



KATE BROWN
Governor

June 9, 2017

President Donald J. Trump
United States of America
The White House
Washington, D. C.

Through: Sharon Loper, Acting Regional Administrator
FEMA Region 10
130 228th Street SW
Bothell, WA 98021-9796

Dear Mr. President:

Pursuant to 44 CFR 206.46 (a) and (b), I am appealing the decision to deny the major disaster declaration requested by the State of Oregon that followed the severe winter storm event of January 7 to January 20, 2017 and requested in my letter dated March 09, 2017 (Enclosure 1). The denial decision was received in a letter dated May 12, 2017 (Enclosure 2). In accordance to 44 CFR 206.46 (b), I am appealing the denial of Public Assistance for the following counties: Baker, Columbia, Curry, Deschutes, Hood River, Josephine, Malheur, Multnomah, Union, Hood River, and Washington, as well as the Hazard Mitigation Grant Program (HMGP) statewide. I am also requesting that three additional counties be included in the declaration request; Clackamas, Jefferson, and Wasco Counties.

FEMA's denial letter of May 12, 2017, stated it was determined that the damage from this event was not of such severity and magnitude as to be beyond the capabilities of the state and affected local governments.

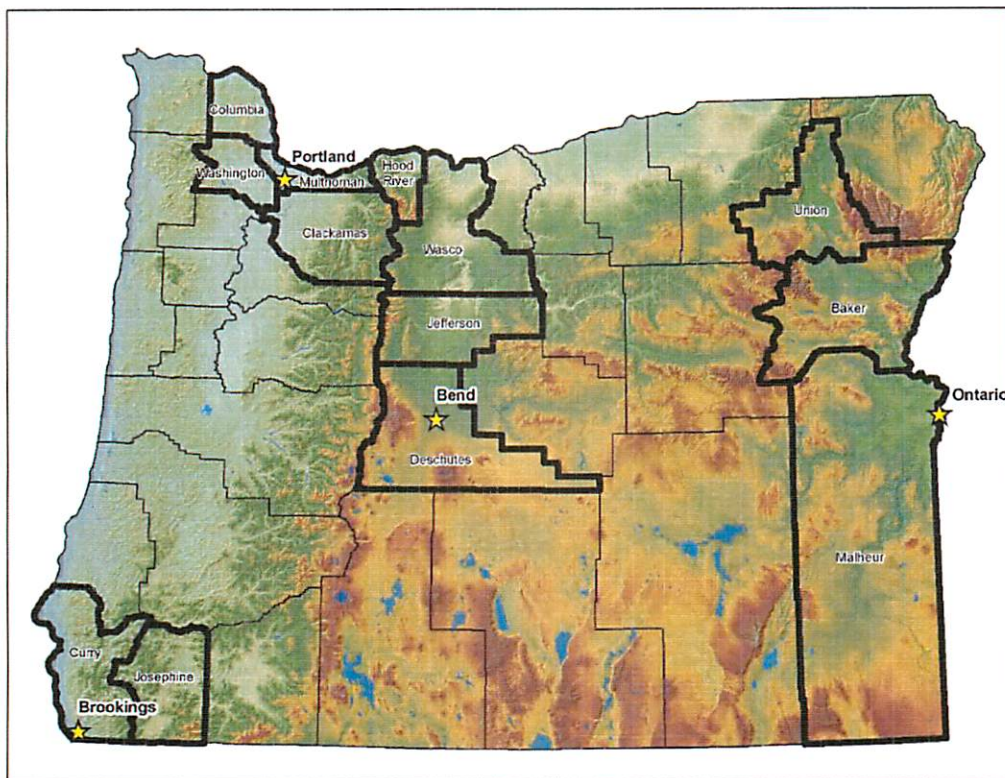
Our decision to appeal the denial is based on three factors: the inclusion of additional information that was not available or unknown at the time of our initial request; additional data and further explanation of the complex weather systems that impacted our state during the requested incident period; and revised damage assessments adhering to the severe winter storm and snowstorm policy clarification provided by FEMA to their regional offices on April 17, 2017. These factors clearly demonstrate that the rare and extreme winter weather that lead to our initial disaster declaration request overwhelmed the impacted local jurisdictions and exceeded the state's capacity to respond and recover, requiring federal assistance.

Weather Conditions leading up to the January, 2017 Winter Storm Disaster

Oregon gathers weather forecasts and advisories from four separate National Weather Service (NWS) forecast offices in Portland, Pendleton, Medford, and Boise, Idaho. Storms like this in Oregon can take on different perils based on the geography around the state. Utilizing these offices provides timely weather data for each of the geographically isolated areas over the sprawling landscape of Oregon.

Oregon is one of the most geographically diverse states in the nation. Oregon is also the ninth largest state. It spans 295 miles north to south and 395 miles east to west and encompasses 95,997 square miles. Oregon also lies in two time zones. Oregon's elevation starts at sea level to its highest point of 11,249 feet at the summit of Mount Hood while only traveling a third of the way through the State. Oregon's mean elevation is 3,300 feet.

Oregon is split into eight distinct geographical regions. That includes temperate rain forests on the coast, several mountain ranges, the Columbia Plateau, and a barren desert in the southeast. Oregon's mountain ranges includes the Coast Range with elevations up to 4,097 feet, the Cascades up to 11,249 feet, the Warner Mountains up to 8,456 feet, the Steens up to 9,738 feet, the Blue Mountains up to 9,111 feet, and the Wallowa Mountains up to 9,843 feet. This geographic diversity throughout Oregon affects the weather and the weather patterns differently as storms roll across our state.



Impacted Counties outlined in bold

In Oregon, there had already been an abnormally cold and snowy start to the winter season prior to this record-breaking disaster. Weather records show that the winter of 2016-17 was one of the most impactful winters in Oregon's history, with several severe winter storms occurring over the course of five weeks.¹ All areas of Oregon had endured weeks of abnormal and extremely low temperatures and heavy snows, including historic record snowfall in Malheur County. Portland, the state's largest city and commercial hub, was significantly impacted with the loss of public services, coupled with the inability to traverse the city due to the compacted snow and ice and frigid temperatures.

The severe winter storms began impacting Oregon on December 8, 2016 with Portland receiving snow on top of the three-quarters inch of ice. The next winter storm arrived on December 14 and brought additional snow, and an ice storm to Eugene. In January, multiple storms rushed in, all hitting during Oregon's disaster-causing incident period.

