



Oregon Wildfire Risk Explorer- Advanced Report

Wasco County

1,532,385 Acres: (2,394 Sq. Miles)



Generated: December 28, 2020

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

INTRODUCTION

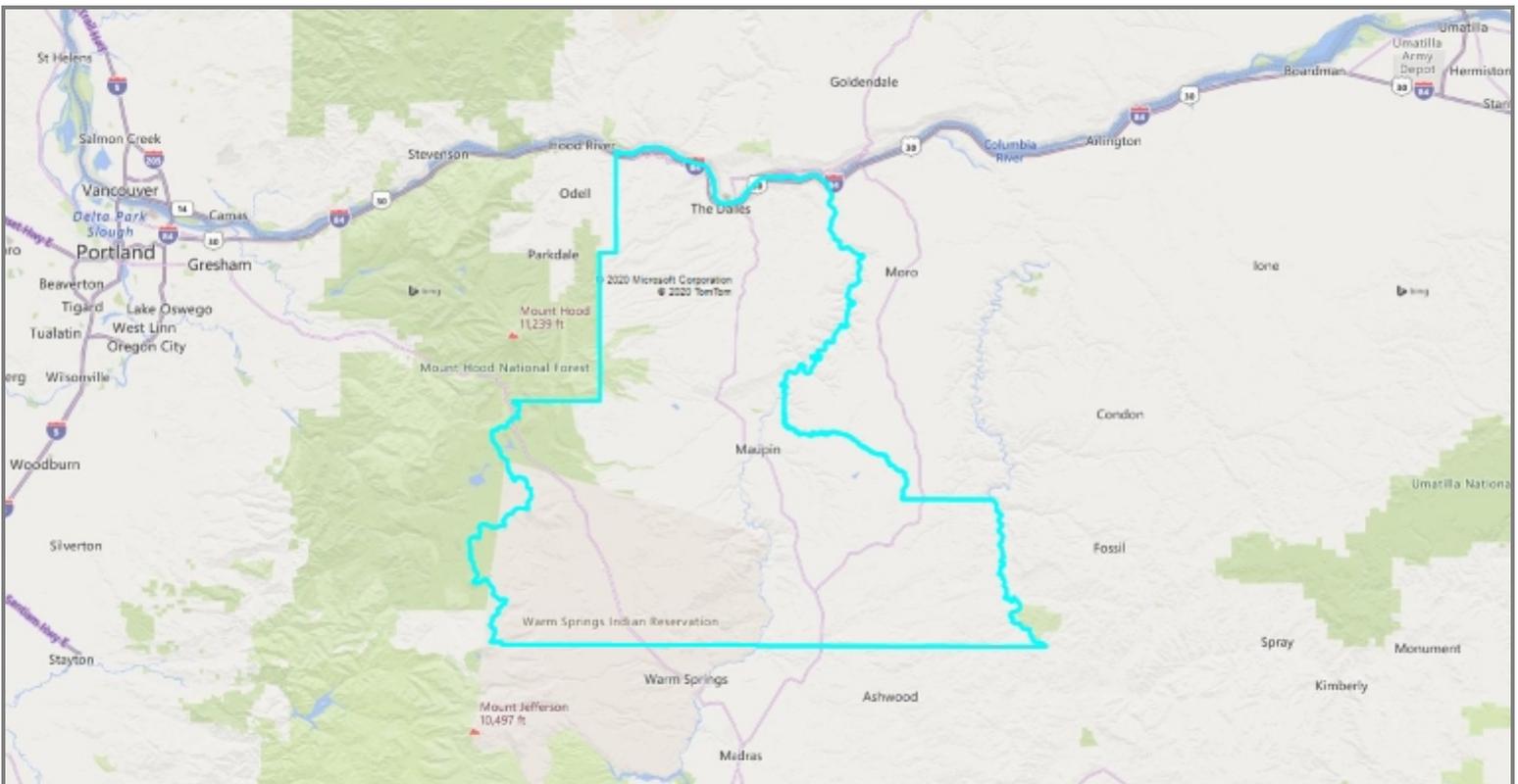
This report summarizes wildfire risk in Wasco County from the [Advanced Oregon Wildfire Risk Explorer map viewer](#) (OWRE). Wildfire risk combines the likelihood of a fire occurring with the exposure and susceptibility of valued resources and assets on the landscape.

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.

Wasco County in Oregon



Wasco County Reference Map



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GUIDELINES

The OWRE Advanced Report provides wildfire risk information for a customized area of interest to support Community Wildfire Protection Plans (CWPPs), Natural Hazard Mitigation Plans (NHMPs), and fuels reduction and restoration treatments in wildfire-prone areas in Oregon. Here are some things you need to know about this information:

The Advanced OWRE map viewer provides **wildfire risk assessment** data primarily from the 2018 Pacific Northwest Quantitative Wildfire Risk Assessment, produced by the US Forest Service with a coalition of local fire managers, planners, and natural resource specialists in both Washington and Oregon. The assessment uses the most current data (incorporating 2017 fires) and state-of-the-art fire modeling techniques, and is the most up-to-date wildfire risk assessment for Oregon. The assessment characterizes risk of large wildfires (>250 acres). Data also comes from the 2013 West Wide Wildfire Risk Assessment, Oregon Department of Forestry (ODF), and other sources.

Wildfire risk is modeled at a landscape scale. The data does not show access for emergency response, home construction materials, characteristics of home ignition zones, or NFPA Firewise USA® principles. For CWPP and NHMP updates you may want to **consider two scales**:



- first, use data from the OWRE to characterize and understand the fire environment and fire history in your area broadly at a landscape scale, focusing on watersheds or counties;
- then, overlay local knowledge, focusing on communities, fire protection capabilities, local planning areas, and defensible space concepts for neighborhoods and homes.

The OWRE Advanced Report will provide the landscape context of the current fire environment and fire history upon which you can build your local plans toward resilience by preparing and mitigating the larger landscape wildfire risk.

The OWRE Advanced Map Viewer and Report will not replace local knowledge of communities you may consider high risk. Continue to use local Fire Department and ODF knowledge to generate CWPP concern areas. OWRE will produce broad scale maps for your CWPP area as a whole, but maps and data will contain some inaccuracies, which are most prevalent at fine scales.

Recommended additional information sources for wildfire planning:

- Oregon Department of Forestry CWPP list - <https://www.oregon.gov/ODF/Fire/Pages/CWPP.aspx>
- Oregon Explorer Communities Reporter - demographic and other data for counties and communities <https://oe.oregonexplorer.info/rural/CommunitiesReporter/>
- Wildland Urban Interface Toolkit - https://www.usfa.fema.gov/wui_toolkit/wui_planning.html
- Wildland Urban Interface Wildfire Mitigation Desk Reference Guide - <https://www.nwcg.gov/sites/default/files/publications/pms051.pdf>
- Oregon Spatial Data Library - <https://spatialdata.oregonexplorer.info/geoportal/>
- NFPA Firewise USA® - teaching people how to adapt to living with wildfire and encouraging neighbors to work together and take action to prevent losses. - <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA>
- Headwaters Economics - Full Community Costs of Wildfire - <https://headwaterseconomics.org/wildfire/homes-risk/full-community-costs-of-wildfire/>

This Advanced Wildfire Risk Report was generated from the Advanced Oregon Wildfire Risk Explorer map viewer at: tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning. This site is intended for wildfire professionals and planners. For a basic summary of wildfire risk geared toward a public audience, visit the basic OWRE map viewer: tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfire.



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WILDFIRE RISK ASSESSMENT CONCEPTS & DATA

The Advanced Oregon Wildfire Risk Explorer (OWRE) map viewer organizes data into folders based on wildfire risk concepts. All OWRE advanced reports will include information about Overall wildfire risk, Burn probability, Flame length, Overall potential impact, Hazard to potential structures, Fire history, Land management, and Estimated housing density. Users can select additional data layers of interest, which will appear after the layers listed above.

Wildfire Risk

Overall wildfire risk takes into account both the likelihood of a wildfire and the exposure and susceptibility of mapped valued resources and assets combined. The dataset considers (1) the likelihood of wildfire >250 acres (likelihood of burning), (2) the susceptibility of resources and assets to wildfire of different intensities, and (3) the likelihood of those intensities. Blank areas either have no currently mapped assets or resources and/or are considered a non-burnable fuel in terms of wildfire. Note that agricultural lands are considered non-burnable in this map, even though fires can occur in these areas and may spread into more typically considered burnable areas such as forested lands. Data layers include: Overall wildfire risk, Wildfire risk to assets, and Wildfire risk to people and property.

Wildfire Threat

Wildfire threat shows the likelihood of a large wildfire, the average intensity and the likelihood of higher intensities, conveyed by flame length. Data layers include: Burn probability, Average flame length, Probability of exceeding 4' flames, and Probability of exceeding 8' flames. Additional data layers that show wildfire threat are found under the Fire History and Active Fires folder, where historical fire starts and historical fire perimeters are located.



Wildfire Potential Impacts

Wildfire potential impacts shows the actual exposure of mapped resources and assets. The data layers do not incorporate the likelihood of burning, they only show the consequence of wildfire if it were to occur. Data layers include: Overall potential impact, Potential impact to people and property, Potential impact to infrastructure, Potential impact to timber resources, Potential impact to wildlife, and Potential impact to forest vegetation. The layers (Potential impact to timber resources, wildlife, and forest vegetation) may be useful when targeting fuels treatment. These layers are influencing the "Benefit" areas in the Overall wildfire risk map - they show areas where there is ecological opportunity to restore historical or desired conditions and/or potentially reduce the risk of catastrophic wildfire with managed fire use or other management. The Potential impact to forest vegetation optional report element is coupled with historical fire regime information to give basic context when comparing historical and current conditions.

Hazard to Potential Structures

Hazard to potential structures depicts the hazard to hypothetical structures in any area if a wildfire were to occur. This differs from Potential Impacts, as those estimates consider only where people and property currently exist. In contrast, this layer maps hazard to hypothetical structures across all directly exposed (burnable), and indirectly exposed (within 150 meters of burnable fuel) areas in Oregon. As with the Potential Impacts layers, the data layer does not take into account wildfire probability, it only shows exposure and susceptibility.

Fire Model Inputs and Fuelscape

These layers are the fuels and topography used to run the fire model in the 2018 Pacific Northwest Quantitative Wildfire Risk Assessment. Data layers include: Fuel models, Fuel model groups, Forest canopy base height, Forest canopy height, Forest canopy cover, Forest canopy bulk density, Slope, Elevation and Aspect. Fuel models and groups characterize local surface vegetation composition relative to carrying fire more precisely than a basic land cover or vegetation maps. Fuel models indicate the type of potential wildfire based on the fuels that will ignite and spread fire. Canopy data layers characterize vegetation structure for fire modeling: base height, cover, and bulk density estimates can show where there may be propensity for ladder fuels (ground vegetation and trees that reach up to tree branches and upper forest canopy), and where contiguous forest canopies have potential for canopy fire. Note that not all of these layers are available to select for use in the OWRE advanced reports, but all of them are available for download and they are described in the metadata. Also note that weather, the third part of the three major elements that determine wildfire occurrence and intensity, is not included in this data distribution - please see the full report to understand the weather parameters used in the assessment.

