

**MASON COUNTY AFTER-ACTION
REPORT/IMPROVEMENT PLAN**



**DECEMBER 2007 WINTER STORM
(FEMA-1734-DR-WA)**

Table of Contents

Administrative Handling Instructions	page 3
Executive Summary	page 4
Chapter One, Event Overview	page 6
Chapter Two, Goals and Objectives	page 7
Chapter Three, Event Synopsis	page 8
Chapter Four, Analysis of Mission Outcomes	page 10
Chapter Five, Analysis of Critical Task Performance	page 11
Conclusions	page 17
Improvement Plan	page 18

Administrative Handling Instructions

1. The title of this document is the *Mason County After Action Report/Improvement Plan December 2007 Winter Storm (FEMA-1734-DR-WA)*. This document is intended to be dynamic and will change as circumstances and work to complete the improvements develop. It is the intent to provide the Mason County Emergency Management Council status reports in respect to tasks listed in the Improvement Plan at each meeting.
2. The information gathered in this AAR/IP is unclassified.
3. This document is subject to public disclosure and will be distributed in a manner that complies with Washington State Title 40 RCW.
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December 2007 Winter Storm (FEMA-1734-DR-WA)

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Executive Summary

During the first part of December 2007, one of the worst natural disasters in recent memory impacted numerous Western Washington counties, including Mason County.

Mason County was severely impacted. The county experienced record flooding on the Skokomish River, extreme landslide conditions that closed county and state roads and limited access for weeks and caused one fatality, destruction of county and private bridges, as well as power and phone outages. The National Weather Service (NWS) initial storm frequency analysis indicates that this event ranged from a 500-year frequency at the Lake Cushman power plant, to somewhere between a 200 – 400 year event on the Tahuya Peninsula. According to State Department of Ecology Dam Safety Office, the flows at the Lake Tahuyeh Dam were in the 1,000-year event range!

Mason County activated the Emergency Operations Center (EOC) at 0500 on Monday, December 3, 2007, and issued a proclamation of a local emergency at 0730 that morning. For most of the next two weeks County staff and agencies responded to the event. On December 15, 2007, Mason County was added to the presidential disaster declaration for this event (FEMA-1734-DR-WA).

Overall, the activation phase of the event showed significant improvement compared to a similar activation in response to the major windstorm in December 2006 (FEMA-1681-DR-WA). Upon notification of the EOC activation, County staff, volunteers, and supporting agencies responded to the EOC in a timely manner, and additional staffing was provided when requested.

Public Works road crews responded in what has been described by County residents as a “stellar” manner. Crews worked almost around the clock to open roads, remove debris and landslides, and restore the severely impacted transportation system. One of the largest actions was the installation of a temporary bridge across the Tahuya River to replace the Belfair-Tahuya Bridge that was destroyed by the flood and debris flows. Road closure information was provided to the EOC and information provided to residents and agencies.

While the initial activation and response actions were significantly improved from prior events, there are additional areas needing improvement. Some of these are:

- ◆ relocation of a damage assessment “call center” out of the EOC;
- ◆ increased/additional training of County staff in emergency operations and activations;

- ◆ disaster process training for local fire districts, jurisdictions, and agencies;
- ◆ improved communications (radios) for responding agencies; and
- ◆ improved public (individual) preparedness and education

Chapter 1: Event Overview

Event Name:	Winter Storm December 2007 (FEMA-1734-DR.WA)
Duration:	13-day activation
Event Date:	December 3 – 15, 2007
Sponsor:	N/A
Type of Event:	County-wide multi-jurisdictional winter storm disaster. Snow, heavy rains, flooding, landslides, high winds, power outages, and road closures
Funding Source:	County general funds; Presidential Disaster Declaration/ FEMA funds
Program:	EMPG
Focus:	Response and recovery from a storm that affected several Western Washington counties causing widespread wind damage, flooding, and mudslides
Classification:	Unclassified (U)
Scenario:	Heavy snows, followed shortly thereafter by heavy rains, severe and sudden winds which caused serious, severe, and widespread damage
Location:	Several areas of Mason County were severely impacted by sudden, heavy rain and windstorm
Participating Organizations:	Mason County, City of Shelton, Skokomish Tribe, Squaxin Island Tribe, and Fire Districts 1, 2, 6, 9, 17 and 18
Participants:	Mason County Division of Emergency Management, Community Development, Sheriff's Office, Public Works, Facilities and Grounds, Fire Marshal, Public Health, Utilities/Waste Management, City of Shelton Fire Department/Emergency Management, Skokomish Tribal Department of Public Safety, Squaxin Island Tribal Emergency Management, and Washington State Emergency Management Division
Number of Participants:	6,000+ (County-wide event)
Exercise Overview:	N/A
Exercise Evaluation:	N/A

