

**Saco Maine
Hazardous Weather Operations Plan**

SUBJECT: DISASTER SITUATIONS

ADOPTED DATE: APRIL, 2010

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**Saco Maine
Hazardous Weather Operations Plan**

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- VIII. Coastal Flood and Tsunami Warnings

I. LOCAL WARNING SYSTEM ACTIVATION PLAN FOR SACO**Community Warning and Notification**

In the event of a weather emergency in the City of Saco, the following notification procedures have been developed:

Primary notification will be via the Emergency Alert System (EAS) which is broadcast on local radio and television stations. Warning information will also be available in the “Hazardous Weather Outlook” (HWOGYX) issued daily by the National Weather Service in Gray.

Secondary notification will be by the following means when applicable.

- Reverse 911 - This system allows the Saco emergency communication center to send out city wide or limited area notifications during certain types of emergencies and disasters by calling several homes and businesses at the same time.
- Door to Door and Drive by Notification - In certain circumstances emergency responders may go door to door and drive thru neighborhoods utilizing public address systems and sirens to warn of eminent danger.
- Internet-information provided over the web at <http://www.sacomaine.org> and <http://www.erh.noaa.gov/er/gyx/>

Evacuation and Sheltering

In the event that an evacuation is needed the city has several shelter locations. These locations provide feeding and sleeping facilities when staying in your own home may become dangerous. In the event that sheltering is recommended, you will be directed as to the location of the shelter nearest you.

I. LOCAL WARNING SYSTEM ACTIVATION PLAN CONT'D**Community Emergency Response Team (CERT)**

The citizens of Saco are fortunate to have a team of volunteers who make up the community emergency response team. These dedicated folks assist the Police, Fire and Emergency Management during disasters and large scale emergencies performing such duties as traffic and crowd control, and emergency shelter operations. They have assisted several other communities and several were activated by the federal government and deployed to different parts of the country to assist at natural disasters. CERT volunteers also volunteer their services at such community events as the Pumpkin Fest, Christmas parade and bike race.

Warning-Evacuation-Shelter Plans for the Disabled

- Emergency warning systems within the City of Saco include the Emergency Alert System (EAS), along with emergency vehicle siren and public address systems.
- This combination of warning devices provides the broadest level of notification to residents of the City of Saco in the event of an imminent disaster emergency. These systems however do not guarantee that everyone will receive the warnings. This may be especially true for those with sight and hearing impairments.
- As a result, it is imperative that the sight and hearing impaired together with community organizations and facilities that provide the disabled services, along with neighbors, friends and relatives develop emergency notification plans that compliment existing warning systems.
- In an incident of greater magnitude, the ability to conduct emergency search, rescue and evacuation may be limited compared to existing fire and law enforcement personnel.
- Therefore it is recommended that community organizations and facilities that provide services and housing to the disabled community develop and maintain emergency evacuation and shelter plans specific to the clients they serve.
- In addition, people with disabilities living independently should receive assistance from relatives, acquaintances or community providers in developing and managing individual evacuation and shelter plans.
- Organizations that arrange for or maintain shelter facilities should include plans for Housing people with special needs.

I. LOCAL WARNING SYSTEM ACTIVATION PLAN CONT'D

Preparedness

The most important survival tool is self preparedness. Make sure you have enough non perishable foods and essentials to be self sufficient for the first 24-72 hours of a disaster. Sometimes emergency services become taxed beyond our capabilities and assistance is on a priority basis. It is recommended that home disaster kits are a standard part of your self preparedness plan. For more information, contact your local American Red Cross for disaster preparedness literature.

Procedures for reporting storm damage to the National Weather Service

To increase the ability of the National Weather Service to understand the characteristics of severe weather activity as it happens, it is important to provide basic storm damage reports from observers on the ground in “real time”.

In an effort to provide this information to the NWS, any available information from SkyWarn or COCORaHS spotter as well as emergency responders in the City of Saco will provide the Saco Public Safety Communications Center with “real time” preliminary damage reports from the field.

This information will be passed on to the National Weather Service Office in Gray via normal established channels.

II. YORK COUNTY EOC ACTIVATION

The York County Emergency Operations Center (EOC) will be activated for all incidents requiring a significant dedication of resources and/or extraordinary interagency coordination for the Saco region. The York County Emergency Manager (or designee) will make the decision regarding EOC activation. Not all disasters require full activation, in those instances, partial EOC activation will be ordered, and only relevant agencies and functional coordinators will be activated

Upon request of the Emergency Manager, the County Coordinator, or other designee the Saco Public Safety Communications Center will initiate a call back of the Functional Coordinators listed in the City Emergency Operations Plan (EOP).