On January 7, 2017, a storm began that brought snow and ice; the storm that began January 10, 2017 brought with it 15 ½ inches of snow to Portland, and on January 17, 2017 another winter storm brought extreme ice impacts to the city. Hood River County received almost three feet of snow during the incident period with 2 inches of ice falling on top of the snow. As the series of storms traveled across the state, they brought differing perils of snow, freezing rain, flooding, and high winds to the changing landscape of Oregon. This is discussed in the National Weather Service's supplemental Weather Statement. For reference, I have enclosed the NWS original Weather Statement. (Enclosures 3, 4)

Many cities reported near record levels of snow this season. The City of Bend received over three feet of snow in January 2017 with almost two feet of that falling within the incident period of January 7 through 20, 2017. Malheur County had 44 inches of snow this winter. The previous record was 26 inches. During a typical year, Malheur County only receives about 12 inches. Malheur County had nearly three feet of snow fall during January, with the last storm dumping over 15 inches on January 20, 2017.

During the month of January 2017, 28 of its 31 days were colder than average, and the Weather Channel reported that only 1979 had been colder during the dates of this incident period.² For weeks, counties across Oregon, and particularly the Portland metro area, had already endured rain, freezing rain, frigid temperatures, and heavy snowfall that developed layer upon layer of heavy, ice-encrusted snow on buildings, equipment, and streets, threatening the lives and safety of Oregon's citizens.

On February 1, 2017, Jonathan Edman, Meteorologist of The Weather Channel, gave Portland the title of "worst winter" so far, and the Weather Channel designated Portland, Oregon "America's Most Winter-Fatigued City in 2016-17."³

¹ Internet: Weather Channel website; weather.com/storms/winter/news/Portland-oregon-worst-winter-city-2016-2017

² Ibid.

³ Ibid.

State and Local Response and Impacts (44 CFR §206.48(a) (2))

FEMA's denial letter of May 12, 2017 was based on the determination that the damage from this event was not of such severity and magnitude as to be beyond the capabilities of the state and affected local governments. As Governor of this state, I am responsible for protecting the health and safety of Oregon's citizens. I witnessed countless selfless public servants, partners from private industry, and volunteers struggle and fight through weeks of extreme winter weather to do just that. I am confident that this appeal will demonstrate the level of significance this disaster had upon Oregon and its citizens, and to the local governments that are expected to provide services under any and all conditions. If approved this federal assistance will go a long way towards helping our state, especially our rural farming and ranching communities, recover from this disaster

In addition to the impact information provided in my disaster declaration request of March 9, 2017 (Enclosure 7), this appeal contains information that describes the incredible impacts of this event that were unknown or unavailable when the initial request was made and provides further justification of my March 9, 2017 declaration request.

In response to this nearly unprecedented and continued set of severe weather related events, on January 6, 2017 Oregon Emergency Management (OEM) activated the Oregon Emergency Response System (OERS) in accordance with our Emergency Operation Plan. This was done to conduct real-time monitoring and information dissemination regarding the weather, heavy snow and ice accumulation, high winds, flooding, landslides and erosion that was occurring at various locations throughout the State. As a result of the escalating situation and numerous requests for assistance, I activated the Oregon All-Hazards Emergency Operations Plan and the Oregon Emergency Coordination Center (ECC) on January 9, 2017. Multiple weather warnings and briefings were issued by the National Weather Service offices serving Oregon nearly daily in various areas across the state. Local Emergency Declarations were made by the counties of Baker, Crook, Hood River, Malheur, Marion, Multnomah, the City of Cascade Locks, the City of Portland and others. (Enclosure 5) 19 counties activated their Emergency Operation Centers (EOC), including all of the impacted counties in this appeal, as well as three sovereign nations; the Cow Creek Band of the Umpqua Tribe of Indians, Confederated Tribes of Warm Springs, and Confederated Tribes of Grand Ronde.

While these communities and counties were being severely impacted by extreme and rare winter weather, Oregon's ECC coordinated local requests for emergency support by 17 of Oregon's 18 Emergency Support Functions that were requested for all but two days of the incident period (Enclosure 6). Most requests centered on the flooding and severe winter weather perils seeking manpower and materials to remove snow and ice loads from buildings; provide heavy equipment to remove snow and ice; assist in accessing water meters, water shut-off valves and fire hydrants; and snow removal assistance to allow emergency vehicle access to residences. Oregon National Guard Humvee ambulances were requested by and provided to the Portland metro area and the city of The Dalles since available ambulances were unable to drive through the treacherous and hazardous road conditions. State officials were also requested to conduct safety inspections on public and commercial buildings due to hazardous snow loads. Sandbags

were requested by several counties for flooding impacts. U.S. Army Corps of Engineers (USACE) provided sandbags to Crook, Sherman, and Wasco Counties. Support was also requested by Malheur County to assist in the burying of more than one million pounds of onions destroyed after the structures they were stored in collapsed under the weight of snow and ice.



Ice jams on Snake River in Malheur County

Through my emergency authorities identified in Oregon Revised Statute Chapter 401, I issued an Emergency Executive Order, No. 17-02, (Enclosure 7) on January 11, 2017, declaring a State of Emergency, during the incident period of January 11, 2017 and continuing. I directed state agencies to utilize and employ state personnel, equipment and facilities for the performance of any activities designed to prevent or alleviate actual or threatened damage due to the emergency. I also directed the agencies to provide supplemental services and equipment to local and tribal governments to restore any services in order to provide for the health and safety of the citizens of the affected area.

This decision was based on the extraordinary resource needs and impacted communities' shortfalls from jurisdictions across Oregon. The series of severe storms that struck the state of Oregon producing high winds, heavy snowfall, ice accumulation, and extreme rainfall hit with such severity and magnitude beyond the capabilities of the state and affected local governments. These severe storms caused critical transportation failures, loss of power and communication capabilities, and critical evacuation and sheltering needs throughout the State.

With the ongoing extreme winter weather beginning in December 2016, by early January 2017 it was clear this disaster event would become extraordinary and life-threatening. Portland averages only four days of snowfall a year, and averages only two days each winter of snowfall over one

inch.⁴ The City of Portland received over 16 inches of snow during this incident period of January 7 through 20, 2017 with three quarters of an inch of ice. In addition to snowfall and freezing rain that continued to accumulate, creating heavy and destructive forces on roofs and other facilities and infrastructure, the ongoing cold temperatures refused to allow any melt to occur during this period, as confirmed by the National Weather Service in its supplemental weather statement. This further stressed already exhausted resources in the Portland area. Similar impacts were reported by our rural ranching and agricultural communities in eastern Oregon.

