

Town of Falmouth



ADDENDUM

HAZARD / RISK ASSESSMENT

EMERGENCY ACTIONS

Standard Operating Guidelines

Prepared by

Falmouth Department of Emergency Management

EMERGENCY OPERATIONS

HAZARD ASSESSMENT - ANNEXES - STANDARD OPERATING GUIDELINES

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HAZARD MITIGATION

I. PURPOSE

To eliminate hazards that constitutes a significant threat to the citizens of your town and or reduces the efforts of unavoidable hazards through a problem of Hazard Mitigation.

II. SITUATIONS AND ASSUMPTIONS

Mitigation can protect people from disasters by:

- a. Eliminating the hazards or reducing the frequency and or severity of their occurrences.
- b. Protecting people who come in contact with a particular hazard.
- c. Altering the way people live in order to avoid the hazard altogether.

III. CONCEPT OF OPERATION

Hazard Mitigation is oriented toward the future and is intended to minimize threat on a long-term basis; i.e., mitigation is not a quick fix to make it through the next disaster. Mitigation generally will occur on the local level through ordinances and policies. Mitigation can occur as a single purpose project to be completed in a certain period of time. It can occur as an ongoing process, or it can occur as part of a repair and restoration process following a disaster.

IV. RESPONSIBILITIES

A. Community

1. Fund Mitigation projects.
2. Draft and ratify local ordinances.
3. Monitor compliance with mitigation standards and regulations.
4. Evaluate the performance and local costs of mitigation efforts.
5. Search the mitigation resources (manpower, materials, funds and skills).

B. Emergency Management

1. Inform and educate the public.
2. Assist community in identifying potential hazards.

V. ESTABLISHING A HAZARD MITIGATION PROGRAM.

- A. Survey the jurisdiction to determine types of hazards and potential impact.
- B. Map Hazard area and make these maps available to developers, community officials, the public and other interested parties.
- C. Develop a hazard mitigation program, which establishes objectives, and policies a part of the jurisdiction development process.
- D. Assign priorities for corrective and preventive actions.
- E. Work with other communities as appropriate to undertake multi-jurisdictional approaches to mitigation. Carefully delegate responsibilities of all involved agencies and organizations.
- F. Review local codes and ordinances to ensure that regulations controlling new development recognized the presence of hazards in the community.
- G. Establish codes as necessary, to protect structures from hazards. An example would be a local site selection review process for construction projects involving hazardous materials or in locations subject to hazards (such as a flood plan).
- H. Work with community planners in developing a master plan to formulate future land use policies to prevent or limit construction projects in hazardous areas.
- I. Provide homeowners with information and conduct workshops or seminars to encourage the incorporation of hazardous mitigation techniques in maintenance, repair and home improvements.
- J. Promote fire prevention by enacting local ordinances requiring sprinklers, and some and heat detectors, where appropriate, in building in the community.
- K. For jurisdictions at risk of serious flooding, participate in the National Flood Insurance Program and adopt and enforce a flood plan management program to make flood insurance available.

Town of Falmouth Hazard / Risk Assessment

Risk Assessment

Identifying Hazards:

[The risk assessment shall include] description of the type...of all natural and man-made hazards that can affect the jurisdiction...

Listed below is a summary of the Hazard Mitigation Planning Team's identification and ranking of the natural hazards for which the Town of Falmouth is at risk. The planning team split the hazards into high, medium, and low priorities, based on the results of a prioritization methodology shown at the end of this section. The mitigation planning process focused on the three hazards in the high priority category. Medium and low priorities may be addressed in future planning activities in conjunction with Cumberland County's initiatives. Acknowledgement should be given to Cumberland County Emergency Management Agency for their assistance with the Town of Falmouth Hazard Mitigation Plan.

High Priority:

- Flooding
- Severe storm events (all seasons)
- Wildfire

Medium Priority:

- Coastal Erosion
- Drought
- Earthquake

Low Priority:

- Avalanche
- Blight / Infestation
- Landslide
- Others

A. FLOODING HAZARDS

How identified:

Review of FIRM AND SLOSH maps, review of past disaster declarations, review of repetitive loss properties, input from municipal staff;

Description:

The Town of Falmouth has suffered repeatedly from flood hazard events, both riverine and coastal. These events have resulted in significant damage to property, economic disruption, reduced access for emergency vehicles, injury and death of persons (within the county confines). These events are associated with spring runoff events and coastal storms. The most recent significant event was the 2007 Patriot's Day Nor'Easter.

B. SEVERE STORM EVENTS HAZARD

How identified:

Review of past disaster declarations and input from municipal staff;

Description:

The Town of Falmouth is subject to periodic severe summer and winter storms. The ice storm of 1998 was one of the most disruptive and damaging hazard events of recent history in Maine. Summer storms have caused damage and injury from micro-bursts and tornado-like events; hurricanes pose a significant hazard to the Town of Falmouth, with the coastal zone posing the most vulnerability to loss of life and severe property damage.

C. WILDFIRE HAZARD

How identified:

Review of Maine Forest Service records;

Description:

Outside of the urbanized areas of the town, much of the land area is forested. The town has a recent history of experiencing numerous small brush and wildfires.

