Mitigation Planning Toolkit

Hazard Mitigation Planning

FEMA Region IV has developed an extensive web based tool to assist States, Local, and Tribal Communities involved in Hazard Mitigation Plan Development and Updates. The subject matter and various topics contained on this tool will aid planners, community officials, and leaders understand the necessity for having Hazard Mitigation Plans while guiding the direction of plan development and required updates. The tool has been designed to follow preferred planning methodology allowing planners to go step-by-step throughout the planning process or allow for specific sections only of the plan to be selected for review and/or update.

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Hazard Mitigation Planning Overview

Does my community have a mitigation plan?

Laws and Regulations

State Guidance:

State Multi-Hazard Mitigation Planning Guidance

Guidance: Local Mitigation Planning Guidance (10/2011)

How to Plan for Consolidated City-County Plans

How to Consider Communities That Cross County Boundaries

Tribal Guidance:

Tribal Multi-Hazard Mitigation Planning Guidance

Tribal Mitigation Planning

Quick Tips Guide

Annotated Agenda for Tribal Meetings
Planning Process

Getting Started: Building Support for Mitigation Planning

Local Mitigation Plan Scope of Work

Multi-Jurisdictional Planning
Risk Assessment

Understanding Your Risks: Identifying Hazards and Estimating Losses (How To #2)

Hazard Identification

FEMA Declared Disasters

USDA Declared Disasters

Spatial Hazard Events and Losses Database for the United States (SHELDUS)

National Climate Data Center (NCDC)

NOAA Risk and Vulnerability Assessment Tool: Roadmap for Adapting to Coastal Risk

USGS Risk Assessment
Hazard Profiles

Coastal Erosion
What is Coastal Erosion?
USGS Coastal Change Hazards Digital Library
USGS Impacts and Predictions of Coastal Change During Hurricanes, USGS Fact Sheet 2010-3012
USGS National Assessment of Shoreline Change (includes reports and GIS mapping applications)

Coastal Storms
What are Coastal Storms?
NOAA Coastal Storm Program
Coastal Inundation Toolkit
NOAA State of the Coast

Dam Failure
What is Dam Failure?
National Inventory of Dams (NID)
Association of State Dam Safety Officials
National Dam Safety Program
Dam Safety Information
Federal Guidelines for Dam Safety
Planning to Reduce Dam Risk Fact Sheet

Risk Prioritization Tool for Dams

Why Dams Fail

Droughts
What is Drought?

National Integrated Drought Information System
US Drought Monitor

NOAA Drought Information

U.S. Drought Portal

US Palmer Drought Indices

Extreme Heat Information

Heat Index Chart

Earthquakes
What are Earthquakes?

Understanding Hazards in the Central and Eastern U.S.

Earthquake history by state

Catalog of FEMA Earthquake Resources

USGS Earthquake Publication

National Earthquake Hazards Reduction Program

Urban Seismic Hazard Mapping
National Earthquake Information Center (NEIC)

Earthquake Publications for Community Planners and Public Policy Makers


Modified Mercalli Intensity Scale

Expansive Soils

Expansive Soils Explanations

Floods

FEMA Map Service Center

What are floods?

How Does the NFIP Define Floods?

Current Flood Conditions and Flood-Data Portal

Winter Flooding Fact Sheet

Flood Mitigation Data Collect Tool

Risk MAP

Flood Risk Products

Hailstorm

Hail Fact Sheets

NOAA Hail Basics
Hail Measurements

Hurricane

FEMA National Hurricane Program

FEMA Hurricane Hazard Information

National Weather Service – National Hurricane Center (NHC)

NHC Storm Surge

NOAA CSC Hurricane Planning & Impact Assessment Reports

Application of HAZUS-MH to Support Hurricane Disaster Operations

USGS Coastal Change Hazards: Hurricanes and Extreme Storms

Landslides

What are Landslides?

Landslide Types and Processes

Landslides Hazards Program

Levee Failure

FEMA Levee Information

Man-Made Disasters

_integrating Manmade Hazards into Mitigation Planning

Hazardous Material

Winter Storm Basics
Wind Chill Information

Tornadoes
- What are Tornadoes?
- Tornadoes - Nature's Most Violent Storms?
- When and Where Tornadoes Occur
- Enhanced Fujita Scale (EF Scale)

Tsunami
- What are Tsunamis?
- NOAA Tsunami
- National Tsunami Mitigation Program Fact Sheet: Preparing for Tsunami Hazards
- GOA Report: US Tsunami Preparedness, Federal and State Partners Collaborate to Help Communities Reduce Potential Impacts, but Significant Challenges Remain

