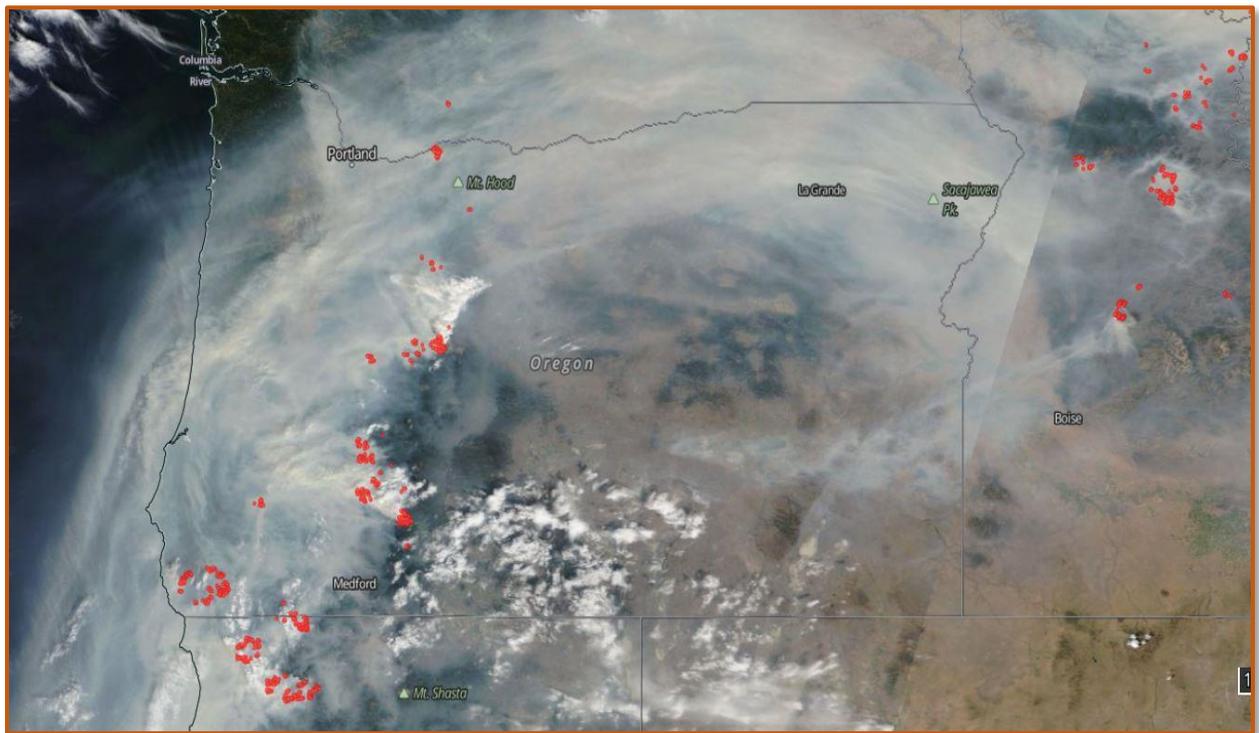


Impacts of Oregon's 2017 Wildfire Season

TIME FOR A CRUCIAL CONVERSATION

January 2, 2018



Google satellite photo over Oregon showing wildfire locations, Sept. 4, 2017.



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Impacts of Oregon's 2017 Wildfire Season

Introduction

After a mild wildfire season in 2016 – but following back-to-back record seasons the previous two years – Oregon's luck ran out. Despite fire suppression systems regarded as best-in-class for private and public lands, lightning and human-caused wildfires ravaged the state's forests and rangelands, making 2017 one of the worst wildfire seasons on record.

While news headlines were quick to capture the “cost” of firefighting, suppression represents only a fraction of the true cost of wildfire. There are huge impacts to air quality and health, school athletics, travel and tourism, employment and the economy, transportation, and iconic Oregon economic sectors such as the state's wine and timber industries.

No single state agency is charged with documenting these costs, so the Oregon Forest Resources Institute set out to gather what information is currently available, from media reports, individual interviews and hard-nosed research. Several state agencies are also gathering data, but these reports are not expected until later in 2018.

Here's what we know: Thick smoke blanketed our state for a record number of days, causing cancellations of cultural, social and athletic events. Wildfire blocked access to Oregon's vaunted tourism and recreation destinations, forcing travelers to alter or cancel plans and negatively impacting the state's lodging and restaurant businesses. Numerous people couldn't get to work, because they were sick or roads were impassable. Many lost wages. More than 665,000 acres of wildfire across the state sent particulates and other hazardous compounds into the atmosphere, diminishing air quality for everyone, but especially those considered most vulnerable, including children, pregnant women and the elderly. After the fires, many communities faced landslides, flooding and diminished water quality.

Questions loom: Is this the new normal? What economic and human effects did Oregon experience in 2017, and what similar impacts will wildfires have going forward?

The causes of wildfire are complex, and fire does play an important role in Oregon's fire-adapted forest ecosystems. We can never be “fire-free.” But it's now up to the state's leaders, scientists and policymakers to have a conversation and chart a course where Oregonians can co-exist with fire while simultaneously mitigating its impact on our economy and our health. This report is intended to focus attention on why such a conversation is critical.

