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# Mount St. Helens – Mount Adams Volcanic Region Coordination Plan



Coordinating efforts among public and private agencies in the event of volcanic unrest in the Mount St. Helens and Mount Adams volcanic region

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**October 2014**

**Washington Military Department, Emergency Management Division**

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## Foreword

The Washington State Emergency Management Division (WEMD) sincerely appreciates the cooperation and support from the agencies and local jurisdictions that have contributed to the development and ultimate publication of the Mount St. Helens -- Mount Adams Volcanic Region Coordination Plan.


The plan provides vital Mount St. Helens -- Mount Adams volcanic incident response information for the areas that should be most affected by a volcanic incident. This should help planning efforts for several Washington counties, private sector, multiple state and federal agencies, the Yakama Nation, and Cowlitz Indian Tribe. The plan is consistent with the National Incident Management System (NIMS) and supports and complements local response plans, the National Response Framework (NRF), and the Washington Comprehensive Emergency Management Plan (CEMP).

The Mount St. Helens -- Mount Adams Volcanic Region Coordination Plan is an important element in a coordinated effort to enhance our region's preparedness for emergencies and disasters. The plan embraces the philosophy and vision of a disaster resilient state and should empower local communities to minimize the impacts of volcanic activity on people, property, the environment, and the economy of the Pacific Northwest. The plan should be updated to reflect necessary enhancements identified in exercises and real world incidents. These updates should not require renewal of signatures. The signatures below are of key agencies, jurisdictions, and tribes engaged in a coordinated response to a Mount St. Helens -- Mount Adams volcanic or volcanic-related incident. The signatures represent an agreement to follow the process and procedures in this Coordination Plan.



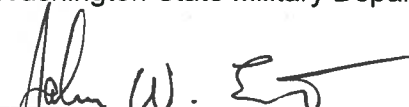
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Robert L. Ezelle  
Director  
Emergency Management Division  
Washington State Military Department




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Janine Clayton  
Forest Supervisor  
Gifford Pinchot National Forest  
United States Forest Service



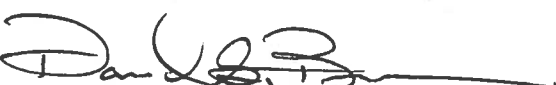
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John W. Ewert  
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Cascades Volcano Observatory  
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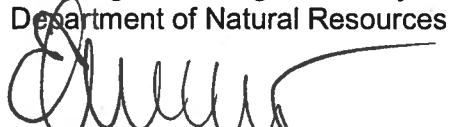
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Dave Norman  
State Geologist/Manager  
Washington Geological Survey  
Department of Natural Resources



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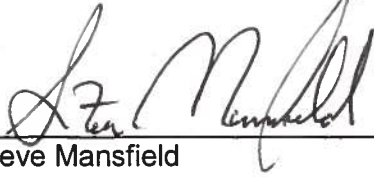
David Brown  
Sheriff  
Director, Emergency Management  
Skamania County



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Ernie Schnabler  
Director  
Emergency Management  
Cowlitz County

Mount St. Helens - Mount Adams Volcanic Region Coordination Plan



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Steve Mansfield  
Sheriff  
Director, Emergency Management  
Lewis County



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Jim Hall  
Director  
Emergency Management  
Yakima County



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Ed Powell  
Director  
Emergency Management  
Klickitat County

*Robert S Allen*



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Anna Pendergrass  
Director  
Emergency Management  
Clark County

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**Mount St. Helens – Mount Adams  
Planning Working Group**

**U.S. Federal**

U.S. Army Corps of Engineers  
Bonneville Power Administration  
Bureau of Indian Affairs  
Fish & Wildlife Service  
Federal Emergency Management Agency  
U.S. Forest Service  
U.S. Geological Survey  
National Weather Service

**Native American Tribes**

Cowlitz Tribe  
Yakama Nation

**Washington**

Washington Emergency Management Division, Military Department  
Washington Department of Natural Resources  
Washington Department of Transportation  
Washington State Patrol  
Pacific Northwest Seismic Network Seismology Laboratory  
Clark County Sheriff's Office & Regional Emergency Services Agency  
Cowlitz County Sheriff's Office & Department of Emergency Management  
Kittitas County Sheriff's Department & Department of Emergency  
Management  
Klickitat County Sheriff's Office & Department of Emergency Management  
Lewis County Sheriff's Office & Department of Emergency Management  
Pierce County Sheriff's Office & Department of Emergency Management  
Skamania County Sheriff's Office & Department of Emergency  
Management  
Yakima County Sheriff's Office & Office of Emergency Management

**Oregon**

Oregon Office of Emergency Management, Military Department  
Oregon Department of Geology and Mineral Industries  
Hood River County Department of Emergency Management  
Multnomah County Sheriff's Office & Department of Emergency  
Management  
Wasco County Sheriff's Office & Department of Emergency Management  
City of Portland Office of Emergency Management

**Private Sector**

Hancock Natural Resource Group  
PacifiCorp  
Puget Sound Energy  
Weyerhaeuser Corporation  
Williams Pipeline

**Canada**

Public Safety Canada  
Emergency Management British Columbia

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## Table of Contents

<b>INTRODUCTION</b>	<b>1</b>
<b>SITUATION, PLANNING ASSUMPTIONS, AND CONSIDERATIONS</b>	<b>1</b>
<b>CONCEPT OF OPERATIONS</b>	<b>2</b>
<b>DIRECTION AND COORDINATION</b>	<b>7</b>
<b>ROLES AND RESPONSIBILITIES</b>	<b>8</b>
<b>ACTIONS</b>	<b>13</b>
<b>ONGOING PLAN MANAGEMENT AND MAINTENANCE</b>	<b>18</b>
<b>APPENDICIES</b>	<b>19</b>
APPENDIX 1 - Acronyms	20
APPENDIX 2 - Geologic Summary	21
APPENDIX 3 - Public Information Plan	24
APPENDIX 4 - Gifford Pinchot National Forest Map	26

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# Mount St. Helens – Mount Adams Volcanic Region Coordination Plan

## INTRODUCTION

### Mission

Provide guidelines for seamless, scalable coordination between federal, tribal, state, provincial, and local agencies, as well as the private sector, during response to volcanic activity or incidents in the Mount St. Helens and Mount Adams region in southern Washington State.

### Purpose

Identify common **coordination** tasks and responsibilities, which various private sector, county, state, and federal agencies in the United States will need to accomplish before, during, and after a hazardous geologic incident at either volcano. This coordination plan supports (but does **not** supplant) each jurisdiction's and agency's comprehensive emergency management plan (CEMP) or emergency procedures.

### Scope and Applicability

This plan is applicable to all federal, tribal, state, private sector, county, and local agencies responsible for emergency preparedness and response in areas affected by potential volcanic activity or volcano-related hazards in southern Washington. It considers the possible emergencies and disasters related to such activity. These potential incidents are identified in the *Enhanced State Hazard Mitigation Plan*, as well as pertinent emergency plans, risk assessments and vulnerability analyses, mitigation plans, and scientific / technical references.

### Incident Management Activities

Management of a volcanic incident will be consistent with principles outlined in the affected jurisdiction's CEMP and the *National Incident Management System (NIMS)*. If the incident affects more than one jurisdiction, unified and / or area command(s) may be established as deemed necessary. The incident commander(s) will determine the need to establish a unified command. If necessary, the affected jurisdiction(s) may request an incident management team (IMT) to augment the incident command structure. An outline of potential incident command options is contained in Section III (Concept of Operations).

