

# **Oregon Wildfire Risk Explorer**

## **Tools to Plan for Wildfire**

Janine Salwasser, Institute for Natural Resources

Governor's Council on Wildfire Response

April 23, 2019



## Oregon Wildfire Risk Explorer Project Goals (2015-2019)

### • Short-term

- Increase wildfire risk awareness with new data (USFS, 2018)
- Increase local capacity for updating Community Wildfire Protection Plans (CWPP)
- Help communities identify and prioritize wildfire risk reduction projects

### • Long-term

- Improve wildfire risk planning and decision making across broad landscapes at all levels
- Increase the number of fire-adapted communities

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- Rural Communities
- Sage-Grouse
- Wetlands
- Wildfire Risk

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TOOLS

Communities Reporter



Oregon Explorer ATLAS



Oregon Explorer Map



- Up-to-date list of OE tools
- More Tools

FEATURES

Wildfire Risk



Advanced Oregon Wildfire Risk Explorer Map Viewer

Access a comprehensive collection of wildfire data and make custom maps and reports with this tool. The advanced map viewer directly serves wildfire professionals and planners to inform updates to...

Coastal Research



Coastal Research Explorer

Mapping tool with locations of current, on-going and completed coastal research projects on the Oregon coast with links to publicly accessible data.

Sage-Grouse



Who Cares, and Why? The Oregon SageCon Partnership

Sage-grouse affect many interests across land ownership boundaries and jurisdictions. The SageCon Partnership provides a governance structure and forum for coordination across a broad-base of...



# Oregon Explorer: Wildfire Risk topic

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## Forestry and Agriculture



### CENTURY FARM AND RANCH

The Oregon Century Farm and Ranch Program, has honored the state's rich agricultural heritage since 1958. It awards farm and ranch families that have maintained connections to the land for 150 and 100 years.



### FARMING AND AGRICULTURE

Oregon is one of the country's most agriculturally diverse states, producing more than 220 agricultural commodities. Farming practices have profound impacts on conservation and the environment



### FOREST MANAGEMENT

The Oregon Forest Practices Act defines rules for state and private forest management, while the National Forest Management Act outlines forest management on the 26% of Oregon managed by the U.S. Forest Service.



### DAIRY AND POULTRY

The dairy, cattle and poultry industries are all important agricultural industries in Oregon. Milk was designated Oregon's official state beverage in 1997. Cattle production is the top agricultural activity in eastern Oregon



### FOREST COLLABORATIVES

Forest collaborative groups build agreement by engaging diverse stakeholders in fostering natural resource management and economic development.



### WILDFIRE RISK

Wildfire is a key ecological process that shapes and maintains our forests and rangelands. Wildfire risk is the potential for a wildfire to adversely affect the human and natural environment.

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**Wildfire Risk**

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The Oregon Wildfire Risk Explorer is designed to increase wildfire awareness, give a comprehensive view of wildfire risk and local fire history, and educate users about wildfire prevention and mitigation resources.

Source: Oregon Department of Transportation, CC 2.0

- › Century Farm and Ranch
- › Dairy and Poultry
- › Farming and Agriculture
- › Forest Collaboratives
- › Forest Management
- › Wildfire Risk

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Oregon Department of Forestry



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**Oregon Wildfire Risk Explorer Basic Map Viewer**

Make wildfire risk maps and reports for your home, county, or watershed. This tool directly serves homeowners and community leaders and is designed to educate users about the wildfire risk surrounding their homes and communities and their local wildfire prevention resources.

**EXPLORE RELATED:**

- › Homeowner's Guidance Document
- › Firewise Program
- › Public Fire Restrictions



**Advanced Oregon Wildfire Risk Explorer Map Viewer**

Access a comprehensive collection of wildfire data and make custom maps with this tool. The advanced map viewer directly serves wildfire professionals and planners to inform updates to Community Wildfire Protection Plans (CWPP), Natural Hazard Mitigation Plans (NHMP), and other plans.

**EXPLORE RELATED:**

- › Community Wildfire Protection Plans
- › NW Fire Science Consortium
- › Fire Adapted Communities in the Pacific Northwest



**Make Your Home & Property Fire-Safe**

Learn how you can make your home and property fire-safe with this 5 minute video. Access the many resources available to protect yourself from the threat of wildfire and other hazards. Find out about the current fire situation in Oregon.

**EXPLORE RELATED:**

- › Keep Oregon Green (KOG)
- › Your Home Can Survive a Wildfire Video
- › Current Northwest Fire Situation

**New wildfire risk landing page and tools launched in May 2018**

# Basic Oregon Wildfire Risk Explorer – wildfire risk tools for the public

**OREGON EXPLORER**   **Oregon Wildfire Risk Explorer**  
Basic Map Viewer

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Home

The Oregon Wildfire Risk Explorer is designed to increase wildfire awareness, give a comprehensive view of wildfire risk and local fire history, and educate users about wildfire prevention and mitigation resources. This viewer directly serves homeowners and community leaders. The [Advanced Wildfire Risk Explorer](#) serves professional planners to inform updates to Community Wildfire Protection Plans (CWPP) and Natural Hazard Mitigation Plans (NHMP), with extensive data resources, detailed summaries, and full wildfire risk inventory report.

Click on the map to view risk information →

[Create Homeowner's Report](#) [Create Summary Report](#)

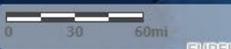
[Go To Layers →](#)

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The Oregon Wildfire Risk Explorer is a partnership among Oregon Department of Forestry, Oregon State University Institute for Natural Resources, OSU Libraries and Press, the US Forest Service, and a wide variety of stakeholders throughout Oregon.

**I want to...**

-  **View the home panel**  
View information about this application.
-  **Create a Homeowner's Report**  
Search for your address and create a report
-  **Create a Summary Report**  
Create a county or watershed report
-  **Show/Hide Fire History Slider**  
Animate fire history points through time
-  **Go to the Advanced Wildfire Risk Explorer**  
Open the Advanced Map Viewer
-  **Make a PDF map**  
Make and print a PDF map
-  **Change visible map layers**  
Alter visibility of map layers, perform layer actions, and view the legend.
-  **Return to initial map extent**  
Return to the initial map position and zoom level.

**Aerial**  0 30 60mi

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WKID: 4326 Lat/Long ▲ Lat: 42.45848° N Lon: 126.36305° W

 Oregon Explorer

Make a wildfire risk map or generate a report for a home, watershed or county



## Wildfire Risk Report

This site provides information about the characteristics of flammable vegetation and potential fire movement through the landscape around your selected location. Understanding your fire environment is important because wildfire can move quickly and embers can travel miles ahead of a wildfire. For your selected location, you can generate a **Homeowner's Report** for a summary of the fire environment in the area surrounding your home and actions you can take to reduce your risk, or a **County or Watershed Summary Report** for more detailed information, including maps and charts of wildfire risk.

Results shown here may not match other risk assessment results elsewhere. The information provided here will complement, but not replace, local knowledge of your wildfire risk. A home assessment by a fire professional is recommended. Nearly all areas in Oregon experience some level of wildfire risk, and conditions vary widely, particularly under warm, dry, windy, and drought conditions. For current conditions and local fire restrictions, contact your local fire district or visit [keeporegongreen.org/current-conditions](http://keeporegongreen.org/current-conditions).

