OREGON OFFICE OF EMERGENCY MANAGEMENT

2017 State of Oregon

Threat and Hazard Identification and Risk Assessment (THIRA)

The THIRA follows a four-step process, as described in Comprehensive Preparedness Guide 201, Second Edition:

1. Identify the Threats and Hazards of Concern. Based on a combination of past experience, forecasting, expert judgment, and other available resources, communities identify a list of the threats and hazards of primary concern to the community.

2. Give the Threats and Hazards Context. Communities describe the threats and hazards of concern, showing how they may affect the community.

3. Establish Capability Targets. Communities assess each threat and hazard in context to develop a specific capability target for each relevant core capability. The capability target defines success for the capability.

4. Apply the Results. Communities estimate the required resources per core capability to meet the capability targets.

The THIRA helps communities determine what they need to prepare for, what resources they require, and what their current gaps are. Communities can use this information to help them efficiently build and sustain preparedness capabilities.

If you have questions regarding the 2017 THIRA, or the THIRA process, please contact:

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THIRA: Threats and Hazards

Earthquake

Category: Natural   **Type:** Earthquake   **Terrorism:** No

Context Description:

Cascadia Subduction Zone (CSZ) Earthquake February 6, 2013, 9:41 a.m. PST On the morning of Wednesday, February 6 (winter conditions and generally not "tourist season," but during school and business hours), a 9.0 magnitude earthquake occurs on the Cascadia Subduction Zone (CSZ) off the coast of Oregon. While the epicenter is approximately 50 miles west of Florence, Oregon, most of the previously locked plate boundary off of Oregon moves during this event. This earthquake produces intense ground shaking for more than four minutes, subsidence, liquefaction, and landslides. A tsunami is also produced. Multiple fires occur as a result. The number of fires is exacerbated by drought caused by climate change in the Pacific Northwest. Damage to structures results from the energy of shaking, and in many places due amplified shaking and ground displacement due to liquefaction, and loss of soil-bearing capacity, particularly in areas of liquefaction. Damage is also produced by landslides. Damaged structures include buildings, roads, bridges, and other infrastructure. Many people (approximately 700) are killed directly by this event, and many others (approximately 12,000) are injured or trapped. Aftershocks, some quite large, continue for months after the initial earthquake.

Explosive Devices

Category: Human caused   **Type:** Explosive Devices   **Terrorism:** Yes

Context Description:

Improvised Explosive Device Events
December 5, 2013, 4:25 p.m. PST
Late on the afternoon of Thursday, December 5, the Governor and other Oregon elected officials are gathered with several hundred members of the general public in the Salem Capitol Rotunda for a ceremony marking the beginning of the holiday season. This event is to include the annual Capitol Building tree-lighting. A nearby university choir is singing when several improvised explosive devices (IEDs) detonate, filling the rotunda with black smoke. The explosions immediately kill an estimated 20 people. Dozens more are injured. Among the injured are the Governor and several other state elected officials. Other participants are overcome by the smoke, and also require hospitalization. On the same afternoon, Eugene is hosting a large holiday event in the downtown area. An estimated 1,000 people are gathered in a large city park and in surrounding areas. A band on a mobile stage has attracted several hundred listeners. Surrounding the stage and scattered throughout the large park are vendors who have come to provide food and items for sale to the visitors. During a break in the music, the crowd hears many explosions from around the event occurring one after another. Forty people are initially killed, and over 150 more are injured.

Cyber Attack

Category: Human caused   **Type:** Cyber Attack   **Terrorism:** Yes

Context Description:

On June 30th, at the end of the state fiscal year, government employees reported inability to use the network to retrieve or save files, communicate via email, or access internet. Most, if not all, telephones within government facilities are generally inoperable, as they are unable to place or receive calls from outside their office buildings (for VOIP systems). Data files on network drives are inaccessible, resulting in the inability to access necessary information for government function. Members of the general public continue to request government services in order to conduct business (ex. pay bills, obtain information, gain permits). Police and fire departments are also affected, to include dispatch and 9-11 capabilities. Initial reports detail that the cyber incident is being experienced by city, county, tribal, and state governments throughout Oregon to where mutual aid capabilities for cyber security are limited. At the same time, reports surface regarding large hospital and healthcare provider computer systems in the state–operations, patient files, and records–have been attacked and locked from access by cyber criminals in an effort to obtain a ransom payment for the "return" of control of those systems.

THIRA: Capability Targets and Resource Requirements

Planning | Capability Target

Review and update 100% of plans, as appropriate (e.g. state, regional, and local), encompassing all five mission areas (e.g. prevention, protection, mitigation, response, and recovery) every two years to ensure plans are accurate, identify critical objectives/proposed actions, the sequence and scope of proposed actions required to achieve the objectives, and detailed procedures/checklists.

Scenario: All

Planning | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Incident Management	EOC Management Support Team	I	41
Incident Management	EOC Management Support Team	II	46
Incident Management	EOC Management Support Team	III	57
Incident Management	EOC Management Support Team	IV	51
Incident Management	EOC Operations Section Chief	I	38
Incident Management	EOC Operations Section Chief	II	41
Incident Management	EOC Operations Section Chief	III	55
Incident Management	Finance/Administration Section Chief (Type 3)	III	53
Incident Management	Incident Commander (IC) (Type 3)	III	59
Incident Management	Incident Management Team	I	39
Incident Management	Incident Management Team	II	43
Incident Management	Incident Management Team	III	55
Incident Management	Incident Management Team	IV	52
Incident Management	Liaison Officer (Type 3)	III	65
Incident Management	Operations Section Chief (Type 3)	III	58

Category	Resource	Type	Number Required
Incident Management	Planning Section Chief (Type 3)	III	61
Medical and Public Health	Receiving, Staging, and Storing (RSS) Task Force	I	53

Other Resources

Category	Resource	Number Required
Other	Plans and Training Coordinator	2
Incident Management	Emergency Manager	2
Other	Business Continuity Planner	7
Other	Structural Engineer	2
Other	Project Manager	3
Incident Management	Communications Leader	2
Incident Management	Safety Officer	1
Incident Management	Public Information Officer	1
Incident Management	Planning Section Staff (general)	2
Geographic Info Systems and Info Technology	GIS Specialist	7
Incident Management	Preliminary Damage Assessment Team	14
Other	Environmental Officers	5
Other	USACE Contractor (general)	12
Other	Welder (general)	35
Public Works	Plumber (general)	45
Public Works	Electrician (general)	45
Other	Bridge Inspector	7
Law Enforcement Operations	Portable Morgue	2

Category	Resource	Number Required
Law Enforcement Operations	Medical Examiner	20
Incident Management	Staging Area Manager	3
Incident Management	Volunteers and Donations Management Personnel	2
Other	Building Inspector	70
Incident Management	Logistics Planner	3
Incident Management	Planner (general)	10

Public Information and Warning | Capability Target

Provide timely and accurate information to the general public and 100% of appropriate levels of government (e.g. local, state, and/or federal) and government agencies within the first 24 hours of event using normal or alternate systems and methods of warning and information delivery; public information officers activate a Joint Information Center and staff around the clock in support of the event.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Public Information and Warning | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Public Works	Electronic Boards, Arrow Boards	I	141
Public Works	Electronic Boards, Arrow Boards	III	112
Public Works	Electronic Boards, Arrow Boards	IV	112
Medical and Public Health	Mass Dispensing, Public Information Consultant	I	48
Medical and Public Health	Public Health Information Technology Specialist	I	48
Incident Management	Public Information Officer (Type 3)	III	70

Other Resources

Category	Resource	Number Required
Incident Management	Amateur Radio Technician	5
Incident Management	Public Information Assistants	5
Incident Management	Dispatcher	2
Incident Management	Public Health PIO	3
Other	Government Emergency Telecommunications Service (GETS) Cards	20
Other	Community Alert System	2
Other	Multilingual Community Engagement Liaisons	50
Other	Mobile Joint Information Center	10

Operational Coordination | Capability Target

Within the first 2 hours, successfully stand up operations and coordination centers to ensure effective response coordination with sufficiently trained main and backup personnel to fill 100% of operation center positions for around-the-clock operations for extended periods of time.