Critical Facilities Impacts

The continuing extreme winter weather that alternated between rains, snow, freezing rain, and high winds, created extreme risk for these affected counties and tribal nations and for essential critical facilities. Many structures were compromised by the extreme weather during this disaster period. In Deschutes and Malheur Counties, extreme snowfall amounts collapsed commercial and public buildings, including the Kenwood Elementary School Gymnasium in Bend and one of Bend's community grocery stores, Ray's Food Place. As evidenced by the photo below of the destroyed elementary school gymnasium building, the snow is topped by heavy ice. FEMA's publication, FEMA P-957, *Snow Load Safety Guide*, explains the weight differences between snow and ice: One foot of fresh snow ranges from 3 pounds per square foot to 21 pounds for very wet snow. One foot of ice weighs about 57 pounds per square foot.⁵ The volume of ice that many buildings received either collapsed the structure or, in other cases, destroyed the roofing truss system, leaving the structure unsafe and uninhabitable.



Kenwood Elementary School Gymnasium collapse, Bend, Oregon (note ice volume)

⁴ Internet: Weather Channel website; weather.com/storms/winter/news/Portland-oregon-worst-winter-city-2016-2017

⁵ *Snow Load Safety Guide*, FEMA Risk Management Series; FEMA P-957 (January 2013)

Over 360 students attend Kenwood Elementary along with teachers and staff. This event could have been much worse if this collapse happened during school hours. Just before 7:00 am on January 12, 2017 the director of facilities and the custodial supervisor drove to inspect the gymnasium at the Kenwood School and discovered the roof had collapsed sometime during the night. It was estimated to have had 24-30 inches of snow and ice with more where drifting occurred. After inspecting the Gymnasium building collapse, staff relayed their concerns to the superintendent and a district-wide closure of the Bend School District was instituted that morning. Students promptly evacuated across all the school campuses. Roofing consultants and structural engineers were called in to begin emergency assessments for structural integrity of all district properties.

(Enclosure 8)

The District provided about 150 staff members and local contractors to begin clearing school roofs that included an area of over two million square feet.⁶ Near the end of this incident period, another Winter Storm Warning was issued by NWS, followed by two days of Area Flood Warnings, creating the need for extraordinary measures to be taken to ensure most of the snow and ice was removed from the roofs. Before my statewide emergency declaration, the Bend-La Pine School District had already worked over 2,350 hours at more than 30 District sites clearing snow and ice from these critical facilities that began from storms starting on December 5, 2016 including roofs, ice dams, parking lots and sidewalks.

The District stated that this was the first time in known history that crews were dispatched to remove snow from Bend area school roofs. Records indicate that even during the historic 1992-93 snow storms, school roofs were not compromised to the extent that roof snow removal was needed. The Bend School District has 123 buildings and all reported some level of damages to their roof systems with 41 claims to their insurance company. Preliminary inspections resulted in an estimate of over \$8.5 million in roof damages alone, not including interior damages. Some roof systems are destroyed or so significantly damaged as to require replacement. On others, the emergency snow removal on the roofs hastened the movement of significant moisture down into the building's interiors, causing further damages.

The impacts from these structurally compromised critical facilities create a tremendous economic and strategic burden on the Bend La Pine School District and all the school districts throughout central and eastern Oregon. 21 of the damaged buildings were also designated shelters for the Bend metropolitan area, which will limit their sheltering capacity in the next several disasters. Additionally, six of the damaged school buildings in Redmond are designated shelters for the area. Five of the damaged schools in Hood River are designated shelters. Two of the damaged school buildings in North Wasco are designated shelters. Baker High School also sustained damages and is also designated as a shelter for Baker City. It is known that multiple schools buildings in Bend and across the State will remain vacant and uninhabitable for months and possibly years, until repairs can be made. This will create a shortfall in facility and shelter space in many rural communities that will be extremely expensive and challenging to meet. One insurer, Small District Association of Oregon, stated their insurable losses from this event to

⁶ Media Release of Bend-La Pine Schools: Crews Continue Clearing Snow from Roofs Today (Jan. 13, 2017)

public buildings exceeded \$13 million dollars. Federal assistance is critical to getting these communities on the path to recovery.

Portland Public School District has 86 school sites, and access was not feasible for either school buses or parents, until the parking lots and walkways could be cleared of snow and ice. In alignment with FEMA's April 17, 2017 Severe Winter Storm and Snowstorm Policy Clarification, these costs are not included in the revised cost estimate enclosed here. The entire District was impacted and schools closed for four days, impacting 49,000 students and about 60,000 households. This District's General Fund was impacted by the closures as an extension of the school calendar year was required. Some parents could not go to work since their children were at home and the dangerous traffic and weather conditions that existed. The 22,500 students on a free or reduced lunch program did not receive their typical two hot meals a day, which the Portland Public School District reported was likely to be the sole source of complete meals these students would have received.

There are many more examples of other extraordinary impacts to critical facilities related to the extremely hazardous conditions that occurred in Portland preventing access to hospitals and clinics for patients and essential staff, and even requiring the closure of health facilities.