III. DISTRIBUTION OF ALL HAZARDS NOAA WEATHER RADIO

NOAA Weather Radio Distribution Initiative

NOAA Weather Radio in the city of Saco is controlled from the National Weather Service in Gray. These radios have been purchased and placed in area schools, at the dispatch center and in city hall. They are alarm activated during severe weather conditions.

Training

Training will be provided by the City of Saco EMA to assist users with setup procedures.

IV. TORNADO WARNINGS

The National Weather Service in Gray is the primary source of severe weather information for the public. The National Weather Service will issue tornado watches and warnings to the public and local emergency response agencies as conditions dictate.

Both the Saco Public Safety Communications Center and the National Weather Service in Gray will release information to users via the use of the Emergency Alert System (EAS).

Procedure - -City of Saco Community Warning and Notification

Primary notification will be via the Emergency Alert System (EAS) which is broadcast on local radio and television stations.

Secondary notification will be by the following means when applicable.

- * Reverse 911 - This system allows the Saco emergency communication center to send out city wide or limited area notifications during certain types of emergencies and disasters by calling several homes and businesses at the same time.

- * Door to Door and Drive by Notification - In certain circumstances emergency responders may go door to door and drive thru neighborhoods utilizing public address systems and sirens to warn of eminent danger.

- * Internet via the <http://www.sacomaine.org> web page

V. FLOOD AND FLASH FLOOD WARNINGS

Advance warning for flood events is critical in allowing communities in the City of Saco to prepare for and respond to flooding situations. Primary notification will be via the Emergency Alert System (EAS) which is broadcast on local radio and television stations. Saco is responsible for instituting their own flood response plans.

Potential floods in Saco fall into four general categories:

Annual Spring Snowmelt

This typically occurs in April, and is influenced by a combination of snow pack, temperature, and additional moisture during the melt cycle. The Saco River is the main stem river in the region. Flooding may result during long fused situations. Efforts are currently underway with city officials and the National Weather Service to place a river gauge in the city of Saco to monitor the riverflow daily.

Summer Rain Events

Heavy rains can create localized flooding including flash floods in a short time. The flooding can be aggravated by blocked or clogged drainage areas along roadways due to fallen leaves or snow and ice. Also, urban areas may accelerate local runoff. These situations do not often provide advance warning. Flood watches and warnings originate from the Gray Office of the National Weather Service. The NWS provides real time and advanced flood prediction information through regular news releases.

Cold season: Heavy rain Events

Strong cut-off low pressure systems can lead to bands of quasi-stationary rain to race over the city from the Gulf of Maine. The all-time wettest rainstorm ever for Maine occurred in Saco on October 19-22, 1996 when 19.2 inches of rain fell in Camp Ellis. This is very close to the all-time New England record from hurricane Diane.

Cold season: Ice Storms

Ice storms such as the ice storm of 1998 and 2008 had significant impact in the Saco area. These types of storms greatly impact the resources of communities over long periods of time. The threat of loss of life and property is a significant hazard. The National Weather Service in Gray is beginning a significant study of Northeast ice storms as part of the CSTAR research program at the University at Albany.

Tropical Cyclones

Tropical cyclones may drop extreme rainfall in a short period of time causing flooding. Tropical storm Floyd deposited up to eight inches of rain in the region in 1996.

Distribution: The Saco Public Safety Communications Center will disseminate flash flood information to all law enforcement and fire units:

Detailed flood prediction information and real-time river gauge data for the Saco River Basin is available through the National Weather Service Advanced Hydrologic Prediction Service at: <http://www.erh.noaa.gov/nerfc> . nother resource is the US Army Corps of Engineers web site at:<http://www.waterdata.usgs.gov/nwis> .

VI. SEVERE SUMMER & WINTER WEATHER WARNINGS

Severe Thunderstorm and Winter Weather Warnings

The National Weather Service Office in Gray will provide advance summer and winter weather warnings to the public through the media and to local emergency response agencies through the Emergency Alert System (EAS).

In the upcoming year, the National Weather Service in Gray plans to build on its educational component of the summer phenomenon of rip currents. The number of vacationers recreating at the shoreline increases dramatically during the warm season. During large wave events, there is further exposure as citizens take to the water to surf. Training is planned for area life guards in rip currents. Lightning safety, cold water drownings and spotter material will be launched with this training.

Secondary notification will be by the following means when applicable.