D. DROUGHT

How identified:

Review of NOAA records;

Description:

Droughts have occurred in the town of Falmouth in the past. However, NOAA and state records indicate little significant economic impact from droughts within the town.

E. COASTAL EROSION HAZARD

How identified:

Input from municipal staff, review of Maine Geological Survey maps, review of “Living with the Coast of Maine”;

Description:

Coastal communities have identified coastal erosion as an on-going problem at specific locations. It is not, however, a widespread risk for this community.

F. EARTHQUAKE HAZARD

How identified:

Review of CCMA, MEMA and FEMA data;

Description:

Maine has a low but steady rate of earthquake occurrence. No significant amount of motion has been shown for any fault since the last Ice Age, about 20,000 years ago, and geological evidence demonstrates that many faults have been inactive since the formation of the Appalachians, over 300,000,000 years ago. Most Maine earthquakes are of small magnitude and too small to feel. No Maine earthquake has ever caused significant damage.

G. LANDSLIDE HAZARD

How identified:

Review of Maine Geological Survey Coastal Bluffs maps and Coastal landslide Hazard maps;

Description:

Although landslides do occur in the Town of Falmouth, they are extremely localized and do not pose a significant nor widespread risk.

H. AVALANCHE HAZARD

How identified:

Review of USGC maps;

Description:

There are no mountains in the Town of Falmouth with topographic and vegetative characteristics that result in avalanches.

I. BLIGHT / INFESTATION HAZARD

How identified:

CCEMA and MEMA data;

Description:

Data indicates that there is limited history of damage, injury, or death resulting from blight and infestation in the town of Falmouth.

J. GROUND SUBSIDENCE HAZARD

How identified:

Review of Maine Geological Survey records;

Description:

There have been no reported incidences of sudden land subsidence occurring in the Town of Falmouth.

K. MARITIME RELATED HAZARDS (non-weather related)

How identified:

Review of past disasters and input from municipal staff;

Description;

There have been numerous significant disasters related to the accidental discharge of hazardous material into Casco Bay such as crude oil and other fuel oil caused directly by vessel transportation incidents. The M/V Tomanos spilled thousands of barrels of crude oil after anchoring off Clapboard Island in 1972; the results of a catastrophic collision with Soldiers Ledge off the western end of Long Island. More recently, the M/V Julie N struck the Casco Bay Bridge which resulted in the discharge of thousands of barrels of fuel oil. The threat of a terrorist incident post-9/11 continues to be a very real possibility. The Town of Falmouth has been, and continues to be, at risk to these types of disasters due to its close proximity to the Port of Portland.

HAZARD PROFILES

Following are more detailed descriptions of the high and medium priority hazards in the town of Falmouth.

I. HAZARD-FLOODING

Flooding has been the most common hazard affecting Falmouth in the past. Between 1987 and 2003 there were seven federally declared disasters in Falmouth in which FEMA funds were utilized, six of which were flood events. The average flood resulted in disaster assistance funding to 14 municipalities in Cumberland County. A total of approximately \$15 million in FEMA public disaster assistance was provided to Cumberland County during this period as a result of flood damage (figure does not include 2007 Patriots Day storm).

FEMA Aid to the Town of Falmouth

1. 1989 FEMA ID # DR-830 Flood
2. 1991 FEMA ID # DR-915 Flood
3. 1996 FEMA ID # DR-1114 Flood
4. 1996 FEMA ID # DR-1143 Flood
5. 1998 FEMA ID # DR-1198 Flood
6. 1998 FEMA ID # DR- Ice
7. 2007 FEMA ID# 005-24495-00 Flood / Wind Damage

The Town of Falmouth has many areas that are susceptible to coastal and riverine flooding because of the coastline exposure to the Atlantic Ocean and the many lakes, streams, rivers and wetlands within its border. Worthy of note is the 10% increase of population from 1990 to 2000 in Cumberland County. Falmouth had a population growth rate during the same period of over 30%. Storm water runoff from this growth is regulated to a degree by the municipality and the state DEP. However, this regulation is typically on a site-by-site basis and does not take into account watershed effects or incremental effects from developments that are too small to trigger regulation.

The Town of Falmouth receives a fairly high level of precipitation at all seasons of the year. Severe widespread flooding occurs regularly in the spring and fall. Localized flooding occurs during the summer as a result of short high-density rainfall from thunderstorms.

FEMA Questionnaire 2007

- I. **I Jurisdiction: Falmouth, Maine**
- II. **II Associated River(s)/Stream(s) (Water Courses/Basins)**

Community Watershed (NHD River Db) See list below

- III. **III Hazard Mitigation Plan on File**

The Hazards We Face-State Hazard Mitigation Plan 2004-Maine
State Hazard Mitigation Plan

Cumberland County Maine Hazard Mitigation Plan December 23, 2004

Local or Multi-jurisdictional Hazard Mitigation Plan – completed pending Town Council approval

IV Emergency Management Plan: Yes

V Gauge(s) _____