Scenario: Scenario: 9.0 Cascadia Subduction Zone earthquake event

Operational Coordination | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Incident Management	Safety Officer (Type 3)	III	46
Incident Management	Individual Assistance Disaster Assessment Team Leader	IV	32
Incident Management	Individual Assistance Disaster Assessment Team Leader	III	42
Incident Management	Individual Assistance Disaster Assessment Team Leader	II	36
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	I	23
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	II	23
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	III	27
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	IV	29
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	I	23
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	II	22
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	III	26
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	IV	26
Fire/Hazardous Materials	Area Command Team, Firefighting	I	27
Incident Management	Communications Support Team (CAP)	I	28
Incident Management	Communications Support Team (CAP)	II	27

Category	Resource	Type	Number Required
Incident Management	Communications Support Team (CAP)	III	30
Incident Management	Communications Support Team (CAP)	IV	31
Emergency Medical Services	Emergency Medical Task Force Leader	I	44
Incident Management	EOC Finance / Administration Section Chief / Coordinator	I	28
Incident Management	EOC Finance / Administration Section Chief / Coordinator	II	28
Incident Management	EOC Finance / Administration Section Chief / Coordinator	III	35
Incident Management	EOC Management Support Team	I	24
Incident Management	EOC Management Support Team	II	24
Incident Management	EOC Management Support Team	III	40
Incident Management	EOC Management Support Team	IV	28
Incident Management	EOC Operations Section Chief	I	24
Incident Management	EOC Operations Section Chief	II	24
Incident Management	EOC Operations Section Chief	III	41
Incident Management	Evacuation Coordination Team	I	24
Incident Management	Evacuation Coordination Team	II	26
Incident Management	Evacuation Coordination Team	III	39
Incident Management	Finance/Administration Section Chief (Type 3)	III	42
Fire/Hazardous Materials	Fire Officer I/II (Company/Unit)	I	26
Fire/Hazardous Materials	Fire Officer III/IV (Command)	I	26
Fire/Hazardous Materials	HazMat Entry Team	I	26
Fire/Hazardous Materials	HazMat Entry Team	II	26
Fire/Hazardous Materials	HazMat Entry Team	III	38

Category	Resource	Type	Number Required
Fire/Hazardous Materials	HazMat Officer	I	36
Incident Management	Incident Commander (IC) (Type 3)	III	42
Incident Management	Incident Management Team	I	25
Incident Management	Incident Management Team	II	25
Incident Management	Incident Management Team	III	38
Incident Management	Incident Management Team	IV	26
Animal Emergency Response	Incident Management Team Animal Protection	I	30
Animal Emergency Response	Incident Management Team Animal Protection	II	32
Animal Emergency Response	Incident Management Team Animal Protection	III	35
Fire/Hazardous Materials	Incident Management Team, Firefighting	I	25
Fire/Hazardous Materials	Incident Management Team, Firefighting	II	27
Fire/Hazardous Materials	Incident Management Team, Firefighting	III	30
Fire/Hazardous Materials	Incident Management Team, Firefighting	IV	25
Fire/Hazardous Materials	Incident Management Team, Firefighting	V	26
Incident Management	Individual Assistance Disaster Assessment Team	I	35
Fire/Hazardous Materials	Interagency Buying Team, Firefighting	I	31
Incident Management	Liaison Officer (Type 3)	III	36
Incident Management	Logistics Section Chief (Type 3)	III	41
Public Works	Maintenance and Repair Team - Light Equipment Public Works	I	37
Medical and Public Health	Medical Unit Team Leader	I	32
Medical and Public Health	Mobile Field Medical Team	II	35
Medical and Public Health	Mobile Field Medical Team	I	32

Category	Resource	Type	Number Required
Incident Management	Operations Section Chief (Type 3)	III	44
Incident Management	Planning Section Chief (Type 3)	III	43
Incident Management	Public Information Officer (Type 3)	III	43
Fire/Hazardous Materials	Public Safety Telecommunicator I/II	I	37
Incident Management	Rapid Needs Assessment Team	I	45
Medical and Public Health	Receiving Staging & Storage (RSS) Task Force Leader	I	36
Medical and Public Health	Receiving Staging & Storage (RSS), Operations Team Leader	I	34
Fire/Hazardous Materials	Strike Team, Engine (Fire)	I	37
Fire/Hazardous Materials	Strike Team, Engine (Fire)	II	39
Fire/Hazardous Materials	Strike Team, Engine (Fire)	III	45
Fire/Hazardous Materials	Strike Team, Engine (Fire)	IV	36
Search and Rescue	Urban Search and Rescue (US&R) Task Force Leader	I	38
Search and Rescue	Urban Search and Rescue (US&R) Task Force Leader	II	41

Other Resources

Category	Resource	Number Required
Incident Management	Mobile EOC	5
Incident Management	Situation Unit Leader	16
Incident Management	Resource Unit Leader	16
Incident Management	Emergency Management Personnel (general)	10
Other	Inter-operable Radios	153

Forensics and Attribution | Capability Target

Routinely and collaboratively provide daily resources, expertise, and information to law enforcement (to include federal officials) to enhance their ability to conduct forensic analyses in an overall effort to detect, investigate (to include physical evidence collection and analysis), respond to, and prevent initial and/or further criminal and terrorist activity. In the event of a threat, imminent attack, and/or initial attack immediately begin to conduct forensic analyses and attribute threat/attack (to include means and methods of terrorism) to their source.

Scenario: Multiple IED attack

Forensics and Attribution | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Medical and Public Health	Epidemiology Team Leader	I	49

Other Resources

Category	Resource	Number Required
Law Enforcement Operations	Additional law enforcement personnel (general)	279
Law Enforcement Operations	Forensic response vehicle/trailer	1
Fire/Hazardous Materials	Chemical testing equipment (general)	3

Intelligence and Information Sharing | Capability Target

In an effort to prevent and protect from initial and/or subsequent acts of terrorism, routinely operate within the intelligence cycle (e.g. planning and direction, collection, processing, analysis and production, and dissemination) and ensure standard processes and procedures are in place to share/receive timely, accurate, and actionable information with/from appropriate levels of government and stakeholders (e.g. federal, state, local, tribal, private sector entities).