For more detailed information, please see the full 2018 PNW Quantitative Wildfire Risk Assessment report:

oe.oregonexplorer.info/externalcontent/wildfire/reports/20170428_PNW_Quantitative_Wildfire_Risk_Assessment_Report.pdf



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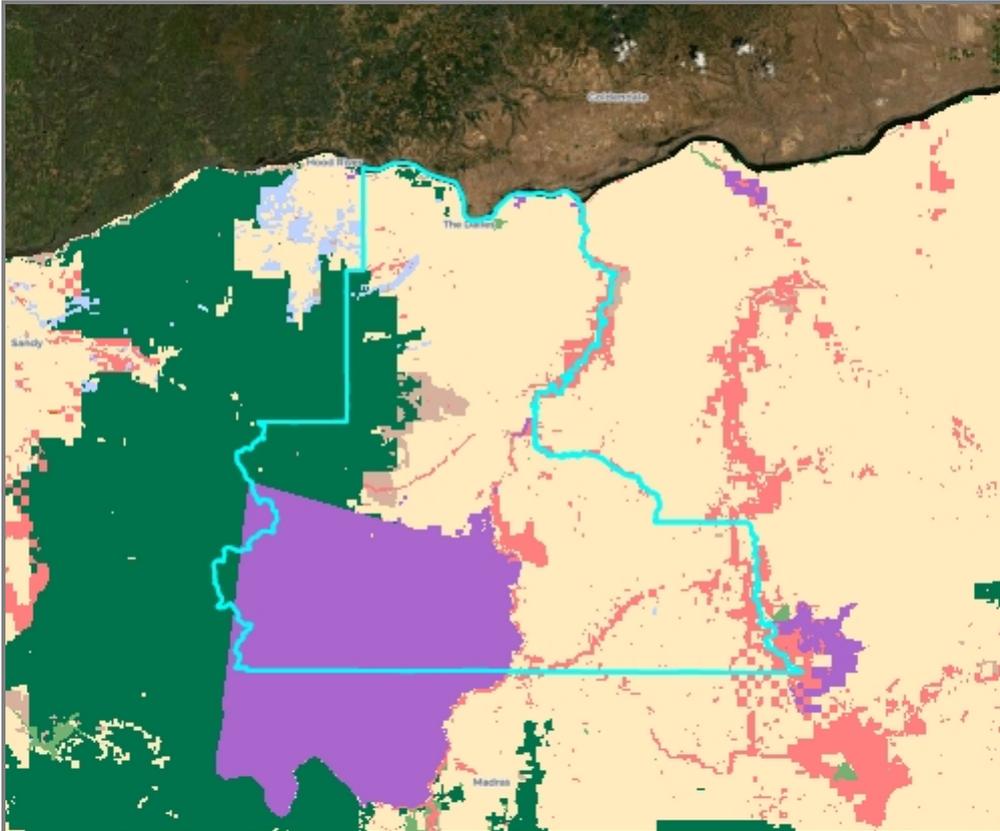
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LAND OWNERSHIP AND MANAGEMENT

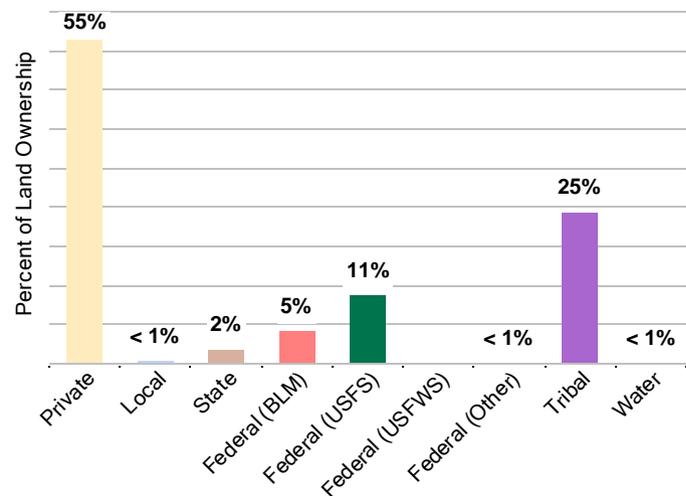


Knowing the land ownership and management in an area is important for hazard planning and awareness when wildfires occur. Oregon has a complete and coordinated wildfire management system between local, private, tribal, state, and federal agencies. These entities participate to fight fire in local areas 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.

Wasco County

	Major Landowner/Manager	Acres
	Private	843,863
	Local	6,144
	State	33,989
	Bureau of Land Management (BLM)	82,457
	US Forest Service (USFS)	174,532
	US Fish & Wildlife (USFWS)	0
	Other Federal	1,019
	Tribal	385,204
	Water	125



Source: Bureau of Land Management, 2015

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



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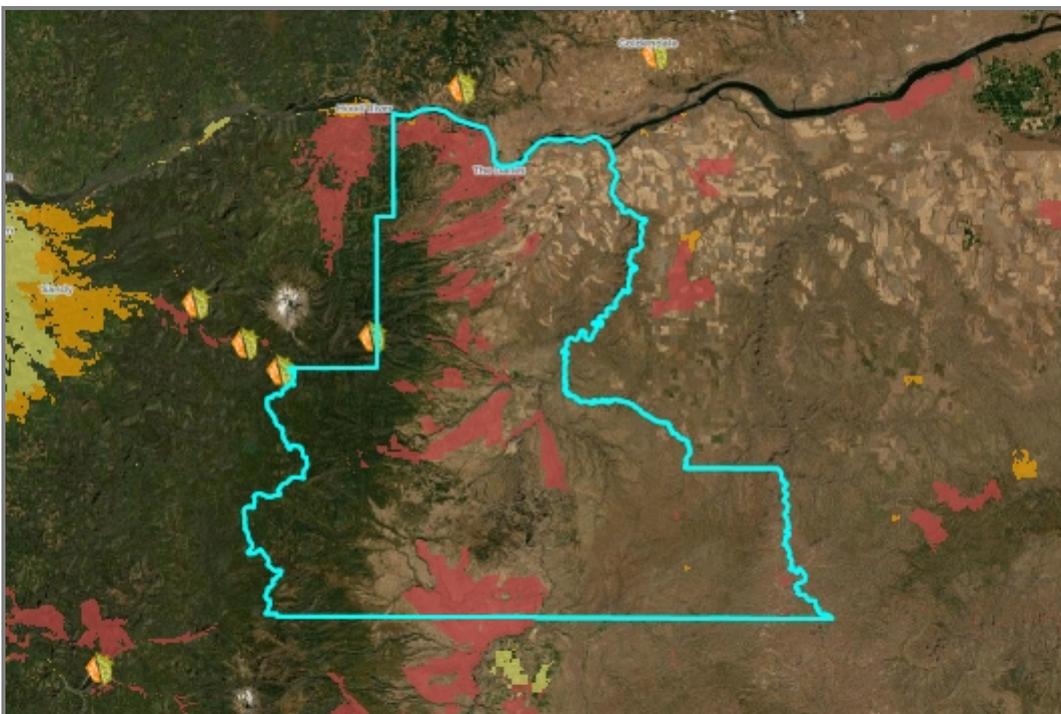
OREGON WUI COMMUNITY HAZARD RATINGS

Counting locally identified communities and neighborhoods, there are up to 6.9 million acres of Wildland Urban Interface (WUI) areas in Oregon. These areas were identified using a base WUI dataset from Radeloff, V.C., et. al, 2017 (published by USFS RDA), which incorporated 2010 census and 2011 land cover data. Locally mapped communities from Community Wildfire Protection Plans (CWPPs) from 2008 through 2013 were associated with the WUI geography. Department of Land Conservation & Development 2017 Oregon Land Use Zoning was also included for recent residential and developed or developing rural growth since the 2010 census. A cross-check was also made with the “100 Communities at Risk” report from the QWRA. Note that this WUI acreage contrasts with the 2.4 million acres from the West Wide Risk Assessment (Where People Live/Wildland Development Areas). The source Radeloff et. al WUI data used census block housing counts and land cover as opposed to WWRA Landsat night lights and housing densities. Acreage is larger in this Oregon WUI due to some rural areas having built environments along roads that spline two or more large census blocks, and we erred on the side of inclusion to add those entire areas to the dataset and not disrupt the original WUI geography. Also very small rural town centers that can potentially be encompassed by catastrophic wildfire, are kept whole in the Oregon WUI dataset.

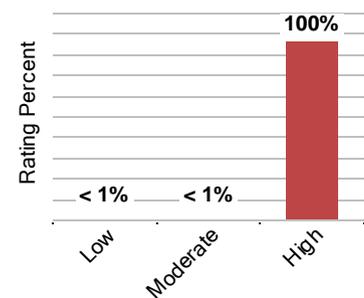
Burn Probability from the QWRA was used to assign a wildfire hazard rating to the built environment and homes in these areas. Hazard levels are based on modeled vegetation, not on building construction materials or ingress/egress issues. For a comprehensive analysis of wildfire risk and understanding of the potential threat of wildfire to your community, view the WUI combined with local fire starts and information in your Community Wildfire Protection Plan. A Community Wildfire Protection Plan (CWPP) is the product of collaboration between local communities and agencies interested in reducing wildfire risk and addressing response in a comprehensive plan. It also allows counties to prioritize and mitigate high risk areas, enhance safety and better protect themselves and their forested landscapes from wildfire.

Even in areas where risk is high, defensible space and Firewise USA® principles can be incredibly useful in minimizing the risk to homes in the Wildland Urban Interface.

Wasco County



WUI Hazard Area Acres in Wasco County



	Rating	Acres
	Low	9
	Moderate	411
	High	186,129
	Firewise Site	



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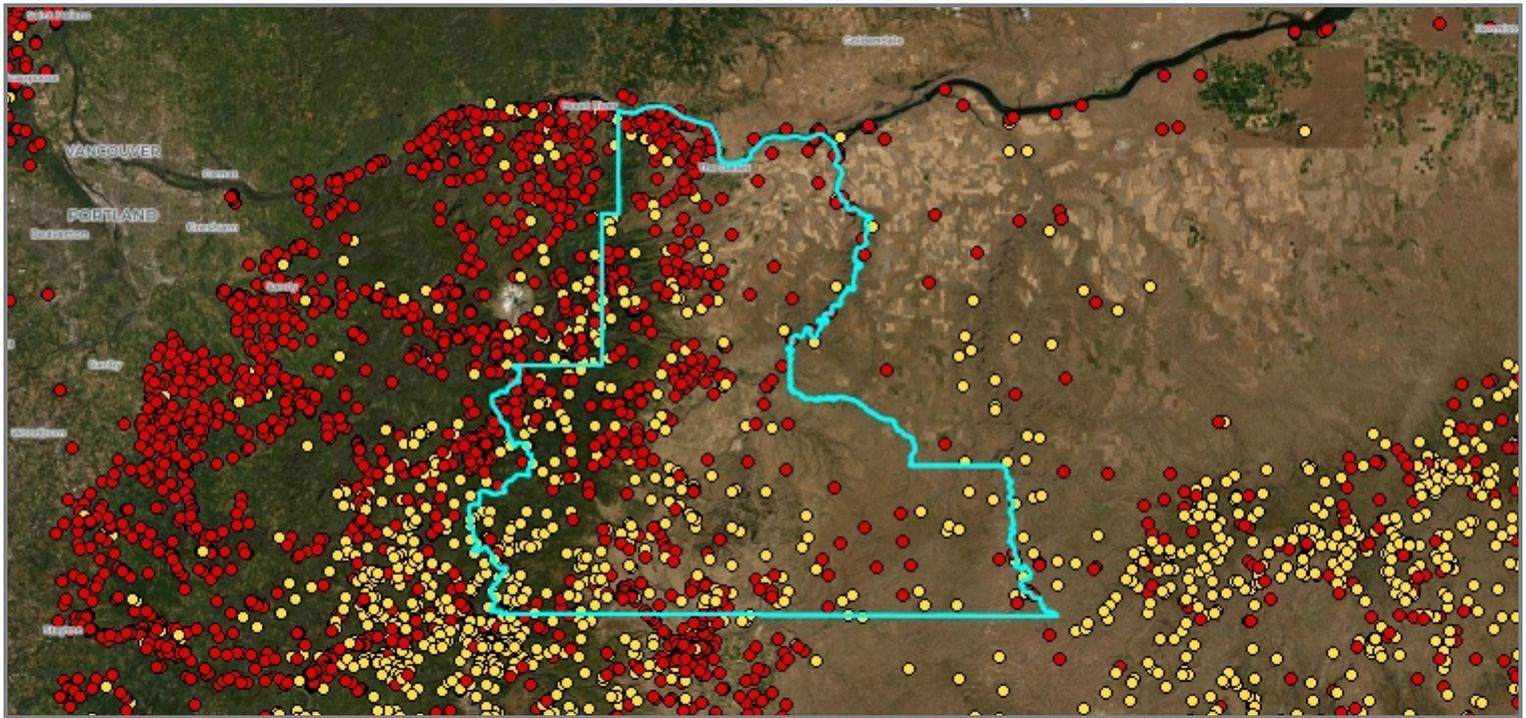
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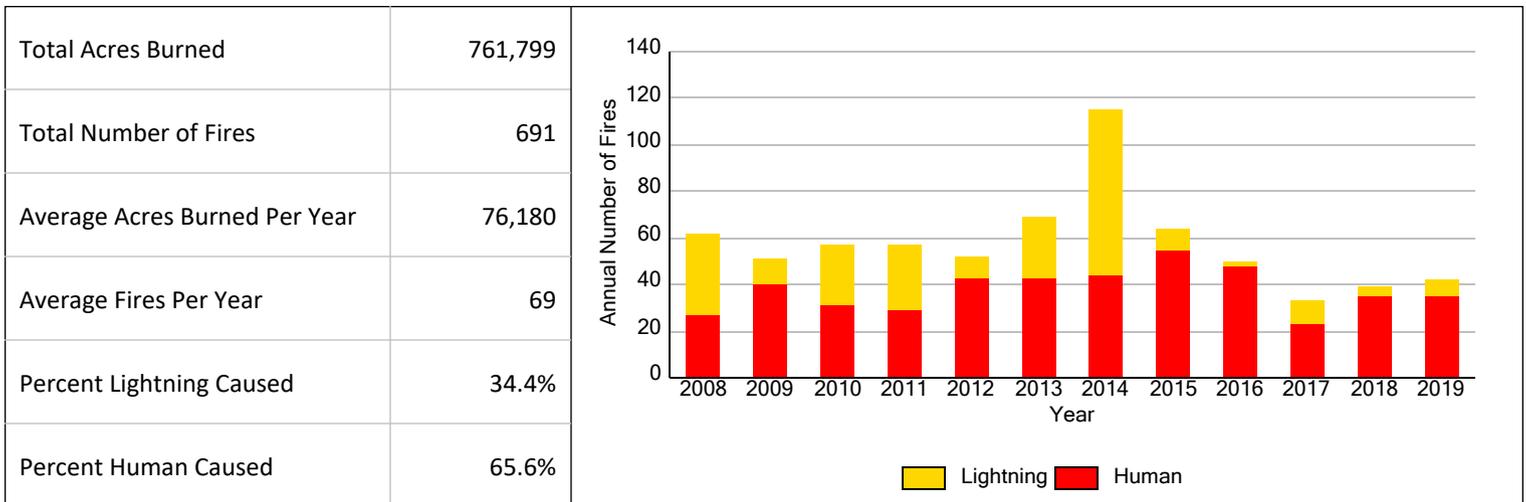