### Authorities

The federal, tribal, state, county, and local laws and ordinances governing this coordination plan are listed in the stakeholder jurisdictions' respective CEMPs or emergency procedures.

## SITUATION, PLANNING ASSUMPTIONS, and CONSIDERATIONS

This coordination plan supplements existing federal, state, county, and local CEMPs or emergency operation plans (EOPs), but does not replace them.

This coordination plan follows the structure and guidelines outlined in the *National Response Framework (NRF)*, the *Washington State CEMP*, and the *National Incident Management System (NIMS)*.

Mount St. Helens is significantly different from Mount Adams in most respects, including likelihood of volcanic or volcano-related hazardous incidents, the potential size and nature of such events, and the populations and infrastructure, which would be affected by an incident. (Detailed information can be found in each jurisdiction's hazard mitigation plans, risk assessments and vulnerability analyses, and United States Geologic Survey [USGS] [Hazards Assessments](http://pubs.er.usgs.gov/publication/ofr95497) located at: <http://pubs.er.usgs.gov/publication/ofr95497> (Mount St. Helens); and <http://pubs.er.usgs.gov/publication/ofr95492> (Mount Adams) .

The United States Forest Service (USFS) has jurisdiction over much of the volcanic fields in the Mount St. Helens and Mount Adams region and will likely be the overall lead agency during volcanic or volcano-related hazardous incidents when not in conflict with authorities of the county sheriffs or other jurisdictional authorities. Besides USFS, Washington Department of Natural Resources (DNR), tribes, and private owners have jurisdiction over significant areas within those same volcanic fields. Any sizeable incident has the potential to affect all of these areas, or any combination. In any case, the USFS will work cooperatively in managing the incident.

The overriding principle in a volcanic emergency is that preservation of human life takes precedence over protection of lands and property.

## CONCEPT of OPERATIONS

### General

This plan is based on the premise that each agency with responsibilities for preparedness, response, or recovery activities has, or will develop, individual operations plans or procedures that cover its organization and emergency operations. This plan establishes a mechanism for communicating among and coordinating with the agencies, public or private, impacted by, responding to, or recovering from a volcanic or volcano-related hazardous incidents in the Mount St. Helens and Mount Adams volcanic regions.

### USGS Volcano Alert System

The USGS Alert Notification System for volcanic activity provides the framework for the preparedness activities of local jurisdictions, tribal governments; and county, state, and federal agencies. The USGS Cascades Volcano Observatory (CVO) reports the level of activity at a U.S. volcano using the terms **Normal**, **Advisory**, **Watch** and **Warning**, see Table 1 for detailed descriptions. These levels reflect conditions at a volcano and the expected or ongoing hazardous volcanic phenomena. Even in **Normal** seismic activity, USGS CVO may issue an **Information Statement** describing events at a volcano that may be of interest to the public and media. Every effort will be made to alert the entities listed in this plan prior to the issuance of such statements. The information sharing may occur through e-mail and / or a conference call. Upon a change of an alert level or recognition of the start or cessation of volcanic activity, the USGS CVO will issue a formal Volcanic Activity Notice (VAN). The VAN consists of a formatted text message describing the current activity at the, reasons for increasing or decreasing the alert level, or significant activity within an alert level. Following a telephone call down, the VAN goes out via email and FAX to federal, state, county, local and tribal governmental agencies and the media. VAN messages are also pushed to subscribers of the USGS Volcano Notification Service (VNS). The VNS is a

subscription service available here: <http://volcanoes.usgs.gov/vns/>. The VAN is also immediately posted on the USGS CVO website.

**Normal Alert Level Activities**

A **Normal** level of background activity generally requires no special activities by stakeholders in this volcanic region beyond the usual planning activities. However, the USGS CVO may issue an **Information Statement** in response to unusual but nonthreatening events or to an increase in interest by the public or media. For situational awareness, every effort will be made to alert the entities listed in this plan prior to the issuance of information statements. The information sharing may occur through e-mail and / or a conference call.

**Advisory Alert Level Activities**

County and local jurisdictions, private sector, tribal governments; and provincial, state, and federal agencies carry out the following activities appropriate to their respective area(s) of responsibility upon receiving a Volcano **Advisory** Alert:

- Implement notifications to all affected jurisdictions, counties, tribes, agencies, and stakeholders and issue advisories in consultation with the SEOC, if activated.
- In addition to the above activities, the USGS CVO, scientist-in-charge (SIC) initiates conference calls with the USFS, WEMD, and Oregon Office of Emergency Management (OOEM) in conjunction with changed alert levels.
- Evaluate situation to determine whether their respective emergency operations centers (EOCs) / emergency coordination centers (ECCs) should be activated. Take appropriate action based on decision.
- Evaluate need for access control to areas around the volcano (i.e. “red zone”) and implement as needed.
- Identify and designate individuals who will potentially fill positions in the local / tribal unified commands, area command, State Emergency Operations Center (SEOC) and joint information center (JIC) / Joint Information System (JIS). (Consider activating and staffing the JIC / JIS in advance of other command posts / EOCs / ECCs.)
- USGS CVO will also:
  - Monitor the status of the volcano and determine the need for additional instrumentation in conjunction with the National Weather Service (NWS).
  - Issue VANs and information updates.
  - In coordination with the NWS, monitor atmospheric and hydrologic conditions around the Mount St. Helens – Mount Adams volcanic region and issue daily winds aloft / potential ashfall forecasts, as needed.

ALERT LEVEL	DESCRIPTION
<b>Normal</b>	<i>Typical background activity of a volcano in a non-eruptive state. After a change from a higher level: Volcanic activity considered to have ceased, and volcano reverted to its normal, non-eruptive state.</i>

<b>Advisory</b>	<i>Elevated unrest above known background activity. After a change from a higher level: Volcanic activity has decreased significantly but continues to be closely monitored for possible renewed increase.</i>
<b>Watch</b>	<i>Heightened / escalating unrest with increased potential for eruptive activity (timeframe variable) <u>OR</u> a minor eruption underway that poses limited hazards.</i>
<b>Warning</b>	<i>Highly hazardous eruption underway or imminent.</i>

**Table 1 – USGS Alert-Notification System for Volcanic Activity, to inform people on the ground about a volcano’s status. It is issued in conjunction with the Aviation Color Code for hazards to aviation.**

USFS will:

- Evaluate facility, road and area closures needed to provide for employee and public safety. Road and area closures to be coordinated with Sheriff’s Offices, the State Patrol and other officials in the affected county or counties.
- Evaluate need for air space controls and work with Federal Aviation Administration (FAA) to implement as needed.
- Authorize placement of additional monitoring instrumentation as needed.
- Prepare to assume role of incident command and coordinate unified command of field operations.
- Identify appropriate location for an emergency operations center (EOC).

WEMD will:

- In consultation with lead agencies (USFS, USGS CVO, Washington State Department of Transportation [WSDOT], etc.) determine if and when the Mount St Helens - Mount Adams Multi-Agency Coordination Group (MACG) should be activated. Take appropriate actions based on this decision.
- Assist federal, state and county officials, as needed, with the dissemination and broadcast of alert level notifications and updates.
- Collaborate with USFS and USGS CVO to determine the appropriate location and establish a JIC / JIS based on the level of need for incident information by the public and news media.
- Alert liaison(s) of possible deployment to jurisdictional or agency EOCs.