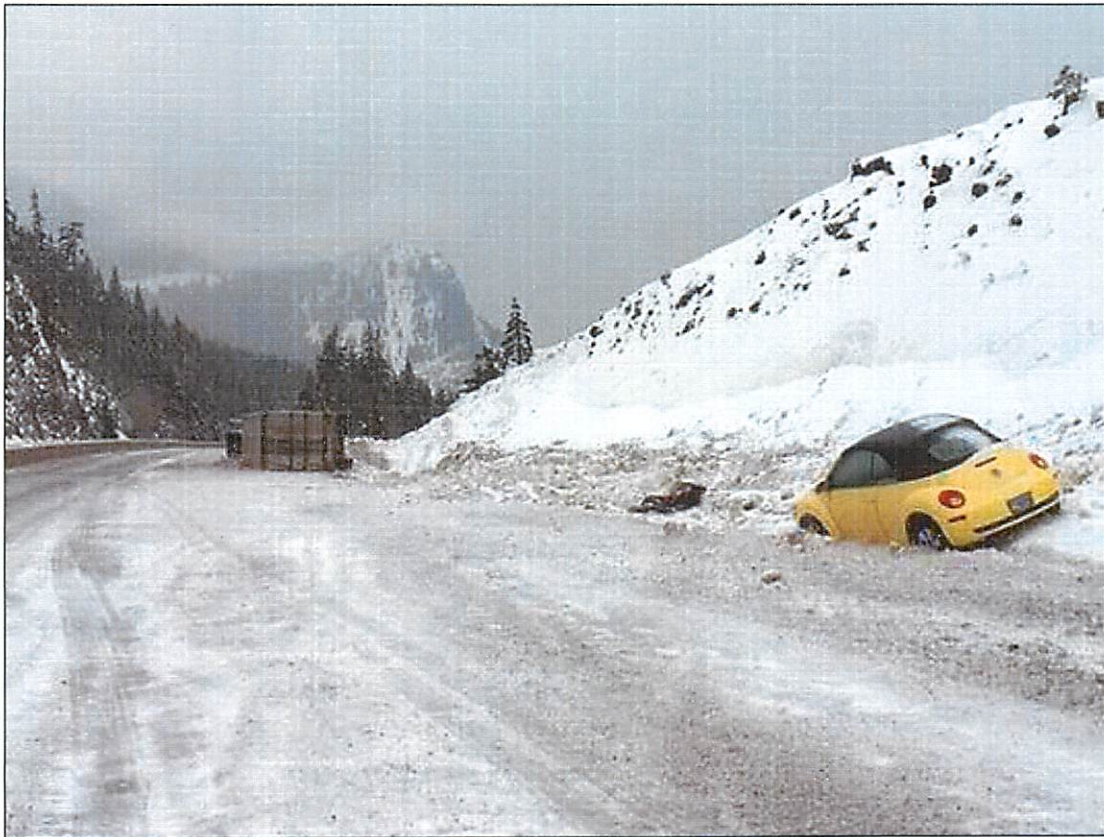
Kaiser Permanente, an eligible health care applicant that is not submitting any costs to FEMA, reported snow and ice in varying depths across its campuses of multiple inches over many days. Kaiser employs 19,000 staff with region-wide facilities that serve 10,000 members every day, including urgent and emergency care. Access was a critical issue that had to be promptly restored to protect both patients and essential staff from minor to serious injuries. This scenario was repeated across the region, and had a particularly sharp impact in the Portland Metro area due to the loss of the Portland Metro public transportation service. The Oregon Health Sciences University (OHSU) is one of only two Trauma 1 centers in the state, serving over one million patients a year. OHSU was forced to hire drivers in four-wheeled drive vehicles to ferry essential staff to and from work. OHSU is Portland's largest employer, and economic impacts that affect OHSU's budget can have a causal relationship with its employees and, in turn, the community's economy.

Applicants reported that emergency rooms across the City of Portland had to close and patients were diverted, some when they arrived, and some when they called for assistance. So, at a critical time when hundreds of accidents and injuries were occurring due to hazardous conditions, health care access was very limited. In the City of Portland first responders had to prioritize transporting patients, due to the closure of hospitals and care facilities, and the lack of ambulances that could traverse the streets of packed and treacherous ice and snow. These conditions created a very high risk to the health and safety of Oregon's citizens, and created tremendous response costs and other impacts to these applicants as they continued to attempt to keep facilities open and functioning.

The costs by applicants to restore access to critical facilities is not being requested to FEMA, but had significant impacts to the applicants, the public, and to the volunteers.

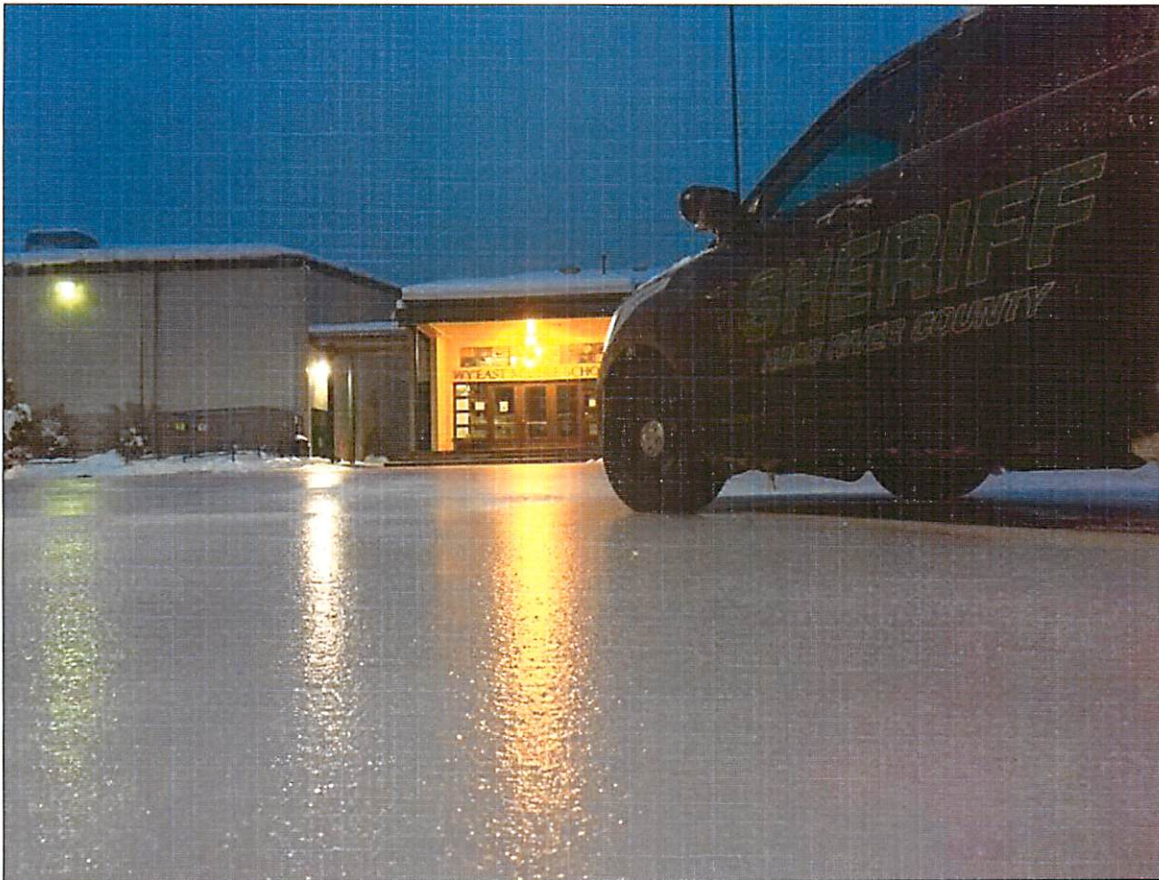
Transportation Impacts

Oregon residents and public entities were extremely impacted by the transportation challenges and broad economic impacts caused by the continuing series of severe storms. I wrote in my March 9, 2017 request letter of the closure of Interstate 84, which is Oregon's only east-west interstate highway. I-84 was closed throughout the incident period at various times from Troutdale, just East of Portland to the Idaho border near Ontario, Oregon, a small agricultural and ranching town that was already enduring substantial disaster impacts from high winds and excessive snowfall. During this time, an accumulation of two inches of ice was reported on areas of I-84. Transport delays cause economic impacts to vendors, suppliers, manufacturers, and haulers.