Scenario: Multiple improvised explosive device (IED) attack

Intelligence and Information Sharing | Resource Requirements

NIMS-typed Resources

Other Resources

Category	Resource	Number Required
Law Enforcement Operations	Law Enforcement Officers	275
Law Enforcement Operations	Computers with software for sequencing information	5
Incident Management	CBRNE Subject Matter Expert	5
Other	Confidential Level Security Clearance	50

Interdiction and Disruption | Capability Target

In order to prevent and protect against acts of terrorism, law enforcement agencies routinely coordinate with all levels of law enforcement agencies (e.g. federal, state, tribal, county, city) as appropriate, and achieve/maintain a capacity to intercept and disrupt all movements of persons seeking to carry out those attacks and associated materials. Law enforcement agencies maintain a capacity to fully support possible requests to assist with interdiction and disruption efforts.

Scenario: Multiple improvised explosive device (IED) attack

Interdiction and Disruption | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	I	15
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	II	12
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	III	14
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	IV	17
Law Enforcement Operations	Law Enforcement Observation Aircraft (Fixed-Wing)	I	13
Law Enforcement Operations	Law Enforcement Observation Aircraft (Fixed-Wing)	II	16
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	I	20
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	II	26
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	III	31
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	IV	30
Law Enforcement Operations	Mobile Field Force Law Enforcement (Crowd Control Teams)	I	17
Law Enforcement Operations	Mobile Field Force Law Enforcement (Crowd Control Teams)	II	20
Law Enforcement Operations	Mobile Field Force Law Enforcement (Crowd Control Teams)	III	40
Law Enforcement Operations	SWAT/Tactical Teams	I	16
Law Enforcement Operations	SWAT/Tactical Teams	II	16

Category	Resource	Type	Number Required
Law Enforcement Operations	SWAT/Tactical Teams	III	20
Law Enforcement Operations	SWAT/Tactical Teams	IV	24

Other Resources

Category	Resource	Number Required
Law Enforcement Operations	Night Vision: Tactical Team Equipment	25
Incident Management	Just-In-Time Trainings	2
Incident Management	Mobile Command Post	1
Law Enforcement Operations	CBRNE PPE sets	15
Law Enforcement Operations	CBRNE Detection Equipment	1

Screening, Search, and Detection | Capability Target

To prevent and protect from an act of terrorism, routinely conduct screening, search, and detection activities (to include systematic examinations and assessments, sensor technologies, or physical investigations and intelligence) at 100% of at-risk facilities and events (e.g. public gatherings, critical infrastructure nodes, government buildings, etc.) necessary to identify, discover, locate, and ultimately prevent 100% of persons and materials attempting to conduct IED incidents from being successful.

Scenario: Multiple improvised explosive device (IED) attack

Screening, Search, and Detection | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Law Enforcement Operations	Bomb Squad/Explosives Team	I	18
Law Enforcement Operations	Bomb Squad/Explosives Team	II	17
Law Enforcement Operations	Bomb Squad/Explosives Team	III	21
Medical and Public Health	Epidemiology (Surveillance and Investigation)	I	16
Medical and Public Health	Epidemiology (Surveillance and Investigation)	II	19
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	I	16
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	II	14
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	III	17
Law Enforcement Operations	Law Enforcement Aviation - Helicopters - Patrol & Surveillance	IV	19
Law Enforcement Operations	Public Safety Dive Team	I	14
Law Enforcement Operations	Public Safety Dive Team	II	12
Law Enforcement Operations	Public Safety Dive Team	III	19
Law Enforcement Operations	Public Safety Dive Team	IV	14

Other Resources

Category	Resource	Number Required
Law Enforcement Operations	Law Enforcement Personnel	275
Other	Inter-operable Communication Systems	5
Law Enforcement Operations	Security Personnel for Critical Infrastructure Sites	25
Law Enforcement Operations	CBRNE Identification Equipment	5
Law Enforcement Operations	Metal Detectors	2
Law Enforcement Operations	Jersey Barriers	15
Law Enforcement Operations	Patrol and Surveillance Team	2
Law Enforcement Operations	Screening Tools	1

Access Control and Identity Verification | Capability Target

Within 24 hours following a catastrophic Cascadia event, be able to implement and maintain adequate protocols to verify identity and authorize, grant, or deny physical and/or cyber access to authorized personnel (e.g. first responders, primary and support agency personnel, credentialed volunteers, etc.) to specific locations in/surrounding the impact area (e.g. designated disaster zone boundaries, staging areas, critical infrastructure, hazardous locations, etc.), information, and networks.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Access Control and Identity Verification | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	I	56
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	II	41
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	III	41
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	IV	39
Law Enforcement Operations	Mobile Field Force Law Enforcement (Crowd Control Teams)	I	33
Law Enforcement Operations	Mobile Field Force Law Enforcement (Crowd Control Teams)	II	34
Law Enforcement Operations	Mobile Field Force Law Enforcement (Crowd Control Teams)	III	39

Other Resources

Category	Resource	Number Required
Other	6' Perimeter Fencing (1 foot)	1000
Geographic Info Systems and Info Technology	Technology Personnel (general)	3
Law Enforcement Operations	Security Personnel (general)	25
Other	Digital Badge Production system	5
Other	CERT members	10

Cybersecurity | Capability Target

Capability Target: Protect against 100% of malicious activity meant to inflict damage, provide unauthorized use to, and/or exploit any and all electronic communications systems, services, networks, and the information contained within. Immediately detect malicious cyber activity, and within 2 hours following cyber-attack isolate and remove 100% of malware/ransomware, and re-establish 100% of pre-incident functionality (to include recovery of data files) for all affected facilities within jurisdiction.

Scenario: Cyber attack of jurisdiction's government

Cybersecurity | Resource Requirements

NIMS-typed Resources

N/A

Other Resources

Category	Resource	Number Required
Other	Cyber Emergency Response Team	1
Other	IT manager	2
Other	Systems Administrator	2
Other	Cybersecurity subject matter experts (general)	5

Physical Protective Measures | Capability Target

Within 48 hours of a Cascadia event, identify and prioritize 100% of critical facilities and systems across all levels (state, local, private/PNP facilities, etc.), and ensure implementation and maintenance of risk-informed physical protections, countermeasures, and policies as necessary for response and recovery.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Physical Protective Measures | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Fire/Hazardous Materials	Plans Examiner I/II	I	45

Other Resources

Category	Resource	Number Required
Law Enforcement Operations	Security Specialists/Subject Matter Experts	5
Geographic Info Systems and Info Technology	GIS personnel (general)	5
Other	Building inspector (general)	15

Risk Management for Protection Programs and Activities | Capability Target

Based on lessons learned from prevented/actual terrorist events, be able to identify and prioritize 100% of sites/events needing increased physical protective measures (ex. security personnel, physical barriers, etc.) to reduce future vulnerability.