Chapter 2: Exercise Goals and Objectives

- ◆ To fully activate County Emergency Operations Center in a timely manner
- ◆ To conduct Preliminary Damage Assessments (PDAs) for public and private damages
- ◆ To implement ICS/NIMS in an effective manner
- ◆ To implement a Joint Information System (JIS) to address local and national media inquiries
- ◆ To provide information on the events' impacts to County residents and leaders in a timely manner
- ◆ To respond to and recover from an extreme weather event

Chapter 3: Event Synopsis

During the latter part of the week preceding the storms, the National Weather Service (NWS) notified Mason County of potential severe weather beginning early on Saturday, December 1, 2007. NWS forecasted that snow, heavy rains, and possible flooding could be expected for most counties of Western Washington.

As expected the Skokomish River was forecasted to reach flood stage late Monday (December 3rd) evening due to heavy snow melt-off increasing the flow of water from the North Fork of the River. During this event, the Skokomish Valley experienced the most severe flooding ever recorded. The flood depth recorded at the Skokomish River/Highway 101 gauge was 18.2 feet, surpassing the previous recorded high of 17.75 feet and flows exceeded 30,000 cubic feet per second (CFS). It should be noted that this information is a bit misleading because there were three serious levee breaches in the Valley, which caused the river to spread out prior to reaching the gauge station. Flood depths and flows were probably much higher than recorded.

The community of Holiday Beach, just north of Hoodspout along US Highway 101 on the west side of Hood Canal, was severely impacted with mudslides and damage to the highway itself. Many homes were damaged, including one where a young man died as a result of a mudslide destroying the house where he was sleeping.

The Tahuya Peninsula near the north side of the Canal – just outside the town of Belfair – was also severely impacted. The State Department of Ecology estimated that the flows from the Lake Tahuyeh Dam reached the 1,000-year event flows, and added to the severity of flooding along the Tahuya River. Many of the 1,500 to 2,000 residents were isolated for several days to a week due to numerous landslides and the destruction of several County and private bridges.

The Mason County Emergency operations Center (EOC) was activated at approximately 5:00am on Monday, December 23 and fully manned shortly thereafter. Based upon the initial assessments of the event, Mason County issued a local proclamation of emergency at 7:30am on December 3rd.

Requests for assistance poured in and the EOC staff was soon overwhelmed with calls. Other County departments, including the Auditor, Assessor, Treasurer, Facilities, Public Health, Sheriff's Office, and Public Works sent employees as they could be released from their normal duties to receive calls and take damage assessments, requests for supplies, and notification of road closures. The call-taking continued fourteen hours a day for the first three days, then was scaled back to 8 – 10 hour shifts manned primarily by DEM staff and DEM volunteers for the remainder of the response. It has been estimated that approximately 5,000 calls were received in the EOC during the first week of the disaster.

An Incident Command Post (ICP) was set up at the Belfair Fire Station to deal with specific damage reports from the Tahuya Peninsula that was isolated when several roads were severely damaged and a bridge was destroyed. A Department of Natural Resources (DNR) Type 3 Incident Management Team was deployed to the main Fire District 2 facility to assist and on December 4th a County team was able to assess the damage utilizing helicopter resources.

The Skokomish Tribe suffered less damage due to mitigation projects such as increasing culvert sizes and a new, elevated bridge over Sko-bob Creek, which feeds into the Skokomish River.