Wildfires
- Wildfire Fact Sheet

Windstorm
- Windstorm Basics
- Wind Zones in the US
- Beaufort Wind Scale

Other Issues to Consider
Sinkholes/Soil Subsidence

**USGS Sinkhole Factsheet**

**What is Soil Subsidence?**

Rogue Waves

**What is a Rogue Wave?**

**NWS Rogue Waves**

Sea Level Rise

**USGS National Assessment of Vulnerability to Sea Level Rise, USGS Open File Report 99-593**

**NOAA’s Sea Level Trends**

**NOAA Tides and Currents**

**NOAA’s Land Cover Change Program**

Global Change

**Climate Change-Health and Environmental Effects: Coastal Zones and Sea Level Rises**

**Early Warning Signs of Global Warming: Sea-Level Rise and Coastal Flooding**

**NOAA Climate Change**

**US Global Change Research Program**
Assessing Vulnerabilities

HAZUS MH: Factsheet

HAZUS Risk Assessments Support Mitigation Planning

HAZUS Computer Requirements

HAZUS-MH: FEMA’s Multi-Hazard Risk Assessment and Loss Estimation Software Program Overview Presentation

HAZUS-MH: FEMA’s Gold Standard for Mitigation and Recovery Planning Handout

Social Vulnerability

Repetitive Loss

Severe Repetitive Loss Property Locations in FEMA Region IV and VI

NFIP Community Status Book

Analyzing Development Trends

Hazard and Resiliency Planning: Perceived Benefits and Barriers Among Land Use Planners
Mitigation Strategy

Capabilities Assessment

**A Critical Role: Top Ten Policies That States Need to Recover from Disasters**

Mitigation Goals & Actions

**Developing the Mitigation Plan: Identifying Mitigation Actions and Implementation Strategies**

Benefit Cost Analysis (BCA)

**Mitigation Planning How-To #5**

Implementing Actions

**How to Prepare for and Mitigation against Hurricane Hazards**


**Using the Hazard Mitigation Plan to Prepare Successful Mitigation Projects**

**Bringing the Plan to Life: Implementing the Hazard Mitigation Plan**

Grants

**Community Development Block Grants (CDBG) Disaster Recovery Assistance Grants**

**Hazard Mitigation Assistance Grants**

**EPA Environmental Education Regional Grants**
Public Involvement

Plan Maintenance

Adoption

Region IV Adoption Process

Local Mitigation Plan Review Tool (Crosswalk)

Local Mitigation Plan Review Crosswalk Comparison Tool

Tribal Local Mitigation Plan Review Tool (Crosswalk)

Planning Resources

Hazard Mitigation Technical Assistance

Mitigation in Action

Hazard Mitigation: Integrating Best Practices into Planning

Best Practices

FEMA Region IV Strengthens Disaster Preparedness Nationwide by Sharing HAZUS Expertise

HAZUS User Group Success Story: Proving HAZUS Capabilities for Mitigation and Business Continuity Planning

HAZUS User Group Success Story: Using HAZUS for Flood Loss Estimates and CRS Flood Mitigation Planning

HAZUS User Groups Success Story: Incorporating HAZUS-MH Methodologies to Assist with Mitigation Planning and Hurricane Operation

Flood & Wind Mitigation Accomplishments
Mitigation Planning General Resources

- Census Demographics
- American Planning Association
- Mitigation Works brochure
- Mitigation's Value to Society Fact Sheet
- Bureau of Indian Affairs
- HUD Office of Native American Programs
- EPA American Indian Tribal Portal
- EPA Tribal Programs
- National Hazard Center
- FEMA Multi-Year Flood Hazard Identification Program
- FEMA Multi-Hazard Identification and Risk Assessment Guide
- QuakeSmart Fact Sheet
- Floodsmart
- Firewise
- FEMA/USACE Hurricane Evacuation Studies
- National Flood Risk Management Program-Silver Jackets
- Agriculture Information
- USDA Damage Claims and Causes of Loss
- Protecting Manufactured Homes from Floods and Other Hazards
Hazard Mitigation Planning  Advanced Resources

Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning

Adopting to Climate Change: A Planning Guide for State Coastal Managers

USGS Impacts and Predictions of Coastal Change During Hurricanes, USGS Factsheet 2010-3012

USGS National Assessment of Shoreline Change (includes reports and GIS Mapping)

Sea Level Rise and Coastal Flooding Impacts Viewer

RealClimate: Sea Level Numbers

North Carolina Sea Level Rise Risk Management Study

USACE Coastal Engineering Manual

South Carolina Coastal Erosion Study, USGS Factsheet 2005-3041
HAZUS

HAZUS User Groups Handout

USG Peak Flow File

Flood Frequency for Ungaged Locations

Comprehensive Data Management System (CDMS) Web Portal Version 1.0: The standardized role-based application to update statewide HAZUS-MH datasets

HAZUS in Action

HAZUS-MH Application: Earthquake: Population Density in Louisville, Kentucky in Relation to the Earthquake Hazard

HAZUS-MH Application: Flood: Coastal Flooding in Escambia County, Florida from Hurricane Ivan

HAZUS-MH Application: Hurricane Wind: Estimated Loss of Functionality of Hospitals in Hurricane Ivan


HAZUS-MH Application: Hurricane Wind: Estimates of Debris Generated in Hurricane Ivan

HAZUS-MH Application: Hurricane Wind: Exposure of Manufactured Housing to Wind in Hurricane Charley