[Homeowner's Report](#)

### Your Location

Watershed (5<sup>th</sup> level)

[Jumpoff Joe Creek Report](#)

County

[Josephine County Report](#)

ODF Forest Protection District

Southwest Oregon

Structural Fire Protection District

RURAL METRO FIRE DEPT

City or Town

Merlin

Urban Growth Boundary

Outside Urban Growth Boundary

Community Wildfire Protection Plan Area

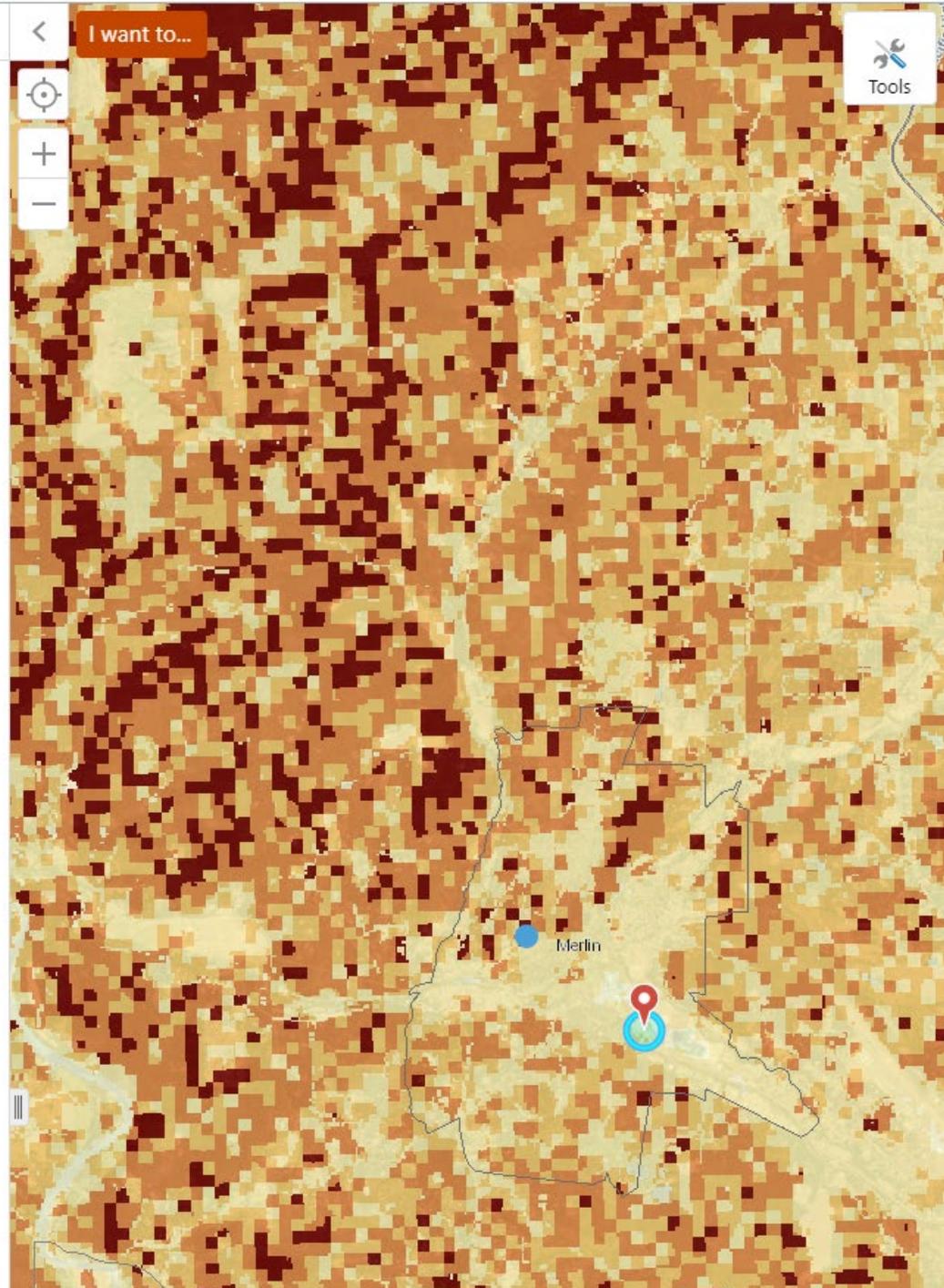
Josephine County CWPP

Firewise Community

None

Oregon Defensible Space Law

No





# Oregon Wildfire Risk Explorer - Watershed Summary Report

**Jumpoff Joe Creek**  
69,761 acres (109 Sq.Mi.)



**December 2018**

Weather and vegetation conditions vary daily and seasonally. For current conditions and local fire restrictions, contact your local fire district or visit: [www.KeepOregonGreen.org/current-conditions](http://www.KeepOregonGreen.org/current-conditions)

## AREA OF INTEREST

This report summarizes wildfire risk in Jumpoff Joe Creek from the Oregon Wildfire Risk Explorer map viewer. Wildfire risk combines the likelihood of a fire occurring with the exposure and susceptibility of valued resources and assets on the landscape. This report provides interpretive text, maps, and charts depicting the wildfire risk in this area and various characteristics that influence wildfire risk. This information can help raise awareness about wildfire risk, identify local susceptibilities and exposures, identify areas to take action to reduce catastrophic wildfire losses and costs, and where applicable, restore forest health and the health of other ecosystems influenced by wildfire in Oregon.

Jumpoff Joe Creek in Oregon



*Nearly all areas in Oregon experience some level of wildfire risk.* Conditions vary widely with local topography, fuels, and local weather, especially local winds. In all areas, under warm, dry, windy, and drought conditions, expect higher likelihood of fire starts, higher fire intensities, more ember activity, a wildfire more difficult to control, and more severe impacts.

For resources and information about the fire environment around your home and actions you can take to reduce your risk, generate a [Homeowner's Report](#). If you are a wildfire planner or professional, the [Advanced Oregon Wildfire Risk Explorer Map Viewer](#) provides many additional data layers and customized reporting.

Jumpoff Joe Creek Reference Map



## REPORT CONTENTS

### Basic Characteristics

- 2 Land Ownership and Management
- 3 Existing Vegetation Type
- 4 Housing Density - Where People Live
- 5 Fire History

### Wildfire Risk

- 6 Burn Probability
- 7 Hazard to Potential Structures
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# Oregon Wildfire Risk Explorer - Watershed Summary Report

**Jumpoff Joe Creek**  
69,761 acres (109 Sq.Mi.)



**December 2018**

## LAND OWNERSHIP AND MANAGEMENT

Knowing the land ownership and management in an area is important for hazard planning and for awareness when wildfires occur. Oregon has a coordinated wildfire management system between state, federal and local agencies and organizations, including local fire districts and rangeland fire protection associations. Federal, state, tribal, local, and private entities participate to fight fire in local areas and throughout the state according to their jurisdictions and protection responsibilities. Different land owners and managers have a variety of highly valued resources and assets to protect. Agencies differ in land use and overall management, including fire management.

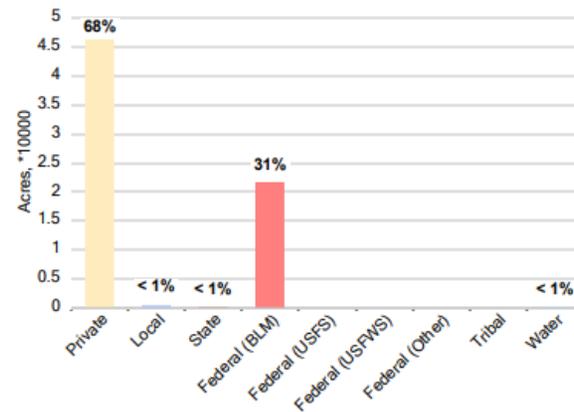
The total land base in Oregon is approximately 63 million acres, or just over 98,000 square miles. Jumpoff Joe Creek contains 69,761 acres (109 sq. miles).

Within the entire state, the US Forest Service (USFS) manages just over 17 million acres, and US Bureau of Land Management (BLM) manages nearly 16 million acres; together they manage about 52% of the total land base. Other landownership and management types include other federal lands (e.g. US Fish and Wildlife Service [USFWS]), state, tribal, and private.

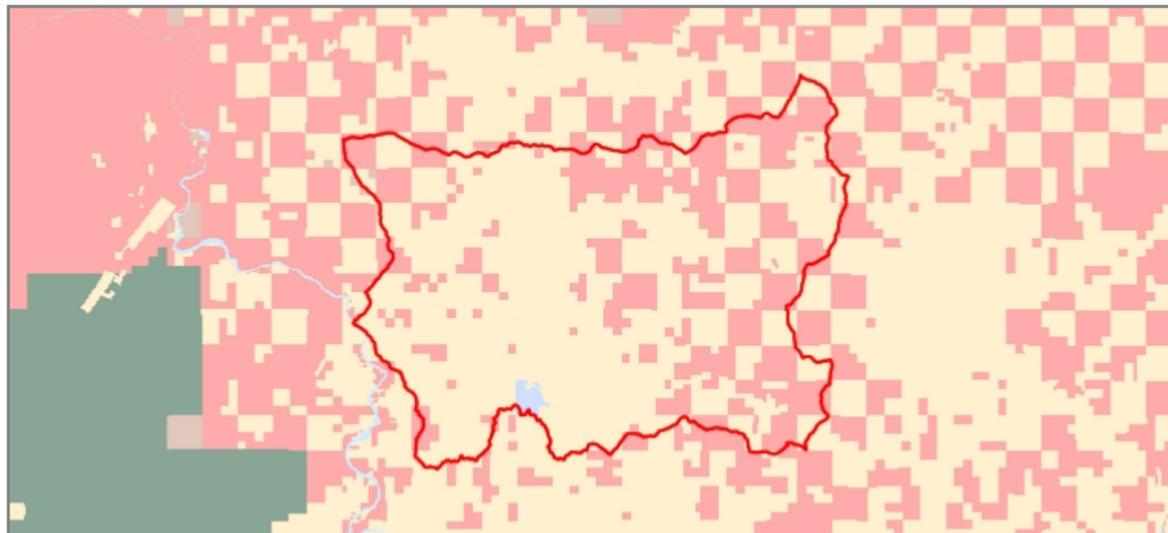
Of the nearly 30 million acres of forestland in Oregon, approximately 18 million is federal, 10 million is private, 1 million is state, and 475,000 acres are tribal. Many forested areas in Oregon are private, owned and managed for industrial timber and in small family farms and woodlands.

