

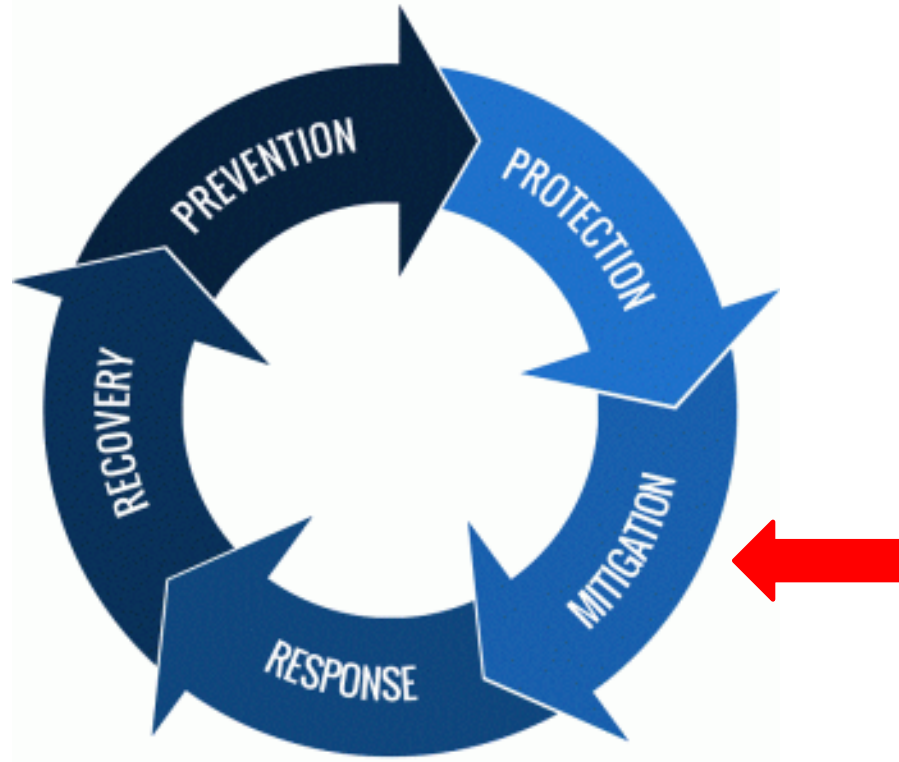


# CLIMATE CHANGE AND HAZARD MITIGATION

ANNE FUCHS, STATE HAZARD MITIGATION OFFICER

MAINE EMERGENCY MANAGEMENT AGENCY

# HAZARD MITIGATION



**Mitigation** is the effort to reduce loss of life and property by lessening the impact of disasters.

- ★ Plans
- ★ Projects

**What does hazard mitigation and emergency management have to do with climate adaptation?**

<https://www.pressherald.com/2018/03/04/storm-stoked-high-tides-hit-maine-coast-hard-for-3rd-day/?jwsourc=cl>



# SACO SEVERE STORM & FLOODING – APRIL 17, 2007

**PHOTO CREDIT:**

**ROBERT F. BUKATY  
ASSOCIATED PRESS**

# SACO SEVERE STORM & FLOODING— APRIL 17, 2007

**PHOTO CREDIT:**

**ROBERT F. BUKATY  
ASSOCIATED PRESS**



# SACO SEVER STORM & FLOODING— APRIL 17, 2007

**PHOTO CREDIT:**

**ROBERT F. BUKATY  
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# SACO SEVERE STORM & FLOODING - FEBRUARY 2010

**PHOTO CREDIT:**

**GREGORY REC  
PORTLAND PRESS HERALD**



# SACO SEVERE STORM & FLOODING – MARCH 4, 2018

**PHOTO CREDIT:**

**GREGORY REC  
PORTLAND PRESS HERALD**



# SOUTH PORTLAND SEVERE STORM & FLOODING— MARCH 1, 2018

**PHOTO CREDIT:**

**GREGORY REC  
PORTLAND PRESS HERALD**

# MAINE STATE HAZARD MITIGATION PLAN

2018

## Abstract

"Natural hazard mitigation planning is a process used by state, tribal, and local governments to engage stakeholders, identify hazards and vulnerabilities, develop a long-term strategy to reduce risk and future losses, and implement the plan, taking advantage of a wide range of resources."