**Watch Alert Level Activities**

Upon receiving a Volcano **Watch** Alert, federal land managers; local, county and state jurisdictions; private sector; and tribal governments will:

- Continue activities initiated under **Advisory** Alert Level Activities.
- Establish communications with first responder agencies within and outside the incident / unified command (neighboring jurisdictions, SEOC, and JIC / JIS).
- Review this plan and pertinent operations plans.

- Initiate life safety operations as indicated.

Provincial, state and federal agencies will carry out the following activities appropriate to their respective area(s) of responsibility upon receiving a Volcano **Watch** Alert:

- Continue activities initiated under **Advisory** Alert Level Activities.
- Establish local / tribal unified commands, if not already done.
- Collaborate with USGS CVO and USFS to determine the appropriate location and establish a JIC / JIS based on the level of need for incident information by the public and news media.
- Assign PIOs to the JIC / JIS, as needed or requested.
- Coordinate support requirements for USGS CVO field observatory.
- Provide technical representatives to the MACG, when requested.
- Contribute operational staff to field command posts, as required.
- Assign liaison(s) to local unified commands upon request.
- Coordinate pertinent aspects of joint public education programs via the JIC / JIS.
- Notify and consult with USFS, SEOC, OECC, and local jurisdictions and tribal governments, if appropriate prior to changing alert level.
- Monitor atmospheric and hydrologic conditions around the affected volcanic region and issue required winds aloft potential ashfall forecasts for potentially affected areas as needed.
- Evaluate need for access control and implement as needed.
- Evaluate need for air space controls and implement as needed.

### **Warning Alert Level Activities**

Upon receiving a Volcano **Warning** Alert:

County and local jurisdictions, private sector, and tribal governments will:

- Fully mobilize all assigned personnel and implement all or part of their local emergency response plan in coordination with the Mount St. Helens - Mount Adams Volcanic Region Coordination Plan.
- Evaluate the need for and consider requesting state mobilization and possible activation of an incident management team (IMT).

Provincial, state and federal agencies will carry out the following activities appropriate to their respective area(s) of responsibility upon receiving a Volcano **Warning** Alert:

- Continually broadcast coordinated emergency public information.
- Provide technical representatives to the MACG.
- Provide liaison(s) to the unified and area command posts, upon request.
- Contribute operational staff to field command posts, as required.
- Collaborate with USFS and USGS CVO to determine the appropriate location and establish a JIC / JIS based on the level of need for incident information by the public and

news media.

- Participate in the JIS or provide a representative to the unified JIC.

Washington Emergency Management Division (WEMD) will:

- Fully mobilize all assigned personnel and implement all or part of the Mount St. Helens - Mount Adams Coordination Plan.
- Activate SEOC to appropriate phase if not already done.
- Coordinate interstate mutual aid.
- Coordinate observed and reported activities with Volcanic Ash Advisory Center, Aviation Weather Center, and the Center Weather Service Unit at the Auburn Air Route Traffic Control Center (ARTCC).
- Ensure that FAA and other entities are issuing timely airspace alert warning of restricted or prohibited space and that federal and local jurisdictions are coordinating use of affected airspace by aircraft involved in emergency response.
- Draft the Governor's Proclamation of Emergency.

USGS CVO will:

- Mobilize necessary personnel and implement all or part of the Mount St. Helens – Mount Adams Volcanic Region Coordination Plan.
- Monitor atmospheric and hydrologic conditions around the volcanoes and issue winds aloft forecast as needed.
- Monitor the status of seismic, geologic, and hydrologic activity in the hazard area.
- Continue to issue VANS, Information Statements, alert-level notifications, and updates about volcanic activity.
- Provide technical representatives to the MACG.
- In coordination with NWS, issue ashfall advisories, flash flood or lahar alerts and flood alerts, as needed.

NWS will:

- Mobilize all necessary personnel and implement all or part of the Mount St. Helens– Mount Adams Volcanic Region Coordination Plan.
- Dispatch NWS forecaster to unified and area command posts, when requested.
- Issue ashfall advisories and flash floods watches / warnings and updates.
- Provide technical representatives to the MACG.

USFS will:

- Implement its emergency response plan and mobilize all necessary personnel to facilitate implementation in coordination with the Mount St. Helens – Mount Adams Volcanic Region Coordination Plan.
- Collaborate with WEMD and USGS CVO to determine the appropriate location and establish a JIC / JIS based on the level of need for incident information by the public and news media and coordinate adequate staffing, if not already done.



- Based on USGS CVO assessment of volcanic conditions, provide any needed facility and road and area closures to provide for employee and public safety. Implementation to be coordinated with state and county law enforcement in the potentially affected volcanic region.
- Initiate unified command and arrange for liaisons and subject matter technical experts, if not already done.

## Direction and Coordination

### Multi-Agency Coordinating Group (MACG)

“The SEOC MACG will consist of appropriate officials from agencies represented in the volcano hazard work group.” The SEOC MACG will assess the situation and oversee state agency actions in support of the area command or unified commands. The MACG makes recommendations to the Governor on actions for consideration. The MACG is comprised of:

- The Governor's Chief of Staff
- The Governor's Press Secretary
- The Adjutant General
- Director, Emergency Management Division
- Disaster Manager
- USFS, Gifford Pinchot National Forest representative(s)
- Representatives of USGS CVO and Department of Natural Resources (DNR), Division of Geology and Earth Resources (DGER)
- Affected jurisdiction representatives
- Affected tribal representatives
- Private sector representative(s)
- Others as required based on nature of incident

### Area Command

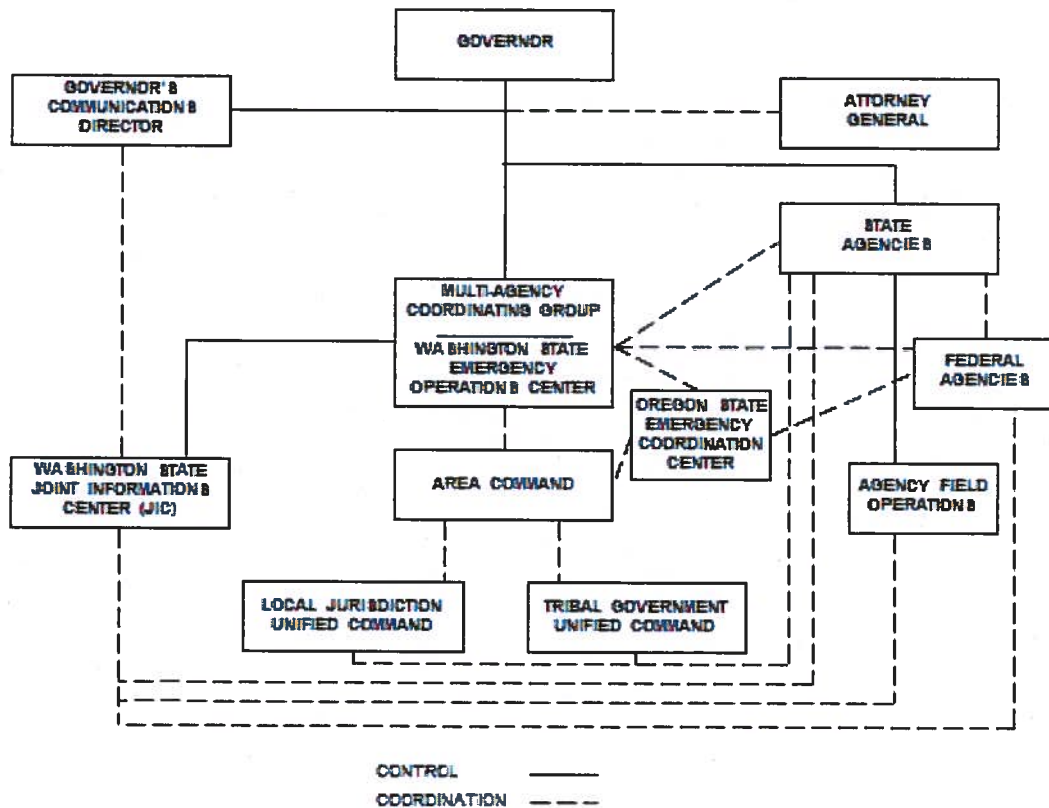
Area command may be established when an incident affects more than one jurisdiction. The area command oversees management of a very large, multi-jurisdictional incident with multiple unified commands assigned to manage the incident for their jurisdiction.