Scenario: Multiple improvised explosive device (IED) attack

Risk Management for Protection Programs and Activities | Resource Requirements

NIMS-typed Resources

NA

Other Resources

Category	Resource	Number Required
Law Enforcement Operations	Law Enforcement Officers	10
Other	Jersey Barriers	10

Supply Chain Integrity and Security | Capability Target

Establish a process to routinely assess the security and resilience , and implement measures to increase the security and resilience, for 100% of supply chain nodes and transit methods for critical supplies/resources (ex. food, potable water, pharmaceuticals, blood products, and building supplies) to ensure their availability after an incident. Within 72 hour following an incident, secure 100% of impacted and unsecured key supply chain transportation nodes throughout the impact area to facilitate incident stabilization and recovery.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Supply Chain Integrity and Security | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Law Enforcement Operations	Law Enforcement Patrol Team (Strike Team)	II	5

Other Resources

Category	Resource	Number Required
Other	Fuel (gallons)	1000
Public Works	Generators	10
Other	CIKR Training	10
Incident Management	Logistics Team	2

Community Resilience | Capability Target

In order to accomplish mitigation and improve resilience, utilize integrated and collaborative planning bodies (ex. Interagency Hazard Mitigation Team, etc.) to maintain, improve, and implement Oregon's risk-informed mitigation plan. Ensure 100% of applicable Oregon cities and counties have hazard mitigation plans aligned with the state's hazard loss reduction strategy. Provide and/or participate in regular training and technical assistance for local governments on risk assessment and mitigation.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Community Resilience | Resource Requirements

NIMS-typed Resources

Other Resources

Category	Resource	Number Required
Other	Planners in support of community resilience (general)	10

Long-term Vulnerability Reduction | Capability Target

Within four years, be able to show a measurable decrease in the long-term vulnerability of Oregonians and their critical infrastructure/systems to a Cascadia event.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Long-term Vulnerability Reduction | Resource Requirements

NIMS-typed Resources

Other Resources

Category	Resource	Number Required
Other	Long-Term Recovery Plans	46
Other	Structural engineers	10
Other	Support staff (planning, subject-matter experts, community outreach)	7

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Risk and Disaster Resilience Assessment | Capability Target

Participate in the development of an objective method (refined from existing statewide and regional risk assessments). Complete regular risk assessments for determining risk and resilience that provides 100% of levels of government, government agencies, Tribes, and private/PNPs with the information needed to take informed actions that reduce risk and increase resilience; further develop the ability of this methodology to account for cyber and socioeconomic interests.

Scenario: All

Risk and Disaster Resilience Assessment | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Animal Emergency Response	Risk Assessment Specialist	I	55

Other Resources

Category	Resource	Number Required
Other	Funding Stream for Assessment Development	1
Other	Planning support (planners, subject matter experts)	10

Threats and Hazard Identification | Capability Target

Identify threats and hazards, to include risks from Cascadia event, through risk assessments conducted on a five-year cycle; refine methodology in alignment with national standards.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Threats and Hazard Identification | Resource Requirements

NIMS-typed Resources

Other Resources

Category	Resource	Number Required
Other	Central Knowledge Repository	1
Other	Planning support (planners, subject matter experts, etc.)	5

Critical Transportation | Capability Target

In response to effects to critical transportation, initiate the following within 20-24 hours and complete within 7 days: prioritize restoration of lifeline roads and rail lines based on operational needs, damage and safety assessments; expand roadway debris removal operations beyond lifeline routes to include other prioritized routes; establish transportation priorities for open routes; establish coastal ocean transportation system while roads, bridges, and air travel are out of service; identify and mobilize heavy equipment and personnel needed for repairs; institute temporary vehicle restrictions; open additional roadways to support evacuation of both people and animals; re-establish airports and enact flight restrictions (coastal priorities); initiate repair of ports and docks.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Critical Transportation | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Emergency Medical Services	Air Ambulance (Fixed-Wing)	I	32
Emergency Medical Services	Air Ambulance (Fixed-Wing)	II	24
Emergency Medical Services	Air Ambulance (Fixed-Wing)	III	23
Emergency Medical Services	Air Ambulance (Fixed-Wing)	IV	24
Emergency Medical Services	Air Ambulance (Rotary-Wing)	I	34
Emergency Medical Services	Air Ambulance (Rotary-Wing)	II	28
Emergency Medical Services	Air Ambulance (Rotary-Wing)	III	29
Emergency Medical Services	Air Ambulance (Rotary-Wing)	IV	27
Emergency Medical Services	Air Medical Transport Manager or Administrator	I	23
Emergency Medical Services	Air Medical Transport Mechanic	I	26
Emergency Medical Services	Air Medical Transport Paramedic	I	33
Emergency Medical Services	Air Medical Transport Physician	I	28
Emergency Medical Services	Air Medical Transport Pilot (Rotorcraft)	I	30
Emergency Medical Services	Air Medical Transport Registered Nurse	I	36

Category	Resource	Type	Number Required
Incident Management	Airborne Transport Team (Fixed-Wing)	I	21
Incident Management	Airborne Transport Team (Fixed-Wing)	II	22
Incident Management	Airborne Transport Team (Fixed-Wing)	III	25
Incident Management	Airborne Transport Team (Fixed-Wing)	IV	27
Emergency Medical Services	Ambulance Strike Team	I	32
Emergency Medical Services	Ambulance Strike Team	II	27
Emergency Medical Services	Ambulance Strike Team	III	33
Emergency Medical Services	Ambulance Strike Team	IV	29
Emergency Medical Services	Ambulance Strike Team / Ambulance Task Force Leader	I	28
Emergency Medical Services	Ambulance Task Force	I	29
Emergency Medical Services	Ambulances (Ground)	I	46
Emergency Medical Services	Ambulances (Ground)	II	43
Emergency Medical Services	Ambulances (Ground)	III	44
Emergency Medical Services	Ambulances (Ground)	IV	42
Public Works	Buses	I	41
Public Works	Buses	II	41
Public Works	Buses	III	44
Public Works	Buses	IV	42
Fire/Hazardous Materials	Crew Transport (Firefighting Crew)	I	32
Fire/Hazardous Materials	Crew Transport (Firefighting Crew)	II	33
Fire/Hazardous Materials	Crew Transport (Firefighting Crew)	III	41
Public Works	Electronic Boards, Arrow Boards	I	57

Category	Resource	Type	Number Required
Public Works	Electronic Boards, Arrow Boards	III	55
Public Works	Electronic Boards, Arrow Boards	IV	47
Public Works	Electronic Boards, Variable Message Signs (VMS)	I	57
Public Works	Electronic Boards, Variable Message Signs (VMS)	III	47
Public Works	Electronic Boards, Variable Message Signs (VMS)	IV	45
Emergency Medical Services	Emergency Vehicle Operator	I	37
Emergency Medical Services	Emergency Vehicle Operator - Heavy	I	30
Fire/Hazardous Materials	Emergency Vehicle Technician	I	37
Incident Management	Evacuation Coordination Team	I	34
Incident Management	Evacuation Coordination Team	II	34
Incident Management	Evacuation Coordination Team	III	36
Incident Management	Evacuation Liaison Team (ELT)	I	35
Fire/Hazardous Materials	Fuel Tender (Gasoline, Diesel, AvGas, aka Gas Tanker)	I	29
Fire/Hazardous Materials	Fuel Tender (Gasoline, Diesel, AvGas, aka Gas Tanker)	II	34
Fire/Hazardous Materials	Helicopters, Firefighting	I	23
Fire/Hazardous Materials	Helicopters, Firefighting	II	23
Fire/Hazardous Materials	Helicopters, Firefighting	III	28
Fire/Hazardous Materials	Helicopters, Firefighting	IV	29
Emergency Medical Services	Mass Casualty Support Vehicle	I	18
Emergency Medical Services	Mass Casualty Support Vehicle	II	18
Emergency Medical Services	Mass Casualty Support Vehicle	III	21
Emergency Medical Services	Multi-Patient Medical Transport Vehicle	I	20