A closed stretch of I-84 between Troutdale and Hood River

Applicants reported that hundreds of cars were abandoned across Oregon, including downtown Portland where dozens were left for days on the spot where they were stuck. The City of Portland and Multnomah County representatives described Portland as a ghost town for well over a week with stores and offices shuttered and no ability to traverse the streets, whether by car, bus, or foot. Portland reported that there were 794 snow and ice related incidents across the City of Portland from January 10 through 19, 2017 including motor vehicle accidents, and critical life-safety response for the homeless.



Hood River County Sheriff vehicle on icy parking lot



I-84 Eastbound Lanes closed from Troutdale to Hood River

TriMet, the major public rail and bus service in Portland and its suburbs, had to cancel routes for safety reasons. This left scores of passengers stranded, with no options to get to work or appointments due to the inability to get through and across the snow and ice in their car. A TriMet train derailment occurred during the incident period due to the accumulation of ice on the tracks. Additional trains were running the routes to help reduce ice accumulating on the steel rails, and numerous inspection teams were deployed to continually inspect the rails for ice and debris, to ensure the safety of the trains and passengers. With the Portland Metro system not running and the cancellation of rail and bus routes of Tri-Met, delivering critical services to the public to ensure public safety was extremely limited.



TriMet derailment, Portland, OR

For those who could travel the roads, a number of roads were impacted by flooding, as well as freeze and thaw cycles, some requiring lengthy closures. Newberry Road in Multnomah County, which is not a federal aid route, was one such closure caused by a slide during the extreme winter event that destroyed a 150 foot length of road caused by snow and rain saturating the upslope, and the snowmelt and rain filling the ditch, and further saturating the slope causing the road to collapse.



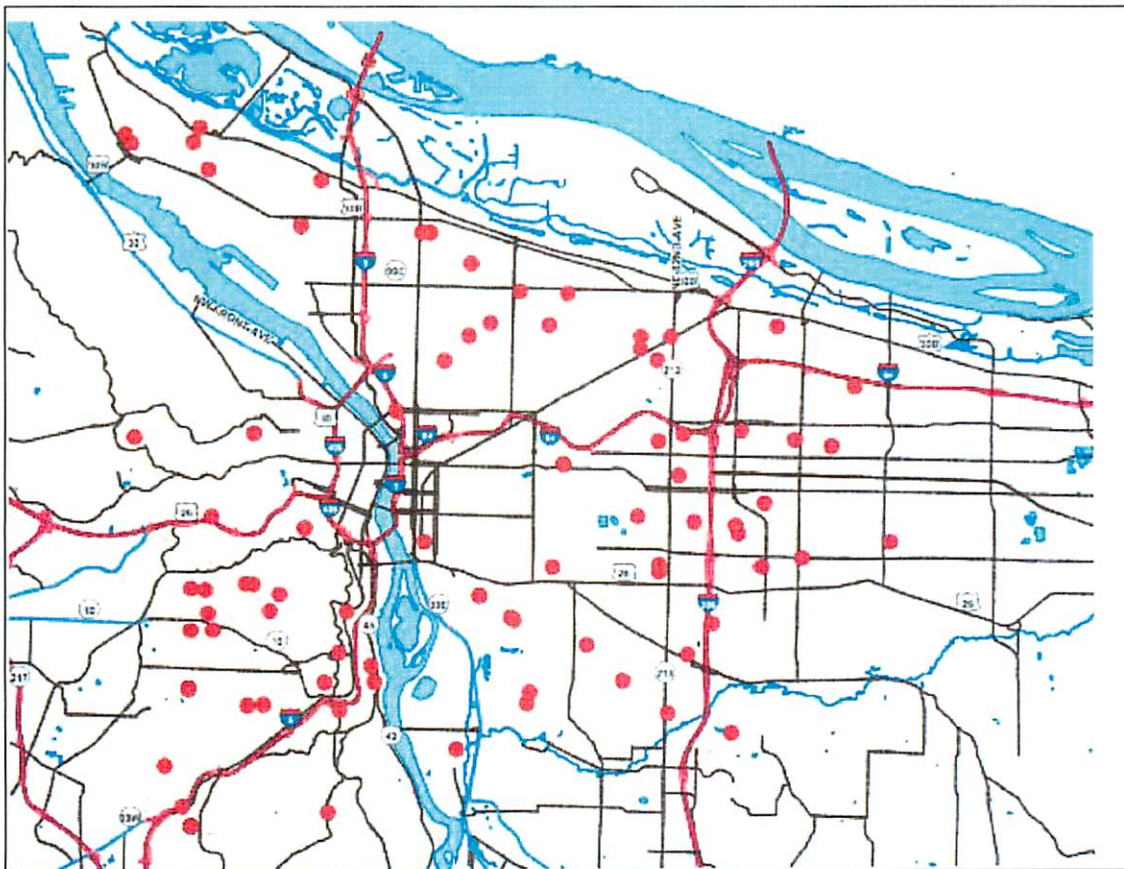
Newberry Road damage in Multnomah County January 18, 2017

Newberry Road also serves as the detour route when Cornelius Pass Road is closed. However, Cornelius Pass Road was also damaged during the January incident, causing further delays for both the traveling public and emergency service response to emergencies. Cornelius Pass Road is a federal aid road and not eligible for FEMA repair funds. Damages to Newberry Road, which is a critical by-pass route, will have a ripple effect for traffic throughout this community. Multnomah County reports that Cornelius Pass Road has common temporary closures, due to its large volume of truck traffic. Now that both roads are closed, traffic will be using state routes as detours, creating significant traffic delays. Some local residents will need to take up to a 25 mile detour to leave and return to the area. These costs of the feasible repair, which includes re-alignment of the road, are estimated at \$2.2 million. These costs will have a highly significant impact to Multnomah County's maintenance budget.

Essential Government Services

Many essential government services were severely impacted by severe winter storms that prevented public servants, first responders, firefighters, essential medical staff, and others from being able to reach their place of work. This caused an extreme shortage of responders and critical services in various public sector areas. This was caused by both lack of access and closures of countless local and state public offices, particularly in the Portland area.