PAUL BARNUM
EXECUTIVE DIRECTOR

Summary

Wildfires are a growing problem in the western United States. Since 1970, the length of the average fire season has grown by 78 days, from five months to more than seven months. Both small and significant fires raged across Oregon in summer 2017, burning 665,000 acres of forests and rangeland in more than 2,000 fires.



WHEN SMOKE LEVELS ARE HIGH,
EVEN HEALTHY PEOPLE MAY HAVE
SYMPTOMS OR HEALTH PROBLEMS.

Oregon Health Authority

These fires encroached on the daily lives of many Oregonians, especially those living in communities near the blazes. More than 7,000 people were evacuated because of fire danger. Even those living miles away felt the impact as hazardous smoke drifted into major metropolitan areas. This affected the lives of a few million people, making breathing more difficult and leading to the cancellation of school sporting events, outdoor concerts and performances, as well as lost revenue at restaurants, retailers and other businesses.

Estimated fire suppression costs for 2017 are \$454 million. During the peak fire season in early September, 8,000 firefighters were working in Oregon. Both numbers provide insight into the significance of these wildfire events.

This report provides a detailed look at how wildfires directly impacted the daily lives of Oregonians throughout several months of 2017. We consider the impact in several categories:

- **Air quality and health** – Wildfire smoke permeated air throughout the state, endangering the health of all residents, especially the young, the elderly and those with medical concerns.
- **Sporting events** – High schools canceled games at a much higher rate than is usual, as the Oregon School Activities Association issued air quality advisories.
- **Travel and tourism** – Side effects of the fires, including smoky air and closed highways, had a further negative impact on businesses and organizations that rely on tourism, including major losses to the Oregon Shakespeare Festival, Cycle Oregon and the Sisters Folk Festival, among others.
- **Employment and the economy** – Communities that rely on tourism lost jobs earlier in the season than they typically would see in a downturn. This included the Columbia River Gorge and central Oregon.
- **Transportation** – Closed highways impacted the daily lives of residents who found themselves with longer commutes. This also affected the trucking industry, which was challenged by delays and altered routes.

- **Local impact** – Evacuated residents’ lives were disrupted and local businesses lost crucial summer revenue, leading to campaigns to help communities most affected by wildfires. Lumber companies suffered materials shortages. Wineries may have had their grapes tainted by smoke.
- **Long-term effects** – Popular recreation sites remain closed, and the impact on tourism could extend well into the future.

Air quality and health

Wildfire smoke is a mix of particulate matter and gases. These include nitrogen dioxide, ozone, carbon monoxide, polycyclic aromatic hydrocarbons and volatile organic compounds. It can irritate the eyes, nose, throat and respiratory system, and can be inhaled into the deepest part of the lungs, according to a report published by the Oregon Health Authority.



DURING THE 2017 FIRE SEASON, SOME 160 DAYS REACHED LEVELS CONSIDERED UNHEALTHY FOR SENSITIVE GROUPS (USG). NO DAYS REACHED THAT LEVEL IN 2016.

Oregon Health Authority

“When smoke levels are high, even healthy people may have symptoms or health problems,” the report says.

It is especially dangerous to people with chronic health conditions, those older than 65, infants and children, pregnant women and smokers – a diverse and wide-ranging group of people.

The Air Quality Index (see table below) provides a framework for understanding how much pollution is in the air, and what it might mean for public health. It rates air quality using six categories: Good, Moderate, Unhealthy for Sensitive Groups, Unhealthy, Very Unhealthy and Hazardous, using a scale that ranges from 0 to 500.

| Air Quality Index (AQI) Values | Levels of Health Concern | Colors |
|---------------------------------------|--------------------------------------|--|
| <i>When the AQI is in this range:</i> | <i>..air quality conditions are:</i> | <i>...as symbolized by this color:</i> |
| 0 to 50 | Good | Green |
| 51 to 100 | Moderate | Yellow |
| 101 to 150 | Unhealthy for Sensitive Groups | Orange |
| 151 to 200 | Unhealthy | Red |
| 201 to 300 | Very Unhealthy | Purple |
| 301 to 500 | Hazardous | Maroon |

The Air Quality Index states that AQI values above 101 are unhealthy for sensitive groups (USG).

At the Hazardous level, the entire population is more likely to be affected. Very Unhealthy is considered an alert that everyone may experience more serious health effects.

During the 2017 fire season, parts of Oregon experienced Hazardous levels of smoke. In all, about 160 days reached a level considered Unhealthy for Sensitive Groups (USG). The problem was pervasive, reaching northwestern, southwestern, central and even eastern Oregon on some or all those days.

By comparison, there were no days that reached the USG level in 2016. The years coming closest in this century were 2015 and 2002, when the number of days with impaired air quality was fewer than half the number of days reached in 2017, according to the Department of Environmental Quality.

Smoke exposure can trigger or worsen symptoms for people with asthma, COPD, other lung disorders and heart disease. It is harmful for older adults because they may be more likely to have these conditions. Smoke can worsen chronic heart and lung conditions. It's dangerous for children who are still growing, as they typically spend more time being active outside and have higher breathing rates than adults. Pregnant women also have higher breathing rates.

