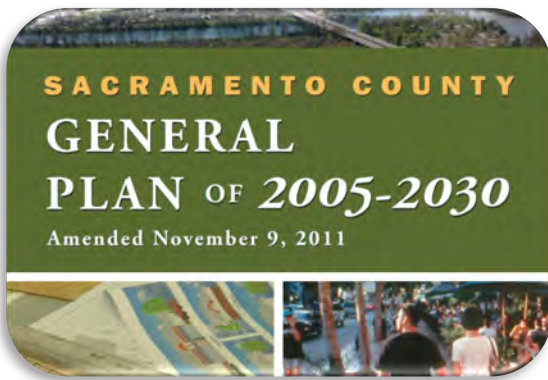


Changes in regulations

Gather Data, Plans, Reports, and Studies

Mitigation plans must incorporate accurate, current, relevant information, usually from existing data, plans, reports, and studies

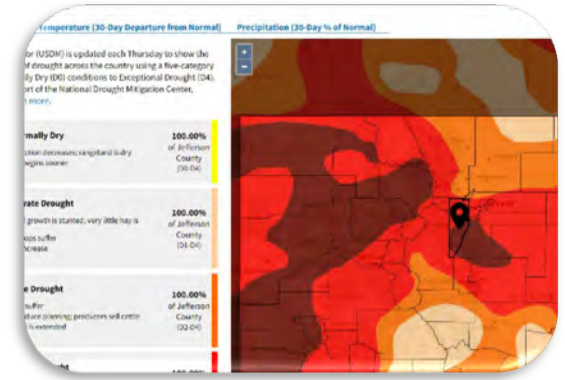
Both planning team and stakeholder input will inform this step



Local



State



Federal

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Develop an Outreach Strategy

- Give the public an opportunity to be involved in the plan
- This should be an input-driven process
- Consider:
 - Advertising mitigation meetings in newsletters
 - Providing a booth at community events
 - Announcing the planning process at other community meetings
 - Using social media to inform and engage with community members

Questions?



Participation and Engagement

Public Participation

When will the public be involved and/or review and comment on the planning process and drafts?



Opportunity for public input must be ongoing

A Thorough Effort to Promote Participation and Engagement will:

- Ensure everyone has a role in Hazard Mitigation Planning
- Enable Stakeholders, the Public, and Participating Jurisdictions to work together and better:
 - Understand risk
 - Identify comprehensive solutions
 - Follow-through on implementation



Why is Participation and Engagement Important?

Community Partners may be engaged in:

- Promoting smart growth principles
- Identifying green infrastructure opportunities
- Guiding private investment to safer locations, and more resilient practices



Promoting Participation

- Send formal invitation from elected official or department head
- Follow up with a phone call
- Plan meetings in multiple convenient locations
- Provide refreshments (if able)



Activity #3 – Creative Ideas

What are some creative ways to get the word to the public?

Use the chat box to share your answers with the group.

Tips and examples of an inclusive and creative public outreach effort

- Raffle tickets for an emergency prepared kits
- Movie Preview time PSA
- After hour open house with daycare and refreshment
- Offering a variety of times and days of the week to maximize participation
- Inserts to utility bills
- Display boards at sports events
- Go to the people (county fair, etc.)
- Storytelling works better than fact sharing
- Identify community leaders and champions and work through them

Getting Meaningful Input

Opportunities and Topics for Engagement

Early stages:

- Determine community concerns and assets
- Generate buy-in for mitigation planning

After the initial risk assessment:

- Review data and compare to lived experience
- Educate about hazard risks and vulnerabilities

Mitigation Strategy

- Generate ideas and support for mitigation projects

- Consider format, timing, and the Community Partners involved
- What provides the most benefit?