### Unified Command

The unified commands will consist of the incident commanders from various jurisdictions and response agencies within the county responding to the incident. Each unified command will establish its incident objectives and produce one incident action plan (IAP) for all responding jurisdictions and agencies in the county.

SEOC MACG	AREA COMMAND
<i>Provide policy for state activities.</i>	<i>Provide agency or jurisdictional authority. Operate under the control of agencies and jurisdictions comprising area command.</i>
<i>Resolve issues.</i>	<i>Ensure clear understanding of agency expectations, intentions, and constraints.</i>
<i>Ensure resource allocation.</i>	<i>Establish critical resource use priorities.</i>
<i>Facilitate logistics support and resource tracking.</i>	<i>Ensure IMT personnel assignments and organizations are appropriate</i>
<i>Gather and provide information.</i>	<i>Maintain contact with officials in charge, and other agencies and groups.</i>
<i>Implement multiagency coordination entity decisions.</i>	<i>Coordinate the demobilization or reassignment of resources.</i>

**Table 2 – SEOC MACG and Area Command Functions**



**Figure 1 – Direction and Control Structure**

**ROLES and RESPONSIBILITIES**

**Interagency Organizations**

The overriding principle in a volcanic emergency is preservation of human life. This principle takes precedence over protection of lands and property.

Each agency and organization will provide resources and administrative support during a response and act in accordance with the basic principles of the ICS.

#### Federal, Tribal, State, Provincial and / or County / Local Jurisdictional Authorities, and Private Organizations

In close coordination with affected agencies, businesses / corporations, and organizations, protect life and property by, among other actions, closing high-risk areas to public access or evacuating local residents from hazard zones when indicated.

#### Mount St. Helens – Mount Adams Planning Working Group:

- Is an ad hoc organization which develops the coordination plan for volcanic incidents.
- Is made up of members from each jurisdiction, agency, and / or private business with responsibilities or pertinent knowledge.
- Will meet on a regular basis until the plan is completed and approved, and then on an “as needed” basis.
- Will serve as subject matter experts in the update of this plan.
- Will provide expertise to WEMD for the development, delivery, and evaluation of training and exercising of this plan.
- Has no operational role.

### **Agencies**

#### Emergency Management Divisions and Offices

Volcano status information during a crisis would normally be transmitted from the USGS CVO to USFS, SEOC, and OECC, and from the SEOC to the DEMs of impacted jurisdictions and tribal governments.

The DEMs would then relay the information to local stakeholders and response agencies. As needed, the county DEMs would:

- Implement CEMPs, maintain and activate jurisdictional EOCs / ECCs.
- Provide local public warnings and information.
- Activate the emergency alert system (EAS) in coordination with SEOC Alert and Warning Center.
- Assist incident commander(s):
  - Participate in establishing a unified command structure.
  - Provide local PIOs for a JIC.
  - Assist the USGS CVO in establishing a field volcano observatory when requested.
  - Provide for the welfare of citizens impacted by a volcanic event.
  - Initiate and coordinate local declarations of emergency or requests for assistance from state and / or federal agencies.
  - Develop crisis response plans for respective jurisdictions.
  - Provide information and training on volcanic-hazard response to emergency managers and the public.
  - Assess volcanic risk.

## Washington State Emergency Management Division (WEMD)

- Coordinate the activities of the planning working group, to include an annual plan review.
- Coordinate an update of the plan every five years.
- Coordinate and conduct training and exercises as needed to test the initial and future publications of the Mount St. Helens – Mount Adams Coordination Plan.
- Issue alerts and warnings to local jurisdictions and tribal governments through the 24-hour SEOC Alert and Warning Center and notify specific state and federal agencies as indicated.
- Activate and staff the SEOC to appropriate phase.
- The SEOC will:
  - Work with other entities to coordinate resources to support local, tribal and state agency response.
  - Coordinate the acquisition and distribution of resources when local resources have been exhausted.
  - Act as the central point of contact for local and tribal government requests for specific state and federal disaster related assets and services.
  - Coordinate with federal and local jurisdictions and assist with the activation of the JIC and / or participate in jurisdictional JIC(s), as indicated. Request and coordinate federal disaster assistance necessary to preserve lives and property.
  - Coordinate with federal and local jurisdictions and assist with the activation of needed aircraft, communications and logistical support to assist with immediate response, rescue, recovery, and damage assessment.
  - Request and coordinate recovery assistance necessary to restore damaged areas to pre-disaster condition.
  - Deploy state liaison officers to affected jurisdictions.

## DNR, Division of Geology and Earth Resources (DGER)

DGER's mission is to collect, develop, use, distribute and preserve geologic information. This information is used to support and promote the safety, health and welfare of the populace and to protect both the environment and economy of Washington. DGER is mandated by RCW 43.92.900 and RCW43.92.025 to serve as the state's geological survey, providing information and assessment of geologic hazards and events to government agencies and people within the state. In support of this plan, DGER will (as resources are available):

- Provide technical representative(s) to the SEOC.
- Provide a liaison to the USGS CVO.
- Provide a representative to the JIC.
- Provide liaisons to unified command posts.
- Contribute operational staff to field missions as required.

### Oregon Office of Emergency Management

- Activate Oregon Emergency Coordination Center (OECC) to appropriate phase.
- Engage subject matter experts.
- Coordinate state assistance as requested by affected counties .

### Federal Emergency Management Agency (FEMA)

FEMA's roles and responsibilities during a disaster and or an emergency are governed by the *Robert T. Stafford Disaster Assistance and Emergency Relief Act* (Public Law 93-288, as amended), 42 USC 5121, et seq., and the *National Response Framework* (NRF). FEMA's primary responsibility is to coordinate and deliver assistance and support to state and local governments when requested. This request is typically through the Governor in the form of a request for a Presidential Declaration of Disaster. A volcanic eruption would be handled in much the same way as any natural disaster.