FEMA

Maine Emergency Management Agency  
45 Commerce Dr., Augusta, ME 04333

## Identifying Natural Hazards

§201.4(c)(2)(i)

“NATURAL HAZARD  
MITIGATION PLANNING IS  
A PROCESS USED BY STATE,  
TRIBAL, AND LOCAL  
GOVERNMENTS TO  
ENGAGE STAKEHOLDERS,  
IDENTIFY HAZARDS AND  
VULNERABILITIES, DEVELOP  
A LONG-TERM STRATEGY  
TO REDUCE  
RISK AND FUTURE LOSSES,  
AND IMPLEMENT THE PLAN,  
TAKING ADVANTAGE OF A  
WIDE RANGE OF  
RESOURCES.”

Description of Hazard Types

Hazard Omissions

Profiling Natural Hazards

§201.4(c)(2)(i)

General Definition

Types of Events

Nature of Hazard

Location of Hazard

Extent of Hazard

Impact

Vulnerability

Previous Occurrences

Probability of Occurrence

Issues and Challenges

State Vulnerability Assessment

§201.4(c)(2)(ii)

State Risk Assessment

Multi-jurisdictional (County) Risk Assessments

Vulnerability Assessment

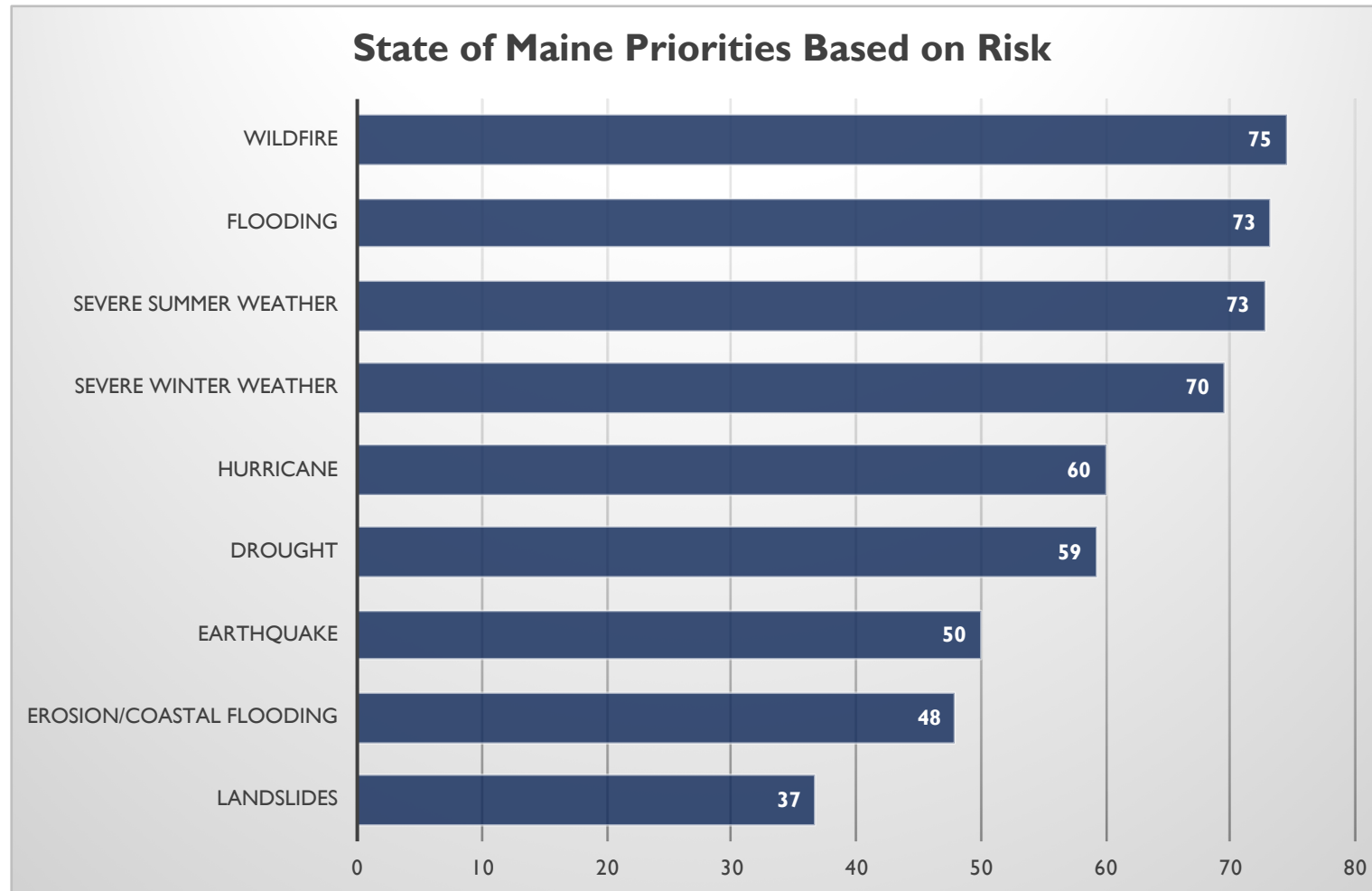
Potential Losses

§201.4(c)(2)(iii)

FEMA

Vulnerable Structures  
Estimated Potential Losses

# MAINE STATE HAZARD MITIGATION PLAN – 2018 UPDATE



# HOW ARE LOCAL, STATE, AND FEDERAL AGENCIES ADDRESSING CLIMATE CHANGE?

- **Maine Forest Service (MFS)** monitors forest health, **U.S Geological Survey (USGS)** monitors groundwater
- **Maine Department of Transportation (DOT)** upgrades and/or elevates roads, stabilizes banks, and rip-rap when funds are available
  - Host Local Road Center Workshops for local officials annually
- **Maine Department of Agriculture, Conservation, and Forestry's (DACF)** Floodplain Management Program provides:
  - Technical Assistance, Floodplain modeling for municipalities, hosts trainings for local officials, & manages the National Flood Insurance Program
- **U.S.Army Corps of Engineers (USACE)** has completed and distributed Hurricane Surge Inundation Maps