In your area, ownership and land management are mapped below and approximate percentages are shown in the chart.

Ownership and Land Management in Jumpoff Joe Creek



### Jumpoff Joe Creek Land Ownership and Management





# Oregon Wildfire Risk Explorer - Watershed Summary Report

**Jumpoff Joe Creek**  
69,761 acres (109 Sq.Mi.)



December 2018

## FIRE HISTORY

Historical fire information is important to understand the fire environment in your area, and knowing where and why fires start is the first step in prevention and mitigation. Viewing local fire starts in conjunction with large wildfire probability (next page) can give a more comprehensive view of local fire history and potential. Knowing where and why fires start is the first step in prevention and mitigation.

In all of Oregon from 2008-2017, an annual average of over 2,000 fire starts were recorded, with average acres burned reaching 480,000 per year. 71% of fires recorded by the Oregon Department of Forestry (ODF) are human-caused, and many of these fires are near or in the WUI. Lightning caused fires make up only 29% of fire starts on ODF protected lands, but tend to burn more acres as many start in more remote areas or wilderness.

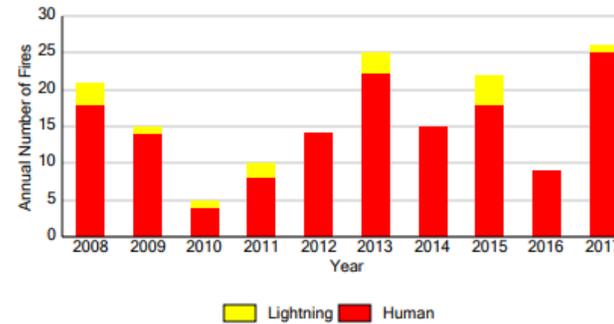
The map and charts below show the locations of human and lightning-caused fires for the past 10 years in Jumpoff Joe Creek. Historical large fire perimeters are also viewable in the Oregon Wildfire Risk Explorer map viewers.

### Fires in the Last 10 Years (2008-17) in Jumpoff Joe Creek

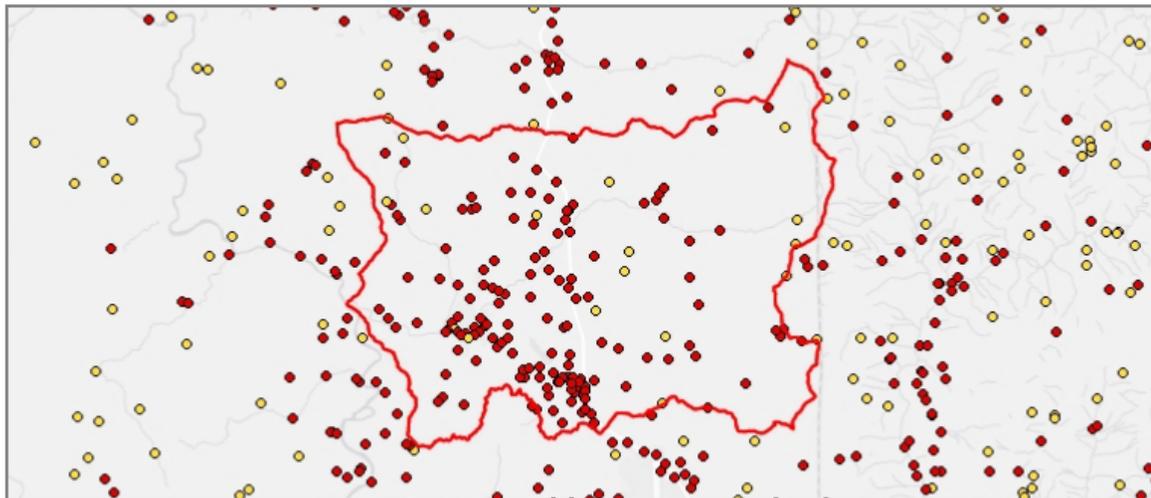
- Total Acres Burned  
112
- Total Number of Fires  
162
- Average Acres Burned per year  
11
- Average Fires per year  
16
- Percent lightning caused  
9%
- Percent human caused  
91%



Number of Lightning and Human Fires in last 10 Years for Jumpoff Joe Creek



### Jumpoff Joe Creek Fire Starts



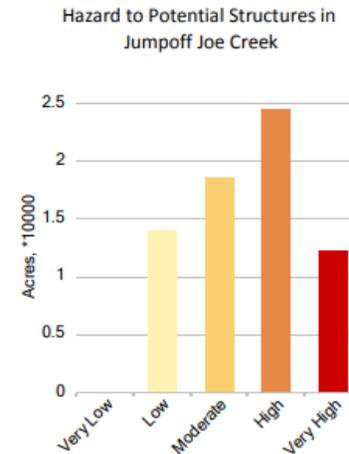


## HAZARD TO POTENTIAL STRUCTURES

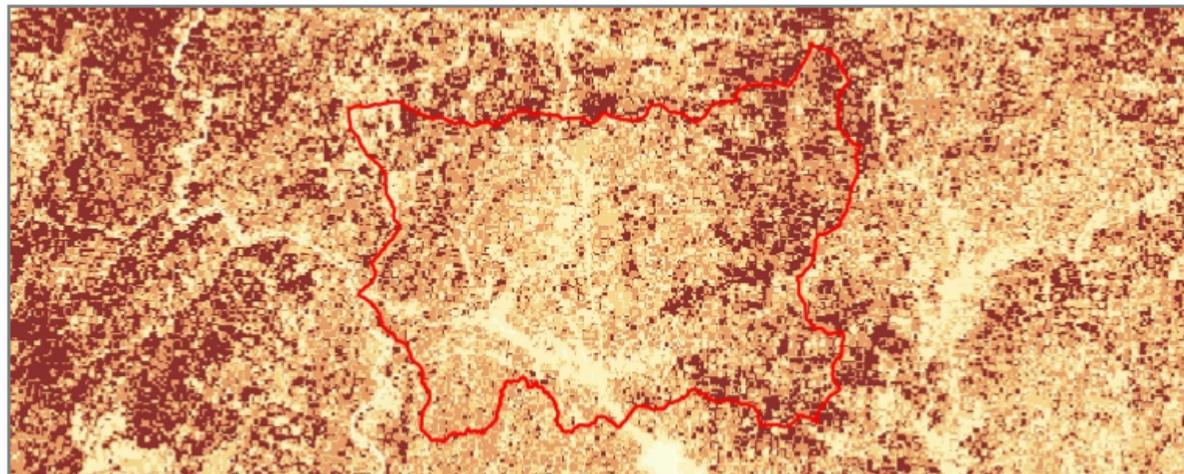
Hazard to potential structures depicts the hazard to a hypothetical structure (not necessarily an existing structure) if a wildfire were to occur. This differs from overall estimates of wildfire impact, as those estimates only consider where existing structures are located. Hazard to potential structures depicts the fire environment only and does not consider other important factors in determining structural fire risk such as building construction materials. Community planners can use this information when planning development outside of existing urban or WUI areas, and are encouraged to develop as [Fire Adapted Communities](#).

Conditions vary widely with local topography, fuels, and local weather, especially local winds. In all areas, under warm, dry, windy, and drought conditions, expect higher likelihood of fire starts, higher fire intensities, more ember activity, a wildfire more difficult to control, and more severe fire effects and impacts. Hazard to potential structures within Jumpoff Joe Creek is shown in the chart.