Category	Resource	Type	Number Required
Emergency Medical Services	Multi-Patient Medical Transport Vehicle	II	19
Emergency Medical Services	Multi-Patient Medical Transport Vehicle	III	22
Public Works	Snow Blower (Chassis Mounted)	I	18
Public Works	Snow Blower (Chassis Mounted)	II	19
Public Works	Snow Blower (Chassis Mounted)	III	18
Public Works	Snow Blower (Loader Mounted)	I	18
Public Works	Snow Blower (Loader Mounted)	II	19
Public Works	Snow Blower (Loader Mounted)	III	18
Public Works	Snow Blower (Loader Mounted)	IV	23

Other Resources

Category	Resource	Number Required
Other	Aerial Drone	5
Other	Bicycle Disaster Response Team	1
Other	Bridge Engineers	10
Other	Building Inspectors	10
Public Works	Bulldozers	5
Other	Damage Assessment Teams (general)	5
Public Works	Dump Trucks	5
Other	Floating Bridge (Ribbon Bridge)	5
Other	Fuel Bladders	5
Other	Funding Stream - Critical Route Planning	1
Other	Funding Stream - Evacuation Planning	1

Category	Resource	Number Required
Public Works	Road Graders	5
Public Works	Snow Plow	1
Public Works	Track Hoes	5
Public Works	Transportation SMEs and Planners	5

Environmental Response - Health and Safety | Capability Target

Within 48 hours, assess 100% of facilities with extremely hazardous substances and contain those significantly affecting the environment, population, or responders.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Environmental Response - Health and Safety | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Animal Emergency Response	Animal Disease Epidemiologist	I	32
Medical and Public Health	Environmental Health	I	40
Medical and Public Health	Environmental Health	II	30
Medical and Public Health	Environmental Health Generalist	I	25
Medical and Public Health	Environmental Health Specialist	I	43
Medical and Public Health	Epidemiologist	I	26
Medical and Public Health	Epidemiology Interviewer	I	49
Medical and Public Health	Epidemiology Team Leader	I	26
Fire/Hazardous Materials	Foam Tender, Firefighting	I	45
Fire/Hazardous Materials	Foam Tender, Firefighting	II	45
Fire/Hazardous Materials	HazMat Safety Officer	I	39
Fire/Hazardous Materials	HazMat Technician	I	61
Medical and Public Health	Isolation and Quarantine	I	27
Medical and Public Health	Isolation and Quarantine	II	28
Medical and Public Health	Mass Dispensing Consultant Team	I	30
Medical and Public Health	Mass Dispensing Consultant Team	II	29
Medical and Public Health	Public Health and Medical Team in a Shelter	I	40

Category	Resource	Type	Number Required
Medical and Public Health	Public Health Disaster Assessor	I	28
Fire/Hazardous Materials	U.S. Coast Guard National Strike Force	n/a	30
Animal Emergency Response	Veterinarian	I	31
Fire/Hazardous Materials	Wildland Firefighter	I	49
Fire/Hazardous Materials	Wildland Firefighter	II	52

Other Resources

Category	Resource	Number Required
Incident Management	Veterinary Emergency Response Team	5
Law Enforcement Operations	Scene Security Personnel	100

Fatality Management Services | Capability Target

Within 0-72 hours, initiate and ultimately establish fatality management services (to include identification, documentation, and storage of deceased) and temporary mortuary services to accommodate 100% of fatalities, provide information to appropriate agencies to facilitate family reunification with identified remains, and support the significant populations needing crisis counseling services.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Fatality Management Services | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Medical and Public Health	Palliative Care/Hospice Team	I	53
Medical and Public Health	Palliative Care/Hospice Team	II	49

Other Resources

Category	Resource	Number Required
Other	Bereavement Counselors	10
Other	Portable Refrigeration Units	20
Other	Victim Tags	500
Other	Body Bags	600

Fire Management and Suppression | Capability Target

Provide structural, wildland, and specialized firefighting capabilities to manage and suppress 100% of fires of all types, kinds, and complexities while protecting the lives, property, and the environment in the affected area after a Cascadia Subduction Zone event.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Fire Management and Suppression | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Fire/Hazardous Materials	Strike Team, Engine (Fire)	I	36

Other Resources

Category	Resource	Number Required
Other	Radios (P25 compliant)	100
Other	Building Inspectors	30

Infrastructure Systems | Capability Target

Within 72 hours, assess, stabilize, and initiate restoration of the functionality of 100% of critical infrastructure (to include electric power facilities, natural gas facilities, potable water facilities, wastewater facilities, police stations, EOCs, fire/EMS facilities, hospitals, and schools).

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Infrastructure Systems | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Public Works	Water Distribution Manager	I	30
Public Works	Water System Manager	I	30
Public Works	Water Treatment Manager	I	33
Public Works	Wastewater Collection Manager	I	30
Public Works	Wastewater System Manager	I	30
Public Works	Wastewater Treatment Manager	I	32
Public Works	Aerial Lift, Self Propelled, Scissor, Rough Terrain	I	2200
Public Works	Assistant Public Works Director - Logistics	I	50
Public Works	Assistant Public Works Director - Operations	I	48
Public Works	Civil/Field Engineer	I	62
Public Works	Cranes, All Terrain & Rough Terrain	I	4400
Public Works	Cranes, All Terrain & Rough Terrain	II	45
Public Works	Cranes, All Terrain & Rough Terrain	I	46
Public Works	Cranes, All Terrain & Rough Terrain	IV	48
Public Works	Cranes, All Terrain & Rough Terrain	III	51
Public Works	Cranes, Crawler (Lattice)	I	2200
Public Works	Damage Assessment and Repair Team - Water Pump Facilities	I	65

Category	Resource	Type	Number Required
Public Works	Debris Collection Supervisor	I	56
Public Works	Debris Removal Manager	I	59
Public Works	Debris Site Supervisor	I	57
Public Works	Emergency Management Support Team - Water/Wastewater	I	50
Public Works	Engineering Branch Manager	I	47
Public Works	Engineering Division Manager	I	49
Public Works	Equipment Operator	I	74
Public Works	Floodlights	I	17600
Public Works	Generators	II	58
Public Works	Generators	IV	65
Public Works	Generators	III	66
Public Works	Generators	I	69
Public Works	Grader	I	2200
Public Works	Grader	II	47
Public Works	Grader	III	56
Public Works	Hydraulic Excavator (Compact Short Radius 1.75 cy to 0.62 cy Buckets)	I	36
Public Works	Hydraulic Excavator (Large Mass Excavation 13 cy to 3 cy buckets)	IV	32
Public Works	Hydraulic Excavator (Large Mass Excavation 13 cy to 3 cy buckets)	III	32
Public Works	Hydraulic Excavator (Large Mass Excavation 13 cy to 3 cy buckets)	II	32
Public Works	Hydraulic Excavator (Large Mass Excavation 13 cy to 3 cy buckets)	I	6600
Public Works	Hydraulic Excavator (Medium Mass Excavation 4 cy to 1.75 cy buckets)	I	32
Public Works	Hydraulic Excavator (Medium Mass Excavation 4 cy to 1.75 cy buckets)	III	32