During the height of the 2017 fire season, Oregon's air quality came with warnings that prevented people from engaging in normal activities. They were cautioned to stay indoors, keep windows shut, protect especially vulnerable populations, and wear protective masks when spending time outside – impeding their ability to go on with their daily lives as planned.

The state's data show the impact on local medical facilities. During the first full week of September, for example, visits to emergency rooms and urgent care were 86 percent higher than expected based on historic trends, according to the Oregon Health Authority.

Asthma-related visits were among these. Records for a single day show that on Sept. 5 there were 583 asthma-related emergency room and urgent care visits. This was 20 percent more than expected on that day.

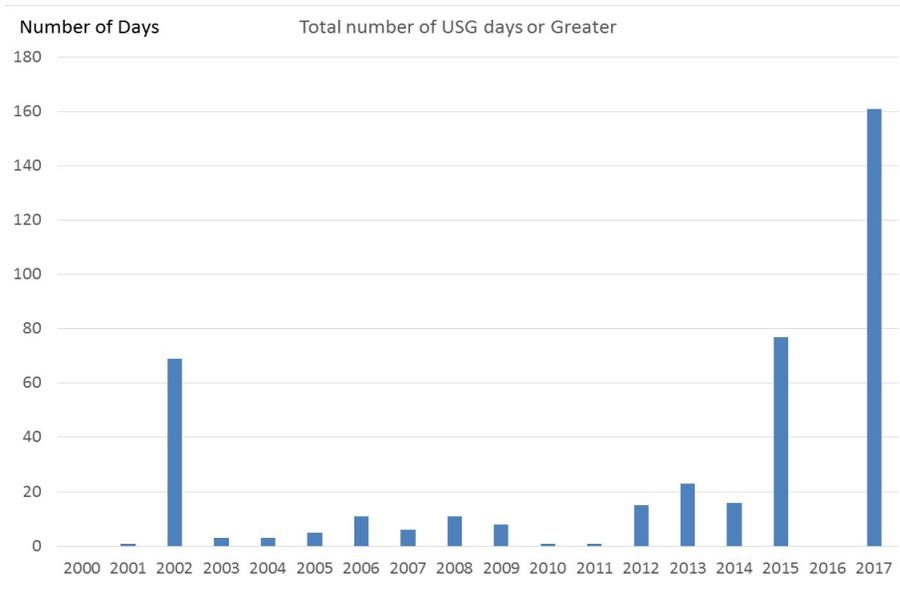
Patients between the ages of 18 and 44 represented the largest increase in visitors to emergency rooms and urgent care facilities.



WE KNOW THAT EXPOSURE TO HIGH LEVELS OF PARTICULATE MATTER FROM SMOKE ... INCREASES THE RISK OF SERIOUS HEALTH PROBLEMS LIKE HEART ATTACK.

[Oregon Health Authority](#)

Oregon Forest Fire Smoke in 2017



| Cities Included in Graph | |
|--------------------------|---------------------|
| NW | Portland |
| Willamette Valley | Salem |
| | Eugene/ Springfield |
| SW | Roseburg |
| | Grants Pass |
| SE | Medford |
| | Klamath Falls |
| Central | Lakeview |
| | Bend |
| East | Burns |
| | John Day |
| NE | Baker City |
| | La Grande |
| N Central | Enterprise |
| | Pendleton |
| | The Dalles |

- USG = Unhealthy for Sensitive Groups
- Note: In 2016 there were no measured wildfire impacts at levels USG or greater
 - Data for Lane Co. only includes data through early September 2017

During the 2017 fire season, about 160 days reached levels considered Unhealthy for Sensitive Groups (USG).

Oregon’s ESSENCE program (Electronic Surveillance System for the Early Notification of Community-based Epidemics) further recorded data at 60 non-federal emergency departments. During Sept. 4 and 5, it found a 24 percent increase in asthma-related visits statewide.

“We know that exposure to high levels of particulate matter from smoke, particularly fine particles, increases the risk of serious health problems like heart attack (in those with underlying heart disease) or breathing problems (in small children and people with underlying lung conditions),” writes Holly Heiberg, legislative coordinator for Oregon Health Authority. “The longer a person is exposed to high levels of smoke, the more opportunity there is for a health problem to develop.”

▪ **Sporting events**

As air quality deteriorated around the state, the Oregon School Activities Association (OSAA), which regulates high school athletics and competitive activities, sent a letter to schools asking them to cancel outdoor practices and games.

“While Oregon Health Authority guidelines do allow for light outdoor activities at the orange level, the intensity and duration of high school practices/contests in cross country, soccer and football are not considered light activity by OSAA,” the letter said.

