



# Bringing Lifelines into Hazard Mitigation Planning

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**FEMA**

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# We will be Recording this Presentation

- Please be advised that FEMA (through their contractor) will be recording this webinar.
- 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 FEMA's discretion.
- By attending this webinar you are consenting to these conditions.
- Please be advised you can choose to self-identify or not during the Q&A.



# Webinar Housekeeping

- Attendees **are currently muted** to reduce background noise.
  - Please do NOT put your phone on “hold”, it plays hold music for everyone else on this call. If you have to step away, please hang up and rejoin the call later.
- Use “Chat” panel **to everyone** to ask questions.
  - The chat will be open for 10 minutes following the presentation.
- **The PowerPoint slides will be emailed to participants afterwards.**
- **You may be eligible for Professional Credits:**
  - American Institute of Certified Planners (AICP) Certification Maintenance Credit. AICP members must attend the entire event in order to receive credit!
  - Association of State Floodplain Managers (ASFPM) Certified Floodplain Manager (CFM) Continuing Education Credit.
  - Participation certificates and agendas will be sent by request to all participants who attend the whole session and participate in the polls.



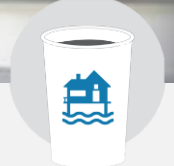
# Today's Meeting Technology

The screenshot displays the Cisco Webex Meetings interface. At the top, the title bar shows "Cisco Webex Meetings", "Meeting Info", and "Hide menu bar ^". Below this is a menu bar with options: "File", "Edit", "Share", "View", "Audio & Video", "Participant", "Meeting", "Breakout", and "Help". The main content area is a large, empty gray rectangle. On the right side, a "Chat" window is open, indicated by a red box around the "Chat" header. A red arrow points from this header down to the chat input area, which is also highlighted with a red box. The input area includes a "To:" dropdown menu set to "Everyone" and a text input field with the placeholder text "Enter your comment or question here". Below the chat window, a "Polling" window is partially visible. At the bottom of the interface is a control bar with buttons for "Mute", "Start video", "Share", "Record", and a red "X" button. On the right side of the control bar are icons for "Participants", "Chat", and a menu icon.



# Welcome and Overview

- Presentation
- Resources
- Next Steps
  - Future Coffee Break webinars
  - Receiving professional credits
- Wrap-Up and Q&A



# FEMA Community Lifelines

A **lifeline** enables the continuous operation of critical government and business functions and is essential to human health and safety or economic security.



# Why a Lifelines Construct?

**Lifelines provide an outcome-based, survivor-centric frame of reference that assists responders with the following:**

- Determining the scale/complexity of a disaster.**
- Identifying impacts to basic, critical lifesaving and life-sustaining services.**
- Developing operational priorities/objectives that focus response efforts.**
- Communicating disaster-related information across all levels of public, private, and non-profit sectors .**
- Guiding response operations to support/facilitate integration across mission areas.**





# FEMA Community Lifelines and Components

1



## SAFETY AND SECURITY

Law Enforcement/Security, Fire Service, Search and Rescue, Government Service, Community Safety

2



## FOOD, WATER, SHELTER

Food, Water, Shelter, Agriculture

3



## HEALTH AND MEDICAL

Medical Care, Public Health, Patient Movement, Medical Supply Chain, Fatality Management

4



## ENERGY

Power Grid, Fuel





# FEMA Community Lifelines and Components



## COMMUNICATION

Infrastructure, Responder Communications, Alerts, Warnings and Messages, Finance, 911 and Dispatch