Hazard to Potential Structures		
	Very High	The hazard to potential structures when wildfire occurs is very high (top 5 percent of values across the landscape). If a fire ignites near your home there is very high potential for loss.
	High	The hazard to potential structures when wildfire occurs is high (80th to 95th percentile). If a fire ignites near your home there is high potential for loss.
	Moderate	The hazard to potential structures when wildfire occurs is moderate (50th to 80th percentile). If a fire ignites near your home there is moderate potential for loss.
	Low	The hazard to potential structures when wildfire occurs is expected to be low (up to the 50th percentile). If a fire ignites near your home there is potential for loss.
	Nonburnable/ Very Low	The hazard to potential structures when wildfire occurs is expected to be very low. Fuel in the area is largely non-burnable or very sparse. If a fire ignites near your home there is low potential for loss.



**Jumpoff Joe Creek Hazard to Potential Structures**





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## Wildfire Risk

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- Dairy and Poultry
- Farming and Agriculture
- Forest Collaboratives
- Forest Management
- Wildfire Risk

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The Oregon Wildfire Risk Explorer is designed to increase wildfire awareness, give a comprehensive view of wildfire risk and local fire history, and educate users about wildfire prevention and mitigation resources.

Source: Oregon Department of Transportation, CC 2.0

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Oregon Department of Forestry



U.S. Forest Service



#### Oregon Wildfire Risk Explorer Basic Map Viewer

Make wildfire risk maps and reports for your home, county, or watershed. This tool directly serves homeowners and community leaders and is designed to educate users about the wildfire risk surrounding their homes and communities and their local wildfire prevention resources.

#### EXPLORE RELATED:

- Homeowner's Guidance Document
- Firewise Program
- Public Fire Restrictions



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#### EXPLORE RELATED:

- Community Wildfire Protection Plans
- NW Fire Science Consortium
- Fire Adapted Communities in the Pacific Northwest



#### Make Your Home & Property Fire-Safe

Learn how you can make your home and property fire-safe with this 5 minute video. Access the many resources available to protect yourself from the threat of wildfire and other hazards. Find out about the current fire situation in Oregon.

#### EXPLORE RELATED:

- Keep Oregon Green (KOG)
- Your Home Can Survive a Wildfire Video
- Current Northwest Fire Situation

Advanced Report tool  
launched April 2019

# Advanced Oregon Wildfire Risk Explorer – wildfire risk tools for planners

OREGON EXPLORER

Advanced Oregon Wildfire Risk Explorer

Map Viewer

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The Oregon Wildfire Risk Explorer is designed to increase wildfire awareness, give a comprehensive view of wildfire risk and local fire history, and educate users about wildfire prevention and mitigation resources. The site provides decision support for homeowners, communities, and professionals to identify and prioritize local fire prevention and mitigation efforts.

This Advanced Wildfire Risk Explorer serves professional planners to inform updates to Community Wildfire Protection Plans (CWPP) and Natural Hazard Mitigation Plans (NHMP), with extensive data resources, detailed summaries, and full wildfire risk inventory report. Our [basic viewer](#) directly serves homeowners and community leaders. It provides summaries and guidance in a Homeowner's Report and a Area of Interest Report (for example, a watershed).

[Create Advanced Report](#)

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Home Layers

Basemaps 1:5000

0 50 100km

Oregon Department of Land Conservation and Development (DLCD), with support from the Oregon ...

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WKID: 4326 Lat/Long ▲ Lat: 41.89262° N Lon: 127.47616° W

I want to...

- Open Save Save as
- Create Advanced Report**  
Create a custom advanced wildfire report
- Create a Summary Report  
Create a county or watershed report
- Create a Homeowner's Report  
Search for your address and create a report
- Show/Hide Fire History Slider  
Animate fire history points through time
- Download Data
- Make a PDF Map  
Make and print a PDF map
- View the home panel  
View information about this application.
- Find data on the map  
Click, tap, or draw a rectangle on the map to identify features.
- Change visible map layers  
Alter visibility of map layers, perform layer actions, and view the legend.
- Return to initial map extent  
Return to the initial map position and zoom level.

Generate a detailed report for custom area, watershed, or county

# Select a predefined geographic area or a custom area

The screenshot displays the 'Advanced Oregon Wildfire Risk Explorer' web application. The interface is divided into several sections:

- Header:** Features the 'OREGON EXPLORER' logo, the Oregon State University (OSU) logo, and the 'Advanced Oregon Wildfire Risk Explorer' title. A search bar and a accessibility icon are located on the right.
- Left Panel:**
  - Advanced Wildfire Report:** A sub-header for the current report.
  - Select Geography of Interest:** A menu with five radio button options: 'County', 'Watershed', 'Sub-Watershed', 'Draw area (Click Continue >> to see drawing options)', and 'Upload area of interest (.zipped shapefile)'. Below this menu are 'Exit' and 'Continue >>' buttons.
- Map Area:** A central map showing wildfire risk levels across Oregon and parts of Washington and Idaho. The map is color-coded from green (low risk) to red (high risk). Major cities like Astoria, Longview, Vancouver, Portland, Salem, Eugene, Bend, Medford, and Walla Walla are labeled. A scale bar at the bottom indicates 0, 50, and 100 km.
- Bottom Panel:** Includes navigation links for 'Home', 'Layers', and 'Advanced Wil...'. It also shows the current coordinates: 'WKID: 4326 Lat/Long ▲ Lat: 42.95497° N Lon: 126.75306° W'. Social media icons for Twitter, Facebook, LinkedIn, and Email are present, along with 'Oregon Explorer' and 'Feedback' links.



Generate Advanced Custom Report

Report Title

Required \* County Report

Area of Interest Name

Required \* Deschutes County

Email

The report can take awhile to process. Enter your email to get notified when the report is ready to download.

Required \* janine.salwasser@oregonstate.edu

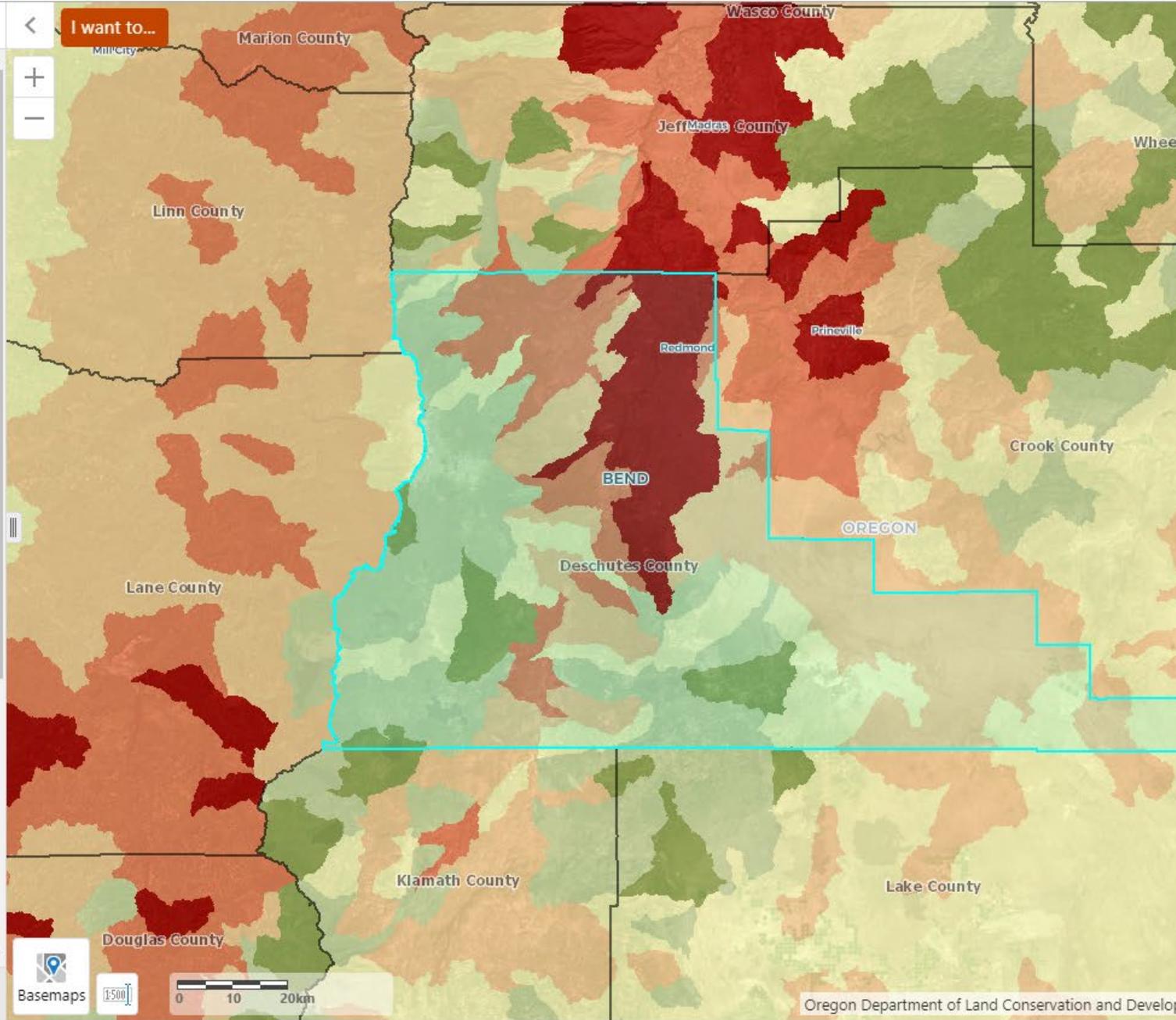
Select Report Categories

The following sections are included by default:

- Land Management
- Fire History (Fire Ignitions)
- Fire History (Large Fire Perimeters)
- Overall Wildfire Risk
- Burn Probability
- Average Flame Length
- Overall Potential Impact
- Hazard to Potential Structures
- Housing Density
- Existing Vegetation Type

Optional Report Sections

- Wildfire Risk to Assets
- Wildfire Risk to People and Property
- Probability of exceeding 4' flames





# Oregon Wildfire Risk Explorer- Advanced Report

**Deschutes County**  
1,953,839 Acres: (3,053 Sq. Miles)



Generated: April 3, 2019

Weather and vegetation conditions vary daily and seasonally. For current conditions and local fire restrictions, contact your local fire district or visit: [www.keeporegongreen.org/current-conditions](http://www.keeporegongreen.org/current-conditions)

## INTRODUCTION

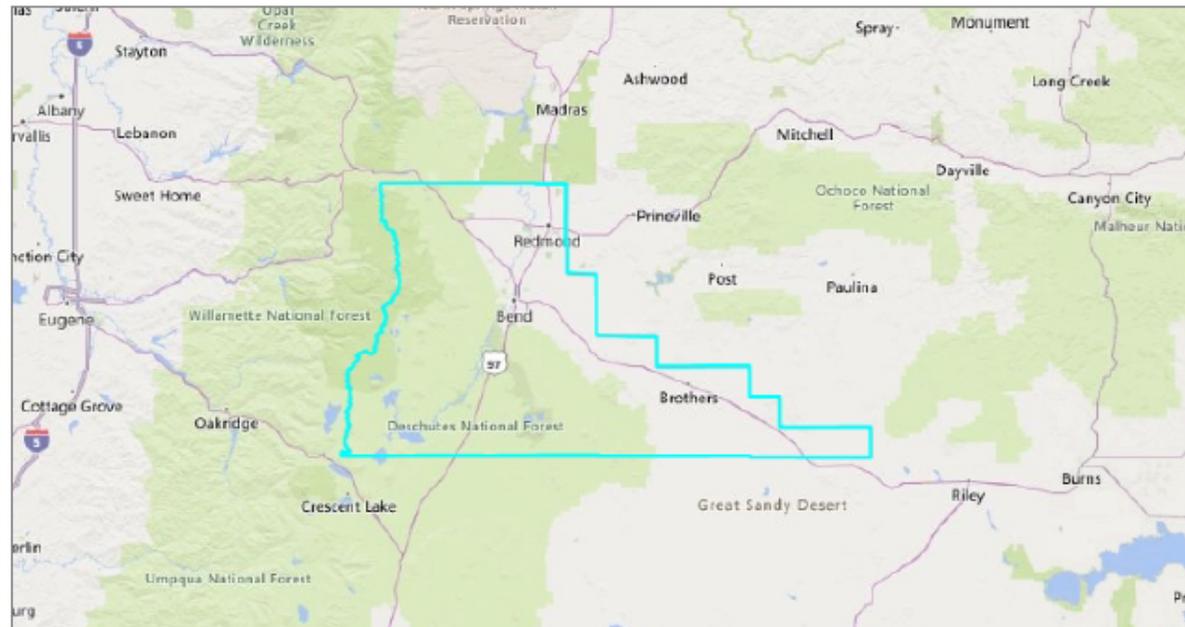
This report summarizes wildfire risk in **Deschutes County** from the [Advanced Oregon Wildfire Risk Explorer map viewer](#) (OWRE). Wildfire risk combines the likelihood of a fire occurring with the exposure and susceptibility of valued resources and assets on the landscape.

Nearly all areas in Oregon experience some level of wildfire risk. Conditions vary widely with local topography, fuels, and local weather, especially local winds. In all areas, under warm, dry, windy, and drought conditions, expect higher likelihood of fire starts, higher fire intensities, more ember activity, a wildfire more difficult to control, and more severe impacts.

Deschutes County in Oregon



Deschutes County Reference Map



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8	Housing Density - Where People Live	22	Risk To People and Property	32	Fuel Model Groups
9	Overall Wildfire Risk	23	Probability of >4ft Flames		
11	Burn Probability	24	Probability of >8ft Flames		



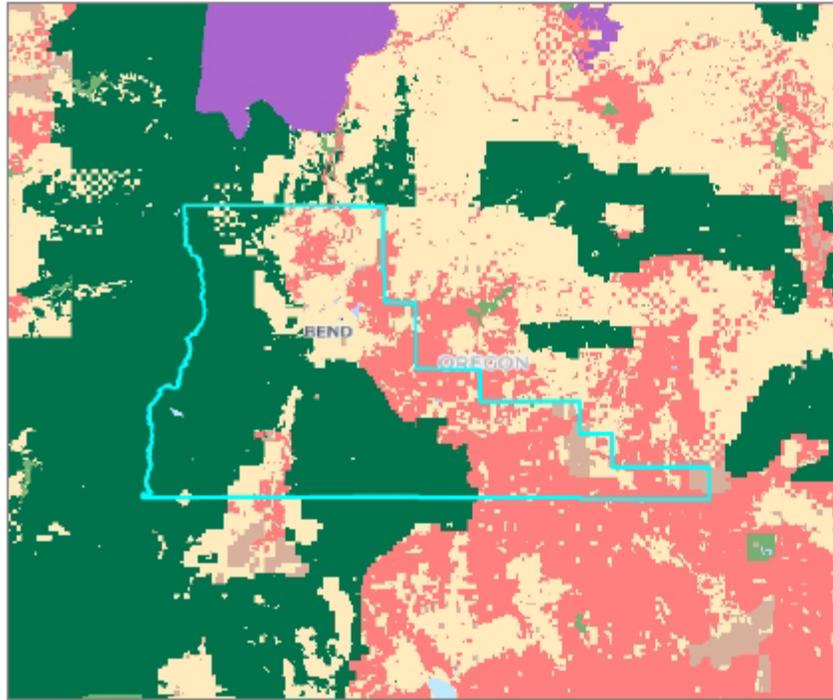
# Oregon Wildfire Risk Explorer- Advanced Report

Deschutes County  
1,953,839 Acres: (3,053 Sq. Miles)