In other areas of infrastructure damages, during the incident period, Portland's Water Bureau sustained the rupture of 81 main waterline breaks, 18 hydrants damaged by vehicles, and 20 frozen or leaking water services or meters. The waterline breaks continuously occurred as temperatures plummeted, with extensive breakage beginning on January 12 and continuing through the incident period. As a result of the breaks, houses and cars flooded and roads were closed. One main break in Northeast Portland caused the water level to rise 32 inches above the street level and flooded dozens of cars and some houses. During the extreme cold the water of the broken mains turned to ice, creating even more hazardous conditions for access and more road closures. The estimated costs to repair these breaks is \$500,000.



Reported main breaks, Portland Water Bureau – January 7-20, 2017

In my March 9, 2017 declaration request letter, I wrote of the life threatening impacts in Portland to the homeless population because of the sustaining frigid temperatures. The critical risk of life and health in Portland extended to homeowners and other residents, as power was lost to 80,000 homes or had flooded homes due to the water main breaks. Very few people were capable of traversing the icy Portland streets either in car or by foot, and the numbers of people looking for shelter increased from the average 200 beds a night to a nightly average of 730, most of whom were not homeless. This demand presented an urgent and unique challenge that required all agencies to assist. As you may remember, four victims died of hypothermia during this disaster; and we were committed to prevent more loss of life.



Ice cover road sign in the gorge

Public agencies in Oregon took extraordinary measures to protect and save lives of Oregon's citizens. Some of the agencies that supported this effort do not have a budget line item for this category of public service. Several agencies provided staff and materials, not including the volunteer agencies that I wrote of on March 9, 2017.

Organized by Multnomah County Joint Office of Homeless Services, several other public agencies assisted with the urgent need to stand up shelters. 24-hour shelters began on January 7, 2017 and at one point 20 warming shelters were operating with an average nightly population of 730, although the normal nightly average shelter population is 200. A closed public library was converted and equipped to serve as a shelter due to growing demand. Portland Fire Bureau drove staff from many county and city agencies to and from the shelter to keep it staffed; they also patrolled the streets to find homeless who may not have been able to travel to a warming shelter. The Fire Bureau patrolled the streets to find homeless to provide emergency food rations, water, gloves, blankets, etc. The City of Gresham helped staff a shelter in its city, ultimately for 31 days of dangerously cold temperatures. Gresham reported that all jurisdictions were supporting the sheltering needs, but it was challenging due to each agencies own staffing and resource limitations.

During the incident period of January 7 through 20, 2017 numerous State Executive Branch Buildings were closed either for consecutive days or intermittent days, including counties that are not included in my declaration request. Oregon's state offices that were closed during the incident period are located in several counties, and included Baker, Clackamas, Columbia, Crook, Deschutes, Gilliam, Harney, Hood River, Jefferson, Malheur, Multnomah, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco, Washington, and Wheeler.

Due to the impacts of this event that exceeded the local and state capacities, I issued multiple executive orders in addition to Executive Order No. 17-02:

I issued a proclamation Governors Executive Order No.17-03 on January 31, 2017 proclaiming a state of emergency for Malheur County regarding the effects of the severe winter storms and delegation of emergency authority to suspend state administrative rules that prevent, hinder, and delay mitigation of the effect of these winter storm. I issued this executive order due to the historic level of wreckage the severe storms left behind. Specifically, I delegated the Director of the Department of Environmental Quality (DEQ) to issue emergency orders that temporarily suspended DEQ rules and or expedited DEQ approved operations in response to building collapses as a direct result of the severe winter storms in Malheur County. (Enclosure 7)

I issued Governors Executive Order No. 17-05 on April 13, 2017, proclaiming a state of emergency in Coos, Curry, Douglas, Josephine, Multnomah and Tillamook Counties due to severe winter storm that includes high winds, flooding and landslides. These severe storms caused critical transportation failures, loss of power, and communications capabilities, sheltering and evacuation needs. This storm damaged state highways through the jurisdictions, with scour washouts, sinkholes, serious debris flows and landslides/mudslides. (Enclosure 7)

I issued Governors Executive Order No.17-06 on April 13, 2017, proclaiming a state of emergency existed for Clackamas, Clatsop, Columbia, Coos, Curry Douglas, Gilliam, Grant, Harney, Hood River, Josephine, Lake, Lane, Marion, Multnomah, Tillamook, Wasco, and Washington Counties beginning on January 11 and continuing through March 2017, due to severe storms that resulted in critical transportation failures damaging state highways throughout the jurisdictions with scour washout, sinkholes, debris flows and mudslides. I directed and ordered the Oregon Department of Transportation to provide assistance and seek federal resources. In addition, I have released \$1 Million in funds to assist counties such as the Malheur community with the 375 requests for assistance for public infrastructure building damage not covered by insurance and to supplement the needs of the local agriculture industry. (Enclosure 7)

The denial of Oregon's major disaster declaration request to designate Public Assistance comes as the State of Oregon has recently identified a \$1.6 billion dollar State budget shortfall. This is particularly impactful to Oregon's rural farming, ranching, and agricultural communities.

Revised Estimated Cost of Assistance (44 CFR § 206.48 (a) (I)) based on FEMA's April 17, 2017 Severe Winter Storm and Snowstorm Policy Clarification

In coordination with FEMA Region Ten, joint guidance was given to the potential applicants (Enclosure 9) in preparing for the Initial Damage Assessment and Joint Preliminary Damage Assessment (PDA). This guidance assisted locals, State and FEMA teams to support and or justify snow/ice removal activities at a direct result of the event. Upon further clarification received by memorandum for FEMA Region Administrators, dated April 17, 2017 (Enclosure 10), Severe Winter Storm and Snowstorm Policy Clarification - Snow related activities and Mobilization Costs; we have revised our disaster cost estimate (Enclosure 11).