## TRANSPORTATION

Highway/Roadway/Motor Vehicle, Mass Transit, Railway, Aviation, Maritime

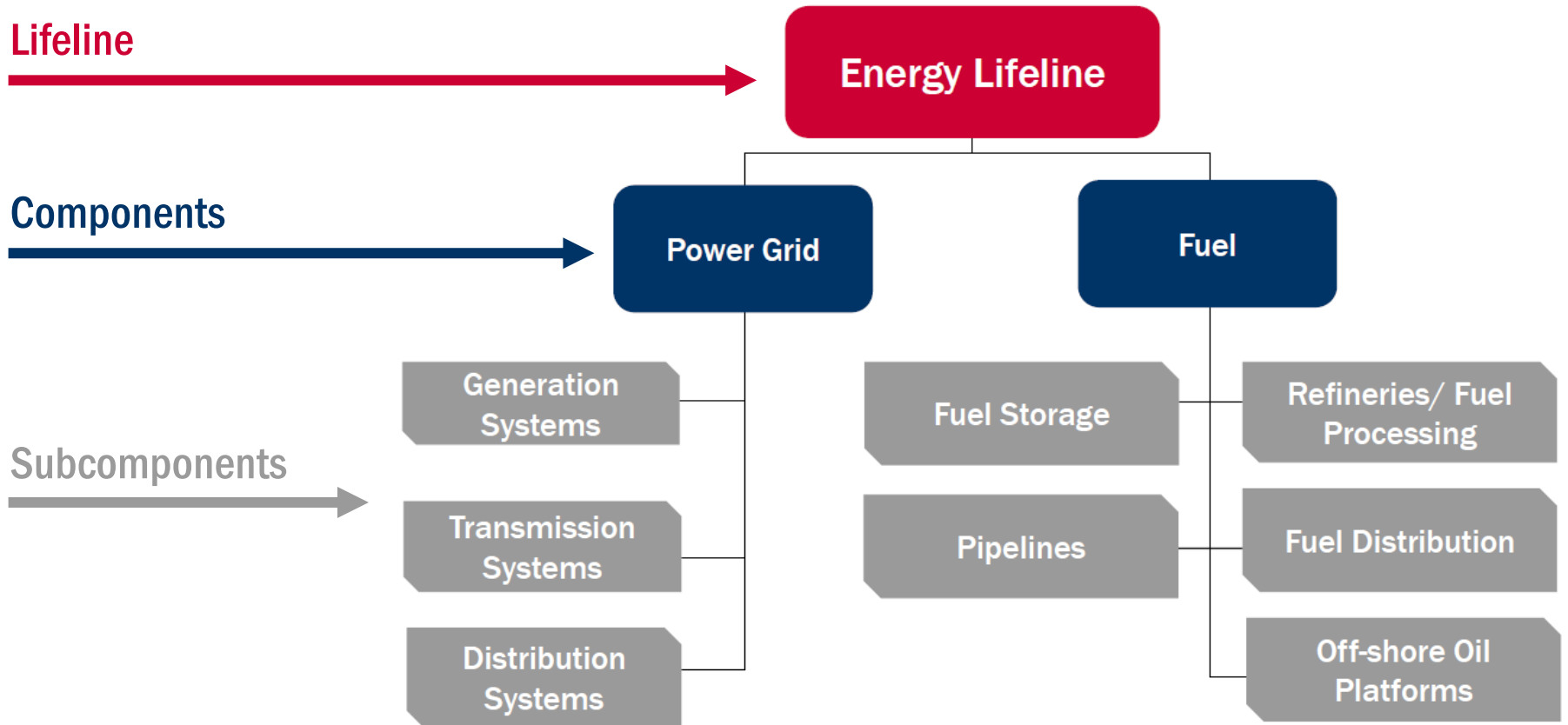


## HAZARDOUS MATERIAL

Highway/Roadway/Motor Vehicle, Mass Transit, Railway, Aviation, Maritime



# Community Lifeline Construct



# Areas of Lifeline Resilience

## PREPAREDNESS

Reorganizing Threat & Hazard  
Identification and Risk Assessments by  
lifeline

## PROTECTION

Assessing lifeline infrastructure  
vulnerability

## RECOVERY

Transitioning stable lifelines to  
recovery outcomes

## MITIGATION

Reducing lifeline vulnerability through  
mitigation activities



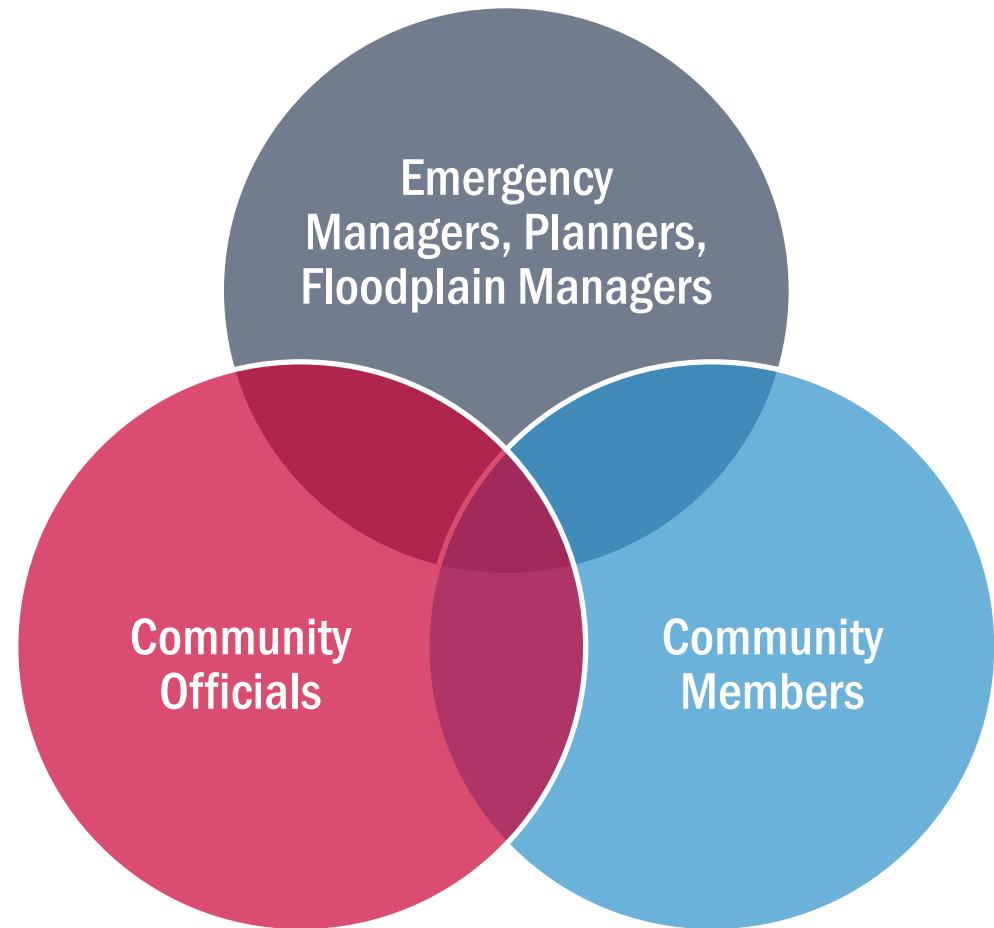
# Guides to Expanding Mitigation

- Agriculture
- Arts & Culture
- Equity
- Electric Power
- Municipal Finance
- Public Health
- Transportation
- *Telecommunications*



# Guides to Expanding Mitigation

- The Guides are meant to be a resource used across teams who focus on mitigation planning and programs.
- Anyone interested in reducing their community's risk from hazards can benefit from insights found in the Guides to Expanding Mitigation.



# Guides to Expanding Mitigation

- The Guides are also intended to help engage sectors that may not be actively involved in mitigation planning.
- The seven sectors covered in the Guides have important roles to play in mitigation planning and risk reduction activities within their communities.



Agriculture



Arts & Culture



Electric Power



Equity



Municipal  
Financing



Public Health



Transportation



# Guides to Expanding Mitigation

Within each guide you can expect to find:

1. Insights into sector
2. Potential vulnerabilities
3. Engagement resources, recommendations, and data
4. Ideas for planning and projects
5. Examples of successful collaboration



Photo: Masks in the Aftermath, U.S. Virgin Islands / William Stoltz

Beyond recovery, engaging with a diverse range of stakeholders is a crucial part of the mitigation planning process that bolsters community resilience. Cooperative relationships strengthen hazard mitigation plans and the ability of communities to implement mitigation goals. By bringing the arts and culture sectors into mitigation planning conversations, officials can identify projects that not only reduce risk, but also benefit the broader community. Artists can support hazard mitigation projects by

The first goal of FEMA's Strategic Plan is to *Build a Culture of Preparedness*. Engaging with arts and culture partners can help achieve these guiding principles:



1. Trust – Develop trust by understanding the culture, context, and history of communities outside of disaster, as well as when an event occurs.