FEMA will:

- Coordinate federal level emergency planning, management, mitigation and assistance functions of federal agencies in support of state, tribal and local efforts.
- Provide and maintain federal and state NAWAS warning circuits.
- Provide FEMA liaison to planning working group and SEOC.
- Prior to a Presidential Declaration, coordinate support for federal agencies.
- Following a Presidential Declaration:
  - Establish a Joint Field Office.
  - Participate in the JIC, if operational. If not, coordinate public information activities for all federal agencies and disseminate to news media.
  - Coordinate state requests for federal or military assistance.
  - Coordinate federal assistance operations.

### United States Geologic Survey - Cascades Volcano Observatory (USGS CVO)

The USGS has delegated Federal responsibility to provide notification and warnings for earthquakes, volcanoes, and landslides to emergency management authorities and affected population. The USGS CVO seeks to lessen the harmful impacts of volcanic activity by monitoring active and potentially active volcanoes, assessing their hazards, responding to volcanic crises and conducting research on how volcanoes work.

USGS CVO will:

- Monitor volcanic unrest, track its development, forecast eruptions and evaluate the likely hazards.
- Deploy staff and monitoring equipment during times of volcanic crisis.
- Establish a temporary volcano observatory, if necessary, in a location which provides the USGS hazard-assessment team ready access to the volcano and provides the affected emergency managers ready access to the hazard-assessment team.

- Participate in the JIC.
- Provide technical advisors to the SEOC and unified / area command.

#### USFS, Gifford Pinchot National Forest

The USFS manages public lands on and around both Mount St. Helens and Mount Adams.

- Authorities include land management responsibility related to use, management and protection of these lands.
- Protection of life, property and national forest resources, including serving as the incident command in the unified area command structure.
- Control of access and use of national forest is regulated by the USFS in coordination with local law enforcement, adjoining landowners, and agencies.

#### National Weather Service (NWS), Portland Forecast Office, Seattle Forecast Office, Pendleton Forecast Office, and Spokane Forecast Office

The NWS forecast offices, in consultation with USGS CVO, provides the SEOC the following types of information in areas with a potential volcanic hazard.

- Flood forecasts.
- Flood, debris flow, or lahar warnings.
- Flood watch over NAWAS.
- Weather radio (when available).
- NOAA weather wire service.
- Volcanic ash-plume forecasts for possible effects to aviation and surface activities in coordination with the USGS CVO.
- Tests NAWAS for disseminating weather or flood-related volcanic hazard information.
- Radar ash-plume information to the volcano emergency center (VEC) / ECC director and USGS CVO, i.e. plume height, tracking location, as requested.

#### Emergency Management British Columbia (EMBC)

- Receive information from the Geological Survey of Canada or the USGS.
- Disseminate timely and accurate information to all federal and provincial agencies as indicated.
- Provide timely and accurate information to those communities which may be at risk, issue warnings.
- Coordinate the response to and recovery from volcanic eruptions.
- Manage the media, in relation to the provincial government involvement.

## Public Safety Canada (PSC)

Under the federal *Emergency Management Act*, the minister of public safety is responsible for coordinating the government of Canada's response to an emergency. If an emergency escalates beyond their capabilities, provinces or territories can seek assistance from the federal government. Public Safety Canada coordinates a whole-of-government response, provides support to the provinces / territories, if requested, and disseminates situational awareness to partners.

Public Safety Canada receives notification of volcanic events from EMBC and / or Public Safety Canada's Government Operations Centre. Notification procedures are outlined in the *Interagency Volcanic Event Notification Plan – Western Canada*.

The Government Operations Centre provides strategic level coordination on behalf of the federal government of Canada in response to an emerging or occurring event affecting the national interest. It provides 24/7 monitoring and reporting, national level situational awareness, warning products and integrated risk assessments as well as national level planning and whole-of-government response management.

Upon receipt of confirmation, Public Safety Canada disseminates information to regional, provincial and federal partners.

If required, Public Safety Canada will provide support to EMBC, if requested, and, if the situation escalates beyond provincial capacity, will coordinate a whole-of-government response.

## ACTIONS

### **Preparedness Activities**

#### Planning Working Group

The planning working group shall meet as needed to:

- Coordinate, write, revise and exercise this coordination plan.
- Coordinate after-action reviews of any volcano or volcanic related incident and recommend changes to the plan as necessary.
- Coordinate education and outreach such as Volcano Awareness Month.
- Conduct an after action review (AAR) post-incident of the coordination plan.
- Establish and maintain effective lines of communication between all affected jurisdictions and agencies.
- Establish relationships that can be leveraged during incidents.

#### County / Local Jurisdictions, Agencies, and Private Organizations

- Develop or review and update emergency response plans for dealing with volcanic activity.
- Provide orientation sessions on updated plans and organizational structure per

jurisdictional responsibility.

- Update personnel lists annually and provide updated lists to working group members.
- Update call-up procedures for all staff.
- Test communications systems and assess communication needs.

## **Response Activities**

### All Affected County and Local Jurisdictions, Agencies, Private Organizations, and Planning Working Group

- Initiate incident command and deploy resources.
- Join the USFS unified command structure when established.
- Activate the EOC/ECC to appropriate phase, if not already done.
- Establish lines of communication with the SEOC MACG.
- Assign PIOs to the JIC when requested and as resources allow.
- Evaluate the need for volcano area access control in coordination with USFS (i.e. “red zone”) and implement as needed.
- Assist in the dissemination of emergency information and warning.
- Support evacuation and shelter operations when indicated.
- Conduct surveys on resource availability and reaffirm prior commitments.
- Begin procurement of needed resources.
- Continue coordination with other affected jurisdictions / agencies.
- Coordinate support requirements for USGS CVO field observatory.
- Fully mobilize all assigned personnel and implement all or part of the Mount St. Helens – Mount Adams Volcanic Region Coordination Plan.
- Implement CEMPs and appropriate response and support plans.
- Continually broadcast emergency public information.
- Direct and control emergency response activities in accordance with NIMS in each jurisdiction. Consider requesting state fire mobilization and possible activation of an IMT.
- Coordinate resources with OECC and WEMD as appropriate.

## **Recovery Activities**

### All Affected Local Jurisdictions, Agencies, Private Organizations and Planning Working Group

The dynamic nature of volcanic activity will make determining safety conditions difficult. Volcanic activity may subside only to increase a day, an hour, a year later, and subside again. This fluctuation may last for days, months, or years, making recovery operations inside the affected area difficult. USGS CVO is the lead agency in determining safety conditions in the Mount St. Helens – Mount Adams volcanic region and will coordinate necessary activities with



the SEOC, OECC, and other stakeholders. Rescue and recovery efforts may be ongoing or initiated during all stages of volcanic activity or impacts.

In addition to the functions previously noted, the SEOC may:

- Coordinate recovery and reconstructive efforts.
- Assist incident commander(s) in demobilization.
- Continue to coordinate the collection and dissemination of disaster information including informing the public about hazardous conditions, health, sanitation and welfare problems, and need for volunteers.
- Determine when to transition SEOC operations to a Joint Field Office (JFO) and / or scale back SEOC operations as appropriate.