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Opportunities for Outreach and Engagement

- Planning Grant Received
- Plan Update Kickoff
- Community Capability Assessment
- Risk Assessment Development
- Mitigation Strategy Development
- Draft Plan
- Plan Adoption
- Implementation/Maintenance



Example Outreach Opportunities

Task	Type	Why
Planning Grant Received	Press Release Social Media	Announce your efforts LOUDLY
Plan Update Kickoff	Public Workshop #1 Announce Art/Writing Contest	Educate people about the process Identify ways to become involved
Community Capability Assessment	Focus Group #1, Public Survey	Listen to specific needs expressed by the community
Risk Assessment Development	Focus Group #2, Public Survey	Listen to specific needs expressed by the community
Mitigation Strategy Development	Public Workshop #2	Input on where to invest funding
Draft Plan	Public Workshop #3	Comments on the entire draft
Plan Adoption	Press Release	Celebrate success!
Implementation/ Maintenance	Annual Events/Fairs Press Release	Celebrate planning project completion; continue to educate

Inclusive Outreach Strategies

- **Diverse populations**
 - Translate materials for non-English-speaking residents
 - Post information in various meeting points, as well as online
 - Engage existing community organizations as partners
 - Meet in locations accessible by public transit, if applicable
- **Persons with disabilities**
 - Meet in physically accessible locations
 - Use microphones and sign language interpreters

Check out FEMA's [Guide to Virtual Meetings](#) at the Resource Library!

Document the Planning Process



**Who was involved
and when? How was the
public involved?**



**What decisions were
made and how?
Document how input
from public incorporated
into the HMP?**



**How was the HMP
prepared? Reviewed?**



Break



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Incorporating Plans, Studies, and Data

State Legislation and LHMPs

SB 379

Requires inclusion of climate change adaptation strategies into Safety Element of General Plans. Encourages inclusion of climate into LHMPs. *Funding carrot – HMGP and CRMAs.*

SB 1000

Requires inclusion of Environmental Justice into Safety Element of GP (and recommends inclusion into LHMPs).





AB 2140

Encourages adoption of LHMPs into GP Safety Element (occurs after LHMP approval). *Funding carrot for jurisdictions is increased State cost share for CDAA (Public Assistance).*

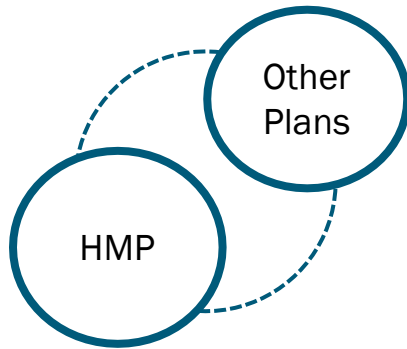
SB 1241

Revises safety element requirements of GPs to address the risk of fire SRAs and VHFHSZs. *Information in LHMPs can be used to fulfill requirement.*

Examples of Plan Integration

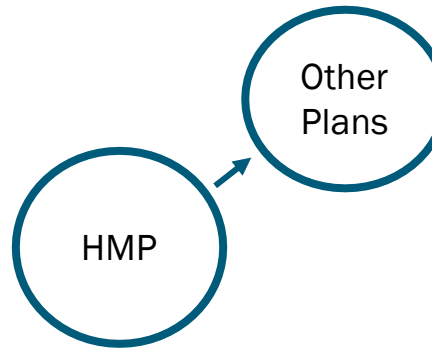
- LHMP  CRS
- LHMP  Land Use Planning
- LHMP  General Plan/Safety Element Update
- LHMP  Coastal Hazard Resilience Planning
- LHMP  Recovery Planning
- LHMP  Emergency Operations Planning
- LHMP  Emergency Action Planning

Plan Integration Overview



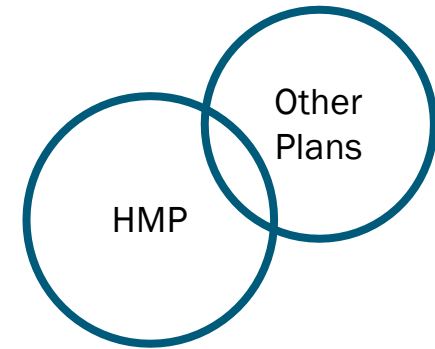
Include natural hazard considerations

- Mention hazards (i.e., past events or potential impacts).
- Consider hazards while developing objectives, policies, and projects.



