

## **Vermont Emergency Management Roots**



# The 1998 Ice Storm and the Local Response in North Hero, Vermont

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5/4/11

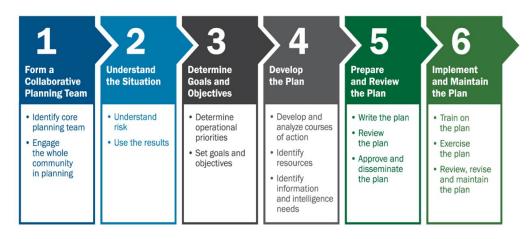


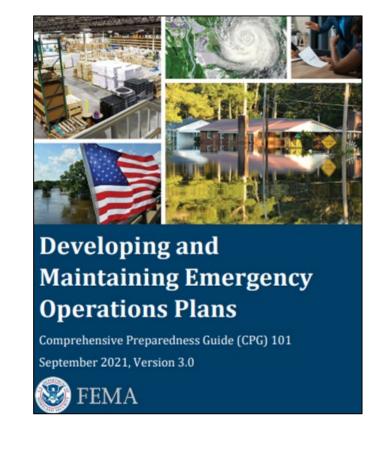




## FEMA Planning Guides at <a href="https://www.fema.gov/plan">www.fema.gov/plan</a> CPG 101

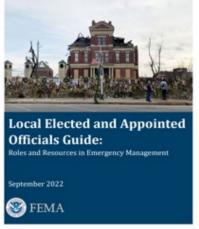
"Comprehensive Preparedness Guide 101 (CPG 101): Developing and Maintaining Emergency Operations Plans" (EOPs) is the foundational planning document for our Nation and is one of the most widely used guidance documents within the FEMA library.



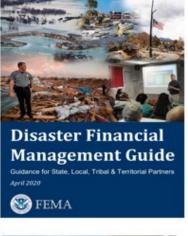


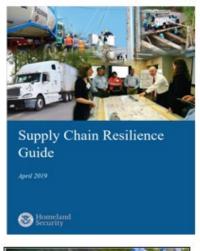


## FEMA Planning Guides at <a href="https://www.fema.gov/plan">www.fema.gov/plan</a> Examples

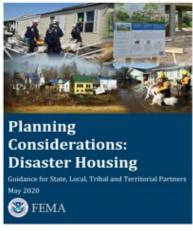


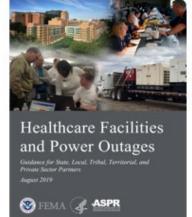


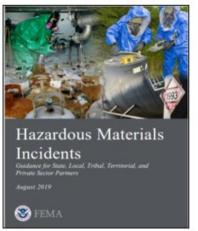








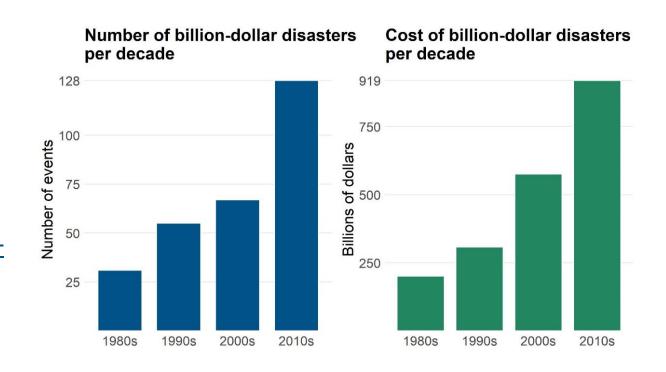






## Why a Climate guide?

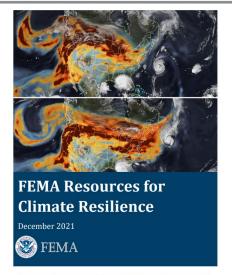
- Climate change is an urgent issue we face together.
- Cost of disasters associated with climate change is increasing.
- FEMA Strategic Plan's Goal 2 -Lead Whole of Community in Climate Resilience.

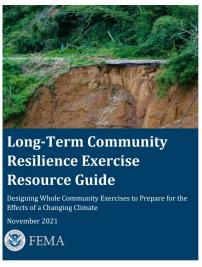


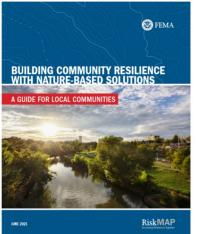


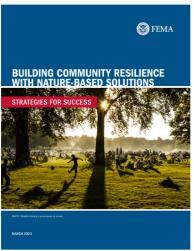
## What already exists at FEMA on Climate?