# The Guides are helpful references because they:



Provide new ideas



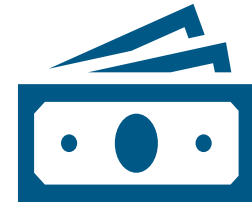
Expand organizations  
and sectors



Increase quality of plans  
and projects



Encourage efficiency  
and creativity



Provide funding  
streams, resources



# Electric Power



# Electric Power

## Why it Matters to Hazard Mitigation Planning

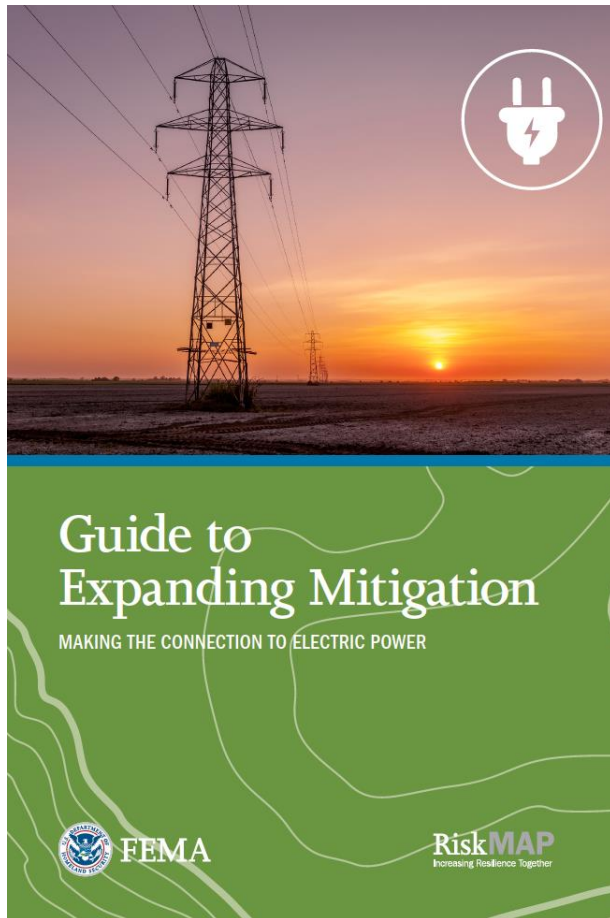
In an emergency, having reliable energy systems is essential for keeping communities connected and for sustaining essential services.

- Engage the energy sector when planning for hazards.
- Gain insights on energy efficiency, renewable energy, and resilience challenges.



# Electric Power

## Guide Summary



This Guide shows how community officials can work with public and private sectors to support hazard mitigation, especially in planning and project development.

Maintaining a stable and efficient energy system is key to creating a resilient community.

- Minimizes extent of power downtime after a disaster.
- Resilient power systems are less likely to experience catastrophic effects of natural disasters and are more easily repaired.





# Electric Power

## A Deeper Look Inside the Region 2 Guide

- How natural disasters affect energy systems
- Impacts on aging and poorly maintained systems
- Making energy systems more resilient
- Alternative energy systems
- Energy representatives
- Resources and references





