

## Oregon Department of Forestry



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### A Short History of Wildland/Urban Interface Fires in Oregon



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[Table: Oregon's Most Destructive Wildland/Urban Interface Fires]

Oregon has grappled with the problem of wildfires burning homes for more than a century. In 1864, the state passed a law to protect settlers' homes from wildfires set by other settlers. These land-clearing fires frequently escaped control and burned freely, sometimes for weeks or months, until extinguished by rain or snow. The law had little effect and for the next 133 years state fire prevention laws focused on protecting the forests from people.

Yet fires that threatened, or burned, homesteads continued to occur. Massive outbreaks of fires in 1868 and 1902 burned tens of thousands of acres, primarily in western Oregon, and many farms, homesteads, and lives were lost.

Communities also struggled with -- and sometimes lost to -- the problem of wholesale fires that wiped out entire towns. Bandon was leveled in 1914, and Astoria in 1922. These conflagrations were an urban phenomenon caused by the nearly exclusive use of wood in constructions -- for dwellings, businesses, sidewalks and roadways. Once fire occurred, from an overturned kerosene lamp or carelessly discarded cigar, and was permitted to spread, heroic and extraordinary measures were needed to keep the fire from leveling the entire city. To create fuel breaks, daring men sometimes used explosives to level buildings in the fire's path, hoping to deprive the fire from fuel as well as to bring it closer to the ground. Sometimes this worked, sometimes not.

The wildfire problem continued in the early 1900s, but for a while was merciful to cities. Large fires in 1910 burned in many of the state's remote forests. The 1933 Tillamook Fire, which burned in the dense timber of the northern Coast Range, was so large and frightening that it became a permanent fixture in Oregon history. These fires took lives and burned remote farms and homesteads, but most of the damage was to the forests themselves. Then, in 1936, an outbreak of fires hit communities and forests with equal destructiveness. The most famous of the 1936 fires was a wildfire that burned the coastal city of Bandon and killed 11 people. "Carried by an east wind of gale-like force, a forest fire swept into the town of Bandon late on the evening of September 26, practically wiping out the town and resulting in the death of 11 persons," said an article in The Forest Log, the Oregon Department of Forestry's newsletter.

"The fire fighters were helpless. Fire lines were wiped out, the men were forced to flee.... Efforts were then centered on evacuating the town. Many of the citizens, especially the older ones, seemed stunned, unable to realize that the town was doomed and that they must leave. It was among those that the casualties occurred. When found the majority of them were clutching some of their personal belongings, evidently attempting to save something but realizing the danger too late. Many stories are told by the men who accomplished heroic work in saving individuals, how some of them refused to leave and had to be taken from the town by force."



Above: Even cars driven to the beach didn't escape destruction in the Bandon Fire of 1936.

The fire had first swept into Bandon's residential area, then into the business section. Nearly every building in town burned -- even the telephone company. Ships' radios were the only source of communication. Only 16 buildings out of 500 survived.

The towns of Coquille and Myrtle Point were also threatened by the 1936 fires, but saved due to the aggressive use of bulldozers and backfires. "However, there has been a large loss in buildings and other improvements to the settlers who were located in the fire area," reported the Log. Farther north, in Lincoln County, other fires licked at populated areas. Buildings and a schoolhouse burned near a logging camp. Flames destroyed an "auto camp" near Yachats, and then continued toward the town. Some residences were lost, but the town was saved. Another town, Depoe Bay, also lost homes to the flames, but firefighters kept the town from burning. Inland, flames swirled in the Siuslaw National Forest around the town of Alsea. Miles to the east, on the western slopes of the Cascade Range, other fires were within sight of Detroit, Niagara, Mill City and Estacada.

Better wildland fire suppression and an emphasis on fire prevention during and after World War II dramatically reduced the damage caused by wildfires. However, from the 1950s into the 1980s people increasingly moved away from urban centers into suburban developments, and wildfire and homes again crossed paths -- this time with unprecedented results.

In 1987, the Bland Mountain Fire broke out near Canyonville in southwest Oregon. The fire burned 10,300 acres, destroyed 14 homes and caused two deaths. Later that year, a widespread lightning storm sparked fires throughout southwestern Oregon. The fires burned nearly 90,000 acres of state-protected forest land, and threatened hundreds of homes in Jackson, Josephine, Curry, Douglas, Klamath, Lane and Deschutes counties.

In 1990, an arson-caused fire in the forest northwest of Bend spawned the Awbrey Hall Fire, which churned through 22 homes on the city's western fringe. Poor defensible space around homes was blamed for many of the losses.

The next year, 1991, two wildland/urban interface fires in other Western states grabbed the attention of Oregonians. An outbreak of wildfires in northeastern Washington focused attention on the danger of overhead power lines. In many cases, these fires were sparked by strong winds pushing trees into power lines, which in turn fell or broke and started grass, brush and forest fires. The situation quickly became a wildland/urban interface crisis; complexes of fires raged for days, and suppression resources were requested from Oregon and other states. More than 100 homes burned.