- FEMA Resources for Climate Resilience
- Long-Term Community Resilience
   Exercise Resource Guide | FEMA.gov\*
  - \*PDF at Long-Term Community
     Resilience Exercise Resource Guide
     (elsevier.com)
- Nature-Based Solutions | FEMA.gov
- Climate Change | FEMA.gov^
  - ^Website with up to date fact sheets and press releases





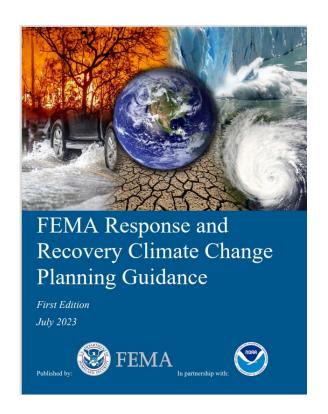


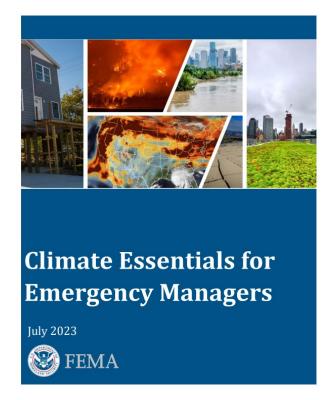




## New additions in past couple months....

- FEMA Response and Recovery
   Climate Change Planning Guidance
- Climate Essentials for Emergency
   Managers
- Local Officials Guide for Extreme
   Temperatures (fema.gov)







## From a state and local government perspective...





## Purpose of this guide

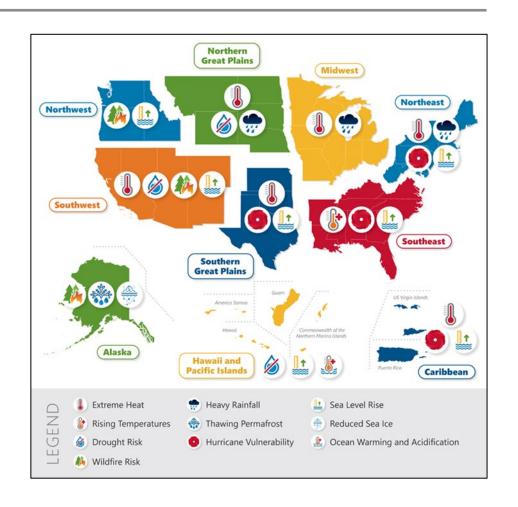
- Help emergency managers incorporate climate adaptation into emergency management planning efforts.
  - Inform emergency managers of ways to incorporate climate change into risk assessments, future planning and resource considerations.
- Direct planners to resources and decisionsupport tools relevant to localized impacts.
- Highlight innovative practices from communities.





### **Document Sections**

- 1. Introduction
- 2. Climate Science for Emergency Managers
- 3. Climate Adaptation Planning: An Overview
- 4. Climate Adaptation Planning: Six Step Planning Process
- 5. Conclusion

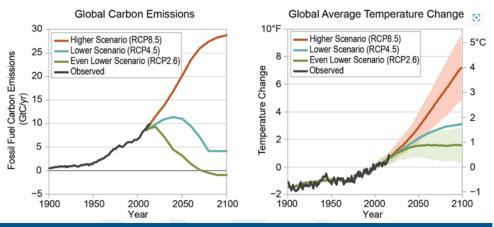




## Section 2: Climate Science for Emergency Managers

- Understanding Past and Potential Future Climate Conditions
- Climate Change Impacts
- Regional Impacts
- Climate Change Impacts on People and the Economy
- Climate Informed Decision-Making for Emergency Managers
- Potential Tools for Climate Modeling (<u>ClimRR</u>)
- Communicating Climate Change





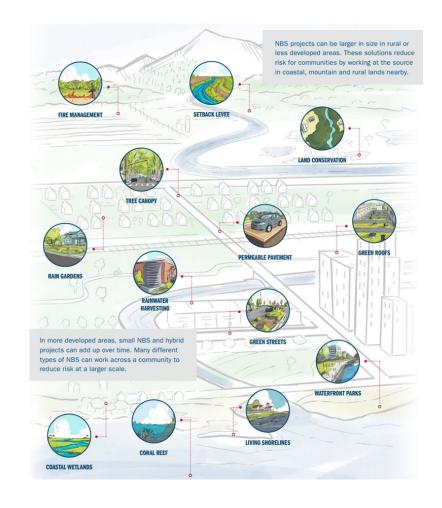


Best Practices for communicating climate change across diverse audiences

- Use terms that resonate with the target audience and find common ground or shared values. "Future risk" and "future conditions" may be good alternative terms.
- Do not focus only on the problem of climate change. Be sure to convey opportunities and a
  positive outlook. Get the audience excited about a climate resilient nation and let them
  know they have the power to be a changemaker.
- Leverage the power of story. Data should only be presented when woven within the context
  of an engaging story. Without a locally relevant story, focusing too much on the data may
  cause people to retreat from the conversation. Stories can make climate change more
  relatable and help forge an emotional connection to the issue.
- Work through trusted messengers. Collaborate with partners who the audience trusts and can carry the message for you.
- Avoid stereotypes. Members of the whole community, of all capacities, capabilities, and beliefs, are taking action against climate change.