Category	Resource	Type	Number Required
Public Works	Hydraulic Excavator (Medium Mass Excavation 4 cy to 1.75 cy buckets)	IV	32
Public Works	Hydraulic Excavator (Medium Mass Excavation 4 cy to 1.75 cy buckets)	II	35
Public Works	Hydraulic Excavator Truck Mounted	I	30
Public Works	Hydraulic Excavator Truck Mounted	II	29
Public Works	Public Works Director	I	33
Public Works	Quality Assurance Personnel	I	25
Public Works	Road Sweeper	I	37
Public Works	Road Sweeper	II	34
Public Works	Road Sweeper	III	34
Public Works	Road Sweeper	IV	31
Public Works	Scraper, Earth Moving	I	33
Public Works	Scraper, Earth Moving	II	34
Public Works	Scraper, Earth Moving	III	28
Public Works	Structural Engineer	I	49
Public Works	Track Dozer	I	6600
Public Works	Track Loader	I	6600
Public Works	Truck, Off-Road Dump	I	17600
Public Works	Truck, Sewer Flusher	IV	34
Public Works	Truck, Sewer Flusher	I	31
Public Works	Truck, Sewer Flusher	II	32
Public Works	Truck, Sewer Flusher	III	32
Public Works	Truck, Tractor Trailer	I	4400

Category	Resource	Type	Number Required
Public Works	Utility Systems Reconstruction Manager	I	28
Public Works	Water Pumps, Water Distribution	I	4400
Public Works	Wheel Loader Backhoe	I	6600

Other Resources

Category	Resource	Number Required
Other	Compactors	4400
Other	Construction trailer offices	2200
Other	Continued planning, including better estimating of resource needs	1
Other	Coordination of electricity demand versus supply during restoration in a strategic manner	1
Other	Deck barges	20
Other	DEQ scientific support via State ECC ESF 3	3
Other	Equipped EPA field staff to lead water/wastewater recovery as coordinated from State ECC (two shift total)	200
Other	Equipped USACE field staff to assist EPA with above as coordinated from State ECC (two shift total)	200
Other	Establish restoration goals and objectives	1
Other	Establish templates/implement legal processes (ORS 401.168, .175, .188, .192, et al.) to facilitate restoration	1
Other	Fuel (various types of petroleum-based liquid fuels, gallons)	14000000
Other	Fuel tankers	4400
Other	Improve ROW permit acquisition flexibility and post-event access to affected sites	1
Incident Management	Leadership for NG Civilian Support Teams for State ECC ESF 3	3
Other	Maintenance service trucks	4400

Category	Resource	Number Required
Other	Medium capacity (35gpm) fuel transfer pumps	8800
Other	Natural gas and petroleum restoration rely on electric utility restoration, necessitating close coordination	1
Incident Management	ODOT operations leadership for State ECC ESF 3	3
Other	Operator evaluation of resources available/needed for damage and situational assessments	1
Other	Operator re-evaluation of resources needed for restoration	1
Other	Prioritize infrastructure/economic regions for recovery in collaboration with industry/operators	1
Public Works	Public Assistance Coordinators	120
Incident Management	Regional operations leadership from EPA for State ECC ESF 3	3
Incident Management	Regional operations leadership from USACE for State ECC ESF 3	3
Other	Water tankers	4400

Logistics and Supply Chain Management | Capability Target

Within 72 hours facilitate the provision of public and private sector resources to sustain local and non-local responders and benefit affected populations in order to meet the basic human needs of disaster survivors, to include emergency power to critical facilities, fuel support for emergency responders, and access to community staples (e.g., grocery stores, pharmacies, and banks) and fire and other first response services.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Logistics and Supply Chain Management | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Fire/Hazardous Materials	Aerial Apparatus, Fire	I	23
Fire/Hazardous Materials	Aerial Apparatus, Fire	II	19
Fire/Hazardous Materials	Aerial Apparatus, Fire	III	17
Fire/Hazardous Materials	Aerial Apparatus, Fire	IV	19
Medical and Public Health	Advanced Practice Registered Nurse	I	21

Other Resources

Category	Resource	Number Required
Other	Continued planning, including better estimating of resource needs; better private sector involvement	1
Other	Better involve private sector in local and state training	1
Other	Better involve private sector in local and state exercises	1
Other	Private sector utility/comm. specialists from outside affected areas with vehicles and equipment	1000
Other	Response force for other Critical Infrastructure and Key Resources (CIKR)	11450
Other	Meals per day for CIKR, utility, and communications work force above	37350
Other	Potable water (gallons) per day for CIKR, utility, and communications work force above	49800
Other	52' trailers with portable showers and toilets for work force above	75
Other	Hotel/motel rooms for work force above	3100

Category	Resource	Number Required
Other	10-person tents with heat and light for work force above	600
Other	Medically trained first responders dedicated to work force above	44
Other	Fuel needs per day (gallons) for work force above	180000
Other	Armed private secuity guards to protect work force and associated assets above	700

Mass Care Services | Capability Target

In response to a Cascadia event, provide hydration and feeding services and shelter for 100% of individuals, pets, and service animals, and family reunification service for 25% of the affected population throughout 100% of the affected area within 72 hours.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Mass Care Services | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Mass Care Services	Shelter Management Team (Mass Care)	I	600

Other Resources

Category	Resource	Number Required
Other	Continued planning, including better estimating of resource needs	1
Other	Communications assistance for ARC Safe & Well reunification system	1
Mass Care Services	Temporary Child Care Support Services Team	600
Mass Care Services	Shelf stable meals (per week)	14000000
Mass Care Services	Potable water (liters) for people (per week)	21000000
Mass Care Services	Feeding Task Force (mix of government and PNP)	1
Mass Care Services	Shelters	600
Mass Care Services	Staff for 600 sheters	30000
Mass Care Services	Community Points of Distribution (C-PODs)	150
Incident Management	Training for spontaneous volunteers, etc.	1
Animal Emergency Response	Water (gallons/day) for animals	100000
Animal Emergency Response	Food for dogs (pounds/day)	12500
Animal Emergency Response	Food for cats (pounds/day)	5000
Animal Emergency Response	Food for horses (pounds/day)	220000

Mass Search and Rescue Operations | Capability Target

Within 0-3 hours deploy SAR resources (to include personnel, services, animals, and assets) to affected area (to include ground, urban and air-sea), coordinate communication and support needs of SAR operations, assist with transport of injured persons recovered in SAR operations. Complete the life-saving SAR operations within 72 hours of a CSZ event. Initiate the following within 18-24 hours, and complete in 30+ days: track SAR activities and mission status and report information to ECC, track and analyze SAR response needs to determine priority solutions, and identify additional unmet needs, resource shortfalls, and develop contingency plans.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Mass Search and Rescue Operations | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Search and Rescue	Urban Search and Rescue (US&R) Task Force	n/a	15
Search and Rescue	Urban Search and Rescue (US&R) Task Force	n/a	25
Incident Management	Incident Management Team	I	5
Incident Management	Incident Management Team	II	18

Other Resources

Category	Resource	Number Required
Other	Continued planning, including better estimating of resource needs	1
Other	DoD & NORTHCOM Homeland Response Force (HRF)	1
Fire/Hazardous Materials	Office of State Fire Marshal leadership and staff from OSFM AOC or equivalent	1
Search and Rescue	Other state Type 1 USAR Teams via EMAC	25
Search and Rescue	Firefighters to assist with SAR	10000
Search and Rescue	Soldiers to assist with SAR	15000

On-scene Security, Protection and Law Enforcement | Capability Target

Within 72 hours in response to a Cascadia subduction zone event, implement a security and safety strategy (to include access control, deterrence, crowd and traffic control, peace-keeping missions, etc.) that will foster a secure environment and protect 100% of response personnel engaged in lifesaving operations, operational hospitals, sheltering operations, government and critical facilities, essential supplies, business centers, and communities located within the affected area.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