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FIRE HISTORY - FIRE IGNITIONS



Wasco County fire starts between 2008-2019



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, 2019



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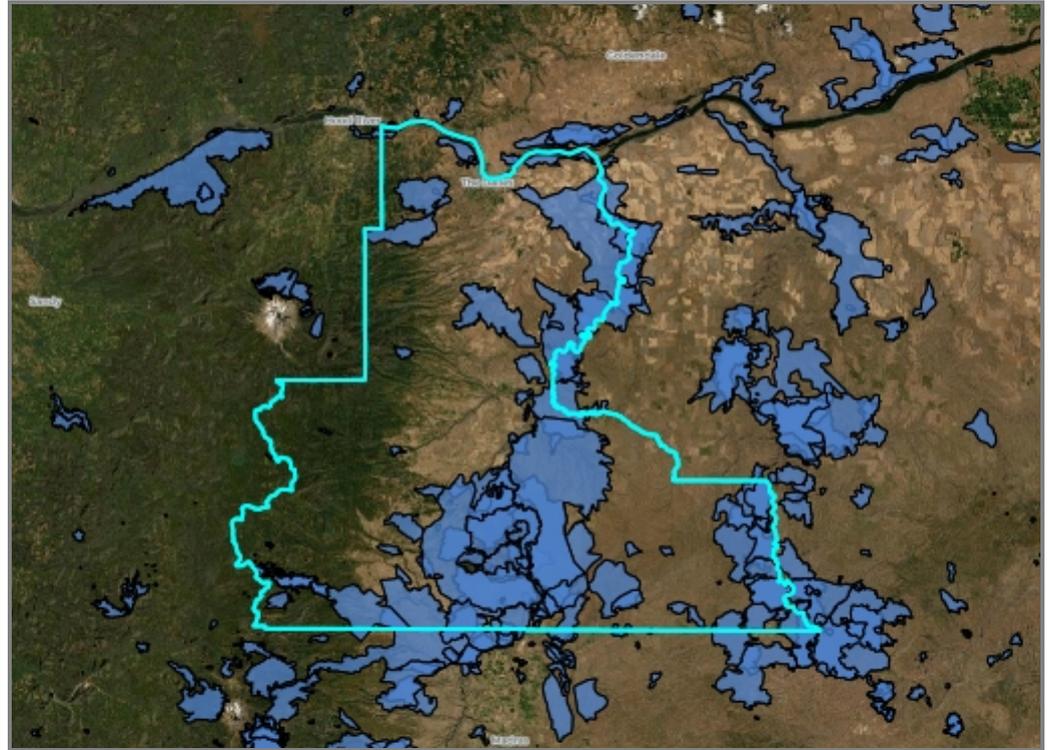


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FIRE HISTORY - FIRE PERIMETERS

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.

 Perimeter



Wildfires in Wasco County

Wildfire Name	Year	Acres Burned
BOXCAR 0410 RN	2018	100,227
SUBSTATION 0730 RN	2018	78,424
LONG HOLLOW 0806 RN	2018	33,458
SOUTH VALLEY ROAD	2018	20,045
WHISKEY	2018	918
NENA SPRINGS	2017	68,028
RHOADES CANYON 0301 RN	2017	14,607
NORTH POLE 0900 RN	2017	6,253
OAK SPRINGS 0326 RN	2017	375
Rim	2017	243
RATTLESNAKE	2016	9,235
Fifteen Mile	2016	3,709
0121 RN SOUTH JCT	2016	638
HOT SPRINGS FIRE	2016	387
County Line 2	2015	67,234
Ten Mile Canyon 0368 RN	2015	7,030
0312 Rn	2015	1,338
0590 Rn Oven	2015	1,069
0128 Rn	2015	62
Shaniko Butte	2014	41,966
Black Rock Inc 358	2014	35,724
0347 RN	2014	16,779



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Logging Unit Complex	2014	11,452
Logging Unit	2014	6,529
Camas Prairie	2014	5,864
Rowena	2014	3,680
Camp Creek	2014	3,078
White River	2014	651
Haley	2014	108
Nene Creek	2014	46
North Pinhead	2014	3
Sunnyside Turnoff	2013	51,480
Blackburn	2013	11,579
Gordon Butte	2013	4,084
Government Flats	2013	229
Wells Road	2013	66
Baker Canyon	2012	8,057
I-0222	2012	1,051
Rooper	2012	663
Red Lake	2012	178
Kah Nee Ta	2012	116
0487	2012	107
Razorback	2011	64,663
Powerline	2011	20,907
641	2011	11,107
513	2011	9,731
Clarno	2011	8,612
682	2011	6,430
Brown Road	2011	5,618
514	2011	5,612
497	2011	4,586
Deadman Canyon	2011	3,514
Badger Butte	2011	2,519
0431 RN	2011	1,512
Lemiti Meadow	2011	34
Freebridge	2011	17
YOUTHER	2010	28,388
Tygh Ridge	2010	4,717
Fall Canyon	2010	2,702
LAUGHLIN HILL 2	2010	1,943
JOHNSON LAKE	2010	1,583
Devil's Half Acre	2010	1,245
ISLAND RIM	2010	1,063
Oak Canyon	2010	640
0465	2010	212
High Cascades Complex	2010	40
S-410	2010	34
Muddy Creek	2009	16,266
Ward Canyon	2009	1,962



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Microwave	2009	1,300
Rapids	2009	430
North Pole Ridge	2008	6,701
SAYRS 2	2008	5,175
Big Cove	2008	4,858
Oak Brook	2008	653
SKOOKUM CREEK	2008	518
Jersey 2	2008	487
Jersey	2008	474
CHENOWETH 2	2008	286
Wettle Ridge	2008	260
JERSEY	2008	138
Highway Nine	2007	1,246
Ball Point	2007	1,238
Rock Springs	2006	1,092
Clarno	2006	35
Chenowith Ridge	2006	17
Wolfe Point	2005	4,235
McKinley	2005	3,813
Schoolie Rim	2005	1,272
Rattlesnake Ridge	2005	1,171
Willow	2005	181
MORNING	2005	123
Log Springs	2004	5,060
Sorefoot Blackrock	2004	87
Bakeoven	2003	96
Hastings	2003	62
Trout Creek	2003	41
White River	2002	24,279
Sheldon Ridge	2002	12,467
KASKELA	2002	3,184
TROUT CREEK	2002	18
FERRY CANYON	2001	18,546
WAGNER MT	2001	7,679
TUNNEL	2001	1,442
SOUTH JUNCTION	2001	243
Murray'S Addition	2001	200
GORDAN	2001	48
OAK SPRINGS	2001	11
Fire # 100	2001	< 1
2 Horse Mtn.	2000	10,740
Harpham Flat	2000	1,724
Dant	2000	526
Blue Pool	2000	114

Source: National Interagency Fire Center: <https://www.nifc.gov/>

For more information about previous large wildfires, see: National Interagency Fire Center



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https://www.nifc.gov/fireInfo/fireInfo_main.html



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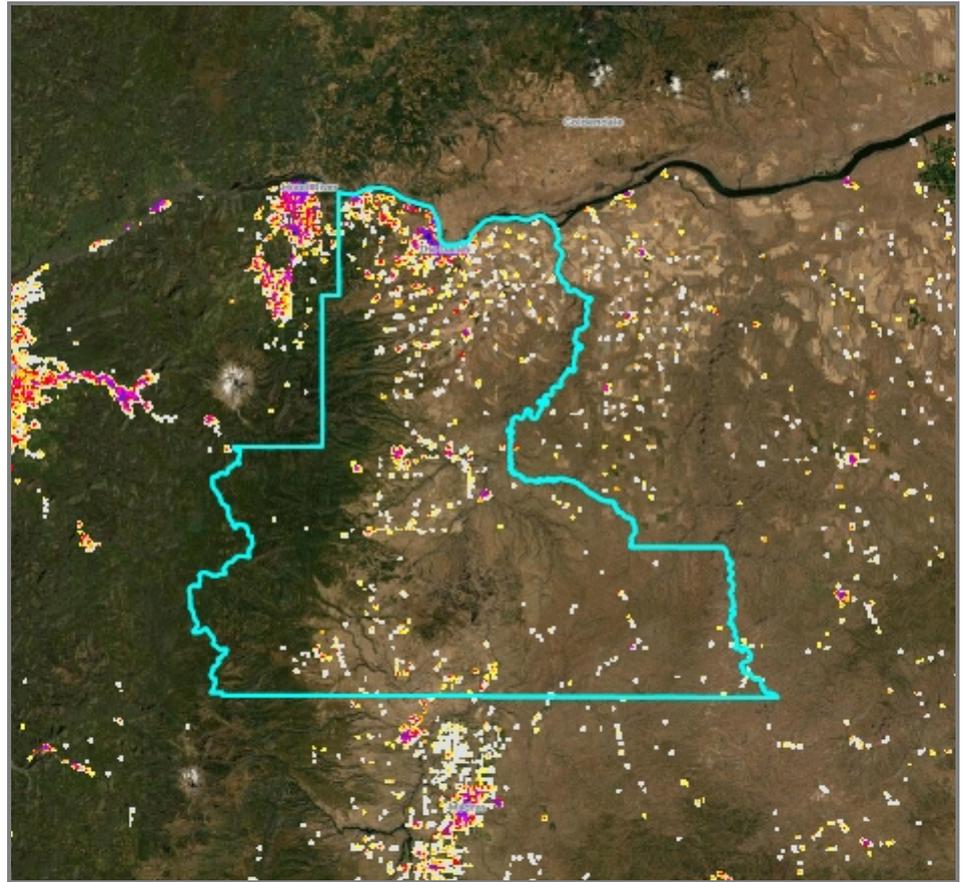
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HOUSING DENSITY - WHERE PEOPLE LIVE

Areas where people live are a primary concern when assessing wildfire risk. Especially critical is the Wildland Urban Interface (WUI) - areas where houses and other development meet or mix with undeveloped natural areas, with a close proximity of houses and infrastructure to flammable wildland vegetation.

In the U.S., the number of homes in the WUI increased by 13.4 million since 1990. This expansion of the WUI poses particular challenges for wildfire management, creating more structures and populations at risk in environments where firefighting is often difficult. In Oregon, nearly 2.4 million acres are considered WUI areas, about 3.8% of the state. Of the nearly 1.7 million homes in Oregon, over 603,000, or 36%, are in the WUI.

The map and table on this page shows the location and density of where people live in your area.