Generated: April 3, 2019

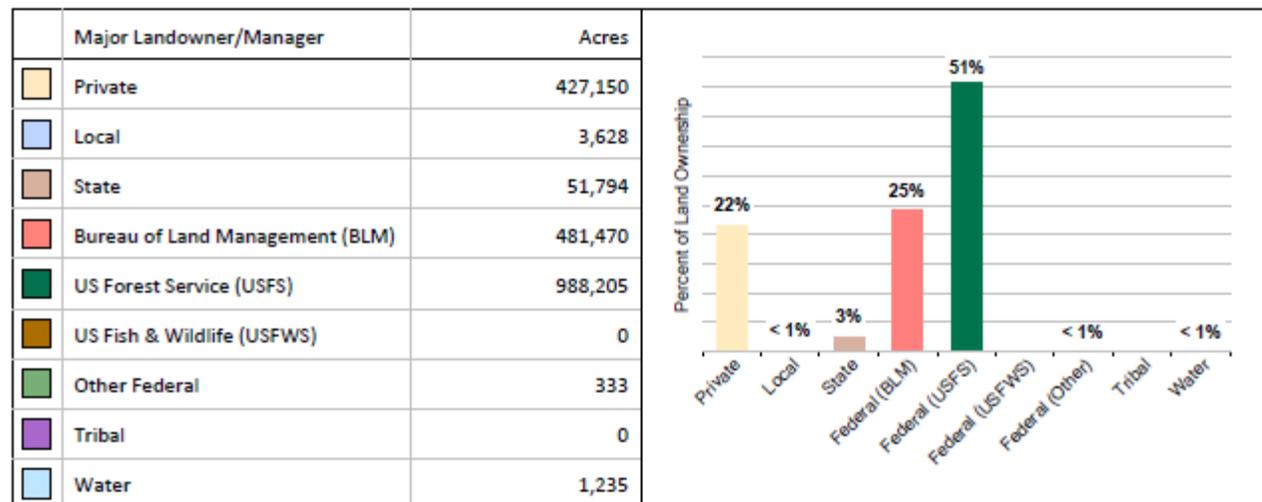
## LAND OWNERSHIP AND MANAGEMENT



Knowing the land ownership and management in an area is important for hazard planning and awareness when wildfires occur. Oregon has a complete and coordinated wildfire management system between local, private, tribal, state, and federal agencies. These entities participate to fight fire in local areas and throughout the state according to their jurisdictions and protection responsibilities. Different land owners and managers have a variety of highly valued resources and assets to protect. Agencies differ in land use and overall management, including fire management.

The map, table and charts below show the breakdown of ownership types in your area.

Deschutes County



Source: Bureau of Land Management, 2015

\* Values may add up to over 100% due to rounding precision



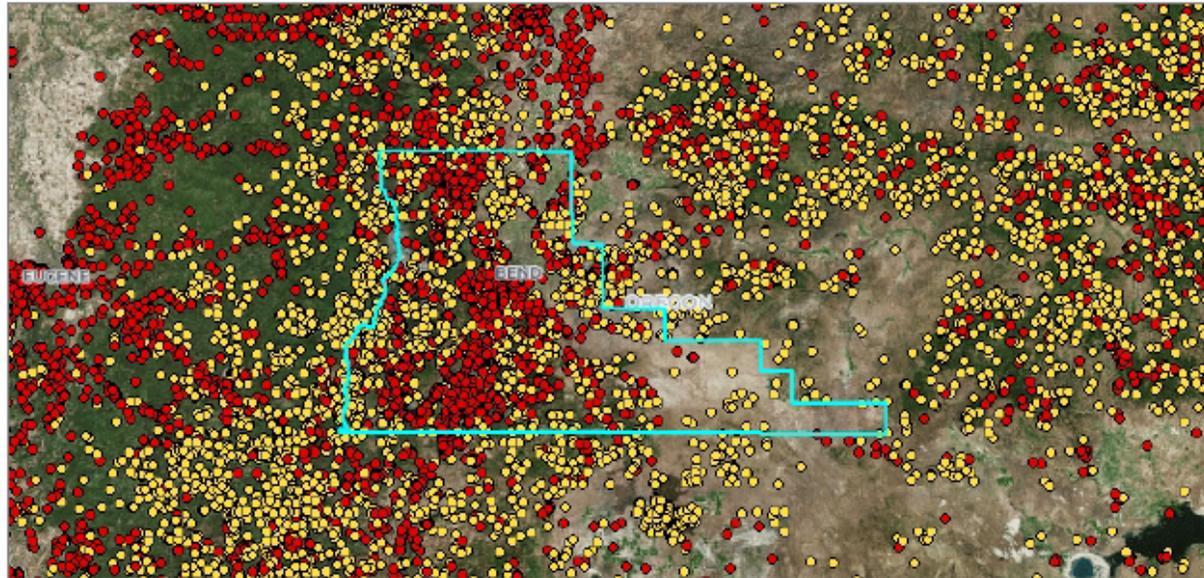
# Oregon Wildfire Risk Explorer- Advanced Report

Deschutes County  
1,953,839 Acres: (3,053 Sq. Miles)

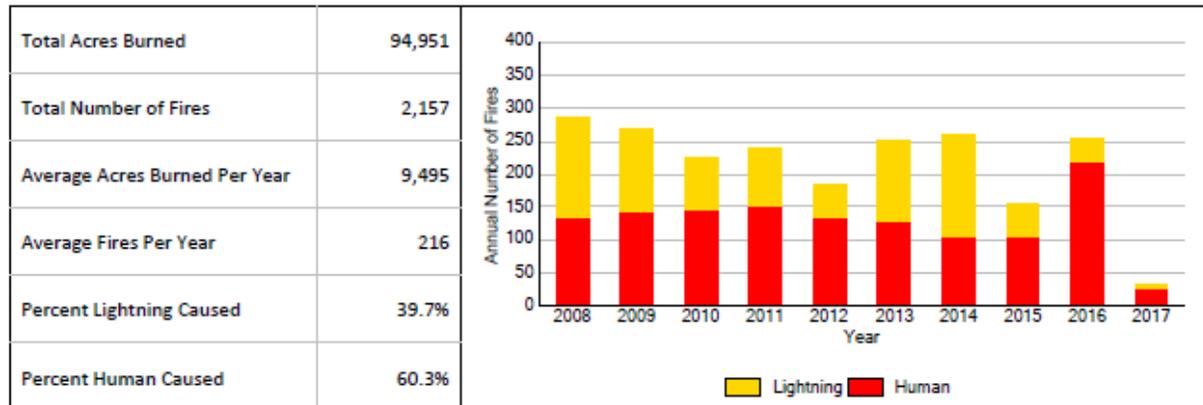


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## FIRE HISTORY - FIRE IGNITIONS



Deschutes County fire starts between 2008-2017



Knowing where and why fires start is the first step in awareness, prevention, and mitigation. Viewing local fire starts in conjunction with burn probability (provided later in this report) provides a comprehensive view of local fire history and potential.

Statewide, 71% of fires recorded by ODF are human-caused, and many of these fires are near populated areas. Lightning caused fires make up only 29% of fire starts, but tend to burn more acres as they are often located in remote areas.

The map, table and charts on this page show the cumulative number fire starts in your area.

Source: Short, K. and Oregon Department of Forestry, 2017



# Oregon Wildfire Risk Explorer- Advanced Report

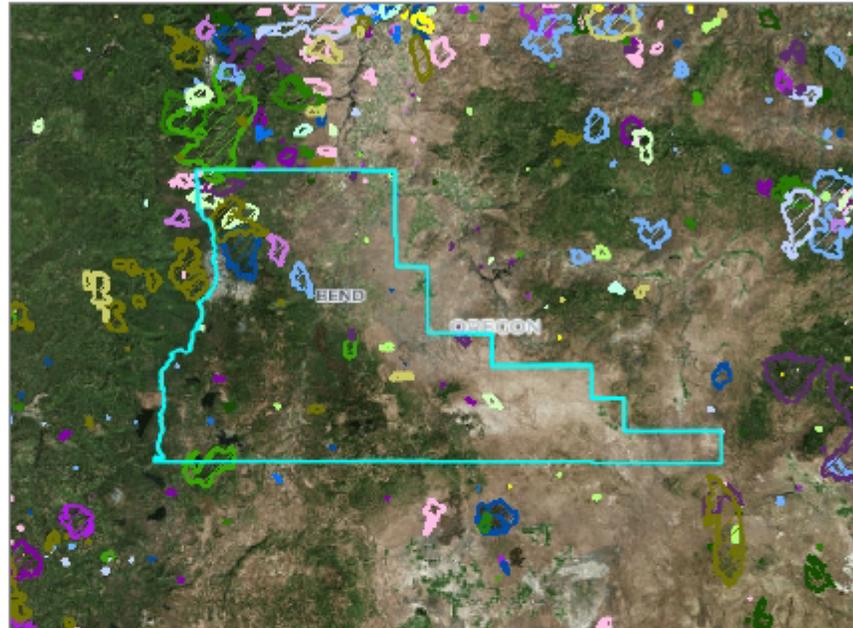
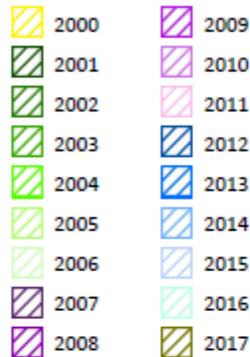
Deschutes County  
1,953,839 Acres: (3,053 Sq. Miles)



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## FIRE HISTORY - FIRE PERIMETERS

Although most wildfires in Oregon are human-caused and suppressed quickly while small, Oregon has experienced many large wildfires. The map and table below show the footprints of fires that have occurred in your area since 2000.