The Squaxin island Tribe suffered little damage except to their shellfish beds due to inundation of mud. They were prepared to take evacuees from the Shoalwater Bay Tribe on the coast if needed; that Tribe was completely cut off without a fresh-water supply and minimal food supplies.

Chapter 4: Analysis of Mission Outcomes

In comparison to the Winter Storms of December 2006 (FEMA-1681-DR-WA), there was notable and significant improvement in the staffing of the County EOC to respond to the overwhelming number of calls when compared to prior long-term activations.

There was some frustration in the delay in getting needed resources. Communications between the requesting agencies, the County EOC, and the State EMD seemed to be somewhat disconnected. Estimated arrival times for resources were not accurate or non-existent. Some of the local fire districts were not aware that they could have asked for additional manpower through the County EOC. The weather precluded some early helicopter assistance. It was noted that while National Guard resources were available and responded as requested, the process required by the State was time-consuming and cumbersome.

It must also be addressed that the citizens were not happy about FEMA's response in a number of instances, and of course the seemingly overwhelming paperwork requirements caused many impacted residents to simply quit the process. Some of the homes damaged were second residences and not covered for repair assistance by the FEMA programs. Many people just had a huge amount of muddy debris to dispose of, and no place to take it.

The County landfill accepted debris removal vouchers issued by DEM which allowed citizens to dispose of damaged foodstuffs, furniture, carpeting and household appliances. The vouchers were accepted through January, and after that on a case-by-case basis. This was most beneficial to the citizens who suffered weather-related damage that was then rendered inaccessible due to heavy snow that followed the initial storm. Many citizens expressed their sincere appreciation for this assistance.

Chapter 5: Analysis of Critical Task Performance

Task:

County Emergency Operations Center (EOC) staffing

Issue:

Lack of fully-trained staff coming in from other County departments and agencies.

Reference:

Summary of Issue:

DEM held several EOC activation drills during 2007 and followed up with additional EOC-specific training. Some of those drills and trainings were not well attended. Unfortunately during this event, DEM was not immediately able to tap into these resources. Currently there is not a cadre of individuals, County employees, and/or volunteers pre-identified and dedicated to work scheduled shifts in the EOC during activation. For the most part, County staffs do not realize there is shift-work involved and most County departments fail to understand their emergency requirements. While DEM had an adequate response to our initial request for resources from other departments, they did not come in at a consistent time. Personnel varied from day to day requiring repetitious training so information dispensed was accurate and consistent and information gathered was complete so forms could be forwarded to the State in a timely manner.

Consequence:

Dem staff was repeatedly forced to interrupt their work to explain the system and how the forms needed to be completed.

Analysis:

Time was lost doing the repeated "mini-trainings". Information was not uniform and often not correct; forms were not complete requiring re-contacting the reporting party.

Recommendations:

- ◆ Continue to work with Department Directors and Agency leads to ensure clear understandings of tasks as established by County Code.
- ◆ Arrange with the various Departments to have a cadre of employees who would respond to the EOC during their normal work hours to function as call takers.
- ◆ Identify possible "duty officer" candidates from other departments to be provided advanced EOC training.

Actions:

- ◆ DEM Manager to work with Human Resources Department to review possible changes in job descriptions that could contain emergency duties.
- ◆ Work with department heads to develop a list of people who would be released to work in the EOC during an activation.

Task:

Move 'phone-bank" of call-takers from the EOC

Issue:

It is extremely difficult to conduct normal EOC operations with call-takers in the same room.

Reference:**Summary of Issue:**

EOC seating was at a premium. No space for the operations, planning and logistics functions normally associated with an EOC activation. Too much noise.

Consequence:

Difficult to concentrate on individual functions; unable to conduct regular briefings of EOC staff so there was some disconnect in communications.

Analysis:**Recommendations:**

- ◆ Work with the State EMD to review a "regional" call center using state resources to take calls and pass information to County and EMD.
- ◆ Research availability of other facilities that could be used as a call center, such as the Mason County Transit Authority facilities.
- ◆ Ensure accommodation in the new building to allow adequate telephone access in the training room so call-takers can work from that area.
- ◆ Improvement is needed in PA system in the EOC so when a briefing is held everyone can hear what is being discussed.