Wasco County housing density

Category	Acres	%*
<1 house per 40 acres	20,913	1
1 per 40 acres to 1 per 20 acres	13,134	< 1
1 per 20 acres to 1 per 10 acres	8,113	< 1
1 per 10 acres to 1 per 5 acres	5,535	< 1
1 per 5 acres to 1 per 2 acres	3,313	< 1
1 per 2 acres to 3 per acres	3,493	< 1
> 3 per acres	832	< 1

Source: 2013 West Wide Wildfire Risk Assessment, ODF

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



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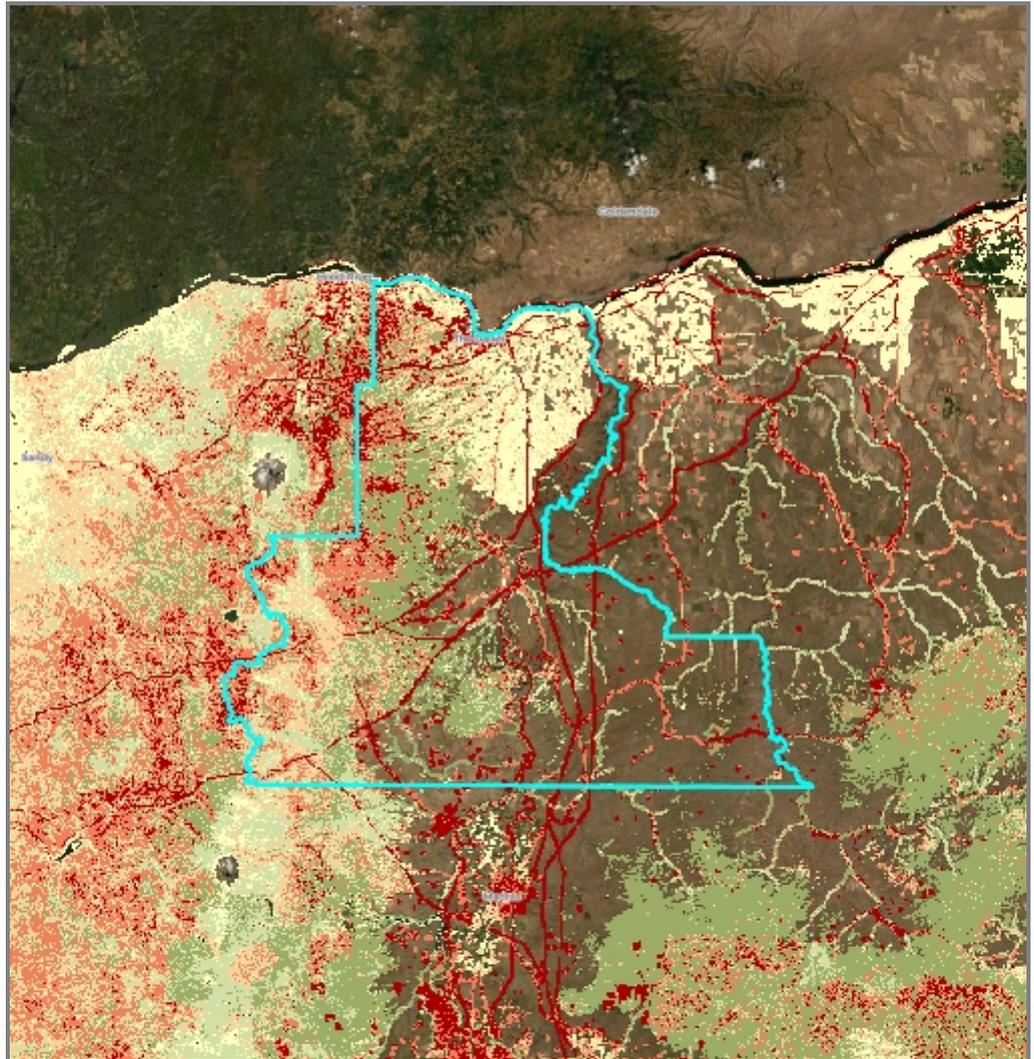
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OVERALL WILDFIRE RISK

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).



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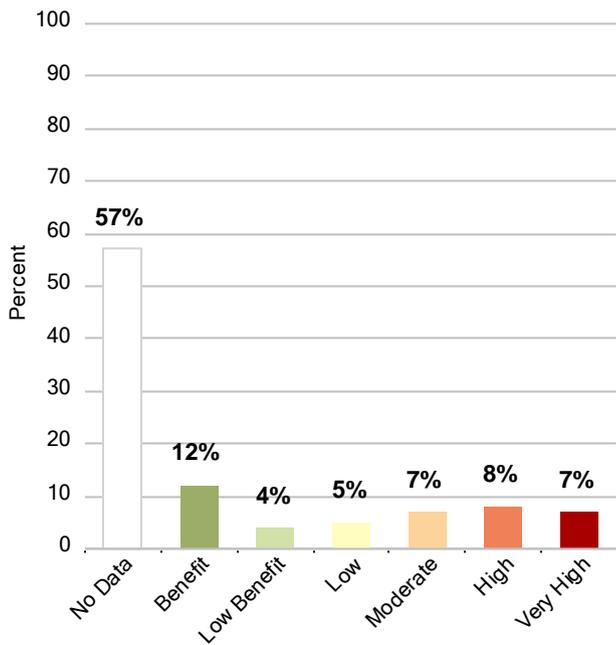
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This page contains additional information about overall wildfire risk, including a table of classes by ownership to determine the distribution of categories across ownerships, and a chart of overall percentages of classes across the area. The inset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

Overall wildfire risk in Wasco County: estimated acres by ownership

Category	Total	Private	Local	State	BLM	USFS	USFWS	Other Fed	Tribal
Very High	103,956	49,677	608	1,518	4,777	31,123	0	367	15,886
High	128,267	27,817	865	725	1,793	55,669	0	138	41,260
Moderate	109,801	30,671	606	313	1,045	21,045	0	88	56,033
Low	75,153	54,070	218	631	591	5,829	0	76	13,738
Low Benefit	65,817	7,560	525	245	602	13,406	0	17	43,462
Benefit	176,422	54,353	2,422	16,102	2,442	42,055	0	6	59,042
No Data	867,791	619,642	914	14,453	71,246	5,404	0	318	155,814
Total Area	1,527,207	843,790	6,158	33,987	82,496	174,531	0	1,010	385,235

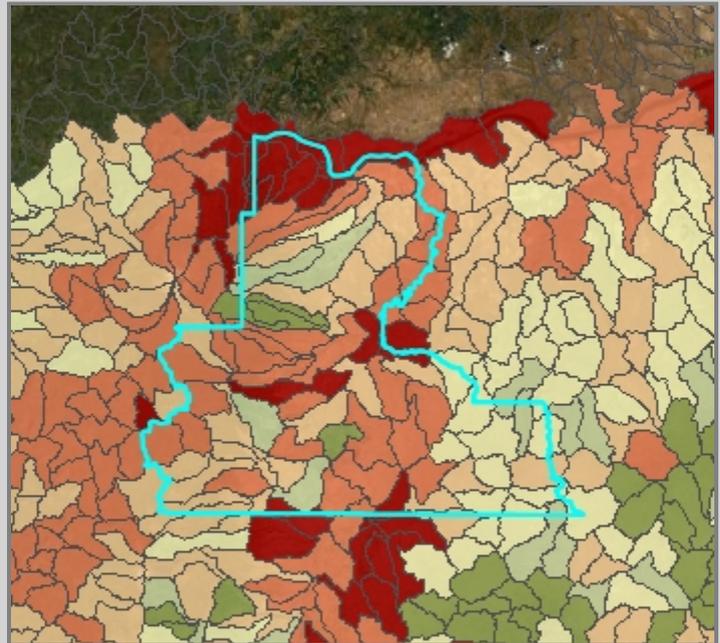
Overall wildfire risk in Wasco County *



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 Wasco 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.





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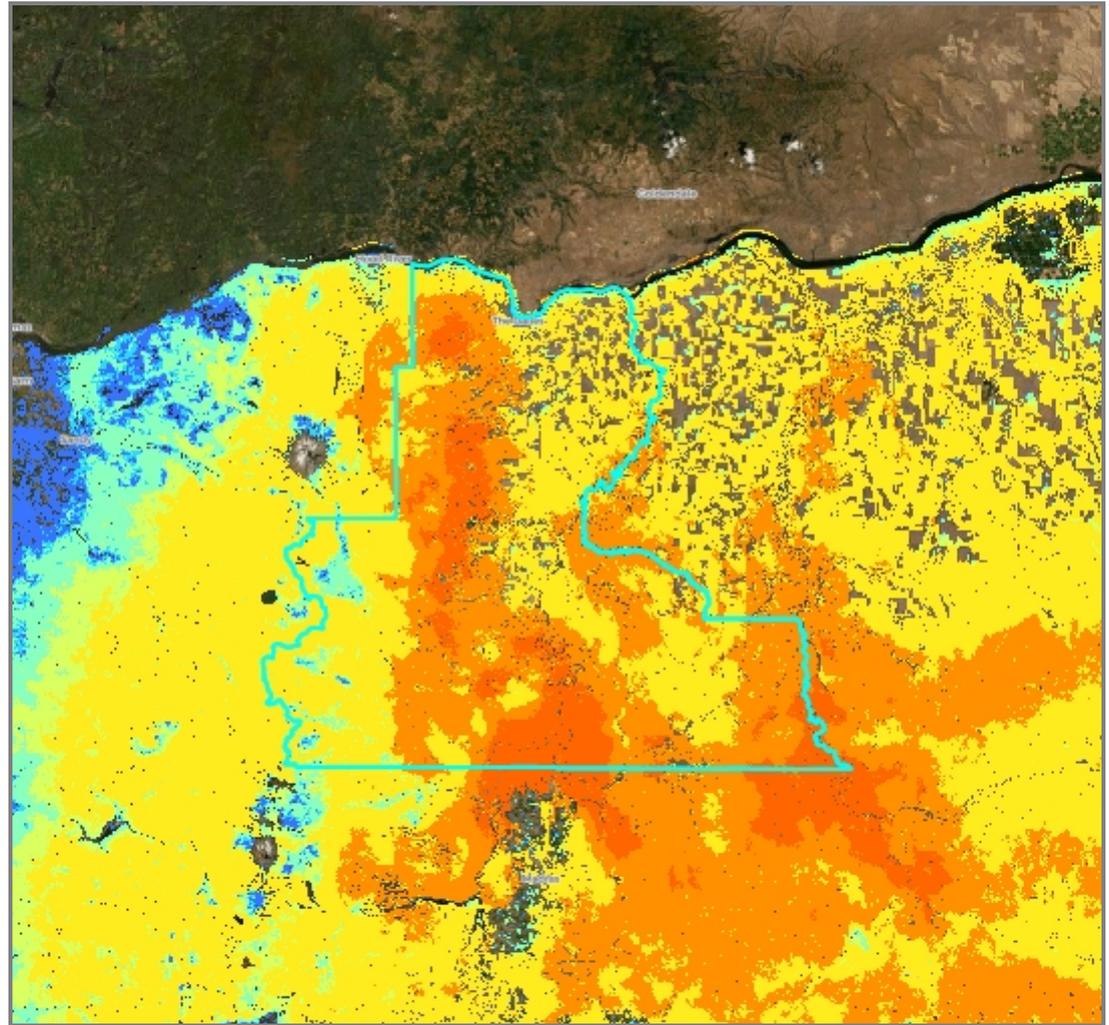


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BURN PROBABILITY

Burn probability shows the annual likelihood of a wildfire greater than 250 acres in size occurring, considering weather, topography, fire history, and fuels (vegetation). This estimate includes fire history from 1992 through recently disturbed fuels from large Oregon wildfires in notable years 2013, 2014, 2015, and 2017.

Only large wildfires over 250 acres in size are included because they are the most influential on the landscape and they can be simulated using computer software. Most fire occurrences are less than 250 acres (see fire history section). Although these smaller fires have a low impact on the broader landscape, they can have significant local impacts, especially in areas with human activity and infrastructure.



Burn probability	
Very High	Greater than 1 in 50 chance of a wildfire >250 acres in a single year (>96th percentile).
High-Very High High	Between 1 in 500 and 1 in 50 chance of a wildfire >250 acres in a single year (29th to 96th percentile).
Moderate-High Moderate	Between 1 in 5,000 and 1 in 500 chance of a wildfire >250 acres in a single year (11th to 29th percentile).
Low-Moderate Low	Less than approximately 1 in 5,000 chance of a wildfire >250 acres in a single year (up to the 11th percentile).
Non-burnable	This area contains non-burnable fuel types such as water, urban, agriculture, barren rock, etc.