On-scene Security, Protection and Law Enforcement | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Law Enforcement Operations	Bomb Squad/Explosives Team	I	18
Law Enforcement Operations	Bomb Squad/Explosives Team	II	16
Law Enforcement Operations	Bomb Squad/Explosives Team	III	18

Other Resources

Category	Resource	Number Required
Other	Determine security priorities as driven by local needs and requests	1
Law Enforcement Operations	Out of state law enforcement personnel to assist in-state	1000
Other	National Guard (NG) personnel to assist in part by observing and reporting	1000
Other	Out of state United States Coast Guard (USCG) personnel	1000
Other	OSP troopers from other areas or assignments	150
Other	Determine best use of NG and USCG with security of fuel, shelters, and communications	1
Other	Traffic cones	2000
Other	Flares	1000

Category	Resource	Number Required
Other	Review training needs and conduct pre-training for response to the context statement	1

Operational Communications | Capability Target

Ensure within 24 hours interoperable emergency communications capabilities (e.g. Public Safety Answering Points) are established with all entities (e.g. all levels of law enforcement, emergency responders, etc.) throughout the affected areas. Within seven days, assess and initiate actions to repair 100% of public and private communications facilities in an effort to restore telecommunication services to affected populations.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Operational Communications | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Medical and Public Health	Receiving Staging & Storage (RSS), Tactical Communications Leader	I	28
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	I	17
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	II	17
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	III	16
Incident Management	Airborne Communications Relay (Fixed-Wing) (CAP)	IV	16
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	I	14
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	II	16
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	III	15
Incident Management	Airborne Communications Relay Team (Fixed-Wing)	IV	15
Incident Management	Communications Support Team (CAP)	I	30
Incident Management	Communications Support Team (CAP)	II	20
Incident Management	Communications Support Team (CAP)	III	18
Incident Management	Communications Support Team (CAP)	IV	19
Incident Management	Mobile Communications Center (Also referred to as "Mobile EOC")	I	25
Incident Management	Mobile Communications Center (Also referred to as "Mobile EOC")	II	18
Incident Management	Mobile Communications Center (Also referred to as "Mobile EOC")	III	19

Category	Resource	Type	Number Required
Incident Management	Mobile Communications Center (Also referred to as "Mobile EOC")	IV	23
Fire/Hazardous Materials	Mobile Communications Unit (Law/Fire)	I	21
Fire/Hazardous Materials	Mobile Communications Unit (Law/Fire)	II	22
Fire/Hazardous Materials	Public Safety Telecommunicator I/II	I	34

Other Resources

Public Health, Healthcare, and Emergency Medical Services | Capability Target

Within 24 hours, deploy necessary resources to care for approximately 100% of injured people, including 15% with critical medical care needs, and approximately 5% of people with disabilities and/or chronic illnesses. Within 0-72 initiate the evacuation and relocation of 100% of affected hospitalized patients and nursing home residents.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Public Health, Healthcare, and Emergency Medical Services | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Emergency Medical Services	Multi-Patient Medical Transport Vehicle	III	12
Medical and Public Health	Mass Dispensing, Public Information Consultant	I	13
Medical and Public Health	Mass Dispensing, Vaccinator	I	23
Emergency Medical Services	Medical Supply Coordinator	I	14
Medical and Public Health	Medical Unit Team Leader	I	10
Medical and Public Health	Medical/Public Health System Assessment Team	I	10
Medical and Public Health	Mobile Field Medical Team	I	15
Medical and Public Health	Mobile Field Medical Team	II	10
Emergency Medical Services	Multi-Patient Medical Transport Vehicle	I	17
Emergency Medical Services	Multi-Patient Medical Transport Vehicle	II	13
Emergency Medical Services	Advanced Emergency Medical Technician	I	57
Medical and Public Health	Advanced Practice Registered Nurse	I	43
Emergency Medical Services	Air Ambulance (Fixed-Wing)	I	10
Emergency Medical Services	Air Ambulance (Fixed-Wing)	II	9
Emergency Medical Services	Air Ambulance (Fixed-Wing)	III	10

Category	Resource	Type	Number Required
Emergency Medical Services	Air Ambulance (Fixed-Wing)	IV	9
Emergency Medical Services	Air Ambulance (Rotary-Wing)	I	28
Emergency Medical Services	Air Ambulance (Rotary-Wing)	II	22
Emergency Medical Services	Air Ambulance (Rotary-Wing)	III	20
Emergency Medical Services	Air Ambulance (Rotary-Wing)	IV	20
Emergency Medical Services	Air Medical Transport Manager or Administrator	I	17
Emergency Medical Services	Air Medical Transport Mechanic	I	12
Emergency Medical Services	Air Medical Transport Paramedic	I	17
Emergency Medical Services	Air Medical Transport Physician	I	15
Emergency Medical Services	Air Medical Transport Pilot (Rotorcraft)	I	27
Emergency Medical Services	Air Medical Transport Registered Nurse	I	22
Emergency Medical Services	Ambulance Strike Team	I	30
Emergency Medical Services	Ambulance Strike Team	II	27
Emergency Medical Services	Ambulance Strike Team	III	28
Emergency Medical Services	Ambulance Strike Team	IV	26
Emergency Medical Services	Ambulance Strike Team / Ambulance Task Force Leader	I	20
Emergency Medical Services	Ambulance Task Force	I	26
Emergency Medical Services	Ambulances (Ground)	I	28
Emergency Medical Services	Ambulances (Ground)	II	22
Emergency Medical Services	Ambulances (Ground)	III	30
Emergency Medical Services	Ambulances (Ground)	IV	30
Medical and Public Health	Ancillary Support Team (Laboratory, Pharmacy, or Radiology Services)	I	20

Category	Resource	Type	Number Required
Medical and Public Health	Ancillary Support Team (Laboratory, Pharmacy, or Radiology Services)	II	19
Animal Emergency Response	Animal Disease Epidemiologist	I	12
Medical and Public Health	Assessment Team Leader	I	22
Medical and Public Health	Behavioral Health Specialist, Licensed	I	39
Incident Management	Critical Incident Stress Management Team	I	24
Incident Management	Critical Incident Stress Management Team	II	21
Incident Management	Critical Incident Stress Management Team	III	21
Medical and Public Health	Dental Assistant/Hygienist	I	13
Medical and Public Health	Dentist	I	13
Medical and Public Health	Dialysis Technician	I	20
Medical and Public Health	Dietician/Nutritionist	I	9
Emergency Medical Services	Emergency Medical Responder	I	47
Emergency Medical Services	Emergency Medical Task Force	I	35
Emergency Medical Services	Emergency Medical Task Force Leader	I	16
Emergency Medical Services	Emergency Medical Technician	I	46
Emergency Medical Services	Emergency Vehicle Operator	I	33
Emergency Medical Services	Emergency Vehicle Operator - Heavy	I	15
Medical and Public Health	Emergency/Critical Care Team	I	16
Medical and Public Health	Emergency/Critical Care Team	II	20
Emergency Medical Services	EMS Physician	I	24
Medical and Public Health	Environmental Health	I	15
Medical and Public Health	Environmental Health	II	12