LOCAL & TRIBAL GOVERNMENT	POINT OF CONTACT
Clark County / Sheriff	Regional Emergency Services Agency (CRESA) 710 W 13 <sup>th</sup> St., Vancouver, WA 98660 360-696-4461 (24-hour)
Cowlitz County / Sheriff	Department of Emergency Management Hall of Justice, 312 SW 1 <sup>st</sup> Ave, Kelso, WA 98626 360-577-3198 (24-hour)
Cowlitz Indian Tribe	1055 – 9 <sup>th</sup> Ave, Suite B, (P.O. Box 2547), Longview, WA 98632 360-577-8140
Hood River County / Sheriff	Department of Emergency Management 601 State St, Hood River, OR 97031 541-386-1213
Klickitat County / Sheriff	Department of Emergency Management 199 Industrial Way, Goldendale, WA 98620 509-773-4547 (24-hour)
Lewis County / Sheriff	Department of Emergency Management 345 W Main St, Chehalis, WA 98532 360-740-1105 (24-hour)
Skamania County / Sheriff	Department of Emergency Management 200 Vancouver Ave, Stevenson, WA 98648 509-427-9490 (24-hour)
Wasco County / Sheriff	Department of Emergency Management 511 Washington St, Suite 102, The Dalles, OR 97058 541-506-2580
Yakima County / Sheriff	Yakima Valley Emergency Management 126 N 2 <sup>nd</sup> St, Yakima, WA 98901 509-574-2500 (24-hour)

Yakama Nation	401 Fort Road, (P.O. Box 151), Toppenish, WA 509-314-1317 (24-hour) 509-834-5340 (alternate)
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**Table 3 – Local & Tribal Government Points of Contact**

Local and tribal governments are responsible for the overall direction and control of emergency activities undertaken within their jurisdictional boundaries, through use of ICS. Each local or tribal entity may activate an EOC / ECC located at the address listed in their respective CEMPs or equivalent.

STATE AGENCY	POINT OF CONTACT
Washington State Military Department, Emergency Management Division	Building 20, Camp Murray, WA 98430 800-258-5990 (24-hour)
Washington State Department of Natural Resources, Division of Geology and Earth Resources	Natural Resources Building 1111 Washington St SE, Olympia, WA 98501 360-902-1450
Washington State Department of Transportation	Office of Emergency Management 310 Maple Park Ave, Olympia, WA 98504 360-705-7973
Pacific Northwest Seismic Network Seismology Laboratory	University of Washington Department of Earth and Space Sciences P.O. Box 351310, Seattle, WA 98195 206-543-7010
Oregon Office of Emergency Management	3225 State St, (P.O. Box 14370), Salem, OR 97309 503-378-2911
Oregon Emergency Response System	800-452-0311
Oregon Department of Geology and Mineral Industries	800 Ne Oregon St, Suite 965, Portland, OR 97232 (971) 673-1555

**Table 4 – State Government Points of Contact**

The Governor, the Governor’s Cabinet and the EOCs of Oregon and Washington are responsible for the conduct of emergency functions and will exercise overall direction and control of state government operations.

FEDERAL AGENCY	POINT OF CONTACT
United States Geological Survey, Cascades Volcano Observatory	1300 SE Cardinal Court, Building 10, Vancouver, WA 98683 360-993-8900; Duty Scientist: 360-601-1628
United States Forest Service, Gifford Pinchot National Forest	10600 NE 51 <sup>st</sup> Circle, Vancouver, WA 98682 Dispatch / Duty Officer: 360-891-5140 (24 hour number)
United States Forest Service, Mount St. Helens National Volcanic Monument Headquarters	42218 NE Yale Bridge Rd, Amboy, WA 98601 360-449-7800; Monument Manager (c) 360-253-1328

United States Forest Service, Mount Adams Ranger District	2455 Hwy 141, Trout Lake, WA 98650 509-395-3400
United States Forest Service, Cowlitz Valley Ranger District	10024 US Hwy 12, (PO Box 670), Randle, WA 98377 360-497-1100
National Weather Service, Portland Weather Forecast Office	5241 NE 122 <sup>nd</sup> Ave, Portland, OR 97230 503-261-9246
National Weather Service, Seattle Forecast Office	7600 Sandpoint Way NE, Seattle, WA 98115 206-526-6087
United States Army Corps of Engineers, Portland District	EOC; 333 First Ave (P.O. Box 2946), Portland, OR 97208503-808-4402
Bonneville Power Administration	5411 NE Hwy 99, Vancouver, WA 98663 360-418-8271
U. S. Department of Interior, Fish and Wildlife	9-1-1 or WSP
U. S. Bureau of Indian Affairs; Yakama Agency	401 Fort Rd (PO Box 632), Toppenish, WA 98948 509-865-2255
Federal Aviation Administration, Northwest Mountain Region	1601 Lind Ave SW, Renton, WA 98057 425-227-2650

**Table 5 – Federal Government Points of Contact**

USGS CVO will conduct field operations, monitoring and providing advice to other agencies regarding the status of the volcanoes. USGS CVO may locate a field observatory within an appropriate county. USFS, Mount St. Helens National Volcanic Monument, and the Mount Adams Ranger District are responsible for management of lands within the Gifford Pinchot National Forest. NWS issues flash flood and lahar warnings; and provides meteorological forecasts, advisories and reports in support of volcanic incident operations.

PRIVATE ORGANIZATIONS	POINT OF CONTACT
Hancock Timber Resource Group	17700 SE Mill Plain Blvd, Suite 180, Vancouver WA 98683; 360-260-4567
PacifiCorp	825 NE Multnomah, LCT 1500, Portland OR 97232; 503-307-2512 (24 hour)
Puget Sound Energy	ECC; 13635 NE 80 <sup>th</sup> St, Redmond WA 98052; 425-462-3500 (24 hour); FAX: 425-453-4450
Weyerhaeuser Corporation	Comm. Center; 3401 Industrial Way, Longview WA 98632; 360-636-6504 (24 hour); 360-636-6595 (alt.) (24 hour)
Williams Northwest Pipeline Company	156 Meier Rd W, Winlock WA 98596; 360-785-4101
Burlington Northern Santa Fe (BNSF) Railroad	1310 W 11th St, Vancouver, WA (360) 418-6303

**Table 6 – Private Sector Points of Contact**

The private organizations will implement their emergency operations plans as appropriate to the degree of impact to their operations, communicate with local and state agencies, and conduct internal and external communications as identified by their type of business.

## ONGOING PLAN MANAGEMENT and MAINTENANCE

### **Coordination**

WEMD is responsible for coordinating periodic and special updates with members of the planning working group.

### **Plan Maintenance**

The planning working group will normally convene once annually, either in person or by conference call, in order to review any suggested changes or updates to this plan. As stated elsewhere in this plan, the planning working group will always convene in the aftermath of a significant incident at or near either Mount St. Helens or Mount Adams for an after action review (AAR), which may also result in changes to the plan. WEMD will coordinate with the planning working group the update of the Mount St. Helens – Mount Adams Coordination Plan every five years.

### **Training and Exercises**

WEMD is the lead agency for the coordination of training and exercising of this plan and will seek the expertise of the planning working group for the development, delivery, and evaluation, as indicated.

### **NIMS Integration**

All members of the planning working group are responsible for insuring that the plan reflects the most current doctrine outlined in the National Incident Management System (NIMS).