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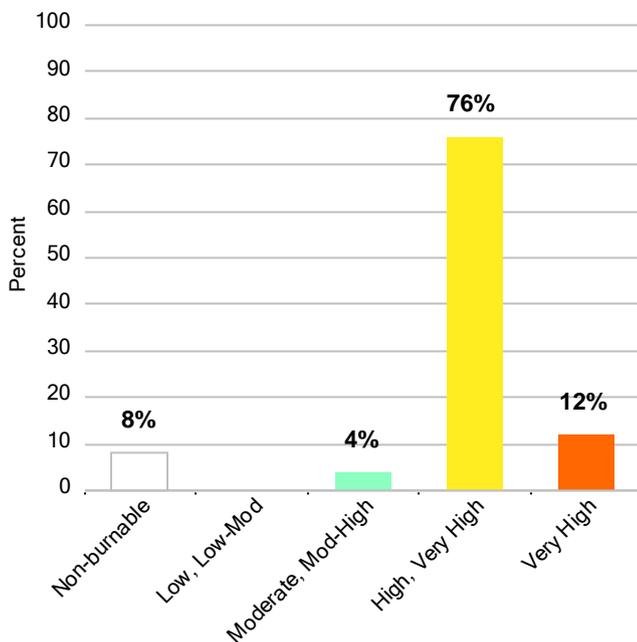
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Burn probability in Wasco County: estimated acres by ownership

Category	Total	Private	Local	State	BLM	USFS	USFWS	Other Fed	Tribal
Very High	185,320	76,098	1,265	17,960	16,786	15,158	0	0	58,053
High, Very High	1,157,005	649,226	4,550	13,508	59,225	140,940	0	533	289,023
Moderate, Mod-High	56,646	12,231	29	494	224	14,647	0	235	28,786
Low, Low-Mod	5,873	1,227	6	103	15	2,109	0	14	2,399
Non-Burnable	122,362	105,008	309	1,923	6,246	1,676	0	227	6,973
Total Area.	1,527,206	843,790	6,159	33,988	82,496	174,530	0	1,009	385,234

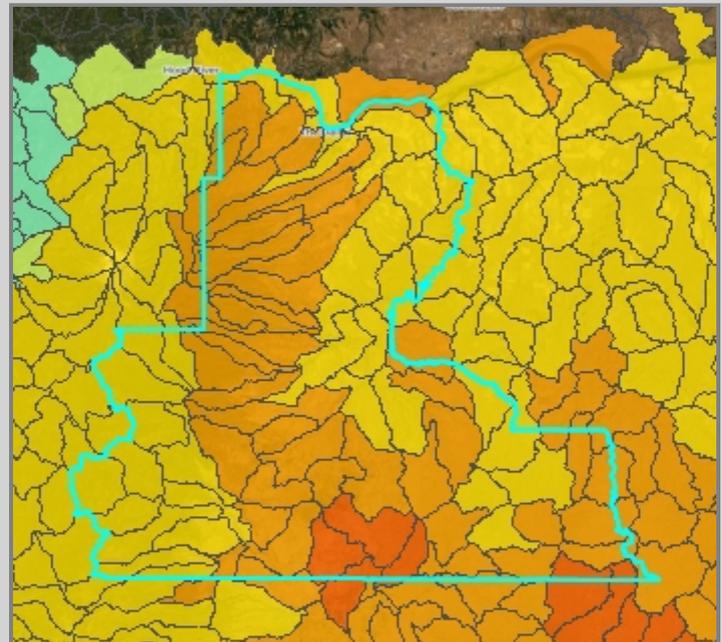
Burn probability in Wasco County *



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

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

Burn probability in Wasco County: sub-watershed summary map. Burn probability is summarized at the subwatershed (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

Wasco County

1,532,385 Acres: (2,394 Sq. Miles)



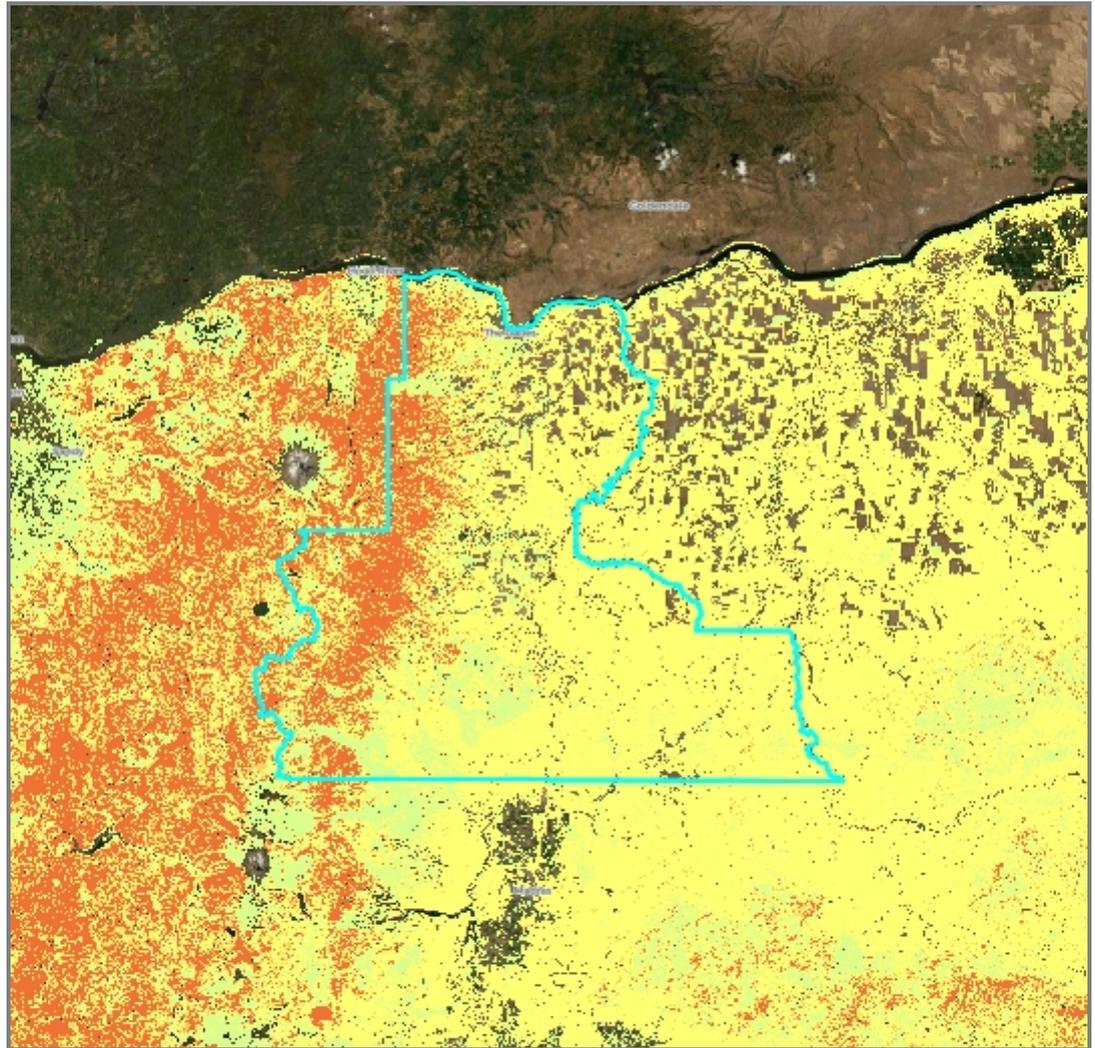
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FIRE INTENSITY - FLAME LENGTHS

Flame length is an indication of fire intensity, which is a primary factor to consider for gauging potential impacts to values at risk and for firefighter safety. It can also guide mitigation work to reduce the potential for catastrophic fires by reducing fire intensity and flame length.

Under normal weather conditions average flame lengths within your area are shown, and the associated table describes the expected fire behavior in each average flame length category.

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.



Average fire intensity - flame lengths under normal weather conditions

	> 11 foot	Fires may exhibit greater than 11-foot average flames with major fire movement, tree crowning, longer-range spotting and ember travel.
	8-11 foot	Fires may exhibit 8-11 foot average flames with tree torching and increased ember travel.
	4-8 foot	Fires may exhibit 4-8 foot average flames, and embers may travel moderate distances.
	4 foot	Fires may exhibit 4 foot average flames.
	Non-burnable	This area contains non-burnable fuel types such as water, urban, agriculture, barren rock, etc.



Oregon Wildfire Risk Explorer- Advanced Report

Wasco County

1,532,385 Acres: (2,394 Sq. Miles)



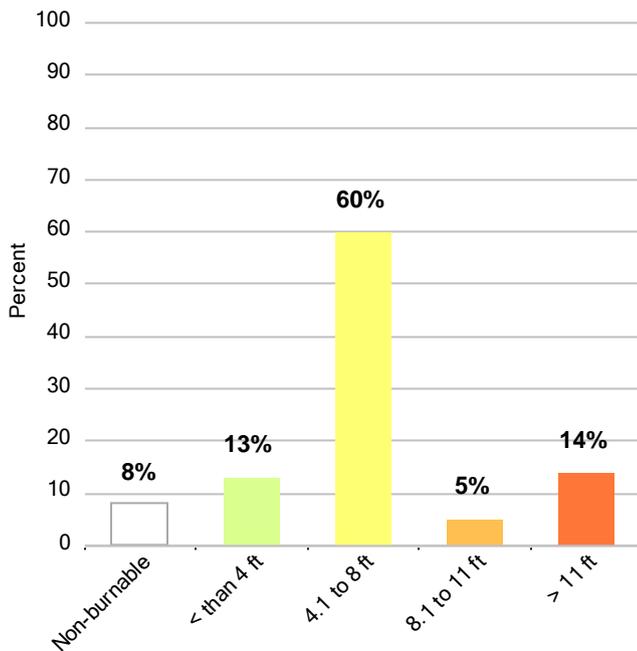
Generated: December 28, 2020

This page contains additional information about fire intensity, 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.

Wasco County average fire intensity - flame lengths estimated acres by ownership

Category	Total	Private	Local	State	BLM	USFS	USFWS	Other Fed	Tribal
> 11 ft	210,119	33,695	1,562	4,670	1,690	99,058	0	12	69,432
8 - 11 ft	78,076	26,437	478	3,027	2,130	22,388	0	10	23,606
4 - 8 ft	913,781	593,944	2,161	19,168	66,524	37,249	0	467	194,268
> 0 - 4 ft	202,870	84,706	1,649	5,200	5,906	14,159	0	294	90,956
Non-burnable	122,362	105,008	309	1,923	6,246	1,676	0	227	6,973
Total Area	1,527,208	843,790	6,159	33,988	82,496	174,530	0	1,010	385,235

Fire intensity - flame length in Wasco County *

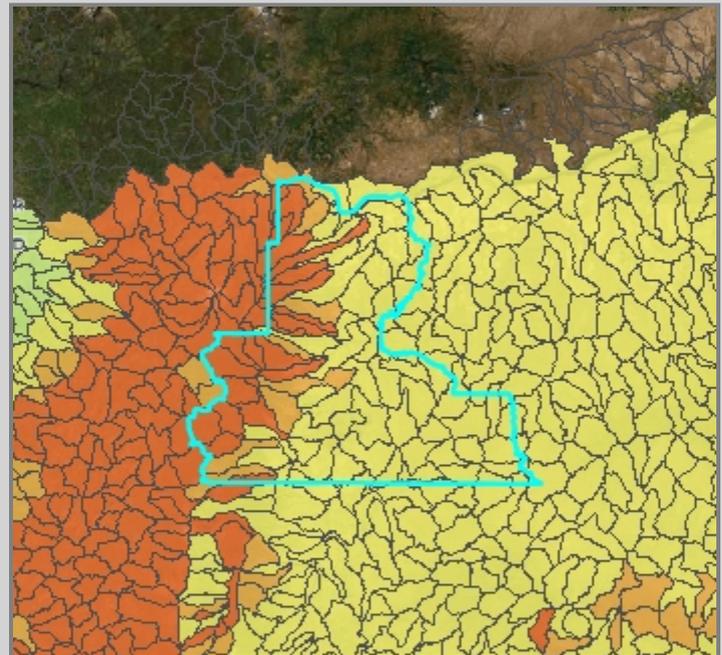


Source: 2018 Pacific Northwest Quantitative Wildfire Risk Assessment, US Forest Service

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

Fire intensity in Wasco County: sub-watershed summary map

Fire intensity is summarized at the subwatershed (6th field Hydrologic Unit Code, HUC12) level. Watershed summaries enable you to view the landscape context and identify and compare sub-watersheds for prioritization.