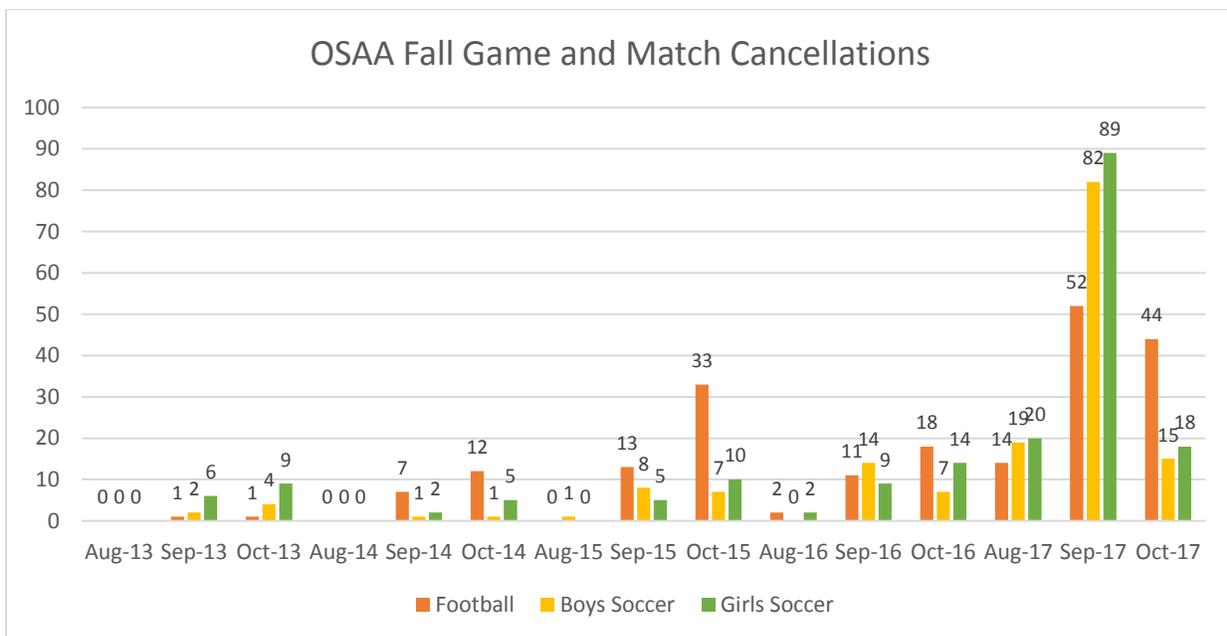


**OREGON HIGH SCHOOLS
CANCELLED A COMBINED TOTAL OF
223 FOOTBALL, BOYS’ SOCCER AND
GIRLS’ SOCCER GAMES
DURING SEPTEMBER.**

Oregon School Activities Association

Although OSAA did not collect data for practices, it did track game cancellations, as it does each year. It does not record the reason for the cancellations.

In 2017, Oregon high schools cancelled a combined total of 223 football, boys’ and girls’ soccer games during September, the month in which the most games were cancelled. Between August and October, schools canceled 353 games in these sports.



By comparison, in 2016 Oregon high schools canceled 77 games in these sports between August and October, 34 of them in September.

Cancellations recorded for these same months in these same sports were 77 in 2015, 28 in 2014, and 23 in 2013.

Travel and tourism

Tourism is one component of Oregon's healthy economy. It is an economic driver for small communities and large cities, explains Linea Gagliano, director of global communications for the state tourism commission Travel Oregon.

In 2016, Oregon's tourism industry directly employed about 109,500 people and generated \$11.3 billion in economic impact for the state.

When fires raged through forests, smoke choked the air, causing major highways to close. The 2017 wildfire disaster hit the industry with a blazing force, keeping away tourists and the dollars they would have spent, by many accounts.

In 2017, some of the events that help drive tourism's economic impact suffered substantial losses that organizers link directly to wildfires and the ensuing conditions, including potential health impacts for employees, entertainers and audiences. Events around the state canceled their gatherings or postponed shows on specific days. Though large events suffered significant losses from which they may recover, smaller ones with tighter budgets were more negatively impacted.

"It's clear that when travel and tourism are impeded, businesses suffer," Gagliano says. "We see places like the Columbia River Gorge that were (previously) starting to feel like they almost were getting too many visitors. Once that flow is curtailed, it really shows the impact and the benefits that come from travel and tourism."

What happened at a few select events around the state provides a snapshot of the experience:

- **Oregon Shakespeare Festival:** The Ashland-based festival has an overall budget of \$40 million and sells just under 400,000 tickets each year. It has an audience that is 15 percent local (Rogue Valley) and 85 percent tourist. After cancelling nine performances in 2017, the festival suffered a direct loss of \$370,000. In addition, the average Oregon Shakespeare Festival tourist spends \$167.40 per day, amounting to a significant loss to Ashland businesses and those in neighboring communities. In an average year, the festival adds about \$130 million to the local economy.
- **Cycle Oregon:** The 2017 ride for Oregon's premier annual cycling event was cancelled. The average Cycle Oregon rider spends \$200 in local communities throughout the event, which travels through a different part of rural Oregon each year, amounting to \$450,000. Direct payments to communities, local entertainment and related expenses would have been \$190,000. It's estimated that nearly \$1.7 million in economic benefit was not realized because of this event's cancellation.



- **Sisters Folk Festival:** Usually this festival generates \$1.2 million over a weekend, with proceeds benefitting local arts education programs. This year's cancellation meant that 45 acts didn't go on at 11 venues - and 5,000 people didn't come to Sisters. It also meant that local programs did not receive needed funds.