Leverage information from mitigation plans

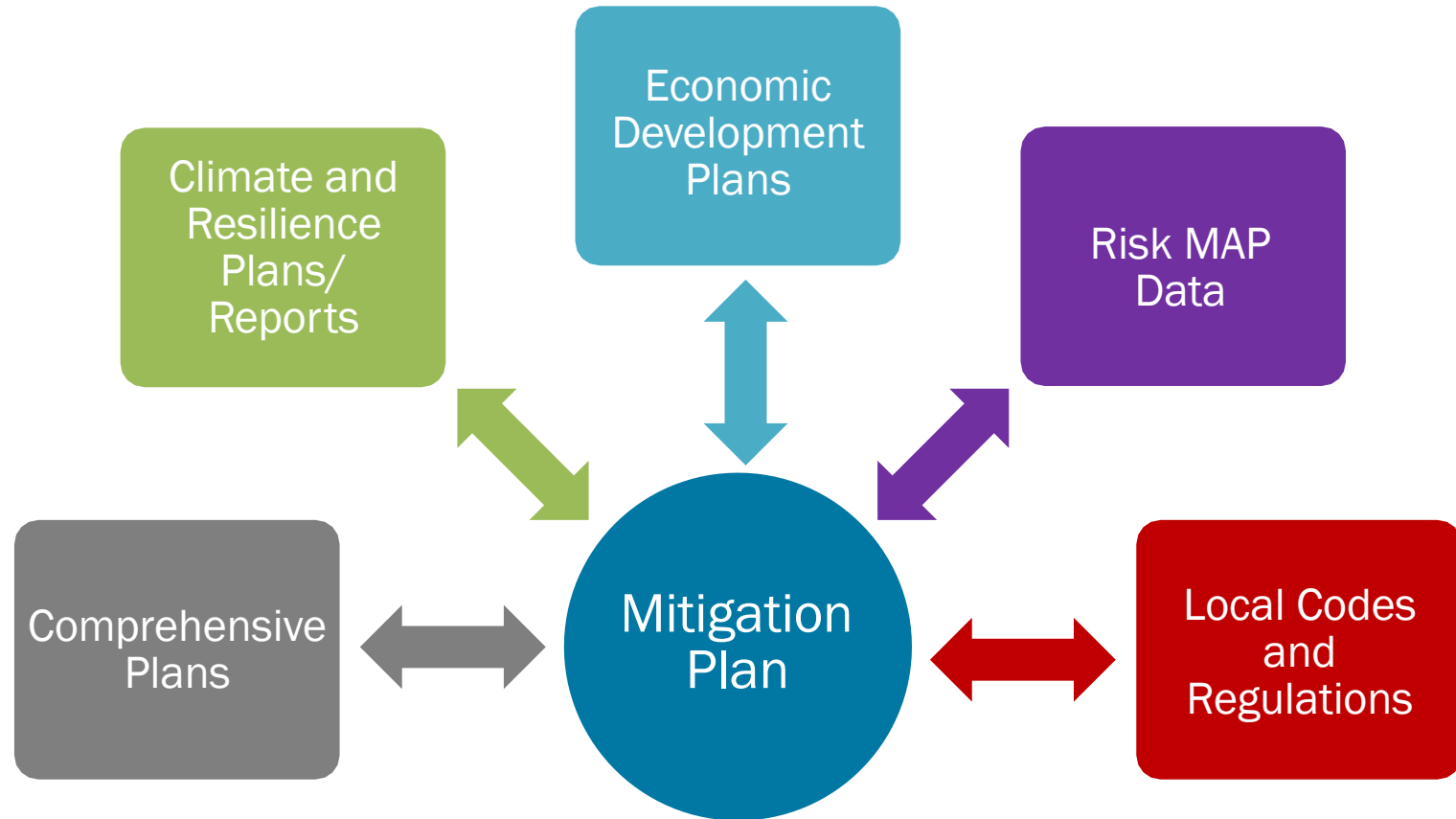
- Include results of vulnerability analysis from HMP.
- Implement actions from HMP through other mechanisms.