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Wasco County

1,532,385 Acres: (2,394 Sq. Miles)



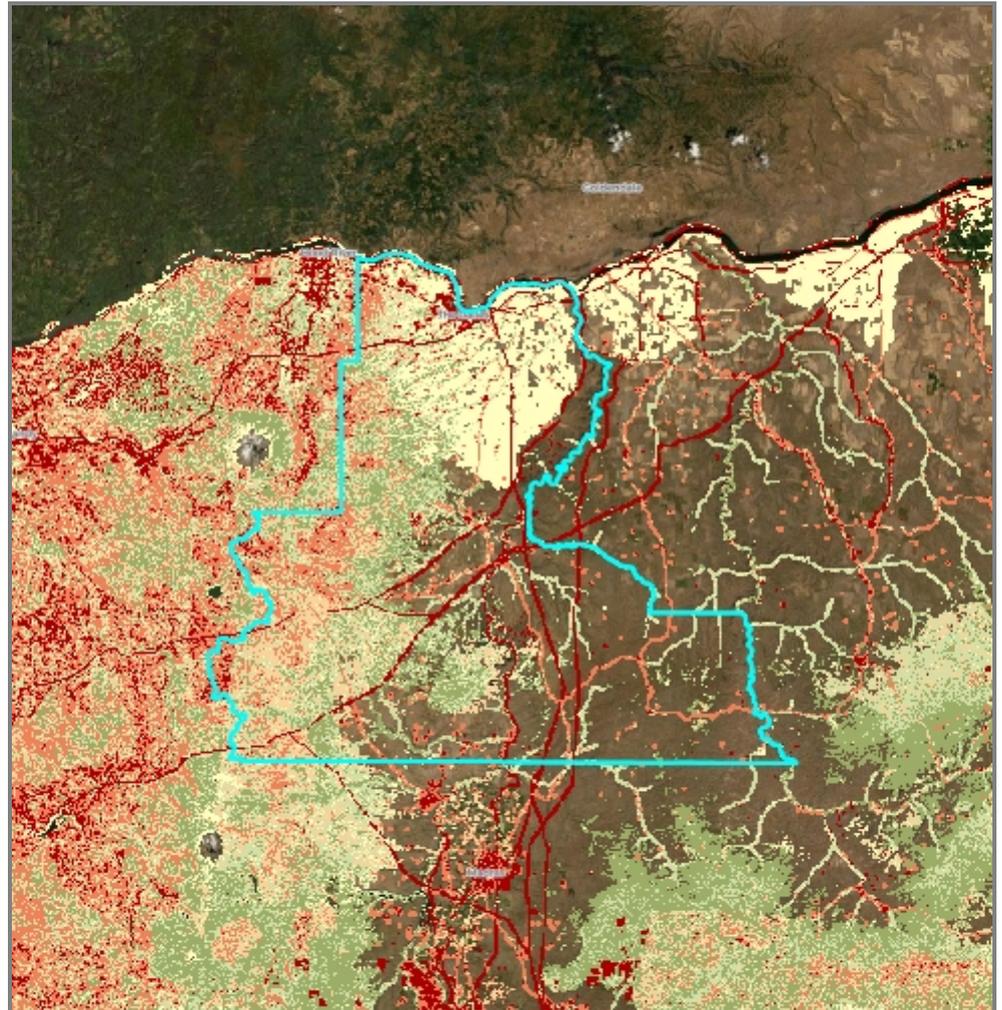
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OVERALL POTENTIAL IMPACT

Overall potential impact represents the exposure or consequence of wildfire on all mapped highly valued assets and resources combined, including critical infrastructure, developed recreation, housing density, seed orchards, sawmills, historic structures, timber, municipal watersheds, vegetation condition, and selected terrestrial and aquatic wildlife habitat.

The Potential Impact data layers characterize exposure and susceptibility only, and do not include the likelihood of an area burning. This differentiates the Potential Impact layers from Wildfire Risk layers, which account for the burn probability in the risk rating.

The data values reflect a range of impacts from a very high negative consequence, where wildfire is detrimental (e.g., high exposure to structures, infrastructure, or sensitive habitat), to a positive impact of wildfire, where wildfire will produce an overall benefit (e.g., improving forest health or wildlife habitat).



Overall potential impact (if a wildfire were to occur)

	Very High	Overall potential impact is very highly negative (top 5% of values).
	High	Overall potential impact is highly negative (80-95th percentile).
	Moderate	Overall potential impact is moderately negative (50-80th percentile).
	Low	Overall potential impact is slightly negative (30-50th percentile).
	Low Benefit	Overall potential impact is slightly beneficial at low flame lengths (15-30th percentile).
	Benefit	Overall potential impact is slightly beneficial, with a cumulative positive impact of fire (0-15th percentile).
	No Data (blank)	There are no highly valued resources or assets mapped in the area or it is non-burnable (urban, agriculture, barren, etc).



Oregon Wildfire Risk Explorer- Advanced Report

Wasco County

1,532,385 Acres: (2,394 Sq. Miles)



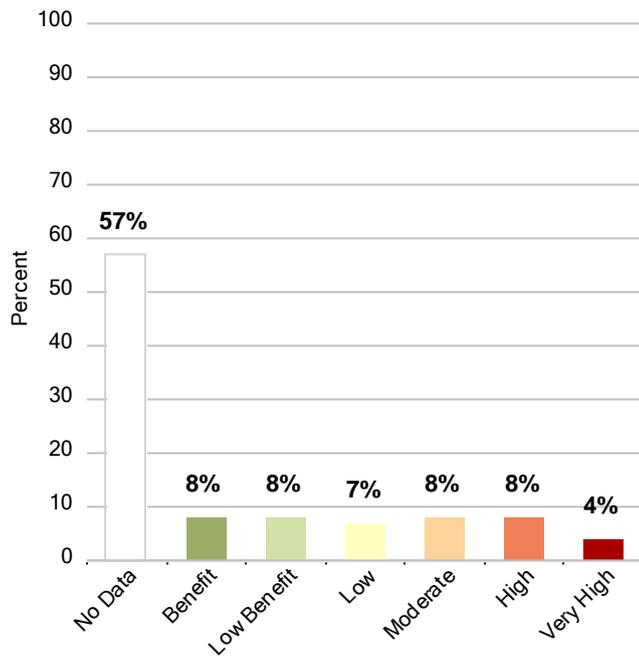
Generated: December 28, 2020

This page contains additional information about overall potential impact, 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.

Wasco County overall potential impact estimated acres by ownership

Category	Total	Private	Local	State	BLM	USFS	USFWS	Other Fed	Tribal
Very High	55,697	32,064	255	1,253	3,527	9,119	0	458	9,021
High	128,127	33,428	507	623	1,509	59,641	0	73	32,346
Moderate	125,146	18,242	969	601	1,816	37,461	0	60	65,997
Low	106,406	78,406	562	701	1,346	7,024	0	78	18,289
Low Benefit	123,402	34,661	1,771	6,075	1,988	25,475	0	14	53,418
Benefit	120,639	27,348	1,181	10,281	1,063	30,407	0	9	50,350
No Data	867,791	619,642	914	14,453	71,246	5,404	0	318	155,814
Total Area	1,527,208	843,791	6,159	33,987	82,495	174,531	0	1,010	385,235

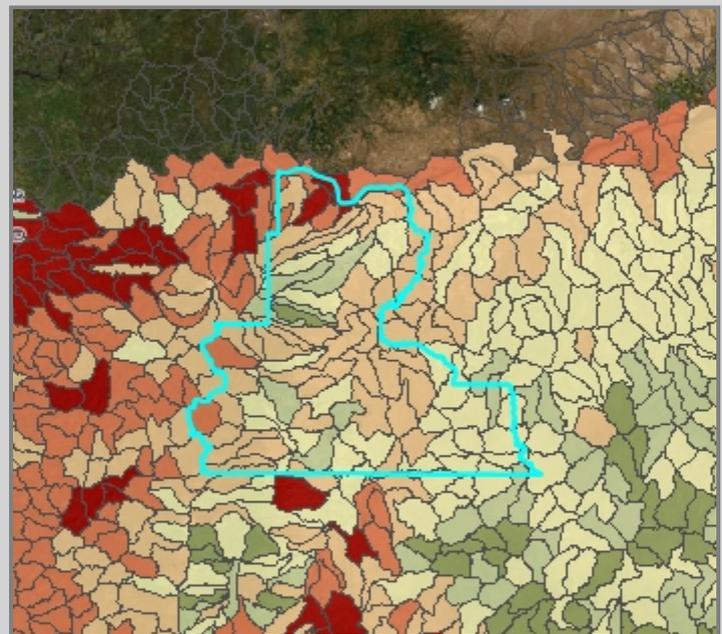
Overall potential impact in Wasco County *



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

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

Overall potential impact in Wasco County: sub-watershed summary map. Overall potential impact 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.





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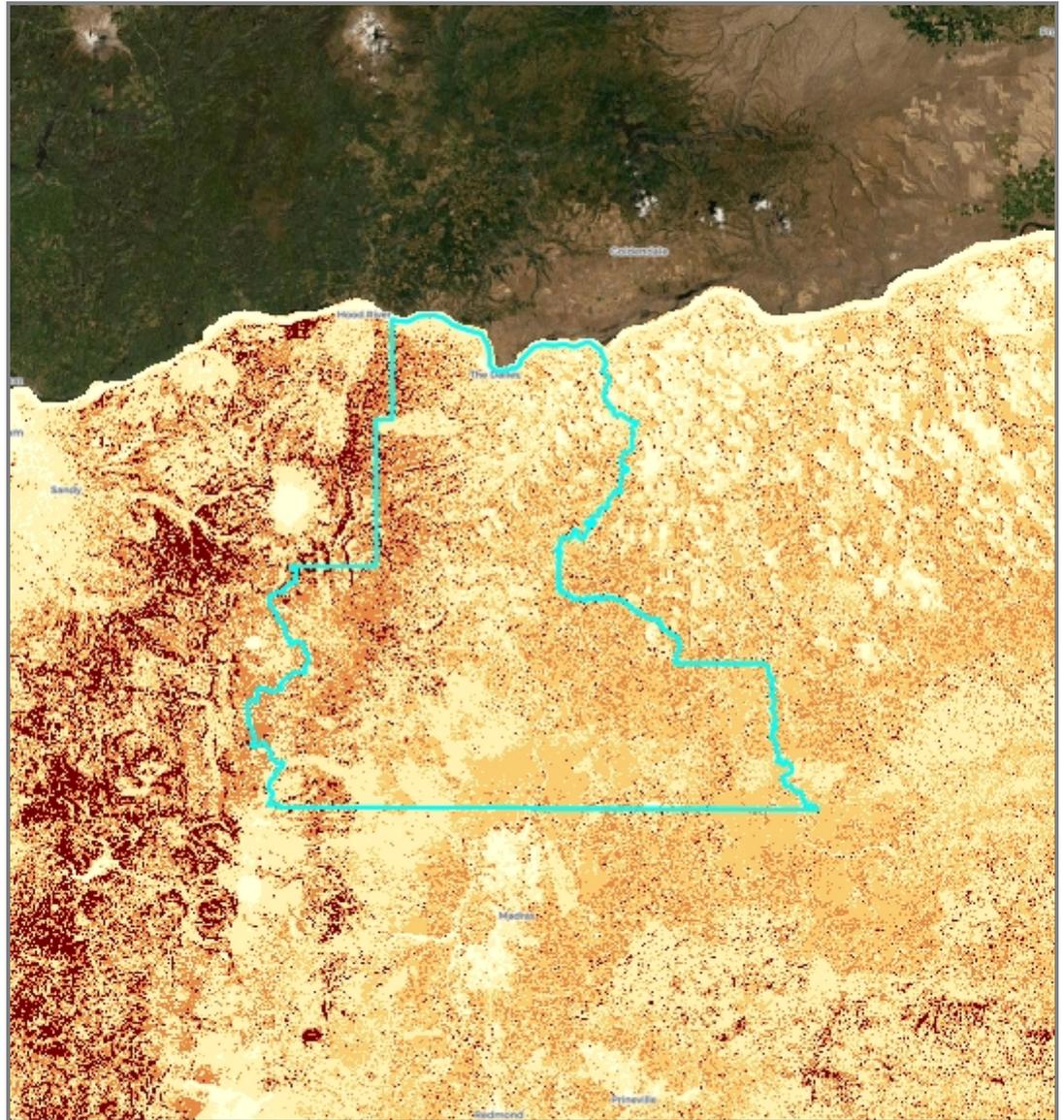
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HAZARD TO POTENTIAL STRUCTURES

Hazard to potential structures depicts the hazard to a hypothetical structure (not necessarily an existing structure) if a wildfire were to occur. Hazard to potential structures differs from overall estimates of wildfire impact or risk, as those estimates only consider where existing structures are currently located.

Community planners can use this information when planning development outside of existing developed, urban or WUI areas. This data provides model-based consideration of wildfire hazard when developing Fire Adapted Communities in Oregon.

As with the other data layers, this layer characterizes the fire environment only and does not consider other important factors in determining structural fire risk such as building construction materials and vegetation within close proximity of a structure.



Hazard to potential structures	
Very High	Potential hazard is very high (top 5 percent).
High	Potential hazard is high (80th to 95th percentile).
Moderate	Potential hazard is moderate (50th to 80th percentile).
Low	Potential hazard is low (up to the 50th percentile).
Non-Burnable	Fuel in the area is largely non-burnable or very sparse.