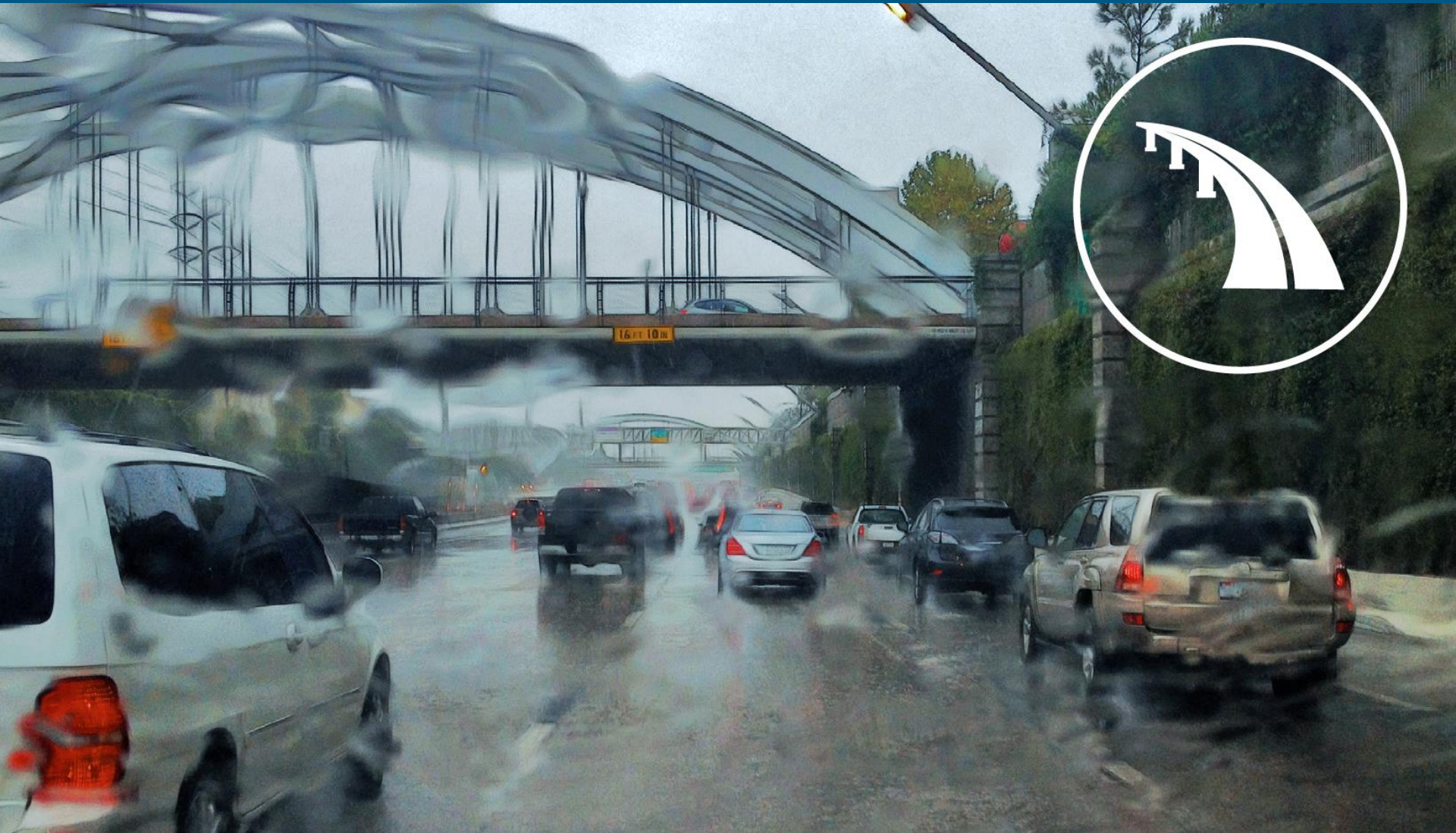
# Sample Mitigation-Focused Project

## Microgrid Project after Hurricane Katrina (New Orleans, Louisiana)





# Transportation

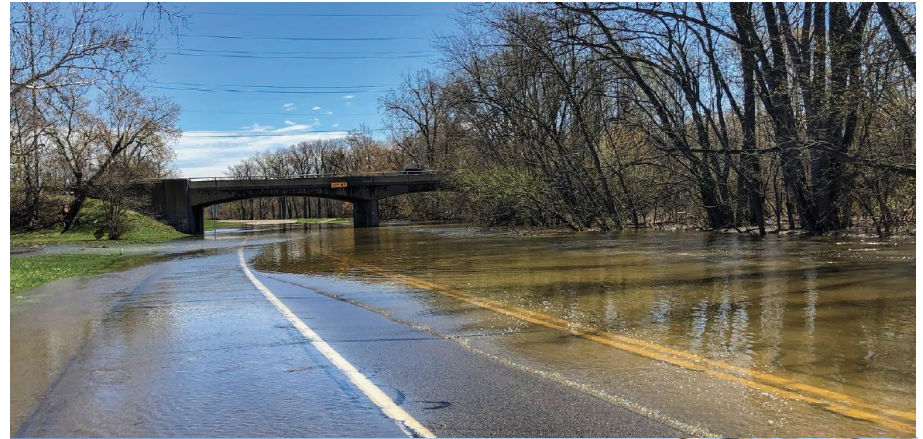




# Transportation

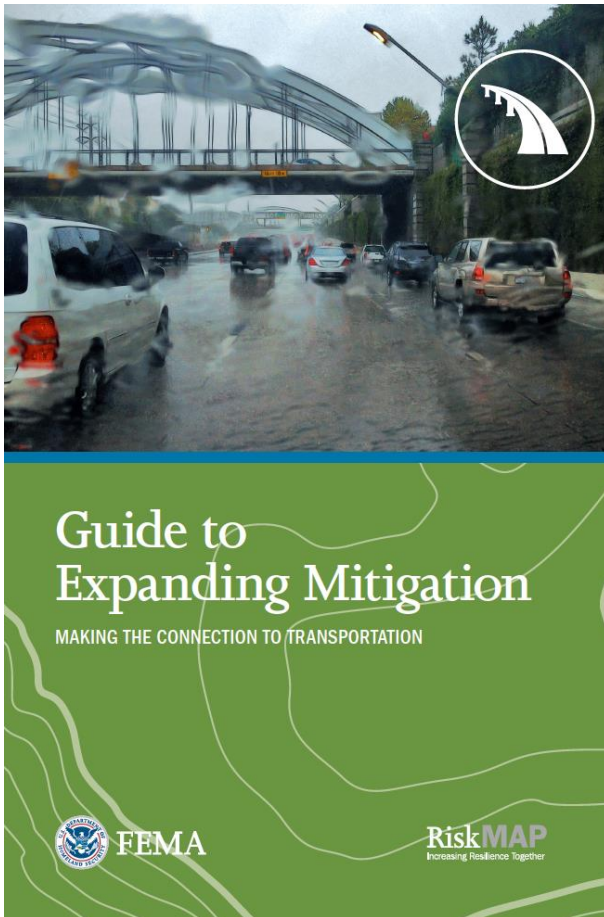
## Why it Matters to Hazard Mitigation Planning

- Every year, state governments and federal agencies invest \$290 billion in transportation systems that are vital to our economy, health, and safety.
- Investments fund everything from airports and pipelines to roads and railways.
- Transportation networks face a multitude of risks that vary by community.



# Transportation

## Guide Summary



Transportation connects us to one another and to the resources we need to thrive. These connections are critical, and many are exposed to hazards and are at risk unless we choose to take the steps to protect them.

- Resilient transportation infrastructure relies on both engineering analysis and community insight on risk.