Inter-agency planning and implementation

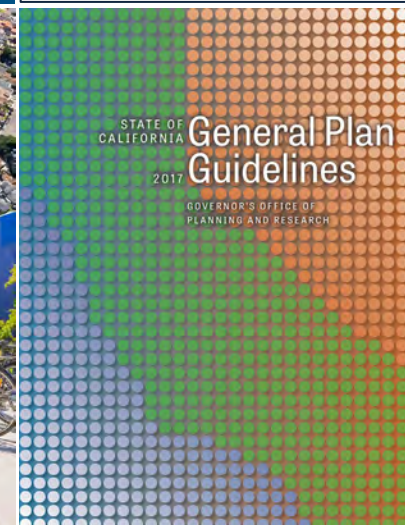
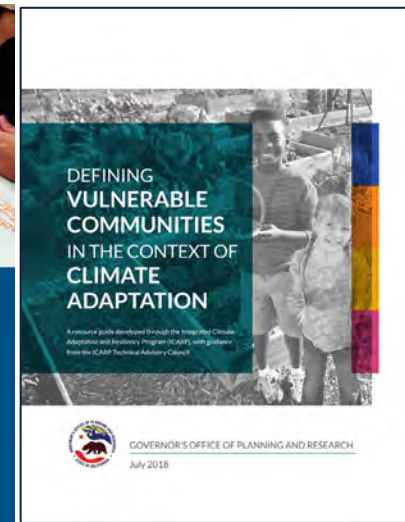
- Involve key community officials to execute policies and programs.
- Coordinated planning across departments and agencies.

