



Yacolt Burn, 1902



THE CHANGING FACE OF FIRE

Different Opinions About Fire

Purpose of This Activity: To understand the useful and harmful effects of fire, and to understand the changing philosophy in fire management throughout the twentieth century.

Forest fires have played important roles in the history of our state and our country. Forest fires, and even the lack of forest fires (which contributed to the Yellowstone fire in 1988), have led to devastation and conflict. Whether forest fires are useful or harmful depends on the type of fire and, especially, society's notions about fire.

Imagine you live in a community surrounded by forests. The public has been asked to offer ideas on how to deal with forest fires. You will assume the role of a person with a particular opinion about forest fires and write a letter to the county commissioners detailing your position. The two attached articles provide the information for your stance. (Each letter writer reads only the appropriate article.) The writers of Letters 1 and 2 should look at a Washington map to see the areas mentioned in the article they read.

Letter 1: Read the article entitled "Yacolt Burn Changed Life in Area Forever" from the September 16, 1992, *Reflector* newspaper. Imagine your grandparents were survivors of the Yacolt fire. Explain how they narrowly escaped the fire, and share the tragic stories of other families who were not so lucky. Your view of the fire will be a very personal one.

Letter 2: Read the article entitled "Yacolt Burn Changed Life in Area Forever" from the September 16, 1992, *Reflector* newspaper. Imagine you are a forester with the Washington Department of Natural Resources. Describe how the fire began and the extent of it. Discuss the consequences of the fire, especially how the fire changed the history of the state (explaining how Vancouver could very well have become the timber capital of the state instead of Seattle). Your view will be a scientific one.

Letter 3: Read "Fire Impacts." Imagine you are a biologist who believes all forest fires should be stopped as soon as possible. Use information from "Fire Impacts" to make your point. You are using facts to support your opinion.

Letter 4: Read "Fire Impacts." Imagine you are a biologist who believes controlled burns should be used as part of a fire policy. Use information from "Fire Impacts" to make your point. You are to present an opinion supported by facts from this article.

When all the letters have been written, imagine you are making a presentation at a public hearing. Video or audiotape each person reading the letter he or she has written. Use this recording, as well as the written letters, in your display.

After your presentation, discuss these questions with your group:

1. In what ways did you share similar views?
2. What were the biggest differences among you?
3. How could differences be resolved to create a community policy?

THE REFLECTOR

September 16-22, 1992

Yacolt Burn Changed Life in Area Forever

It was 90 years ago this week that crews were able to get the upper hand on one of the biggest fires that ever took place in Southwest Washington. And it changed life in the region forever.

The 1902 fire was the first of several that raced through Skamania and Clark counties, taking human lives, animals, and literally billions of board feet of standing timber.

What is now called the Yacolt Burn started about Sept. 10, 1902, near Stevenson in Skamania County, and was fanned by east winds to the vicinity of Ariel. It surrounded, but did not burn, the town of Yacolt.

Before it was over about a week later, 38 people had died and more than 12 billion board feet of lumber had been destroyed on 238,900 burned acres. The fire burned 148,000 acres in one 48-hour period. The area burned was more than twice the size of the blast zone from the May 18, 1980, eruption of Mt.

St. Helens, and destroyed five times the volume of timber.

Strong east winds complicated firefighting, and were blamed for the dry conditions and speed with which the fire traveled.

As the story goes, a man named Monroe Vallett cut slash on Nelson Creek east of Stevenson. Despite a strong east wind, Vallett set the slash on fire. The fire soon spread from the slash to adjoining timber. At that time, a large crew would have been required to stop it, but Vallett refused to put on a crew, and the forest ranger on duty, Horace Wetherell, was not inclined to bring in a crew as he had recently been admonished over the hiring of a crew to fight another fire.

The fire burned the top of Stevenson Ridge where the wind from the east drove it west to the Yacolt Valley.

Vallett was arrested and taken to Walla Walla for trial but was not convicted. Wetherell resigned in 1904 at age 83.

The Yacolt fire

traveled so fast that people were not able to escape and horses were not able to outrun it. Cinders fell a half inch deep in Portland. It was as dark as night at noon Sept. 13, 1902.

Recollections of the fire produce these anecdotes:

- Mr. and Mrs. Ira Reid, Mr. and Mrs. C.A. McKeen and baby, and five other children were heading out for a picnic at Tout Lake with Uncle George Smith on Sept. 12. They were within two miles of the Yale post office when the fire came down a draw in the hills. A month later relatives reached their bodies by cutting through fallen timber to Speelyai Creek. None had gotten more than 150 feet, and the two unhitched horses had gone little farther.

- The family of Mrs. Newton Graves saw the fire coming and started to run for Speelyai Creek. Mrs. Graves said she would follow soon. Days later they found Mrs. Graves in her yard, surrounded by the remains of her Singer sewing machine and 200 jars of fruit.

- W.E. Newhouse, the star route mailman, hitched his two horses into his mail buggy and away they went. A search party a week later found one horse on top of a huge felled post, the other nearby, and Newhouse, his clothes and skin burned away, still holding what remained of his buggy whip.