Other tourist-serving businesses shut down their seasons prematurely, closed during part of the season, or suffered losses they attributed to wildfires. One central Oregon golf course reported that it was running ahead of budget through mid-August, and then the decline wiped out any increase for the year. Businesses in the Gorge reported similar situations.

Travel Oregon is gathering information for an economic analysis of the impact of wildfires on the travel and tourism industry, to be published later in 2018. It will examine losses to restaurants, hotels, tour services and events. Oregon Cultural Trust and Oregon Arts Commission also are studying these impacts.

Employment and economy

Road closures impeding travel, as well as air quality warnings encouraging people to stay indoors, dealt a blow to Oregon businesses that rely on tourists and in-state travelers. These include leisure and hospitality companies such as restaurants, hotels and excursion services.



**IN AREAS HARD-HIT BY FIRE,
LEISURE AND HOSPITALITY
BUSINESSES CUT 600 MORE JOBS IN
SEPTEMBER THAN TYPICAL.**
Oregon Employment Department

An Oregon Employment Department report issued Oct. 26 highlights the noticeable impact on local jobs in the Columbia Gorge, central Oregon and southern Oregon. In those areas, leisure and hospitality businesses cut 600 more jobs in September than they typically would, according to the report.

In central Oregon, this impact was especially noticeable. The leisure sector typically declines at the end of the summer tourism season by 6 percent. This year, the decline was close to 8.5 percent.

“These employment impacts may understate the real impact of the wildfire smoke on the local tourism economy,” the report says.

“Preliminary results from Bend’s transient room tax collections show a notable dip of around 5 percent in hotel room visits for the first half of September compared with the same time last year. This was a bit of an anomaly, as visitation for the summer months was significantly higher than last year,” the report adds. “The drop in hotel visitors was likely compounded across the region with fewer people visiting restaurants, renting bikes, hiring a guide service or playing golf.”

In the Columbia Gorge, Hood River County lost 100 jobs in leisure and hospitality, as well as 70 in retail trade. Wasco County lost 90 jobs in leisure and hospitality but none in retail. Tribal government employment, including Kah-Nee-Ta Resort, fell by 40 jobs in September. Some of these job losses might be expected at the end of the tourist season.

Jason Lewis-Berry, Director of Regional Solutions for the state of Oregon, testified to the Oregon Legislature in November. In his testimony, he cited the lost jobs as well as a decline in sales of as much as 60 percent for businesses, both of which hit the leisure and hospitality industry hard.

Numbers for the southern Oregon coast provide less insight, because the sample from which they are derived is small. But in other parts of southern Oregon, the results are more definitive.

“The wildfires and smoke-filled skies that plagued the region for many weeks likely took a toll on tourism spending and related employment,” according to the Oregon Employment Department report. “In Jackson County, in many years August is the yearly peak employment month for leisure and hospitality. This year, that peak occurred in July. In August, the largest decline of all industries occurred in leisure and hospitality, down by 125 jobs.”

September usually shows a decline in that sector, but the reduction of 300 jobs was more than the usual 100-to-200 job reduction dating back more than 15 years.

“At its year-end company call, Oregon Shakespeare Festival announced that, mainly because of lost revenues from smoky air, it will trim seven positions from the acting company and five from non-acting posts in development, artistic and information technology areas from its 2018 budget,” read an *Ashland Daily Tidings* newspaper story.

Other economic impacts are more challenging to pinpoint because data is limited. For example, how overall employment was affected by closures – whether because of air quality, evacuations, fire danger or closed roads – during the short term.

Employment data is collected by month, and if an employee returned to work at any point during the month they would not be counted as missing from the payroll, says Nick Beleiciks, state employment economist for the Oregon Employment Department.

Employees who were out of work because of forest fires may have been able to qualify for unemployment insurance to reduce that impact on their income. Self-employed people were likely impacted the most, but data isn’t available for that, he says.

One group of affected employees was the more than 900 Oregon National Guard troops deployed to help with fire suppression efforts, says Ron Graham, deputy chief for the Oregon Department of Forestry’s fire protection division.

“These are people who have normal day jobs, who are taken away from them,” he says. This affected the Guard members, as well as their employers and their families.

Transportation

For nearly three weeks, all cars detoured off their usual route across Interstate 84 when the highway was closed from Hood River to Troutdale because of fire danger on both sides. For commuters trying to get to work, it meant lost time and waking up extra-early.

“It was just really eating away at your regular routine and daily life,” electrician Mark Stoffer told Oregon Public Broadcasting in late September. Stoffer is an electrician who commutes from Corbett to The Dalles and found his daily commute more than doubled.

For companies moving freight, the highway closure cost time and money. I-84, which closed on Sept. 4 and finally completely reopened nearly three weeks later, is a major freight route, with trucks delivering all variety of raw materials, finished products and groceries.

About 28,000 vehicles drive on the highway in any 24-hour period, says Dave Thompson, spokesman for the Oregon Department of Transportation. About 20 percent of those are freight trucks.

A highway closure adds miles and time to a truck driver’s day, Thompson says. “For them, the miles are a pain. The time is the agony.”

It was also potentially costly, especially for those businesses who schedule “on time” deliveries, he adds. By scheduling deliveries to arrive just before they’re needed, businesses can save storage and extra handling costs, Thompson explains, but it can be more challenging to predict the arrival of goods when the usual route is closed.