- Local emergency managers are often community's keepers of risk information and past events.
- Emergency managers can collaborate to help you understand how different elements and risk exposures are related.



# Transportation

## A Deeper Look Inside the Region 2 Guide

- **Transportation risk in your community**
- **Planning for risk with the transportation sector**
- **Coordination in action**
- **Emergency managers as transportation planning champions**
- **Cross-agency collaboration**
- **Resources**





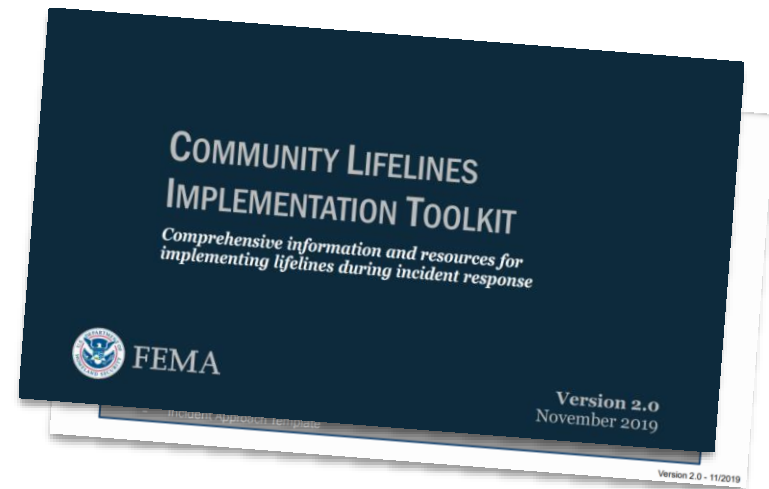
# Sample Mitigation-Focused Project

## Coordination to Identify Recurring Washed out Roadways



# Crawford County, Pennsylvania

- Implement FEMA's seven Lifelines into plans, emergency operations center reports, and displays based on federal documents.
- Included Lifelines in the Summary section of the County-wide Hazard Mitigation Plan.