Actions:

At the County level this can be remedied by planning ahead for the new facility.

Task:

Improve telephone capability for Fire District 2 (Belfair area).

Issue:

Lack of adequate phone lines within the Incident Command Post section of the station.

Reference:**Summary of Issue:**

Inadequate phone capability during emergency.

Analysis:

The fire station has the available space, but inadequate phone capability

Recommendations:

Research cost and funding sources for availability of additional phone lines. These lines would not need to be available for routine business.

Actions:

Do research into need and funding options.

Task:

Education for County departments/agencies in procedures to request resources.

Issue:

Some agencies, particularly fire districts, do not know the process for procuring resources, including personnel, from surrounding counties and through the State resources.

Reference:

Fire personnel appeared surprised at the After-Action Review when they learned that they could have asked, through the County EOC, for resources and personnel. Some asked for resources that took additional time and effort to locate and get to our County; then after the arrangements were made and the resources en route, they no longer felt they needed them.

Summary of Issue:**Analysis:****Recommendations:**

Repeated meetings with the fire response community, either through visits to individual districts or via the Chiefs/Commissioners' monthly meetings to make their personnel aware of the resources that may be available and the method of requesting those resources.

Action:

Training.

Task:

Overcoming communication challenges.

Issue:

Though we have a variety of communication resources, there are still some shortcomings.

Reference:

No "hot line" in the County EOC for faster communication between Incident Command Posts and the County EOC. Lack of SITREPS to/from the State EMD. Difficulty utilizing the local radio station due to limited coverage in several areas of the County.

Summary of Issue:

Direct telephone communication was limited between the north ICP and the EOC. Residents are not able to tune into the local radio station for vital information.

Analysis:

This is the first storm of this magnitude with such widespread damage in the north end of the County. A "hot line" phone would be beneficial. It would also be of great benefit during any activation of the EOC if the dispatch center would be able to transfer disaster-related calls directly to the EOC. The radio station is more than willing to assist, but they need the transmission capability to do so. SITREPS were inadequate, both to and from the State.

Recommendations:

Take advantage of planning in the new facility to prepared for improved telephone capability. Explore options for Dispatch to transfer disaster-related calls to the EOC to free up 911 for regular use. Improve use of SITREPs.

Actions:

Explore options for better radio transmission.

Task:

Expectations Management

Issue:

Unrealistic expectations of some citizens.

Reference:**Summary of Issue:**

Many of our citizens have moved to “the country” from far more urban regions. They forget that emergency responders are not waiting on every corner.

Analysis:**Recommendations:**

Continue with personal preparedness presentations in any possible venue.

Actions:

Promote the preparedness program offered by DEM.

Conclusions

Mason County has a large contingent of dedicated first responders who are ready and willing to assist those in need. Some work in a vacuum, not knowing the resources available nor the method to tap into those resources.

Improvement Plan

TASKS	RECOMMENDATIONS	IMPROVEMENT ACTIONS	RESPONSIBLE PARTY/AGENCY	COMPLETION DATE
EOC staffing	Develop a cadre of volunteers including County employees who would be available to work shifts as assigned.	Begin training these people in the forms to be used and "script" of responses to give to callers.	DEM – lead. Volunteers. County employees.	September 2008
Move call-taking phone bank out of EOC	To set up either a State or Regional phone bank, or a phone bank in another area.	Review locations for this phone bank. (New DEM facility will be open in the fall.)	DEM	Fall 2008
Educate departments/agencies on how to request resources	Various agencies, including fire districts, need training in how to order resources.	Series of day and evening trainings.	DEM	Fall 2008
Communication challenges	"Hot line" between EOC, ICP(s) and Dispatch. Look into improvements for radio station.	Investigate improved emergency communications.	DEM/SPD/Radio station	December 2008
Expectation management	Continue offering public education opportunities for the public.	Newspaper/radio public information.	DEM	On-going.