This was the first time ODOT closed Highway 84 for more than a couple days, he says. It remains a high risk for landslides, and may close again this winter if conditions dictate, furthering the economic impact.

U.S. Highway 20 in central Oregon wasn’t closed, but experienced traffic congestion during fire season, including during the days around the August solar eclipse when there already was an anticipation of higher traffic volume, Thompson says.

In the Brookings area, Highway 101 was closed off and on during the fire season, he says. About 18,600 vehicles travel that highway at the south city limits of Brookings in a 24-hour period. Unfortunately, that is pretty much the only way to get out, unless drivers take a lengthy detour.



**INTERSTATE 84 CLOSED
SEPTEMBER 4 AND STAYED CLOSED
FOR THREE WEEKS.**

Oregon Department of Transportation

Rural economic and social impacts

The fires also tapped community resources such as nonprofit organizations that provide support for displaced residents.

“I’m sure there was a huge impact there. Those NGOs (non-governmental organizations), they rise up to the challenge and support all our efforts every year,” says Graham, with the Oregon Department of Forestry’s fire protection division.



- 19,978 STRUCTURES THREATENED
 - 10 RESIDENCES AND 20 STRUCTURES LOST
 - 7,641 PEOPLE EVACUATED
- Oregon State Fire Marshal

Statistics gathered by the Oregon State Fire Marshal’s office through mid-September showing impacts of the Milli (central Oregon), Nena Springs (central Oregon), Chetco Bar (southwestern Oregon) and Eagle Creek (Columbia Gorge) fires include 19,978 structures threatened, 10 residences and 20 structures lost, and 7,641 people evacuated.

▪ Business campaigns

Two campaigns that started in the fall to jump-start the Columbia Gorge economy highlight the impact of the fires and the resulting closure of I-84. The “Kick Ash Campaign,” started by the Naito Company, had businesses offering discounts and promotions throughout one fall weekend, reported Portland television station KGW.

An October campaign encouraged people to “Show the Gorge Some Love” by visiting the area.

In an October story, station KUOW explained that although evacuated residents had returned to their homes in the Gorge, popular attractions including Multnomah Falls, Vista House and the Eagle Creek Trail remained closed. The story quoted former state Rep. Mark Johnson.

“I think residents in the Gorge are going to begin to measure time in pre-Eagle Creek and post-Eagle Creek, because it was such a traumatic event for our region,” Johnson told KUOW.

In November, Oregon’s U.S. Sens. Jeff Merkley and Ron Wyden announced that they were seeking \$228,000 from the federal government to reimburse the ports of Hood River and Cascade Locks for lost toll income. The Port of Cascade Locks was forced to close the Bridge of the Gods during the fire, and the Port of Hood River waived tolls to ease access for emergency vehicles and traffic at that time.

▪ **Wine industry**

Among the concerns about future impacts is how this summer's wildfires will affect Oregon's wine industry this year and in the future.

In a Sept. 15 story in *The Oregonian*, "Will Wildfires Affect the Taste of Oregon Wines?" experts discussed the issue of "smoke taint" and wine grapes.

Greg Jones, a wine climatologist who runs Linfield College's wine education program, said smoke has the potential to "taint" wines.

"Smoke particles from wildfires or grass fires can stick to the waxy outer layer of grapes. That crenulated surface, unnoticeable to the naked eye or touch, has the ability to hold small particles, like yeast, bacteria or smoke," the story explained.

"For drinkers, smoke-tainted wine can have an 'ashy' or 'petrol' nose and a flavor that's different and harsher than the 'leather' and 'earthy' qualities often imparted from oak barrels, which are burned slightly on the inside," the story said, citing Jones.

Researchers are still trying to answer the crucial questions of just how much smoke and what kind of exposure creates the problem.

▪ **Wood products industry**

With hundreds of thousands of acres of trees aflame, there clearly was a loss of timber. Those losses had a ripple effect throughout Oregon's wood products industry.

A *Register-Guard* story published on Sept. 15 detailed some of those impacts, which included:

- Smith Logging in Winston lost \$1 million worth of heavy equipment in the fire.
- Restrictions on logging required by dry conditions hampered timber output.
- Acquiring logs became more difficult during what is typically a peak time for lumber producers.
- Swanson Group temporarily shut down work at plywood plants in Glendale and Roseburg because it couldn't get enough logs, which affected 300 workers. Its Springfield plant continued operating, but with a two-day supply of logs instead of a 30-day supply.
- Eugene-based Seneca Jones Timber Co. and Springfield-based Roseburg Forest Products both lost thousands of trees in August's Horse Prairie fire in Douglas County, financially impacting those companies.



SMOKE-TAINTED WINE CAN HAVE AN 'ASHY' OR 'PETROL' NOSE AND A FLAVOR THAT'S DIFFERENT AND HARSHER THAN THE 'EARTHY' QUALITIES IMPARTED FROM OAK BARRELS.

Greg Jones, Wine Climatologist

On Nov. 22, the *American Journal of Transportation* reported that sawmills and pulp mills in the northwestern U.S. were struggling to build inventories for winter, quoting *The North American Wood Fiber Review*.