[FEMA Community Lifelines Implementation Toolkit Version 2.0 November 2019](#)



# Lifelines Affected by Hazard in Crawford County

HIGH	MEDIUM	LOW
<ul style="list-style-type: none"><li>• Pandemic</li><li>• Utility Interruption</li><li>• Cyber Terrorism</li><li>• Flooding</li><li>• Dam Failure</li><li>• HazMat</li><li>• Tornado</li></ul>	<ul style="list-style-type: none"><li>• Winter Storm</li></ul>	<ul style="list-style-type: none"><li>• Land Slide</li><li>• Earthquake</li><li>• Drought</li><li>• Invasive Species</li></ul>



# Crawford County Community Lifeline Integration: Terrorism

- **Lifeline Planning Factors (Maximum Anticipated or Known Impacts)**
  - **Number of...**
    - Oil systems facilities with at least moderate damage
    - Total debris (tons)
    - Hazardous materials facilities damaged
    - Highway bridges with at least moderate damage
    - Railway bridges with at least moderate damage
    - Airport runways with at least moderate damage





# Crawford County Community Lifeline Integration: Terrorism

- **Lifeline Stabilization Target**
  - All contaminated areas are identified and secure
  - Multimodal routes (air, rail, road, pipeline) are clear of debris and accessible by normal or alternate means.










# Crawford County Community Lifeline Integration: Terrorism

- **County Assistance Lines of Efforts**
  - **Emergency Repairs and Augmentations to Infrastructure**
  - **Maintain relationships with Tier II facilities**
  - **Maintain absorbent material stockpiles, resources, and equipment for Public Safety Agencies**
  - **Provide Hazardous Materials Training and Exercises to Public Safety Agencies**
  - **Assess and Map Community Risks**
  - **Prevent Development and Limit Density in Hazard Areas**



# FEMA Community Lifelines Addressed per Mitigation Project

HAZARD	PROJECT NAME	COMMUNITY LIFELINES						
		 Safety & Security	 Food, Water, Shelter	 Health & Medical	 Energy	 Communications	 Transportation	 Hazardous Materials
All Hazards	County-wide Mitigation Education	X	X	X	X	X	X	X
Pandemic	County-wide provide PPE			X				
Utility Interruption								
Terrorism	County-wide educate mitigating attacks	X						
Flood, Ice Jams	West Mead Twp. Stormwater drainage on Alden St.		X				X	
	Venango Twp. Stormwater drainage on Center Rd.		X				X	
	Vernon Twp. Install structures to prevent ice jam on French		X				X	

## Hazard Mitigation Assistance Mitigation Action Portfolio



# Polling Question 1

**Now that you know more information about FEMA's Lifelines, are you planning to, or do you want to consider, incorporating Lifelines in your next Hazard Mitigation Plan update?**

- A. Yes**
- B. No**
- C. Undecided**



# Polling Question 2

If so, what Lifelines would you consider (select all that apply)?

- A. Safety & Security
- B. Food, Water, Shelter
- C. Health & Medical
- D. Energy
- E. Communication
- F. Transportation
- G. Hazardous Material