**APPENDICIES**

APPENDIX 1 – Acronyms

APPENDIX 2 – Geologic Summary

APPENDIX 3 – Joint Information Center Plan

APPENDIX 4 – Gifford Pinchot National Forest Map

## APPENDIX 1 - Acronyms

AAR	After action review
CEMP	Comprehensive emergency management plan
CVO	Cascades Volcano Observatory
DEM	Department or division of emergency management
DGER	Division of Geology and Earth Resources
DNR	Department of Natural Resources
DOGAMI	Department of Geology and Mineral Industries (Oregon)
DOI	Department of Interior
EA	External Affairs
EAS	Emergency alert system
ECC	Emergency coordination center
EMBC	Emergency Management British Columbia
EMD	Emergency management division
EOC	Emergency operations center
EOP	Emergency operations plan
EPA	Environmental Protection Agency
ESF	Emergency support function
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Administration
HIRA	Hazard identification and risk assessment
HIVA	Hazard identification and vulnerability analysis
ICS	Incident command system
IIO	Incident information officer
IMT	Incident management team
JIC	Joint information center
JFO	Joint field office
MACC	Multi-agency coordination center
MACG	Multi-agency coordination group
NAWAS	National Warning System
NIMS	National incident management system
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
OECC	Oregon Emergency Coordination Center
OOEM	Oregon Office of Emergency Management
PAO	Public affairs officer
PIO	Public information officer
PSC	Public Safety Canada
PSE	Puget Sound Energy
SEOC	State emergency operations center
THIRA	Threat and hazard identification and risk assessment
UC	Unified command
USACE	US Army Corps of Engineers
USGS	United States Geological Survey
WEMD	Washington Emergency Management Division

## **APPENDIX 2 - Geologic Summary**

### Differences among the volcanoes

The Mount St. Helens - Mount Adams Volcanic Region Coordination Plan concerns the response to reactivation of either of the two principal active volcanoes in southwest Washington as well as to possible volcanic activity in the extensive area lying between them that host fields of many small volcanoes. Significant differences exist in the expected eruptive behaviors of the volcanoes in the area and in the hazards they will present to the public before, during, and after eruptions commence.

Mount St. Helens is the most frequently active and most explosive volcano in the Cascade Range. The configuration of the volcano was radically altered in 1980 and the current configuration of the cone focuses the majority of flow hazards (pyroclastic flows and lahars) on the north side of the volcano and the North Fork Toutle River valley. The most likely site of eruptive activity is the existing vent area at the lava dome in the 1980 crater. However, we know from the history of the volcano that other vent locations on the surrounding flanks are also possible. Owing to its explosive nature, ash fall is a common and widespread hazard from Mount St. Helens. Ash is carried by the wind and thus can affect any quadrant from the volcano, but is statistically most likely to travel eastward. Mount St. Helens is the best monitored volcano in the Cascades, and we are likely to have days to weeks of precursory activity detected by the network of monitoring instruments before renewed activity begins. Details of the volcanic hazards at Mount St. Helens can be found in USGS Open-File Report 95-497, <http://pubs.er.usgs.gov/publication/ofr95497>.

Mount Adams is not as active as Mount St. Helens and does not tend to be a particularly explosive volcano, erupting primarily lava flows that do not travel large distances, but far-traveled debris avalanches and lahars pose significant hazards. There is an estimated 1.5–3 cubic kilometers of weak altered rock perched high within the cone that has generated debris avalanches and lahars in the recent geologic past. These have ranged from small events that affected areas close to the volcano, but also a few that inundated the Trout Lake Lowland. Similar and much larger events have also occurred at Mount Rainier (Osceola and Electron Mudflows) and at other Cascade volcanoes. Lahars resulting from large volume debris avalanches are dangerous because of their ability to travel great distances at high speeds and to sometimes occur without warning in the absence of eruptive activity. In the case of Mount Adams, these flows could easily reach the Columbia River via either the Klickitat or White Salmon drainages or flow far down the Lewis and Cispus River valleys. The USGS would be most concerned about this particular hazard if it appeared that the volcano was building toward a summit eruption. Most eruptions from Mount Adams in the recent geologic past have been from vents in mid- to lower flank areas that are less likely to trigger large-volume debris avalanches from the volcano flanks. If a summit or high-flank eruption were to generate lava flows, the substantial ice and snow mantle on the volcano provides a ready source of water, which if melted swiftly could also generate lahars. As of 2014, USGS-PNSN monitoring at Mount Adams consists of a single seismic station located approximately 11 km WSW of the summit and other stations much farther away. With this single station, scientists currently lack a good baseline of seismic behavior of the volcano and will have less ability to detect the earliest signs of unrest. There will be additional uncertainty determining the likely vent area for any eruption. As resources permit, the USGS will improve the monitoring situation at this volcano. Details of the volcano hazards at Mount Adams and the nearby volcanic fields can be found in USGS Open-File Report 95-492 (<http://pubs.usgs.gov/of/1995/0492/>) and in USGS Bulletin 2161 (<http://pubs.er.usgs.gov/publication/b2161>).



Unlike the large stratocones of Mount St. Helens and Mount Adams which erupt repeatedly over long time periods, the clusters of small volcanoes that define the Mount Adams and Indian Heaven volcanic fields typically erupt for only a brief period. Future eruptions would likely build a new volcano in the fields. The small volcanoes that compose the volcanic fields typically erupt basalt lava that build cinder cones and produce lava flows, some of which have flowed 10 miles or more. In the recent geologic past, lava flows from the Indian Heaven and Mount Adams volcanic fields have flowed nearly to the Columbia River, some earlier ones dammed the river. As is shown on the Mount Adams volcano hazards map ([http://pubs.usgs.gov/of/1995/0492/pdf/of95-492\\_plate1.pdf](http://pubs.usgs.gov/of/1995/0492/pdf/of95-492_plate1.pdf)), areas outside the named volcanic fields may also host basalt volcanoes. This includes areas along the along the Columbia River. Although hazards associated with eruption in the volcanic fields tend to be localized, lava flows can produce big changes in stream courses, overwhelm any infrastructure they encounter, and become a nuisance attraction that creates an enduring public safety situation as people flock to the area of activity. As of 2014, USGS-PNSN seismic monitoring is sparse in the area east and southeast of Mount St. Helens, extending beyond Mount Adams and we are thus unlikely to detect the earliest signs of unrest or be able to locate seismicity with accuracy adequate to determine the likely vent area for an eruption in this area. As resources permit, the USGS will improve the monitoring situation in this area.

#### Duration of eruption unrest and activity:

Monitored volcanoes generally give signs of re-awakening (volcanic unrest) before an eruption because it takes time for magma to move from its storage area, several miles beneath the volcano, to the surface. As magma moves towards the surface, it breaks open a pathway, which produces earthquakes; it goes from higher to lower pressures, resulting in the release of volcanic gases; and as the amount of magma decreases in the storage area and temporarily pools at shallower levels it deforms Earth's surface. All these processes can be monitored through a variety of techniques, although none can be measured directly.