Then, in early October 1991, the devastating Tunnel Fire burned more than 3,000 dwellings and took 25 lives in the tinder-dry hills of Oakland, California. That an 1,800-acre fire capable of such fearsome destruction could occur in modern times was a shocking blow to firefighters and fire managers worldwide. The Tunnel Fire underscored some factors common to urban and suburban environments in many Western states: one-way-in, one-way-out road systems; highly flammable, non-native vegetation; the nearly complete absence of safety zones within older, highly developed wildland/urban interface environments.

The Sage Flat Fire led off Oregon's destructive 1992 fire season by burning five homes and 991 acres northeast of Sisters in early June. Days later, the Round Lake Fire threatened several hundred homes west of Klamath Falls. The fire season was vigorous throughout the summer, and came to a peak in early August when the year's two most destructive fires erupted. The East Evans Creek Fire burned 10,000 acres near Rogue River, destroyed four homes and threatened 500 others. In central Oregon, the Lone Pine Fire burned 31,000 acres and three homes east of Chiloquin.

Following the East Evans Creek Fire, the Oregon Department of Forestry issued Notices of Violation to a Grants Pass company and one of its employees for starting the fire. Essentially, the action was taken so the department could recover fire suppression costs since the fire was found to have been caused by a vehicle's hot muffler that had ignited dry grass. The fire had racked up more than \$8 million in suppression costs.

In 1993, a bill was placed before the legislature, House Bill 2241, Rural Forest Interface Fire Prevention, that proposed giving the state forester more authority to "promulgate and enforce right-of-way clearance standards" along power lines passing through forest lands. The bill also sought to eliminate cedar-shake roofing in wildland/urban interface housing developments.

Southwest Oregon continued its course as the state's wildland/urban interface hotspot in 1994 with the Hull Mountain Fire. The fire started near the community of Sams Valley and burned 8,000 acres of forest and brush, as well as eight homes and 36 outbuildings. One firefighter, a bulldozer operator, was killed in a burnover.

Numerous other fires in Oregon during the 1994 fire season came precariously close to subdivisions and rural homes. Fires within the city limits of Bend, and on the outskirts of Roseburg, Medford, Cave Junction, Chiloquin, St. Helens and Klamath Falls threatened homes. Mere days after the Hull Mountain Fire, another fire broke out on the fringe of Gold Hill and destroyed a dozen outbuildings. A few weeks later, a third fire -- also frighteningly similar to the Hull Mountain Fire in both proximity and intensity -- erupted on Spriggett Butte and threatened Gold Hill-area homes, but burned none. While many of the '94 season's fires were lightning-caused, many were arson.

The 1995 Oregon Legislature directed the Department of Forestry to "specifically examine the wildland/urban interface situation" and render a report during the 1997 legislative session. To meet this directive, the department formed the Wildland/Urban Interface Technical Working Group.

Meanwhile, the fires continued. The 1996 Skeleton Fire burned nearly 18,000 acres on the eastern flank of Bend, and 30 structures were damaged or destroyed. This wind-driven fire accomplished most of its damage in just a few hours, but for a time kindled fears that its destructive toll would be far worse than Awbrey Hall's. Awbrey Hall had burned from north to south and skirted the western edge of the city, whereas Skeleton started on the eastern edge and burned west, heading for the heavily populated southern half of the city.

Skeleton was but one of many fires in 1996 that threatened Oregon's forests, as well as rural and urban-fringe communities. Large complexes of fires chewed through thousands of acres in northeast Oregon, leveling tracts of public and private forestland that had been damaged by spruce budworm and other insects. In north-central Oregon, massive fires swept hundreds of thousands of acres of range and farm land that were without formal fire protection. Far-flung ranches, hay barns and other outbuildings lay vulnerable to miles-wide fire fronts that raged across wheat fields and dry-brush high desert.

In 1997, the Legislature passed the Oregon Forestland Urban-Interface Fire Protection Act. The statute recognized that the scope of the wildland/urban interface fire problem was beyond what suppression forces could handle. Too much fuel - in the form of wooden houses and excessive vegetation around houses -- was a key contributor to the problem. Indeed, research proved that homes were burning because they supplied fuel for wildfires. If fuel availability was reduced on and around a home, then a home's chances of surviving a wildfire increased dramatically. Focusing on this, lawmakers declared that meaningful fuel modification on residential property could only be done by the homeowners themselves.

The Legislature tasked the Department of Forestry with implementing the Forestland-Urban Interface Fire Protection Act, but didn't provide any funding. Grants secured in 2001 through the National Fire Plan provided the funding for implementing the act. The administrative rules were finished in late 2002 -- just as the state was in the midst of its most destructive fire season in a half-century. Nearly 100,000 acres of state-protected forestlands had burned. Approximately 50 homes had burned, some 20,000 homes had been threatened, and suppression costs were off the scale.

Perhaps the Forestland-Urban Interface Fire Protection Act is gaining momentum as Oregon is in the grips of a destructive and costly wildfire cycle. During 2002, much of the blame for the fires' destructiveness was on high fuel loads -- too many trees -- in public forests. Meaningful change to this condition may take decades. Meanwhile, the trend of large, destructive fires is expected to continue.

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