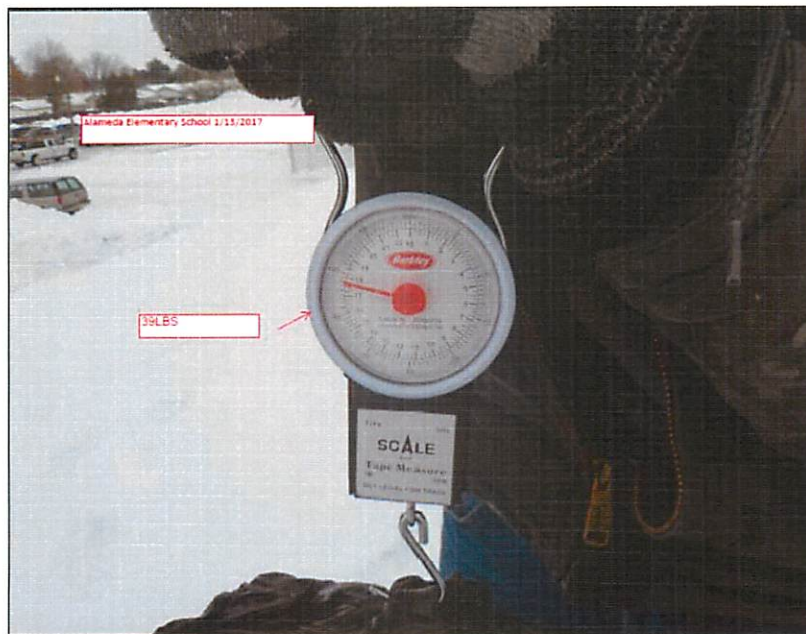
Under close coordination with FEMA Region Ten, we have removed all snow removal costs that are not incidental to Category B activities per above reference memorandum. The costs that have been removed from the revised cost/estimate PDA summary include all snow/ice removal activities related to access around hospitals and schools and snow removal operations on critical routes for fire and ambulances services.



Example of severity of the disaster's treacherous road conditions (Warm Springs Reservation)

The category B incidental snow removal activities that have not been removed are those costs not covered by insurance for the snow/ice removal activities from roofs of public buildings that were in imminent threat from collapse or structural damage. Ice damming was a major concern over all of central and eastern Oregon. An ice dam is a ridge of ice that forms at the edge of a roof and prevents melting snow (water) from draining off the roof. The water that backs up behind the ice dam can leak into a building and cause damage to walls, ceilings, insulation, and other areas. Ice dams can also tear off gutters and loosen shingles, adding to water backup into the structures. The continuous severe storms that brought snow, freezing rain, freezing temperatures and high winds compounded this effect. One eastern county even reported one foot of ice with two feet of snow on the majority of their roofs. Due to the magnitude of the event, local jurisdiction resources were exhausted and overwhelmed; outside resources were delayed due to road closures, hazardous conditions, and the high demand of qualified contractors adding to the severity of the situation.

To understand the severity of the conditions, the City of Bend, located in Deschutes County, has a 20 pounds per square foot building roof load code requirement for most new roof construction. In accordance to FEMA Snow Load Safety Guide, FEMA p-957/January 2013, snow can weigh anywhere from 3 pounds to 21 pounds per square foot, while a square foot of ice weighs approximately 57 pounds per square foot.⁷ In eastern Oregon, the snow water equivalent values ranged from 6 to 10 inches. Every inch of snow water equivalent weighs 5.2 lbs. per square foot. With this amount of snow water equivalent, at a minimum, snow loads of 35 to 40 lbs. per square foot or more were likely present on the buildings.⁸



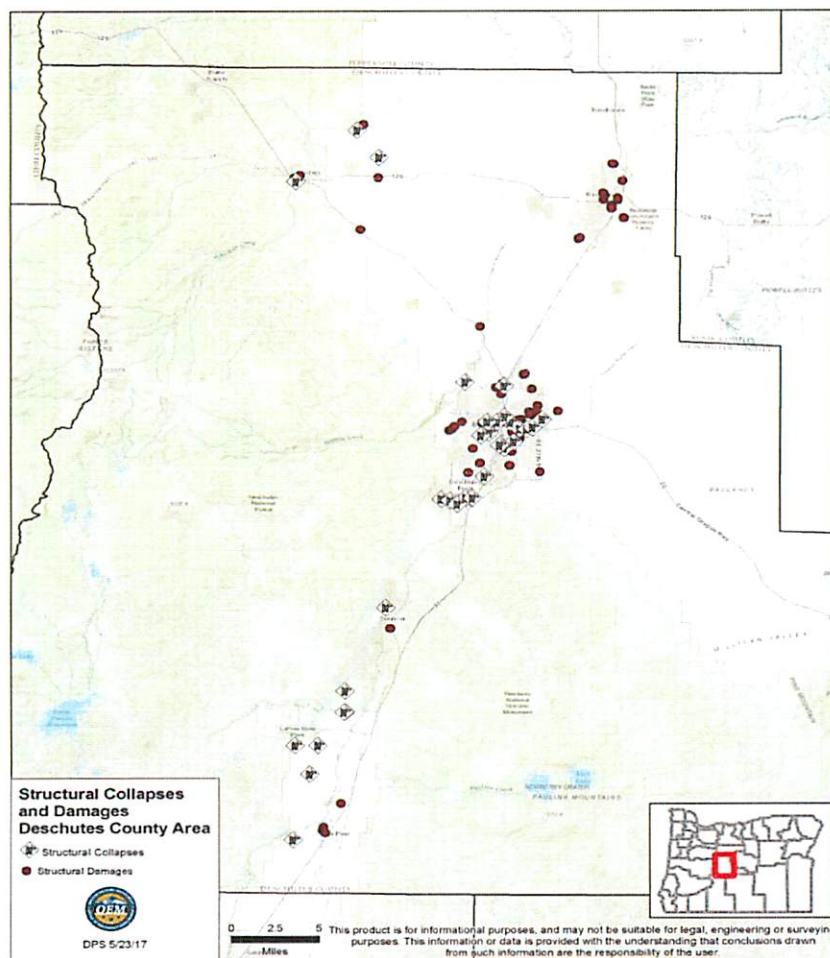
Ontario School District 8C – January 13, 2017, Sample snow load showing 39lbs per sf.

⁷ *Snow Load Safety Guide*, FEMA Risk Management Series; FEMA P-957 (January 2013)

⁸ Supplemental Weather Statement

The Ontario School District stated that the health, safety, and security of the students were the first and foremost reason for deciding to clear all of the roofs from their excessive snow loads. Not only did they have concerns for the weight of the snow, the moisture content of the snow, and the age of the buildings, but they also needed to clear space around roof top units in order to be able to maintain indoor air quality. Without clearing the snow around the roof top units, they would be starving for fresh air which could have potentially led to exhaust gases being sucked into the heating units and into the classrooms below.

Those local jurisdictions that had the resources available, procured contractors to remove the snow loads sometimes several times within the incident period. For example the Bend La Pine School District, located in Deschutes County, declared an emergency and closed all schools in the Bend area due to building safety concerns. The School district hired engineering consultants to evaluate, identify hazards and prioritize snow removal from district buildings to allow the district to reopen schools as expediently as possible (Enclosure 8). To show the impact and severity of the emergency situation below is a graphic of the documented collapses and identified structural damage that plagued the county. This scenario was repeated across the state throughout the incident period.