### Wildfires in Deschutes County

Wildfire Name	Year	Acres Burned
TEPEE 1144 NE	2018	2,026
JAGUAR 0514 RS	2018	10
MILLI 0843 CS	2017	24,079
MCKAY 1035 NE	2017	1,251
0215 COUGAR BUTTE NW	2017	150
Two Bulls	2014	6,903
0727 Muskrat	2014	31
Browns Creek	2013	107
Pole Creek	2012	26,795
Finley	2012	78
I-0466	2012	38
I-0028	2012	20
I-0465	2012	7
SHADOW LAKE	2011	10,025
0749	2011	64
0112	2011	55
ROOSTER ROCK	2010	6,274
BLACK BUTTE II	2009	1,013
WEST BUTTE	2009	43
SUMMIT SPRINGS COMPLEX	2008	3,529
SNOW CREEK COMPLEX	2008	458



# Oregon Wildfire Risk Explorer- Advanced Report

Deschutes County

1,953,839 Acres: (3,053 Sq. Miles)



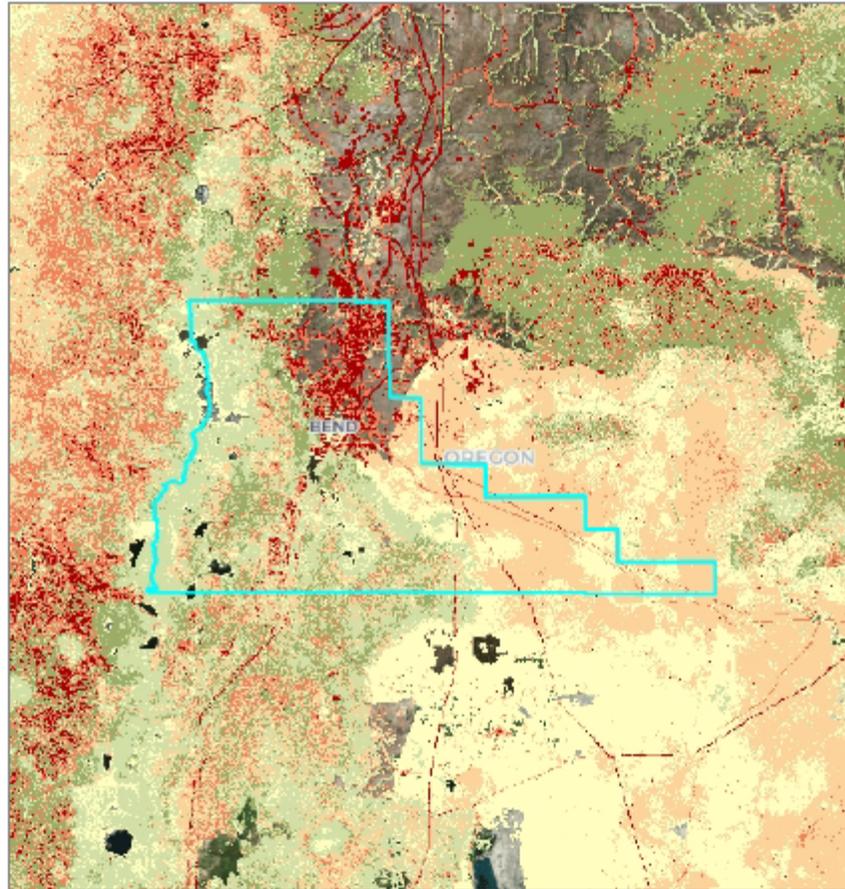
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## OVERALL WILDFIRE RISK

Overall wildfire risk combines both the likelihood of a wildfire and the expected impacts of a wildfire on highly valued resources and assets. (See other sections for more information on Burn probability and Overall potential impact.) Overall wildfire risk also reflects the susceptibility of resources and assets to wildfire of different intensities, and the likelihood of those intensities.

Mapped resources and assets include critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, historic structures, timber, municipal watersheds, vegetation condition, and terrestrial and aquatic wildlife habitat.

The data values in the overall wildfire risk map and chart reflect a range of impacts from a very high negative value, where wildfire is detrimental to one or more resources or assets, to positive, where wildfire has an overall benefit (e.g., forest health or wildlife habitat).



### Overall wildfire risk: Legend

	Very High	Wildfire risk is very highly negative (top 5% of values).
	High	Wildfire risk is highly negative (80th to 95th percentile).
	Moderate	Wildfire risk is moderately negative (50th to 80th percentile).
	Low	Wildfire risk is slightly negative (29th to 50th percentile).
	Low Benefit	Wildfire is slightly beneficial (14.5 to 29th percentile).
	Benefit	Wildfire is beneficial overall (0-14.5th percentile).
	Non-burnable	There are no highly valued resources or assets mapped in the area, or it is considered non-burnable (urban, agriculture, etc).



# Oregon Wildfire Risk Explorer- Advanced Report

Deschutes County

1,953,839 Acres: (3,053 Sq. Miles)



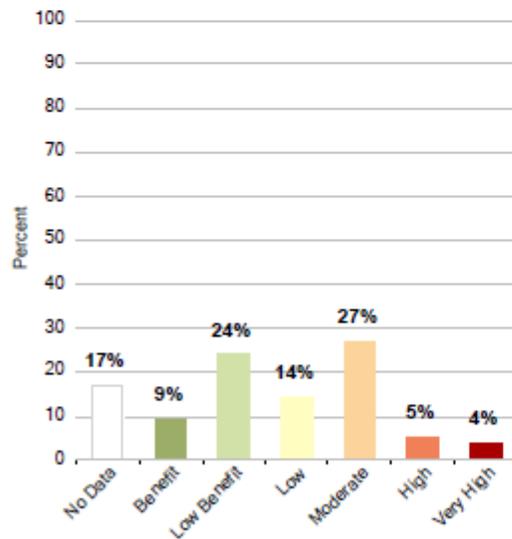
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This page contains additional information about overall wildfire risk, including a table of classes by ownership to determine the distribution of categories across ownerships, and a chart of overall percentages of classes across the area. The inset box displays sub-watershed summaries for landscape-scale prioritization.

## Overall wildfire risk in Deschutes County: estimated acres by ownership

Category	Total	Private	Local	State	BLM	USFS	USFWS	Other Fed	Tribal
Very High	81,490	59,467	614	1,068	15,446	4,895	0	0	0
High	103,715	46,788	440	1,829	16,489	38,161	0	8	0
Moderate	518,707	93,657	317	26,965	252,170	145,271	0	327	0
Low	266,192	35,444	18	15,289	100,300	115,141	0	0	0
Low Benefit	469,047	30,309	109	1,192	5,322	432,115	0	0	0
Benefit	173,933	26,035	22	544	823	146,509	0	0	0
No Data	339,501	135,415	2,110	4,921	90,911	106,144	0	0	0
Total Area	1,952,585	427,115	3,630	51,808	481,461	988,236	0	335	0

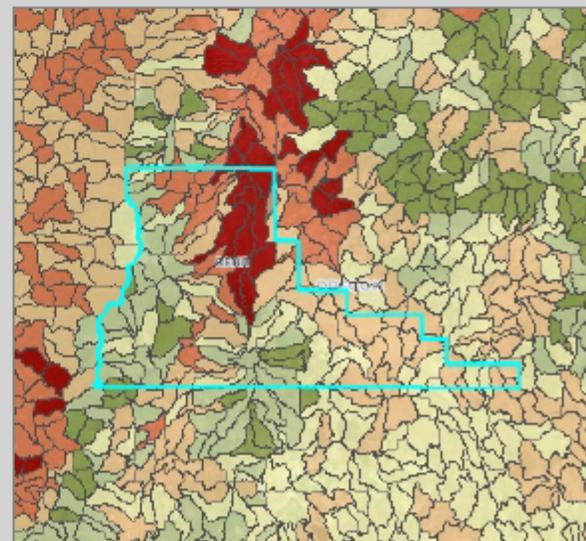
## Overall wildfire risk in Deschutes County \*



Source: 2018 Pacific Northwest Quantitative Wildfire Risk Assessment, US Forest Service

\* Values may add up to over 100% due to rounding precision

**Overall wildfire risk in Deschutes County: sub-watershed summary map.** Overall wildfire risk is summarized at the sub-watershed (6th field Hydrologic Unit Code, HUC12) level. Watershed summaries enable you to view the landscape context and identify and compare sub-watersheds for prioritization.