- **FEMA, MEMA, USACE, & Maine Geological Survey** have mapped Sea, Lake, & Overland Surges from Hurricanes (SLOSH)
  - **FEMA, MEMA, & USACE** updating the Hurricane Evacuation Plan
- **FEMA's** Risk Map Program has produced and distributed digital floodplain maps (southern counties in update status)
- **MEMA, USGS, NWS, USCG, and County EMA** support Drought Task Force & River Flow Advisory Commission
- **Department of Environmental Protection (DEP)** maintains Storm Water Management, Shoreland Zoning, & Erosion & Sediment Control Programs
  - **National Oceanic and Atmospheric Administration (NOAA)** has created the "Sea Level Rise Viewer" Program
  - **NOAA** has awarded \$200,000 to the **Maine Coastal Program (DMR)** to study vulnerable areas around Penobscot Bay
  - **Maine Coastal Program** manages the Maine Coastal Mapping Initiative & Coastal Community Planning Program
    - LD 565 - An Act To Establish the Maine Coastal Risks and Hazards Commission
    - **Maine Interagency for Climate Adaptation Work Group**

# HOW CAN YOU MITIGATE RISK ASSOCIATED WITH CLIMATE CHANGE?

## **Maine Emergency Management Agency**

Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant & Flood Mitigation Assistance

## **Maine Department of Environmental Protection**

Stream Crossing Upgrade Grant Program

## **Office of Community Development**

Community Development Block Grant Program

## **Northern Border Regional Commission**

Economic Infrastructure, State Planning, & General Planning Grants

## **National Fish and Wildlife Foundation**

National Coastal Resiliency Fund

## **U.S. Economic Development Administration**

Disaster Supplemental Funding

**11TH ANNUAL MAINE PARTNERS IN EMERGENCY PREPAREDNESS CONFERENCE**

AUGUSTA CIVIC CENTER  
TUESDAY APRIL 23, 2019

**MAINE  
PREPARES**

<https://www.eventbrite.com/e/maine-partners-in-emergency-preparedness-conference-2019-tickets-53310283493>