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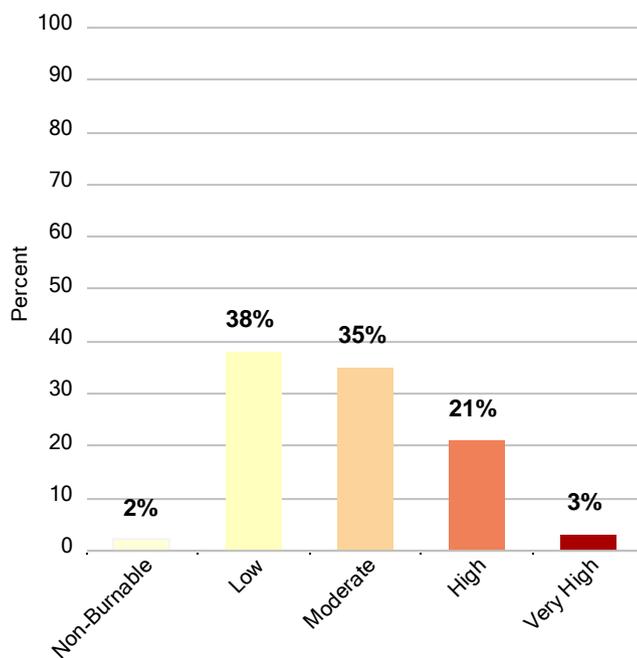
Generated: December 28, 2020

This page contains additional information about hazard to potential structures, 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.

Hazard to potential structures in Wasco County: estimated acres by ownership

Category	Total	Private	Local	State	BLM	USFS	USFWS	Other Fed	Tribal
Very High	52,538	19,380	335	1,664	1,867	18,981	0	4	10,307
High	316,177	143,960	1,373	7,525	10,861	81,217	0	42	71,199
Moderate	535,775	332,605	1,212	9,696	41,510	31,423	0	200	119,129
Low	587,397	315,030	3,206	14,606	27,204	42,399	0	725	184,227
Non-Burnable	35,319	32,815	32	496	1,053	512	0	38	373
Total Area	1,527,206	843,790	6,158	33,987	82,495	174,532	0	1,009	385,235

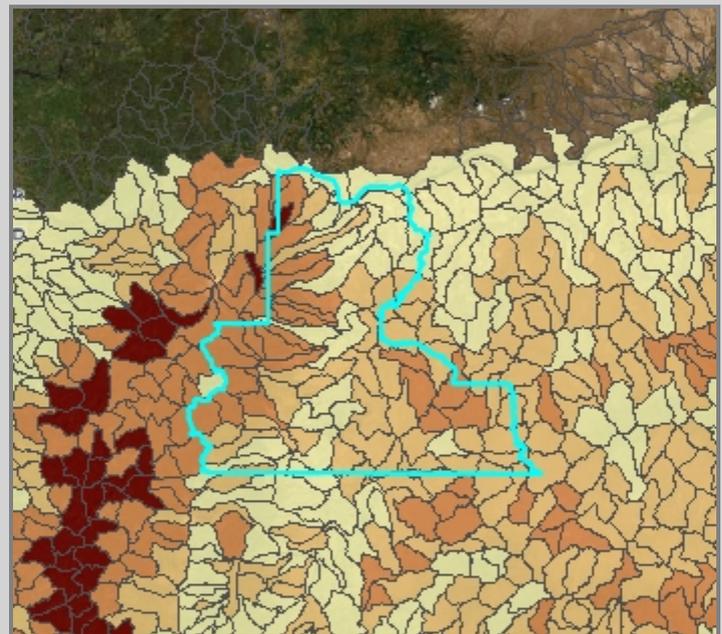
Hazard to potential structures in Wasco County *



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

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

Hazard to potential structures in Wasco County: sub-watershed summary map. Hazard to potential structures is summarized at the subwatershed (6th field Hydrologic Unit Code, HUC12) level. Watershed summaries enable you to view the landscape context and identify and compare sub-watersheds for prioritization.





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Wasco County

1,532,385 Acres: (2,394 Sq. Miles)



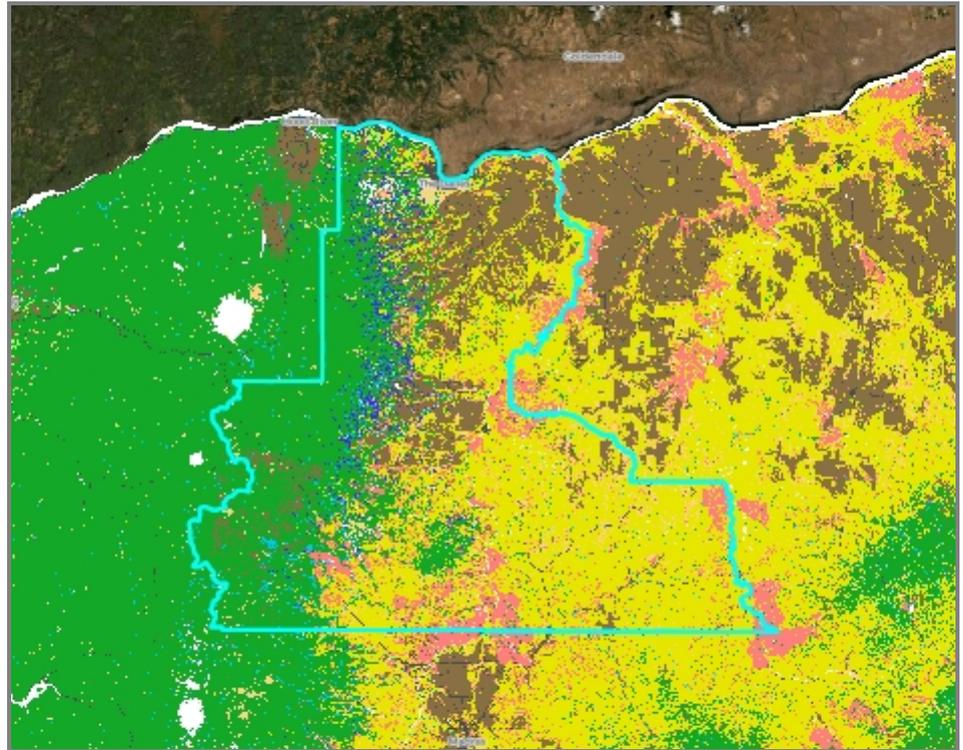
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EXISTING VEGETATION TYPE

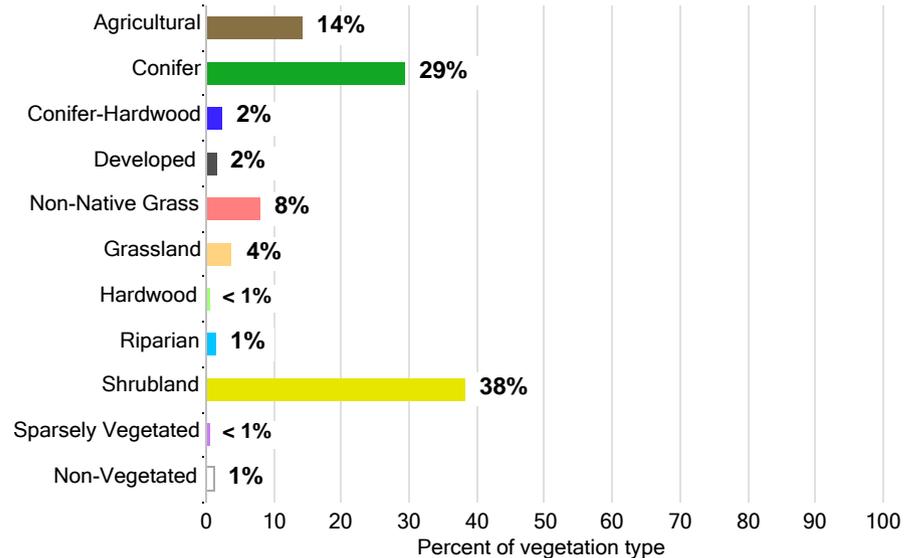
Vegetation is an important influence on potential wildfire behavior. The dominant vegetation type helps us understand the corresponding historical fire regime, a designation of fire frequency and severity. Fire frequency, or burn probability, suggests how often wildfire occurs (see Burn probability data layer). Fire severity tells us how much impact wildfires are likely to have on the vegetation and other elements of an ecosystem (see Potential impact to forest vegetation data layer). The living and dead vegetation below forest canopies (shrubs, grasses, leaf litter, dead tree snags, etc.) also strongly influence fire behavior and impacts in a location (see Fuel models).

Higher frequency fire areas generally have lower severities. Vegetation is continually or often thinned by fire and the remaining vegetation and other ecosystem elements can be considered adaptive or resilient to fire. Examples include Ponderosa pine forests and oak woodlands.

Lower frequency fire regimes experience less fire, but generally have higher severities, with vegetation and other ecosystem elements which can be considered sensitive. Examples include coastal forests, subalpine forests and many stream headwaters and riparian areas.



Vegetation Types in Wasco County





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Wasco County vegetation type

Category	Description	Acres	%*
Non-vegetated or recently disturbed	Non-vegetated	18,554	1
Agricultural	Agricultural	216,958	14
Conifer	Conifer	449,767	29
Conifer-Hardwood	Conifer-Hardwood	35,480	2
Developed	Developed	23,138	2
Exotic Herbaceous	Non-Native Grass	120,769	8
Grassland	Grassland	56,066	4
Hardwood	Hardwood	6,796	< 1
Riparian	Riparian	20,694	1
Shrubland	Shrubland	584,093	38
Sparsely Vegetated	Sparsely Vegetated	11	< 1

Existing Vegetation Type Data Dictionary <https://www.landfire.gov/evt.php>

Source: LANDFIRE <https://www.landfire.gov>

Resource:

US Forest Service Fire Regime Table

https://www.fs.fed.us/database/feis/fire_regime_table/fire_regime_table.html#PacificNorthwest

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



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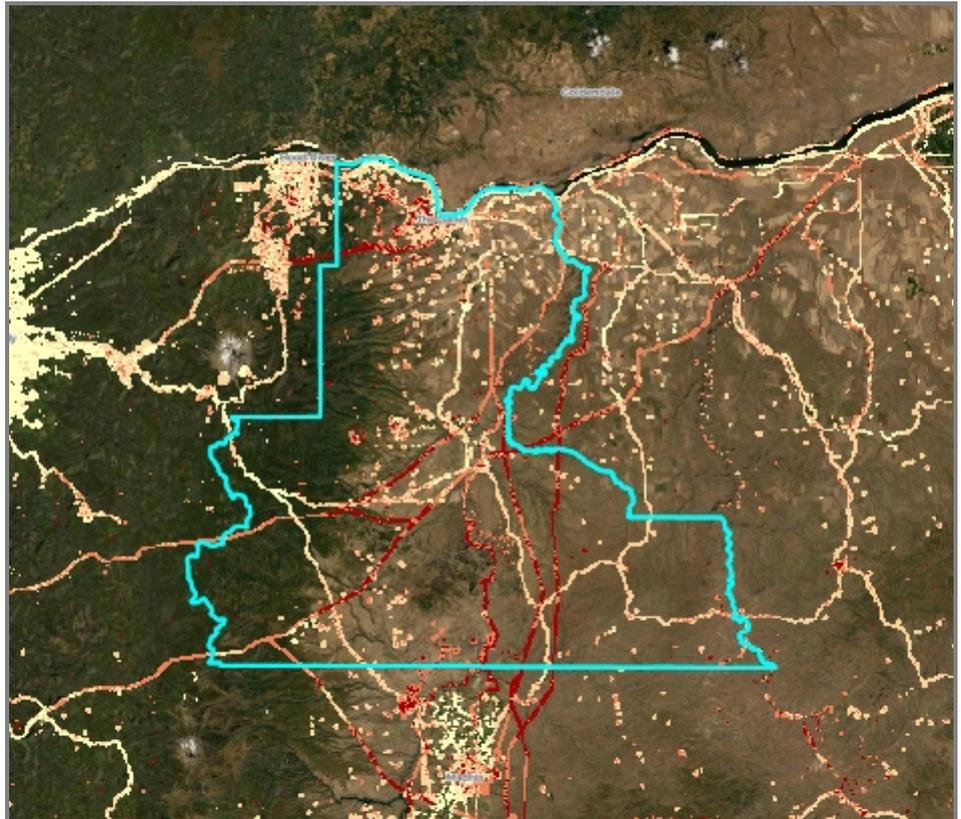
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WILDFIRE RISK TO ASSETS

Wildfire risk combines both the likelihood of a wildfire (or Burn probability) and the expected effects of a wildfire on highly valued resources and assets. See the description of Overall wildfire risk for more details.