Category	Resource	Type	Number Required
Medical and Public Health	Environmental Health Generalist	I	16
Medical and Public Health	Environmental Health Specialist	I	13
Medical and Public Health	Environmental Health Team Leader	I	7
Medical and Public Health	Epidemiologist	I	13
Medical and Public Health	Epidemiology (Surveillance and Investigation)	I	16
Medical and Public Health	Epidemiology (Surveillance and Investigation)	II	16
Medical and Public Health	Epidemiology Interviewer	I	17
Medical and Public Health	Epidemiology Team Leader	I	10
Fire/Hazardous Materials	Foam Tender, Firefighting	I	11
Fire/Hazardous Materials	Foam Tender, Firefighting	II	10
Fire/Hazardous Materials	HazMat Safety Officer	I	21
Fire/Hazardous Materials	HazMat Technician	I	26
Medical and Public Health	Isolation and Quarantine	I	11
Medical and Public Health	Isolation and Quarantine	II	11
Medical and Public Health	Laboratory Technologist/Technician	I	14
Emergency Medical Services	Mass Casualty Support Vehicle	I	18
Emergency Medical Services	Mass Casualty Support Vehicle	II	16
Emergency Medical Services	Mass Casualty Support Vehicle	III	14
Medical and Public Health	Mass Dispensing Consultant Team	I	8
Medical and Public Health	Mass Dispensing Consultant Team	II	8
Medical and Public Health	Mass Dispensing Team Leader	I	10
Medical and Public Health	Mass Dispensing, Consultant	I	10

Category	Resource	Type	Number Required
Medical and Public Health	Mass Dispensing, Dispenser	I	16
Medical and Public Health	Mass Dispensing, Operations Team Consultant	I	12

Other Resources

Category	Resource	Number Required
Other	Continued planning, including better estimating of resource needs	1
Other	Determination of need for medical supplies and pharmaceuticals from national suppliers	1
Other	Activate NDMS to support medical surge	1
Other	National ambulance contract (NAC)	150
Other	NG, USCG, and private sector air assets for coast: supplies in; some patients out	20
Other	Generator support	20
Other	Determine blood re-supply needed	1
Other	Amateur radio assets for MCPs to hospitals	30
Other	Environmental assessments to survey facilities for mold	36
Medical and Public Health	DMAT teams for medical surge	10
Medical and Public Health	Activate pre-scripted missions for medical surge: ODMt, MRC, CERF-P, etc.	1
Medical and Public Health	Activate Medical Reserve Corps (MRC)	1
Medical and Public Health	Federal Medical Stations (FMS)	8
Medical and Public Health	Activate Strategic National Stockpile (SNS) for medical supplies, pharmacy, and vaccination	1
Medical and Public Health	Placard system for medical re-supply	1

Category	Resource	Number Required
Medical and Public Health	Oxygen generation concentrators	60
Medical and Public Health	Monitor shelters for disease	1
Medical and Public Health	Medical Care Points (MCP) to support coast hospitals	30
Medical and Public Health	Epidemiology Strike Teams	4
Incident Management	Determine/implement staging areas for FMS, NAC, SNS, and medical supplies	1

Situational Assessment | Capability Target

Within four hours, implement sufficient structure and process to inform decision makers with the information needed regarding the nature and extent of the damage across 100% of impact area and to monitor response efforts launched in aid of 100% of people and animals impacted by the event.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Situational Assessment | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Public Works	Damage Assessment and Repair Team - Sewer Mains	I	31
Public Works	Damage Assessment, Repair and Start-Up Team - Wastewater Lift and Pump Station	I	22
Public Works	Damage Assessment, Repair and Start-Up Team - Wastewater Lift and Pump Station	II	19
Public Works	Damage Assessment, Repair and Start-Up Team - Wastewater Treatment Facilities	I	22
Medical and Public Health	Assessment Team Leader	I	17
Medical and Public Health	Medical/Public Health System Assessment Team	I	11
Law Enforcement Operations	Law Enforcement Observation Aircraft (Fixed-Wing)	I	7
Law Enforcement Operations	Law Enforcement Observation Aircraft (Fixed-Wing)	II	9
Incident Management	Individual Assistance Disaster Assessment Team	I	28
Incident Management	Rapid Needs Assessment Team	I	12
Animal Emergency Response	Risk Assessment Specialist	I	8

Other Resources

Economic Recovery | Capability Target

Develop protocols for post event assessment of economic issues as well as inhibitors to recovery (including laws, statutes, etc.); be able to guide local communities within two weeks of event occurrence on economic revitalization strategies that include respect for civil rights; return affected areas to a sustainable economy within five years.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Economic Recovery | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
N/A			

Other Resources

NA

Health and Social Services | Capability Target

Within two to seven days position resources necessary to receive and process resource requests in support of the restoration of vital health and social service functions for 100% of affected population within the jurisdiction to include vulnerable populations, families of deceased, persons living below poverty levels, and those with functional/access needs. Within 30+ days complete restoration and improvement of health and social service functions to include 100% of affected hospitals, community health facilities, and psychiatric institutions.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Health and Social Services | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Incident Management	EOC Management Support Team	I	2
Incident Management	Incident Management Team	I	2
Incident Management	Rapid Needs Assessment Team	I	7

Other Resources

Category	Resource	Number Required
Geographic Info Systems and Info Technology	GIS Supervisor	2
Geographic Info Systems and Info Technology	GIS Analyst	7
Other	Continued planning, including better estimating of resource needs	1
Other	Oregon DHS leadership for State ECC ESF 6 work related to social services	1

Housing | Capability Target

Within 15 to 30 days, assess damage to about 100% of affected residential buildings within the impacted areas and begin to implement interim housing solutions for 100% of permanently displaced residents within the jurisdiction.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Housing | Resource Requirements

NIMS-typed Resources

Category	Resource	Type	Number Required
Incident Management	Individual Assistance Disaster Assessment Team	I	55

Other Resources

Category	Resource	Number Required
Other	Continued planning, including better estimating of resource needs	1
Other	Joint Preliminary Damage Assessment (PDA) teams (FEMA, SBA, ARC, state, and local)	72
Other	FEMA, SBA, ARC, and state PDA leaders/coordinators in State ECC or COOP facility	8
Other	Just in time PDA training for 72 state representatives times two rotations (144 people)	1
Other	Vehicles for PDA and required fuel	72
Other	Portable devices for reporting of damage from field	72
Other	Kit with food, water, sleeping bag, and tent for each deployed field person	360
Other	ODHTF and regional sub-TFs in Portland, Salem, Eugene, two coast locations and Rogue Valley	7
Other	OHCS staff to supply housing information and analysis	10
Other	ICS, ECC/JFO, earthquake preparedness, and crisis intervention training for OHCS staff	4
Other	Exercises for the ODHTF and sub-TFs (quarterly at first; biannual eventually)	7

Natural and Cultural Resources | Capability Target

Within 72 hours of incident occurrence, conduct damage assessment of 100% of natural and cultural resources and provide necessary technical assistance and support to appropriate officials and government agencies to ensure compliance with relevant environmental and historic preservation laws during the response and recovery phases.

Scenario: 9.0 Cascadia Subduction Zone earthquake event

Natural and Cultural Resources | Resource Requirements

NIMS-typed Resources

NA

Other Resources

Category	Resource	Number Required
Other	Archaeologist	2
Other	Tribal Natural & Cultural Resources Technical Experts	2
Other	Building inspectors	200