# Oregon Wildfire Risk Explorer Advanced Report Maps and Tables

## REPORT CONTENTS

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3	Concepts	15	Overall Impact	26	Potential Impact to Infrastructure
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5	Fire History - Fire Ignitions	19	Existing Vegetation Type	28	Potential Impact to Forest Vegetation
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8	Housing Density - Where People Live	22	Risk To People and Property	32	Fuel Model Groups
9	Overall Wildfire Risk	23	Probability of >4ft Flames		
11	Burn Probability	24	Probability of >8ft Flames		



# Oregon Wildfire Risk Explorer - County Summary Report

**Deschutes County**  
1,953,839 acres (3,053 Sq.Mi.)



2018

## SUMMARY

This report provides an overview of a variety of elements to consider in a wildfire risk assessment. Valued resources and assets were identified and mapped, then potential exposures and susceptibilities from wildfire were estimated. Not all resources, assets, or risk assessment outputs are shown in this Deschutes County summary report. For a more detailed inventory of risk assessment data layers and reports options, please see the [Advanced Oregon Wildfire Risk Explorer map viewer](#).

## PRIMARY DATA SOURCES

Primary wildfire risk assessment data and products are from the Pacific Northwest Quantitative Wildfire Risk Assessment. 2018. USFS Pacific NW & Alaska Regions/BLM State Office. Portland, OR. Pyrologix. [View final report](#)

Some wildfire risk interpretative context is courtesy of Fire Program Solutions, LLC. [www.fireps.com](http://www.fireps.com).

Estimated Housing Density is from Oakridge National Laboratory LandScan™ population data, and was obtained from the 2013 West Wide Wildfire Risk Assessment. [web.ornl.gov/sci/landscan/](http://web.ornl.gov/sci/landscan/)

Fire history point data for 1992-2015 is from Short, Karen C. 2017. Spatial wildfire occurrence data for the United States, 1992-2015 [FPA\_FOD\_20170508]. 4th Edition. Fort Collins, CO: Forest Service Research Data Archive. <https://doi.org/10.2737/RDS-2013-0009.4>

Fire history point data for 2016 and 2017 was compiled by the, Oregon Department of Forestry.

Oregon Land Ownership/Management is from the Bureau of Land Management (2015).

Vegetation Type and other general fire-related reference data is from LANDFIRE. [www.landfire.gov](http://www.landfire.gov).

## ACKNOWLEDGEMENTS AND DISCLAIMER

This report was generated from the Oregon Wildfire Risk Explorer map viewer at this website address: [tools.oregonexplorer.info/OE\\_HtmlViewer/index.html?viewer=wildfire](https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfire) For more information on wildfire risk in a specific location, you can generate a Homeowner's report from the Oregon Wildfire Risk Explorer map viewer.

The Oregon Wildfire Risk Explorer site, tools and reports are the result of a collaboration among the following organizations and others:



INSTITUTE FOR  
NATURAL RESOURCES



*Wildfire risk data is primarily from the USDA Forest Service 2018 Pacific Northwest Quantitative Wildfire Risk Assessment with some components from the 2013 West Wide Wildfire Risk Assessment. The information is being provided as is and without warranty of any kind either express, implied or statutory. The user assumes the entire responsibility and liability related to their use of this information. By accessing this website and/or data contained within, you hereby release the Oregon Department of Forestry, Oregon State University, and all data providers from liability. This institution is an equal opportunity provider. This publication was made possible through grants from the USDA Forest Service.*

# Oregon Wildfire Risk Explorer (OWRE) Tools



[Create Homeowner's Report](#)



[Create Summary Report](#)



[Create Advanced Report](#)

## Basic OWRE

- Limited set of wildfire risk data layers
- Dynamic summary
- Homeowner's Report
- Summary Report: county, 5<sup>th</sup> field watershed
- Reports available immediately

## Advanced OWRE

- Expanded set of wildfire risk data layers
- Advanced report: county, 5<sup>th</sup> and 6<sup>th</sup> field watersheds, custom area
- Download data for area of interest
- Advanced report gets emailed to you later



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## Wildfire Risk

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- Farming and Agriculture
- Forest Collaboratives
- Forest Management
- Wildfire Risk

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- DATA
- PHOTOS & VIDEOS
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The Oregon Wildfire Risk Explorer is designed to increase wildfire awareness, give a comprehensive view of wildfire risk and local fire history, and educate users about wildfire prevention and mitigation resources.

Source: Oregon Department of Transportation, CC 2.0

### SPONSORED BY



Oregon Department of Forestry



U.S. Forest Service



#### Oregon Wildfire Risk Explorer Basic Map Viewer

Make wildfire risk maps and reports for your home, county, or watershed. This tool directly serves homeowners and community leaders and is designed to educate users about the wildfire risk surrounding their homes and communities and their local wildfire prevention resources.

#### EXPLORE RELATED:

- Homeowner's Guidance Document
- Firewise Program
- Public Fire Restrictions



#### Advanced Oregon Wildfire Risk Explorer Map Viewer

Access a comprehensive collection of wildfire data and make custom maps with this tool. The advanced map viewer directly serves wildfire professionals and planners to inform updates to Community Wildfire Protection Plans (CWPP), Natural Hazard Mitigation Plans (NHMP), and other plans.

#### EXPLORE RELATED:

- Community Wildfire Protection Plans
- NW Fire Science Consortium
- Fire Adapted Communities in the Pacific Northwest



#### Make Your Home & Property Fire-Safe

Learn how you can make your home and property fire-safe with this 5 minute video. Access the many resources available to protect yourself from the threat of wildfire and other hazards. Find out about the current fire situation in Oregon.

#### EXPLORE RELATED:

- Keep Oregon Green (KOG)
- Your Home Can Survive a Wildfire Video
- Current Northwest Fire Situation

# Questions?



[www.oregonexplorer.info](http://www.oregonexplorer.info)

For more information, you can contact me at: [Janine.salwasser@oregonstate.edu](mailto:Janine.salwasser@oregonstate.edu)

# A Long-term Oregon Explorer Collaboration



## About the Institute for Natural Resources

Established by the Oregon Legislature in 2001 through the Oregon Sustainability Act, INR helps decision makers identify and use relevant science in making natural resource policy and management decisions. We are headquartered at Oregon State University and have offices at Portland State University.

## About the Oregon State University Libraries and Press

OSULP enhances and supports the university's instructional and research programs with traditional and innovative services and collections. The Press advances knowledge of Oregon and the Pacific Northwest through publications. The collaboration with INR adds to the amount and value of resources OSULP can make available to users.



**Oregon State University  
Libraries and Press**



[www.oregonexplorer.info](http://www.oregonexplorer.info)

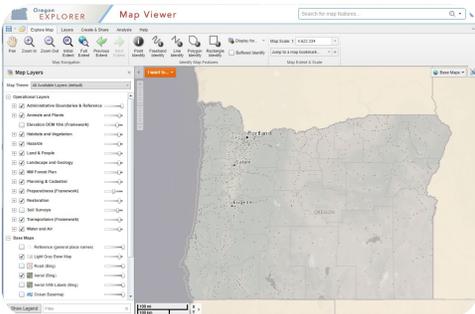
Supporting natural resource and community decision making since 2007



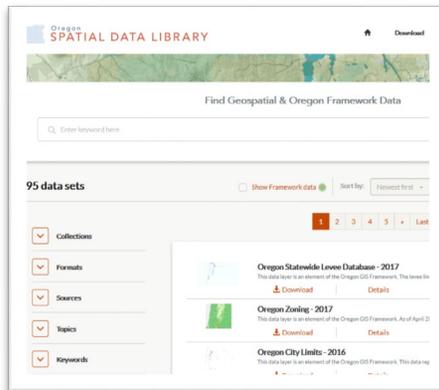
Redesigned in 2015 to make it a more integrative and place-based user experience that can be sustained over time with sponsored topic pages and tools



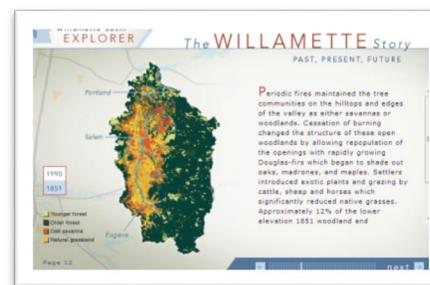
## Tools



## Spatial Data



## Stories



## Archived Resources