“By early September, almost 2 million acres of forest and rangeland had burned in the U.S. northwest. Harvest operations across the four states have been hampered by restrictions on operating hours, disruptions in transportation and loggers diverted to fighting wildfires,” the story said.

Long-term effects

▪ Forests

When 2017's fires raged across 665,000 acres of Oregon in more than 2,000 fires, they burned significant amounts of forestland, impacting thousands of acres of small and large trees and their potential value.

In Oregon, forest wildfires are managed by the Oregon Department of Forestry and the U.S. Forest Service, which are responsible for about 16 million acres each. In 2017, most of the fire-burned acreage was on federally managed land.

But on Oregon Department of Forestry-managed land, economic losses were also high.

"By all measures that we're tracking – the number of fires, the number of acres burned and the cost – all are above our 10-year average," say ODF's Ron Graham. "That's pretty significant."

Many small woodland and industrial forest owners were affected by those fires. Losses included timber, grazing lands, equipment, outbuildings and fencing. Private resource losses, primarily in timber, are estimated at \$60 million.

"That's their livelihood, that's a company's business. We don't know the full value of those impacts," Graham says. However, "It was significant this year versus 2016."

▪ Recreation

Several popular and historic recreation sites are closed until further notice, possibly compounding losses well into next year – and in some cases for many years.

A *Statesman Journal* story published in late September provided detailed information on the damage and the closures.

"The flames tore into beloved places across the state, torching mountains and forests Oregonians traditionally pilgrimage to each summer and fall, including the Columbia River Gorge, Mount Jefferson and the Three Sisters," the story said.

The outdoor recreation areas affected by 2017's wildfires include:

- Mt. Jefferson Wilderness, expected to reopen in spring and summer of 2018
- Columbia Gorge trails, likely to reopen in spring 2018



BY ALL MEASURES – NUMBER OF FIRES, NUMBER OF ACRES BURNED, AND THE COST – ALL ARE ABOVE OUR 10-YEAR AVERAGE.
Ron Graham, Oregon Department of Forestry

- Kalmiopsis Wilderness in southwestern Oregon, where some areas are now open and others will be closed until next spring
- Three Sisters Wilderness, where some trails will reopen in spring 2018 and others could be closed for multiple years
- Crater Lake, which remains open but has some damaged trails
- North Umpqua River area, where trails and the river are closed due to trail damage
- Rogue Umpqua Divide, Fall Creek swimming holes and trails, and Obsidian Trail near McKenzie Pass, all closed until further notice

Sites like these are a major tourist draw, say Linea Gagliano of Travel Oregon and Christine Drazan, executive director of the Cultural Advocacy Commission.

“From an arts and culture perspective, what’s clear is our natural resources are just one of the things that draw people to Oregon,” Drazan says. “After rafting a river or biking a trail, they also visit a museum and go see a show. They’re very tied together.”

“We value our natural resources and want to conserve them,” Drazan continued. “We also want to protect our cultural life – which strengthens community and quality of life – from irreparable damage due to fire-related losses and unsafe air quality during fire seasons, which may continue to grow in frequency, intensity and duration.”

▪ Visitors

It can be challenging to quantify lost tourism related to forest fires. It’s easier to track canceled hotel reservations or year-to-year reductions in numbers of tourists. It’s not so simple to know how many people have removed Oregon from their list of places to visit because they’re concerned that visiting Oregon in late summer and early fall is a higher-risk vacation.

What’s the long-term trajectory, Drazan wonders. Will people choose not to come to Oregon in August or September because they think they might not be able to do what they had planned to do?

“If they had a bad experience, are they just going to go somewhere else? It’s going to be the kind of thing that we’ll know in 10 years,” she says.

Losing tourists also means a loss of word-of-mouth marketing, Gagliano says, as well as future losses in retail sales. Nearly 60 percent of people say they seek out Oregon products once they return home, she explains. This includes wine, beer, culinary products and outdoor gear.



IF VISITORS HAD A BAD EXPERIENCE,
ARE THEY JUST GOING TO GO
SOMEWHERE ELSE?
IT’S THE KIND OF THING THAT
WE’LL KNOW IN 10 YEARS.

Christine Drazan, Cultural Advocacy Commission

Conclusion

When considering Oregon's wildfires in a simplified way, it's clear that with 665,000 acres burned in 2017, the state lost forests as timber but also as outdoor recreation, scenery, wildlife habitat and watersheds.

It's also obvious that fires are costly in terms of fire suppression efforts, with 8,000 firefighters working on fire suppression during the peak season in Oregon, and \$454 million in overall costs.

Dig deeper, and it becomes clear that fire's impact on Oregonians reaches even further, permeating many aspects of life.

Noxious smoke damages health. Closed roads make it more challenging for people and goods to get where they're going. Tourists cancel hotel reservations. Popular recreation sites are closed for indefinite times. Student athletes can't compete. Businesses lose money and cut jobs. Organizations cancel arts and cultural events.

These losses drift into other parts of community life, too. For example, when a nonprofit organization cancels its fundraiser or big event, the bottom line of that organization is affected. This can mean the organization does not have the budget to provide the community services it was raising money to offer, such as arts in education.