Volcanic events often differ from other natural hazards because the duration of unrest and eruptive activity are generally longer. Although volcanic unrest prior to eruptions can be only hours, these short timescales most frequently occur at volcanoes like Mount St. Helens that have erupted in the recent past (years to decades). If adequate monitoring systems are in place at volcanoes like Mount Adams and the nearby volcanic fields, we anticipate that we may have several days to weeks of warning before an eruption. Hazardous events such as small steam and ash explosions, and debris avalanches and lahars, especially at Mount Adams, may occur before an eruption begins. Eruption durations are also quite variable, ranging from hours to decades. At present, when an eruption begins scientists cannot foretell when it will end or whether the activity will be intermittent or continuous. Worldwide, the average eruption duration is about two months, although the most recent eruptions in the Cascades have been of greater duration (Mount St. Helens, Washington: intermittent activity from 1980 to 1986 and continuous activity from late 2004 to early 2008; Lassen Peak, California: intermittent activity from 1914 to 1917).

#### Incident Notification:

Notification of a change in volcano alert level is done through a Volcanic Activity Notice (VAN) from the USGS CVO. The USGS CVO issues a Daily Update for any Cascade volcano at an elevated alert level.

A change in notification from **Normal** to **Advisory** will occur when one or several monitoring



parameters (earthquakes, deformation or volcanic gas) are clearly above known background levels. Typically, scientists are alerted to a change in the state of the volcano because of an increase in the number or size of earthquakes over a relatively short time frame (many hundreds over a few days to a few weeks), but satellite-based techniques might detect a change in deformation or gas output before earthquakes are detected. It is important to realize that a change from **Normal** to **Advisory** does not mean that the volcano will erupt, but that scientists will be watching the volcano carefully to see whether the increased activity parameters hold steady, increase, or revert back to “normal”. Mount St. Helens has only been monitored for a few decades, and the monitoring at Mount Adams and the volcanic fields, accomplished by the regional seismic network since the early 1980s, is such that there is only a sketchy understanding of what constitutes normal activity. In all cases, this is a very short time period compared to their active life spans and there may be many types of transient activity that scientists have not yet observed. Because eruptions in the Cascades are relatively infrequent, a change from **Normal** to **Advisory** will likely generate substantial interest from the media and public.

A change in notification from **Advisory** to **Watch** will occur when activity continues to increase and several monitoring parameters are well above background. Scientists will be more concerned that an eruption is likely, but in many cases will not be able to state with certainty if or when an eruption will occur. An increase in the frequency and magnitude of earthquakes, accompanied by deformation and significant quantities of volcanic gas, or changes in the relative abundance of different gases would likely prompt a change from **Advisory** to **Watch**. Such activity would likely be accompanied by steam-and-ash emissions that could occur without warning, and at Mount Adams small to moderate size lahars could be generated by a variety of mechanisms that would be hazardous in close-in communities. Unlike a National Weather Service Watch, there is no time indication as to when eruptive activity will occur.

A change in notification from **Watch** to **Warning** will occur when highly hazardous activity accompanying the unrest or volcanic eruption is believed imminent or is underway. An example would be rapid escalation of one or more of the monitoring parameters or the appearance of a new type of signal that has been associated with eruptive activity. Because volcanic activity is difficult to forecast, scientists are often unable to raise the alert level to **Warning** until eruptive activity has begun. In these cases, there may be no additional time to evacuate individuals or communities that are close to the volcano.

The USGS Alert-Notification System for Volcanic Activity was designed to work during escalation of activity as well as de-escalation of activity. It is important to note that restless volcanoes are inherently capricious and that many volcanoes erupt more than once during an eruptive cycle. So as long as a volcano is at an alert level above **Normal**, it is important to be vigilant.

## **APPENDIX 3 - Public Information Plan**

### **Mission**

Provide a system for coordinating timely and accurate incident information to the public and media; external affairs activities; and for media access.

### **Goal**

Responding organizations will establish a technically proficient Joint Information System (JIS) that capitalizes on the expertise and acknowledges the unique and complementary roles played by USGS CVO, USFS and WEMD. The goal of the JIS is to ensure that a continuous supply of timely, technically accurate information is provided to the media, public and collaborating local, state and federal agencies by:

- Engaging in a scalable, multi-agency response that is responsive to the ebb and flow of volcanic activity and the level of public/media interest.
- Utilizing current technology (e.g., social media, twitter, web, email, texting and conference calls) to provide real-time, up-to-date volcano and incident response information.

### **Operating Concepts**

- During the early signs of volcanic or volcano-related hazardous activity in the Mount St. Helens – Mount Adams volcanic region, discussions among USGS CVO, USFS, and WEMD will review individual roles and work to streamline collaborative efforts.
- Dissemination of media and public information will be built upon clearly defined roles:
  - USGS will be lead for eruption status and hazards information.
  - USFS Incident Management Team (IMT)/Joint Operations Center (JOC) will be lead for incident response, volcano access and closure information.
  - WEMD will be lead for information and coordination between local, county, state agencies and responders.
- During the initial response, local, state and federal agencies will coordinate and disseminate information from their “home office” locations.
- The goal is to have individual agencies speak to their specific statutory responsibilities within a coordinated JIS framework and defined information roles.
- As the situation dictates, a Joint Information Center/Call Center will be established in coordination with the Incident Management Team/Joint Operations Center and managed through the use of qualified information staffing as needed.
- Press conferences and interviews will be scheduled to meet public and media information needs and timeframes. Locations may be established in Vancouver/Portland and to serve media gathered at the volcano.
- The Joint Information Center/Call Center operation should be scalable and should be capable of adapting to the changing size and scope of public and media interest.

### **Joint Information System (JIS)**

A Joint Information System is proposed as the default structure to commence the Mount St. Helens - Mount Adams public information operations because the incident may affect a large geographic area and multiple jurisdictions. In this construct, lead response organizations will operate from their home offices, and coordinate information prior to dissemination to the extent possible.

The USFS will call for activating a JIS after consulting with other lead response organizations as volcanic activity and/or public and media interest dictates.

Because of volcanic activity could occur in some or all of the counties, potential physical sites for Joint Information Center(s) should be identified in each of the affected counties – Clark, Cowlitz, Klickitat, Skamania, and Yakima – prior to the onset of significant volcanic activity that would impact those locations.

An assessment of the SEOC should be made to determine adequacy of facilities and systems for operation of a JIC. A SEOC JIC might be necessary if the event expands into a statewide emergency.

### **Joint Information Center (JIC)**

The USFS will call for activating a JIC after consulting with other lead response organizations as volcanic activity and/or public and media interest dictates. Staffing will come from USFS dispatched resources to be augmented with additional resources from collaborating agencies based on the information needs of agency partners and the nature and size of the incident.

Federal, state and local public information officers will operate from a site as close as possible to the MACC, with adequate size and appropriate space, sufficient power, communication, sufficient parking, and security.

Equipment requirements should include but not be limited to: telephone lines, wireless internet, cellular phone service, capacity for multiple computers, printers and copiers; press conference space, video equipment, television monitors, office furniture and supplies.

Structure and operational schedule of the JIC will be based on the situation, and will be scalable to meet the needs of the situation. Plans and procedures for SEOC Emergency Support Function 15 – External Affairs will be used as a starting point for organizing the leadership, operational structure, and procedures of the JIC.

### **References:**

- Emergency Support Function 15 Annex F to DHS #15 External Affairs
- Emergency Support Function 15 Annex to Washington State CEMP
- State Emergency Operations Center Emergency Support Function 15 Section Book

# APPENDIX 4 - Gifford Pinchot National Forest Map