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- Door to Door and Drive by Notification - In certain circumstances emergency responders may go door to door and drive thru neighborhoods utilizing public address systems and sirens to warn of eminent danger.
- Internet-information provided over the web at <http://www.sacomaine.org> and <http://www.erh.noaa.gov/er/gyx/>

SkyWarn Weather Spotter Activation Criteria

SkyWarn is a group of individuals made up Amateur Radio Operators (ham radio) that are trained to weather observe for the National Weather Service.

Before or during severe weather when weather spotters are needed, the National Weather Service will request activation of the SkyWarn network through dissemination of the Hazardous Weather Outlook (HWO) product.

Ham radio operators will report to the National Weather Service in Gray. This group will request severe weather reports for redistribution to Saco and other communities. The reports will be filed by county and disseminated via Public Information Statements (PNSs) to users.

VII. TROPICAL STORM AND HURRICANE WARNINGS

The National Weather Service Office in Gray will provide tropical storm and hurricane warnings to the public, the media and to local emergency response agencies through the Emergency Alert System (EAS). Tropical cyclones may drop extreme rainfall in a short period of time causing flooding. Tropical storm Floyd deposited up to eight inches of rain in the region in 1996. Hurricane force winds may down trees and powerlines in the Saco area, causing power outages and blocking public access.

Secondary notification from the Saco Public Safety Communications Center will be utilizing the following means when applicable.

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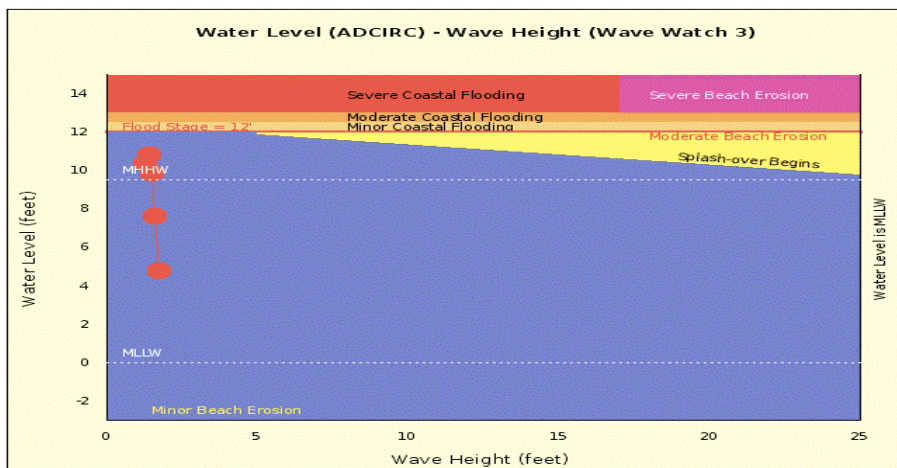
VIII. COASTAL FLOOD AND TSUNAMI WARNINGS

Saco Emergency Management has worked closely with the National Weather Service Office in Gray to improve forecasts and mitigation of coastal inundation and severe beach erosion due to the combined effects of storm tides and large, battering waves. Due to this effort, a “Coastal Flood Nomogram” was created using an empirical relationship of storm tides and wave heights to anticipate damage along Saco’s shoreline.

Below is a copy of the nomogram for use in coastal flood operations. This is usually during the cold season winter months, but can occur with tropical cyclones. The experimental product is available for emergency manager use at <http://www.gomoos.org/coastalflooding>.

Coastal Flooding and Erosion Forecast

Water Level & Wave Height Interaction Nomogram:
Nomogram | [How to read nomogram](#) | [Project Overview](#)



<< >> FASTER SLOWER
04/15 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
04/16 00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00
04/16 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
04/17 00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00
UTC (EDT + 4 hours)

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Both the Saco Public Safety Communications Center and the National Weather Service in Gray will release coastal flood and tsunami information to users via the use of the Emergency Alert System (EAS). This information will be released as soon as possible so the public will be informed of the reason for the siren activation.

Tsunami warnings are issued by the Tsunami Warning Center and redistributed by the National Weather Service in Gray, Maine. The city of Saco has designated and established a tsunami shelter area located at the Franklin street armory. Evacuation routes have already been designated along the coastal region of Saco. Blue signs show areas to evacuate from the coastline. Information in the form of NOAA handouts have been distributed to school children within the district and at local safety forums.

The summertime has an increased marine hazards risk of the population. The number of permanent residents who recreate in and around Saco Bay increases dramatically in the summer.

Procedure - -City of Saco Community Warning and Notification

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