Incorporation = Integration

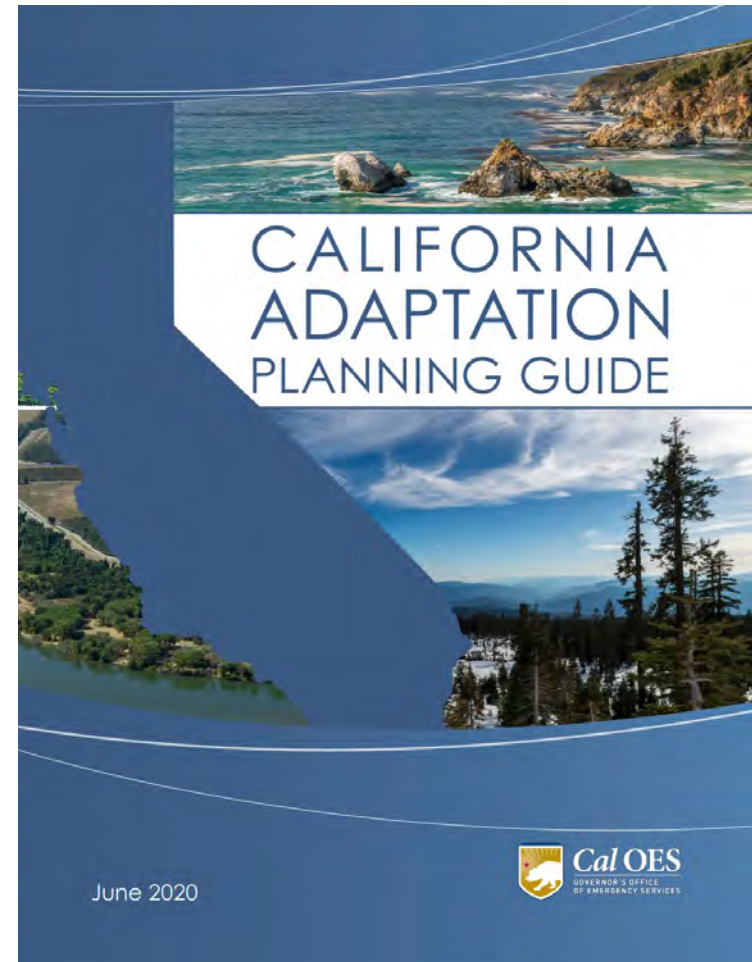
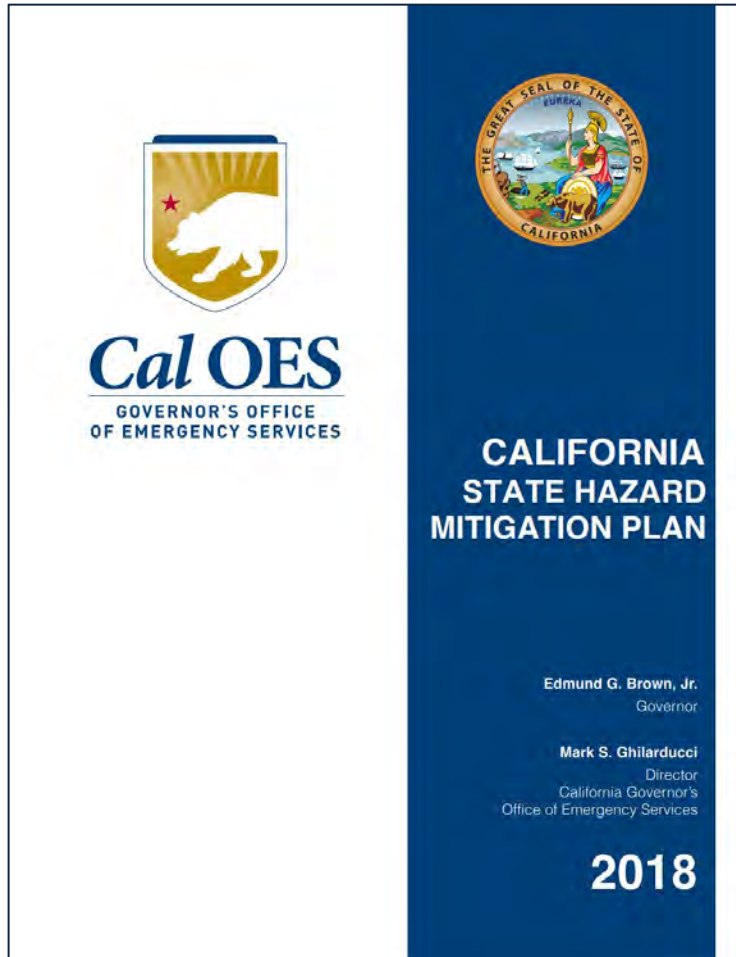


Sources of Information

- **Planning Team**
 - Other local plans
 - Community members and partners
- **Local Knowledge**
 - Long-time residents
 - Libraries
- **State Hazard Mitigation Plan**
- **FEMA and other Federal Agencies (e.g., USACE, NOAA, EPA, USGS, USED)**



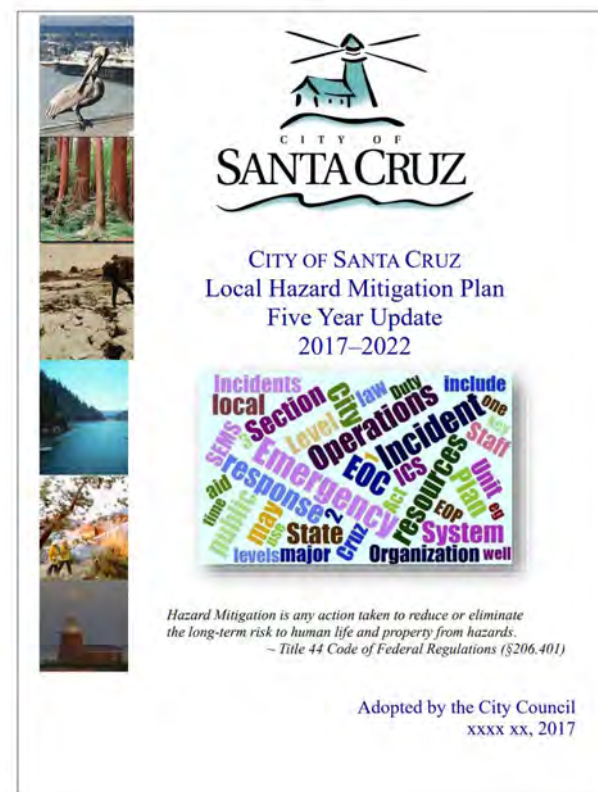
Plan Integration at a State Level



Plan Integration at Local Level- A Santa Cruz Success Story

Planning Process:

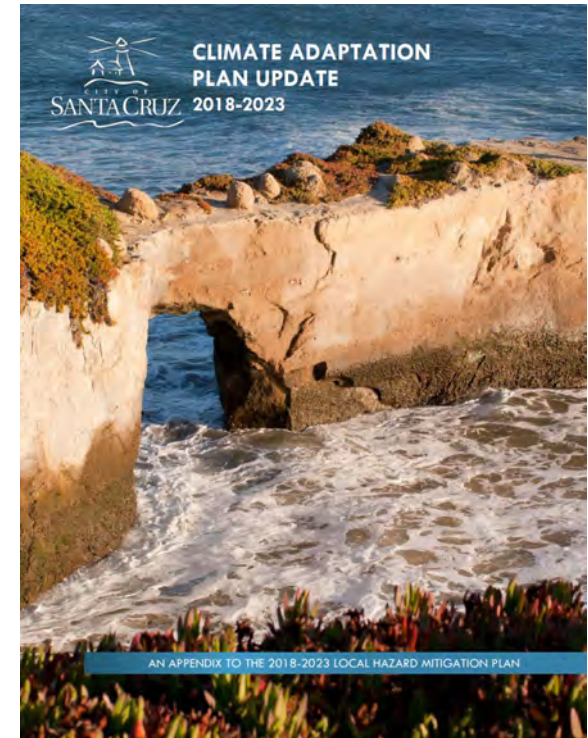
- Five community engagement series held
 1. The Santa Cruz Climate Action Program coordinated with the Public Works Department by bringing together experts to update and strengthen the Climate Adaptation and the Hazard Mitigation plans.
 2. By developing their Hazard Mitigation Plan and Climate Adaptation Plan together they were able to connect climate change to potential hazards.



Plan Integration at Local Level- A Santa Cruz Success Story

Planning Process:

- Five community engagement series held
 3. The planning teams used the [Resilient California Coastal Plan Alignment Compass Tool](#) to understand and communicate about different plans.
 4. Working together has opened opportunities for grant applications and other partnerships and keeps equity at the forefront of the planning process.
 5. Learn more about Santa Cruz plan integration in Season 1, Episode 2 of the [Level Up Audio Project](#).



Plan Integration at Local Level

Example: Maricopa County Hazard Mitigation Plan Summary of Plan Integration

Table 3-6: Plan integration history and future strategy for Avondale

Plan Integration Over the Past Plan Cycle: City of Avondale's existing General Plan 2030, which approved in August 2012, includes a Safety Element that references the County's hazard mitigation plan and specific items related to Avondale. The General Plan is being updated as part of a 10-year update, requiring approval in 2022. The Planning Division is working with various departments to update information in the plan, which would include the Safety Element. There is no other update to the existing information at this time.	
Plan Integration Strategy for Next Five Years:	
Planning Mechanism	Description of Planning Mechanism Opportunity
General Plan 2030 being updated for approval in 2022	This will include any new information from City departments related to the Safety Element. As of current, no information is available regarding the update.
City Code	Chapter 8, Article I Division 3; Provisions for Flood Hazard Reduction; addresses Flood Plain Management. "Pursuant to ARIZ. REV. STAT. § 48-3610, the City of Avondale (the "City") is authorized to adopt floodplain management regulations in conformance with ARIZ. REV. STAT. §§ 48-3603 and 48-3609 designed to promote the public health, safety and general welfare of its citizenry."

Questions?

Module Evaluation

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