In addition to the revision of the Category B estimates, I have enclosed damage estimates from Clackamas, Josephine and Wasco County to further demonstrate the impacts and magnitude statewide. (Enclosure 12) Wasco and Josephine counties participated in the Joint PDA but were not originally identified in my request for a major disaster declaration.

Clackamas County identified conditions that constituted a hazard to health and safety and protection of improved property as a result of the freezing weather that brought ice. This also resulted in wide spread debris from fallen trees and broken limbs. Clackamas County damage cost estimates have been submitted to FEMA Region Ten for review and are included in the revised cost estimate

I have also included costs that were documented and verified in the original PDA but were inadvertently left off the PDA cost summary. West Oregon Electric Co-op sustained damages that were identified for both Columbia and Washington Counties, however the portion of the damage costs for Washington County was mistakenly omitted from the final PDA Cost summary.

As shown in enclosure 12, the total statewide damage estimate with reduction of ineligible snow removal costs is \$13,327,155.70 with a statewide per capita of \$3.48. This includes the counties of Baker, Columbia, Curry, Deschutes, Hood River, Jefferson, Malheur, Multnomah, Union, Wasco and Washington. The revised statewide damage estimates with additional costs totals \$14,327,588.75 with a statewide per capita threshold of \$3.74. This includes the counties mentioned above with the addition of Clackamas County.



Hazard Mitigation (44 CFR §206.48(a) (4))

Oregon has been aggressive in implementing mitigation efforts and has an enhanced multi-hazard mitigation plan that was approved by FEMA in September 2015. Specifically, the Port of Portland avoided loss as they reported no truss damage under this event. A similar event in 2009 caused extensive damages to the Portland International Airport due to a snow load avalanche coming off the airport canopy onto the ticket lobby roof. Under DR-1824-OR, the Port's 406 mitigation project installed a snow fencing system across the face of the canopy to hold in place and alleviate any potential for future avalanche off the canopy. This is similar to systems utilized in the European Alps, to keep avalanches at bay. It works and is a great example of the benefits of this program. We strongly believe there was a significant avoidance of loss due to the application of 406 mitigation on this project.

Recent Multiple Disasters (44 CFR §206.48(a) (5))

Oregon has had one of the most extreme winters in its history in what is normally a maritime climate. The persistent cold air over a five week period from December 2016 through the end of January 2017 period has resulted in damaged and collapsed buildings, landslides, critical infrastructure damage with power outages to over 100,000 customers, and the shutdown of schools, government facilities, and interstates. These damages affected multiple communities across the State. One such storm resulted in a Disaster Declaration, DR4296, from ice and flooding during the incident period of December 14-17, 2016.

Other Federal Assistance (44 CFR §206.48 (a) (6))

When the initial request for disaster assistance was conveyed, the amount of emergency or disaster assistance from other federal agencies was unknown. Since that time, at least three other federal agencies have recognized the severity and magnitude of this event and have been incredibly supportive of Oregon through the assistance they have provided.

The extreme series of severe weather has depleted operational budgets. The Oregon Department of Transportation alone used more materials fighting extreme weather within a five week period surrounding our incident than it has used in the last three years combined. As a result of the severe storms that brought extreme temperatures, heavy snow and ice, rain, high winds, flooding, landslides and erosion the Federal Highway Administration (FHWA) Emergency Relief was declared for multiple counties throughout the State to assist with the recovery of federal aid highway system beginning from December 14, 2016 and continuing through March 2017.

The cumulative impacts of the storm had a tremendous impact on the state and local road systems, gravel and asphalt roads experienced significant damage from repeated freeze and thaw cycles and heavy rain on snow flooding. This was well over the normal damage associated with a significant snow removal winter season. It is estimated that damages to FHWA routes are between \$30 to \$40 million with reports coming in daily from districts and local agencies. (Enclosure 13)

The United States Department of Agriculture (USDA) activity to help farmers and ranchers is quite ahead of last year. This year alone they have obligated \$38 million which is \$1.6 million more direct operating loans then the same time last year. USDA estimates \$1 million in loans from the winter storms.

Small Business Administration (SBA) assistance was also made available to businesses in ten of the impacted Counties in Oregon. The SBA have received eight applications for economic injury loans all from Hood River County. Two have been denied, three are in process, and three have been approved for a total of \$89,100 to help recovery from this latest disaster. The Small Business Development Center is also offering free, personalized counseling to help affected business with their recovery.

In closing, the documentation enclosed in this appeal and stated in my letter demonstrate Oregon has met the eligibility criteria for a major disaster declaration and has substantiated that the damages sustained are of such severity and magnitude as to be beyond the capabilities of the state and affected local governments and that a declaration is warranted. We have provided additional supporting documentation from the National Weather Service describing the series of persistent events that continuously impacted the local jurisdictions exhausting resources and damaging infrastructure. We have documented the continuous activities of emergency response that occurred without break during this incident period. This was truly a statewide disaster that affected all counties within Oregon, with thirteen counties documenting significant damages.

We have revised the cost estimate of snow-related activities based upon FEMA's April 17, 2017 Severe Winter Storm and Snowstorm Policy Clarification, and included additional damages and costs as a result of the event. The Original NWS Weather Statement and the Supplemental Weather Statement clearly support this request.

We have substantiated that the magnitude of the damages and costs to the state, as well as the economic impact on local governments, exceeds our combined capacities. The following counties have met the per capita threshold indicator: Baker, Columbia, Curry, Deschutes, Hood River, Josephine, Malheur, Multnomah and Union.

With these additional cost and impact information that demonstrate the severity and magnitude of the event, and through the application of the policy clarification guidance to our original damage assessment, I request reconsideration of FEMA's disaster declaration denial.

Your favorable review of this request in support of Oregonians is appreciated.

Sincerely,

A handwritten signature in black ink that reads "Kate Brown". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Governor Kate Brown

President Donald J. Trump

June 9, 2017

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Enclosures

1. Governor's Declaration Request Letter, Dated March 09, 2017
2. FEMA Denial Letter, Dated May 12, 2017
3. Supplemental Weather Statement, Dated May 24, 2017
4. NWS Original Weather Statement, Dated March 7, 2017
5. Local Declarations
6. ESF Resource Requests
7. Governor's Executive Orders (17-02, 17-03, 17-05, & 17-06)
8. Snow Load Engineering Reports for Schools
9. Initial Damage Assessment and Joint PDA guidance on cost eligibility
10. Severe Winter Storm and Snowstorm Policy Clarification, Dated April 21, 2017
11. Revised Cost Estimate
12. Enclosure of Additional Counties and errors and omissions
13. Estimated Assistance from Other Federal Agency Programs
14. Snowfall Data