- Mrs. John Polly took her baby in her arms and her 12-year-old son by the hand and started. That was the way they were found—all together.

- Near Kalama, Mrs. August Meyers and three children barely got out of their house, and never got out of their yard.

- Walter Dugan and his timber estimating crew spent two days in an old mining tunnel near Washougal as the fire swept around them. They survived to be able to tell their story.

The fire produced clouds of smoke that darkened the sky from Portland to Seattle.

Some residents escaped the disaster by finding safety in culverts, creeks, rivers, mill ponds and open fields. Settlers did not know where to turn to escape. The smoke was thick and there was no assurance that roads ahead were not blocked with fallen and burning snags. It is said that babies were prematurely born and the elderly succumbed to the smoke.

Rains came on Sept. 20, 1902.

The 1902 fire charred the forest and left considerable dry wood and snags that contributed to subsequent fires. Cutbacks in logging activities contributed to the absence of roads in the burned area which complicated fire fighting. Unfelled Douglas-fir snags from the 1902 fire still stand today.

As a result, the area burned 24 more times into the 1940s, including a 227,500 acre fire in the Dole Valley area in 1929, the Sunset Fire of 1919 that consumed 26,900 acres, and the 48,000 acre Rock Creek fire of 1927.

Weather conditions contributed to an estimated 110 Northwest fires in the fall of 1902, from Enumclaw, Elma, Hoquiam and Barberton, Washington, to Wendling, Doburg, Astoria and Tillamook, Oregon.

The weather and topography have not changed since 1902, nor has the frequency of east winds. But in other ways, the likelihood of severe fires has decreased.

In the 1950s, honor camps were created in wooded areas, leading to the construction of fire breaks and water holes, and new tree plantings. From the 1950s through the early 1980s, over 779,000 snags have been felled, 4,500 acres of slash has been disposed of, 118 miles of road have been built, and

almost 11 million trees have been planted. There has not been a serious fire in the area since Nov. 1952.

Residents of forested areas can defend themselves against fires by avoiding wood roofs and keeping vegetation away from homes.

Fred Pickering, fire prevention forester with the state Department of Natural Resources, said a repeat of the 1902 fire would kill hundreds of people because of population increases. "There is no effective way to fight a wind-driven fire," he said.

"Had the Yacolt Burn not taken place," said Pickering, "we would have had vast timber resources near a port and mills. We would have been the timber capital of the Northwest, even more so than Seattle."

Pickering estimates that the timber destroyed in the 1902 fire alone was enough to construct 2.5 million homes, which is a city about the size of Los Angeles.

On the positive side, the fire sped up construction of the Vancouver to Yakima railroad, and gave rise to timber salvage operations for which Weyerhaeuser established a headquarters in Yacolt.

Pickering said the 90th anniversary of the Yacolt Burn is being noted through school assemblies and other programs.

FIRE IMPACTS

The impact of a fire on a forest ecosystem depends on its intensity. Hotter, longer lasting fires have more extensive impacts than cooler, brief fires.

Low to Moderate Fires

In a light to moderate fire, seeds and roots will take hold soon after, sending up new shoots. Plant nutrients in the form of ash are put back into the soil, resulting in rich new plant growth. Grasses and sedges quickly sprout. Shrubs and trees with deep roots are less likely to be damaged by moderate intensity fires and will respond rapidly. Some shrubs will sprout from stumps and roots.

Frequent low-intensity fires help prevent the build-up of materials that can cause a large fire.

Heavy Fires

Hotter fires heat the ground so much that all plant life is destroyed. Soil and plant recovery from intense fires takes years because roots die in the fire. New growth depends on unburned seeds buried in the organic layer of soil, or on seeds brought in from other areas by animals or wind. The high concentration of minerals in heavily burned soils provide good seed beds for germination if the seeds are present. Grasses, herbs and mosses can quickly take over. Deciduous trees (trees that lose their leaves each year) will sprout from roots, stumps or seeds. Eventually, most of the same kinds of plant will return to the burned area but in a different growth pattern.

Patchwork Fires

Fires might not burn an entire area, particularly if the ground is wet. They might burn in a patchwork pattern, leaving islands of unburned plants. This creates a mosaic of plants that supports a wide diversity of wildlife.

Other Fire Impacts

Fire removes plant life and blackens soil. This allows the sun to warm the soil for new plant growth.

Bare, burned soil erodes (washes away) easily.

Fire provides nutrients to the soil.

Fire helps prevent insect attacks by encouraging plant diversity.

Food for wildlife and humans is destroyed by fire.

Fire kills trees.

There is little food or cover (sometimes none) for wildlife immediately following a fire.

After a while, an abundance of good food for wildlife comes back after a fire.

Burned areas have dead trees (snags) for nesting sites.

At one point in regrowth after a fire, shrubs will be the main plants. These offer good cover for small mammals. These small animals in turn feed larger mammals

The heat of fire can remove disease and insects which prey on particular kinds of plants.

Very hot fires destroy all roots and seeds.

* Adapted from *The Fire Path: Fire and the Ecosystem*, sponsored by U.S.D.A. Forest Service, Environmental Education Association of Oregon, Washington Forest Protection Association and Washington Department of Natural Resources.