## Section 3: Climate Adaptation Planning: An Overview

- Four Key Principles of Climate Adaptation Planning:
  - Focus on the Future
  - Link to Community Planning Processes
  - Leverage Partnerships and Relationships
  - Use a multidisciplinary approach
- Emergency Management Funding and Adaptation Solutions for Climate Change





## Section 4: Climate Adaptation Planning: Six Step Planning Process





#### Roles for Emergency Managers: Form a Collaborative Planning Team

- Lead or participate in scoping efforts to identify preliminary goals and considerations.
- Identify key participants in hazard mitigation and community preparedness planning who could participate in climate adaptation planning.
- Describe funding opportunities for mitigation, community preparedness, and adaptation strategies, programs, and projects.
- Advocate for broad representation on the planning team to include individuals with disabilities and others with access and functional needs as well as those that have been historically underserved.



## **Document Appendices**

- Climate Impacts on Emergency Response and Recovery
   Planning
- Climate Data and Mapping Applications
- Financing Climate Adaptation and Mitigation
- Glossary
- Acronyms

#### **Climate Hazards**

- Avalanche
- Derechos
- Drought
- Erosion
- Fog
- Hail
- Heat waves
- · Hurricanes and storm surge
- Landslides
- Riverine flooding
- Saltwater intrusion
- Sea level rise and tidal flooding
- Severe rainstorms
- Transport of infectious diseases
- Wildfires

#### **Direct Impacts**

- Disruption of access to key facilities (e.g., hospitals) and services (e.g., power, cellular)
- Physical and social isolation
- Economic loss due to damaged facilities; job and supply chain disruptions
- Damage/loss of community facilities and assets
- Damage/loss of natural resources, habitat, and biodiversity (e.g., forests and wetlands)
- Decreased public safety and security
- Exposure to public health threats (e.g., disruptions in food and medical supplies, smoke inhalation)

#### **Cascading Impacts**

- Long-term loss of economic drivers and sectors (e.g., agricultural changes)
- Job loss and increase in population's economic vulnerability
- Loss of community facilities and declining infrastructure
- Population displacement and migration
- Physical and social isolation
- Deteriorating public health (e.g., effects of long-term poor air quality; increased pandemic risk)
- Increasing disaster response and recovery costs



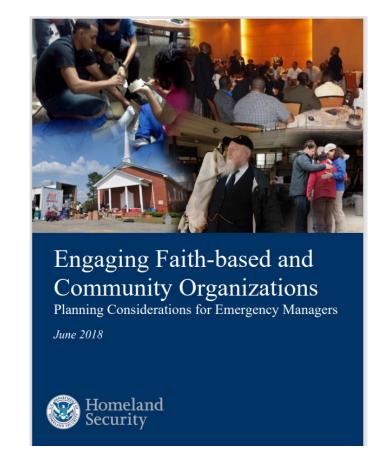
## **Next Steps for Climate Guide**

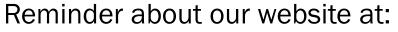




## Forthcoming Planning Resources

- Planning Considerations for Cyber Incidents (expect final version this fall)
- Planning Considerations for Equity (expect national engagement draft this fall/winter)
- Update to Engaging Faith-based and Community Organizations (listening sessions concluded).
- What other guides would you like to see? Or updates to existing ones?





https://www.fema.gov/plan

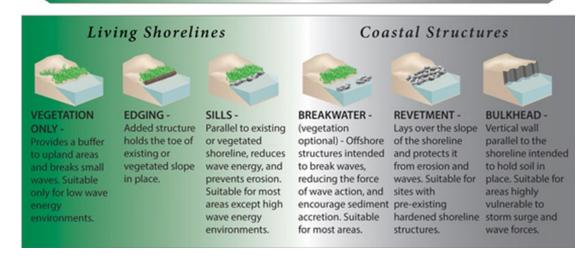
### **Discussion**

- What are we missing for topic areas, especially related to emergency managers?
  - Ex: Long term workforce staffing
- Potential federal tools and resources to include?
- Call out boxes or graphics (see example at right).
  - Digestible takeaways
- "Micro learning" (Videos, summary sheets)

#### HOW GREEN OR GRAY SHOULD YOUR SHORELINE SOLUTION BE?

#### **GREEN - SOFTER TECHNIQUES**

**GRAY - HARDER TECHNIQUES** 





## Questions and for access to the climate guide reach out to:

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