



The Cascade Creek Fire 2012



10 Hot Facts about the Fire on the Mountain

Remembering the Incident · September 8 to October 7, 2012 · Trout Lake, Washington

The Fire History

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The Cascade Creek Fire burned forests on the south and west slopes of Mt. Adams, eight miles north of Trout Lake, WA. The fire was started by lightning on Saturday, September 8, 2012 from a storm that started over 200 wildfires across eastern Washington. Two Type II Washington Interagency Incident Management Teams managed the fire before it was returned to local Forest Service control.

The Volcano

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Mt. Adams is a composite or stratovolcano which means it is made up of alternating layers of lava flows, volcanic ash, cinders and blocks all piled conspicuously on top of one another. Mt. Adams has had hundreds of eruptions over the past several thousand years, the most recent approximately 6,800 to 3,500 years ago. However, large landslides and lahars (mudflows) that may not be related to eruptions pose the most destructive, far-reaching hazard. In 1921, about 4 million cubic meters (5 million cubic yards) of rock fell from the head of Avalanche Glacier on the southwest flank of the volcano and traveled almost four miles down Salt Creek Valley. Imagine digging line in that Valley when that occurred!

The Forest

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The Mt. Adams Wilderness area is a unique blend of dry Eastside and moist Westside weather conditions impacting a range of over 8,000 feet of elevation. This causes a very diverse vegetative landscape. Major plant communities are named for the dominant tree and include: grand fir, mountain hemlock and Pacific silver fir. Lodgepole pine and subalpine fir dominate high elevation forests. Douglas-fir, western larch and ponderosa pine are present at middle elevations. Approximately 40% of the vegetated area of the wilderness is classified as a "Mountain Hemlock / Cascade Azalea" type. This association typically grows as a closed forest and includes huckleberries, mountain ash, and bear grass.

Forest Health

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Mountain Pine Beetle

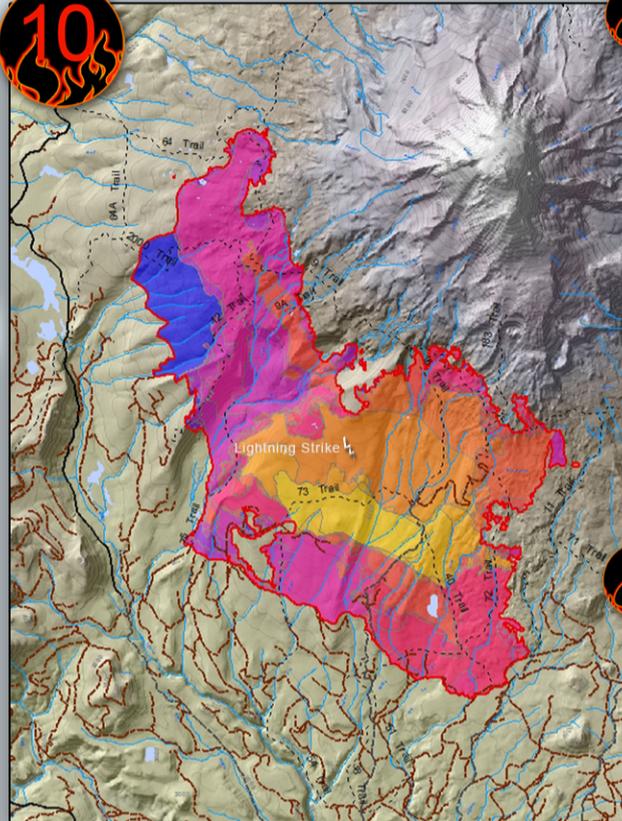
The mountain pine beetle (*Dendroctonus ponderosae*) is a native bark beetle that kills mature lodgepole pine (*Pinus contorta*) with trunks greater than eight inches diameter, especially when trees are growing in dense, uniform stands that become drought stressed. Lodgepole pine trees are killed in late summer, and turn red when they dry out one year later. Trees that have been dead two or more years have dropped their needles, but still have fine twigs. Killed trees start falling in 3-15 years after they die, depending on wind, exposure and decomposition rates. Mountain pine beetle-killed trees are a high fire hazard for 2-3 years because the red needles and fine twigs are so flammable. Once the fine materials decompose, they become less of a fire hazard. When the trees start to fall and jackstraw, the risk of severe fire behavior rises again.

Balsam Woolly Adelgid

The balsam woolly adelgid (*Adelges piceae*) is a non-native aphid-like insect that sucks nutrients from the stems and twigs of trees in the genus *Abies*. Subalpine fir (*Abies lasiocarpa*) is very sensitive to substances in the insects' saliva and suffers a physical reaction that includes swollen twig nodes ("gouting"), poor bud set and growth, abnormal wood formation, and mortality. Often, infested weakened trees are killed by bark beetles such as the fir engraver beetle or the western balsam bark beetle.

Fire Progression Map

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Incident Management

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An incident such as this wildland fire is first managed by local fire departments and fire agencies. When the fire becomes more complex, additional resources are called in to manage the incident. The incident management teams (IMTs) are "typed" according to the complexity of the incidents they are capable of managing. IMTs are part of the incident command system and capable of managing incidents in the jurisdictions (city, county, fire district, state, metropolitan area or national area level) to which they are assigned. Sometimes, these teams work together to manage fires, which was the case for the Cascade Creek Fire. WIIMT #4 managed the fire until early October 2012. A local Type III team assumed control of the Fire at that time and continued to patrol, mop up, and rehabilitate the fire as necessary.

Public Safety

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The Cascade Creek Fire burned through dead and dying trees that have been weakened by insect attacks and disease. The fire has further weakened these trees. All standing trees in the fire area are considered hazardous, and can collapse without warning. The fire has burned the roots and branches of many standing trees. With the 15-20 mph winds common during the late fall, many of these trees will topple over. The fire area is closed to the public. Please contact the Mt. Adams Ranger District at 509-395-3402 for additional information regarding the area closure.

Long Term Fire Behavior

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When will the fire go out? Summer 2012 has been dry and the prognosis is for drier than normal conditions through December. Despite that prediction, 'drier than normal' will still provide moisture as we progress into fall. Climatological records tell us that even in the driest of years, the Northwest fire season is winding down by mid-October. There may still be visible smokes beyond that time, but the probability for large fire movement will be very low.

The Weather

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It really is true that Mt. Adams creates its own weather. The glaciers on top of Mount Adams provide a continuous source of cool air. Since cool air is denser than warm air, it tends to sink downhill. The cool air pools in the valleys overnight, while ridgetops stay warmer and drier during most summer nights.

Fire Behavior

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The forests growing on and around Mt. Adams are adapted to both wet and dry conditions and are comprised of a variety of different vegetation types. The steep terrain further accentuates the diversity with distinct bands of vegetation at multiple elevations. This unique environment makes fire fighting difficult. It is challenging to predict where the fire is most likely to advance. Often, fire fighters and managers use an indirect tactic where fire lines are constructed some distance away from the active fire front. The fuels between the containment line and the fire front are then purposely burned out under controlled conditions, thus effectively stopping the fire.

Sample Photos of Insect Infestations in Forests Near Mt. Adams



Mountain Pine Beetle Infestation



Mountain Pine Beetle Infestation



Gouted twigs of subalpine fir



Balsam woolly adelgid infestation of subalpine fir.



Pocket Card



WIIMT 4



Sit Report



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