# Resources



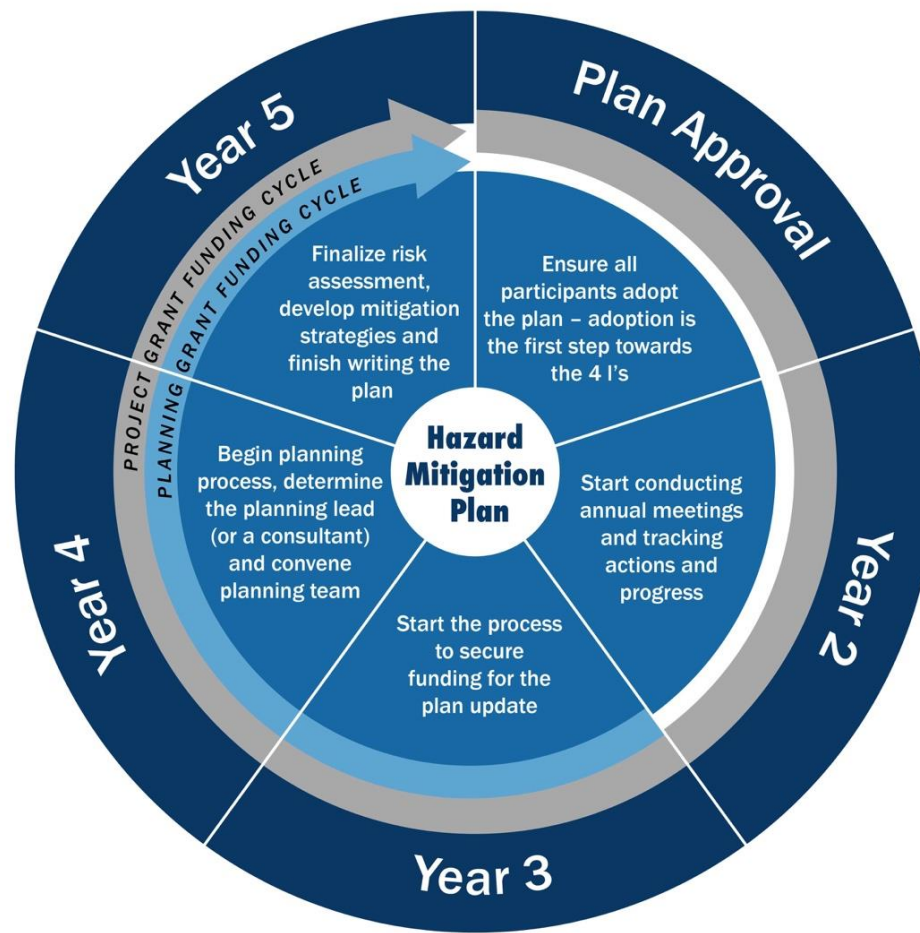
# Resources

- [FEMA Guide to Virtual Hazard Mitigation Planning Meetings](#)
- [FEMA Community Lifelines Implementation Toolkit Version 2.0 November 2019](#)
- [FEMA Incident Stabilization Guide November 2019 \(Operational Draft\)](#)
- [Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards](#)
- [Hazard Mitigation Assistance Mitigation Action Portfolio](#)





# Connecting to the Planning Cycle



# Looking forward to future Coffee Break Webinars

## 2021

**JANUARY  
13**

Exploring  
FEMA's Hazard  
Mitigation  
Planning  
Guidance and  
Resources

**MARCH 17**

Connecting  
Climate  
Change to  
Hazard  
Mitigation  
Planning

**MAY 19**

Exploring  
Approaches to  
Plan  
Integration

**JULY 14**

Identifying  
Technical  
Assistance  
Opportunities  
and  
Resources

**SEPTEMBER  
29**

Understanding  
Mitigation:  
Preparing for a  
Zombie  
Apocalypse

**NOVEMBER  
3**

Assessing  
Substantial  
Damage through  
your Hazard  
Mitigation Plan



# Upcoming FEMA Region 3 Coffee Break

January 13, 2021

Exploring FEMA's Hazard Mitigation Planning Guidance and Resources

To register, please follow the link\* to:

<https://femaregion3coffeebreaks.eventbrite.com>

To sign up for the Region 3 Resilience Report Newsletter and upcoming Coffee Break webinars, please follow the link\* to:

<http://bit.ly/FEMA-Region-III>

\*Please note, links will be sent out after this presentation.



# You May be Eligible for Professional Credits

Participation certificates and agendas will be sent to all participants who attended the entire webinar and participated in the polls.



American  
Institute  
of Certified  
Planners (AICP)  
Certification  
Maintenance

Credit course number:  
#9208087



Association  
of State Floodplain  
Managers (ASFPM)  
Certified Floodplain  
Manager (CFM)  
Continuing Education  
Credit



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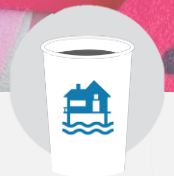
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# Questions?

**Please type your question(s) in the chat!**





**Thank you for Participating Today!**

**THANK  
YOU!**

**We hope to see you all at the next Coffee Break!**





# FEMA