Drazan, with the Cultural Advocacy Coalition, states, "The range of impacts from this are economic. They're educational. And they are cultural."

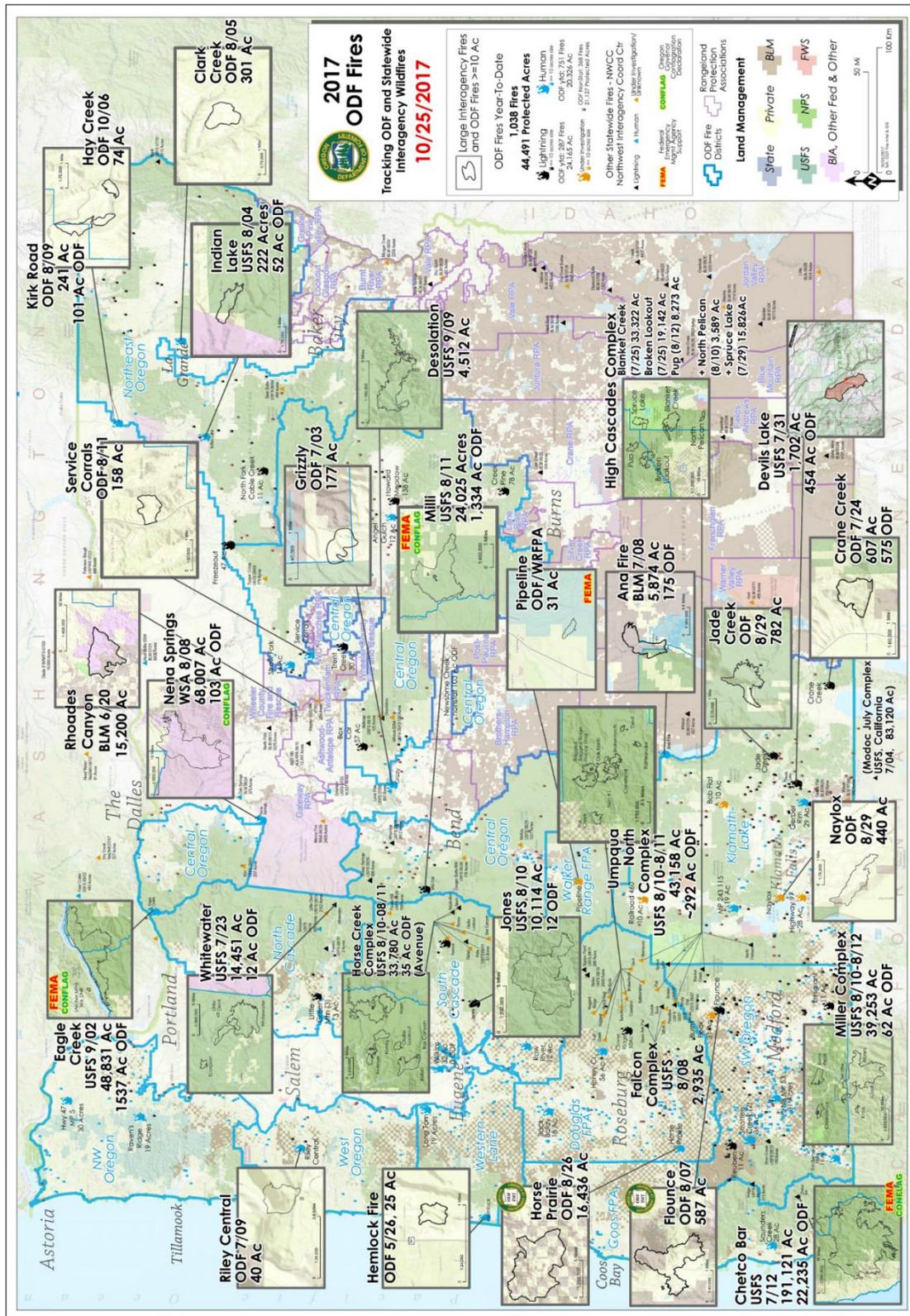
There is no denying humans' impact on the environment. From over-harvest to aggressive fire suppression to encroaching development, the forests of the present have been shaped by decisions of the past. There's also no denying that Oregon's population will grow, and we will continue to be impacted by wildfire and smoke.

As a society, we need to ask how we coexist with a fire-based ecosystem. What do we want from our forests in the future? Finding the answers to those questions will be hard and perhaps unpleasant, but the alternative – simply waiting to suffer through another fire season similar to 2017's – would be kicking the can down the road. When it comes to forests and fire, it's time for a crucial conversation.



FINDING THE ANSWERS WILL BE
HARD AND PERHAPS UNPLEASANT,
BUT THE ALTERNATIVE – WAITING TO
SUFFER THROUGH ANOTHER FIRE
SEASON SIMILAR TO 2017'S –
WOULD BE KICKING THE CAN DOWN
THE ROAD.

ODF Map Showing 2017 Oregon Wildfires as of Oct. 25



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 - High Desert Museum, Oct. 3, 2017
 - Crossroads Carnegie Art Center, Oct. 3, 2017
 - Cycle Oregon, Oct. 3, 2017
- Information provided by Oregon Health Authority detailing emergency room and urgent care visits in September.
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