Wildfire risk to assets maps wildfire risk only in places with the following assets: critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures. Note that these resources and assets were mapped at a broad scale across all of Oregon and Washington, and maps contain errors and omissions, especially at fine scales.

The values in the maps and charts reflect a range of negative impacts from low to very high. Positive benefits of wildfire are not mapped in this layer, assuming that any impact of wildfire to human development is negative.



Wildfire Risk to Assets in Wasco County

Category	Description	Acres	%*
Very High	Wildfire risk is very highly negative to all combined mapped assets (top 5%).	18,199	1
High	Wildfire risk is highly negative (80-95th percentile).	29,532	2
Moderate	Wildfire risk is moderately negative (50-80th percentile).	35,085	2
Low	Wildfire risk is slightly negative (0-50th percentile).	6,393	< 1
No Data	There are no highly valued resources or assets mapped in the area, or it is considered non-burnable.	1,443,172	94

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

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



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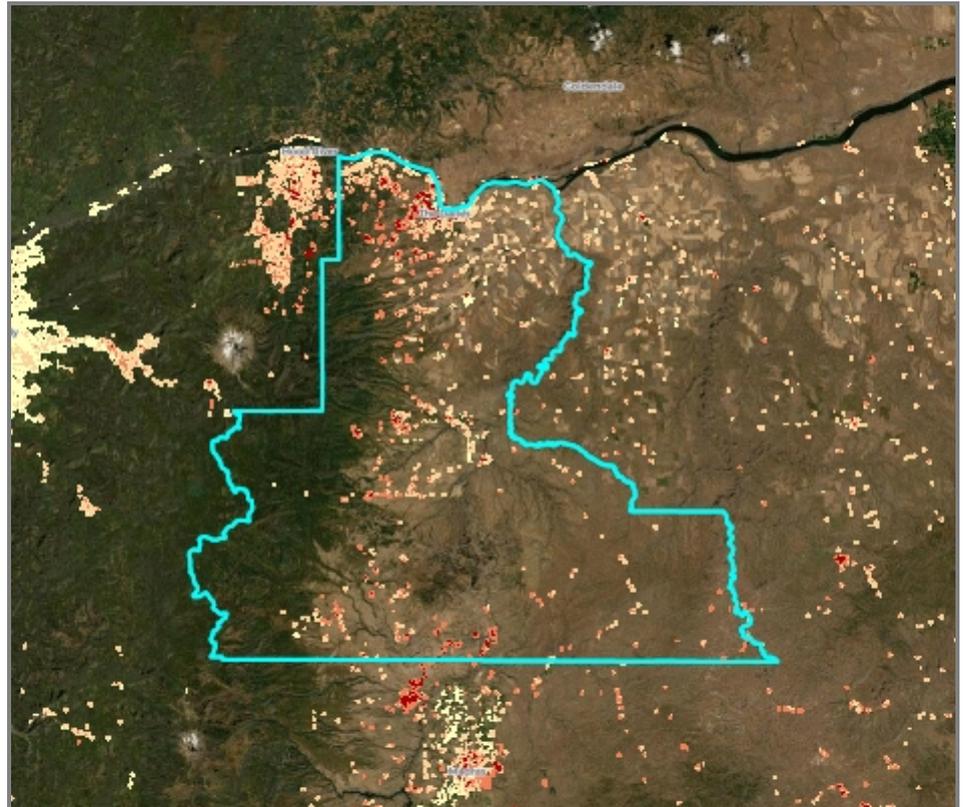
WILDFIRE RISK TO PEOPLE AND PROPERTY

Wildfire risk combines both the likelihood of a wildfire (or burn probability) and the expected effects of a wildfire on highly valued resources and assets. See the description of overall wildfire risk for more details.

Wildfire risk to people and property includes only housing unit density as mapped in the Where people live layer and US Forest Service private inholdings.

Note that these resources and assets were mapped at a broad scale across all of Oregon and Washington, and maps contain errors and omissions, especially at fine scales.

The values in the maps and charts reflect a range of negative impacts from low to very high. Positive benefits of wildfire are not mapped in this layer, assuming that any impacts of wildfire to human development is a negative impact.



Wildfire Risk to People and Property in Wasco County

Category	Description	Acres	%*
Very High	Wildfire risk is very highly negative to people and property (top 5%).	4,910	< 1
High	Wildfire risk is highly negative (80-95th percentile).	17,730	1
Moderate	Wildfire risk is moderately negative (50-80 percentile).	19,618	1
Low	Wildfire risk is slightly negative (0-50 percentile).	1,129	< 1
No Data	There are no highly valued resources or assets mapped in the area, or it is considered non-burnable.	1,488,993	97

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

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



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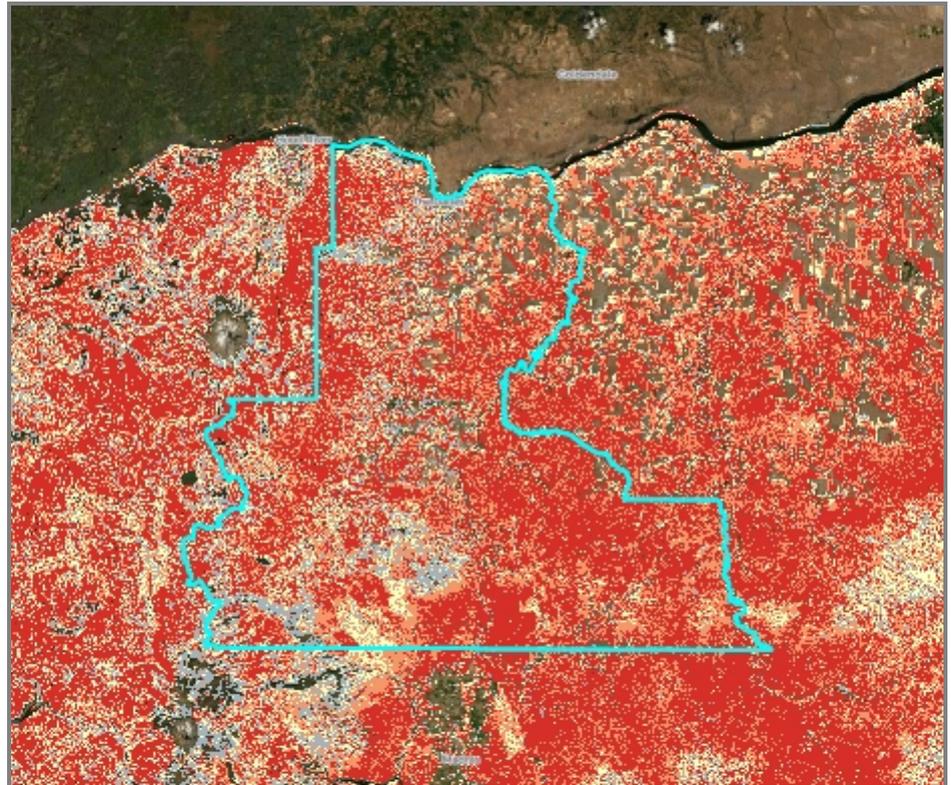
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PROBABILITY OF EXCEEDING 4 FOOT FLAME LENGTHS

Flame length is an indication of fire intensity, which is a primary factor to consider for firefighter safety and for gauging potential impacts to values at risk. Fires with greater flame lengths are more intense and difficult to control. At higher flame lengths, firefighters cannot directly approach. As flame lengths increase, tree torching and spotting is expected and ember travel is increased.

Fires with greater than 4' flames are too intense for firefighters to work at the front of the flame using hand tools, and heavier equipment such as bulldozers may be necessary.

Using this layer to help target locations of higher flame length potential, a local assessment might reveal opportunity to reduce fire intensity as a goal of fuels treatment projects by using managed fire and/or other active management activities. Values are expressed as a percent likelihood. These probabilities do not take into account the likelihood of burning (see Burn probability).



Wasco County probability of exceeding 4' flames

Category	Description	Acres	%*
75-100%	If a fire occurs, there is a very high (>75%) chance that flame lengths will be greater than 4'.	701,338	46
50-75%	If a fire occurs, there is a high (50-75%) chance that flame lengths will be greater than 4'.	377,823	25
25-50%	If a fire occurs, there is a moderate (25-50%) chance that flame lengths will be greater than 4'.	177,177	12
0-25%	If a fire occurs, there is a low (<25%) chance that flame lengths will be greater than 4'.	138,214	9
0%	This area contains non-burnable fuel types such as water, urban, agriculture, barren rock, etc.	137,828	9

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

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



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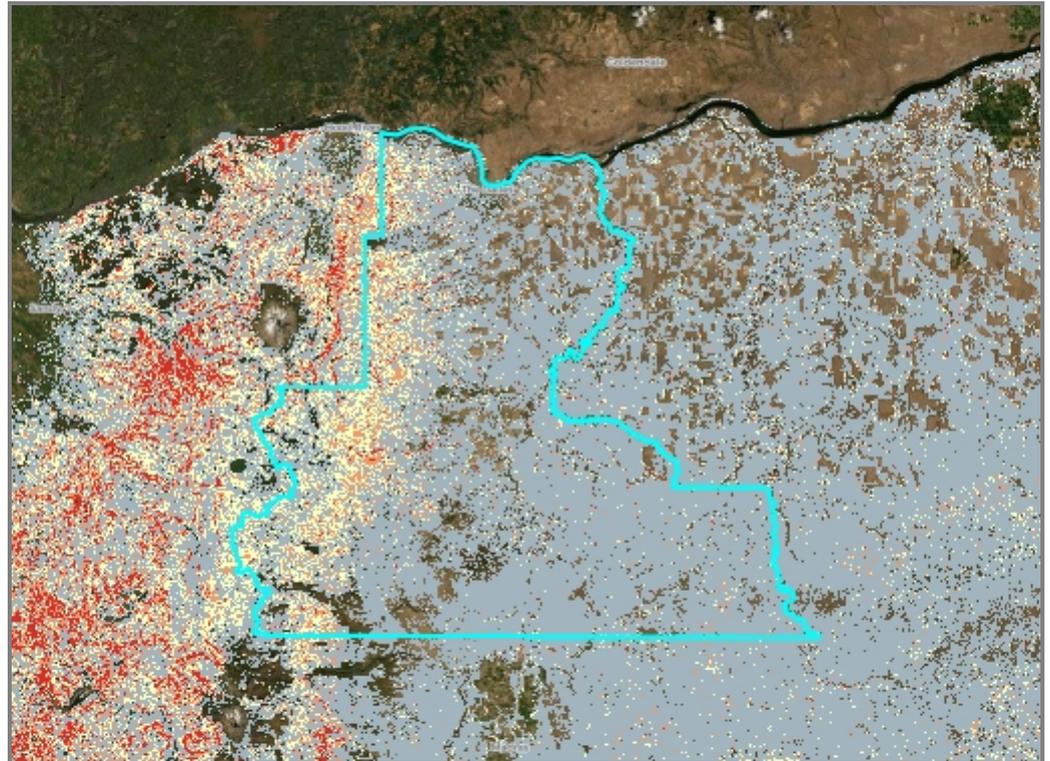
PROBABILITY OF EXCEEDING 8 FOOT FLAME LENGTHS

Flame length is an indication of fire intensity, which is a primary factor to consider for firefighter safety and for gauging potential impacts to values at risk. Fires with greater flame lengths are very intense and are expected to be highly difficult to control -- too intense for firefighters to work at the front of the flame, and they can severely impact values at risk. Tree torching and spotting is expected and ember travel is increased.

Fires with >8' flame lengths may be very difficult to control with little ability to work at the front of the flame, and greater risk of torching, crowning and spotting.

Using this layer to help target locations of higher flame length potential, a local assessment might reveal opportunity to reduce fire intensity as a goal of fuels treatment projects by using managed fire and/or other active management activities.

Values are expressed as a percent likelihood. These probabilities do not take into account the likelihood of an area burning.



Wasco County probability of exceeding 8' flames

Category	Description	Acres	%*
75-100%	If a fire occurs, there is a very high (>75%) chance that flame lengths will be greater than 8'.	10,913	< 1
50-75%	If a fire occurs, there is a high (50-75%) chance that flame lengths will be greater than 8'.	73,297	5
25-50%	If a fire occurs, there is a moderate (25-50%) chance that flame lengths will be greater than 8'.	158,293	10
0-25%	If a fire occurs, there is a low (<25%) chance that flame lengths will be greater than 8'.	1,046,920	68
0%	This area contains non-burnable fuel types such as water, urban, agriculture, barren rock, glacial areas, etc.	242,958	16

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

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



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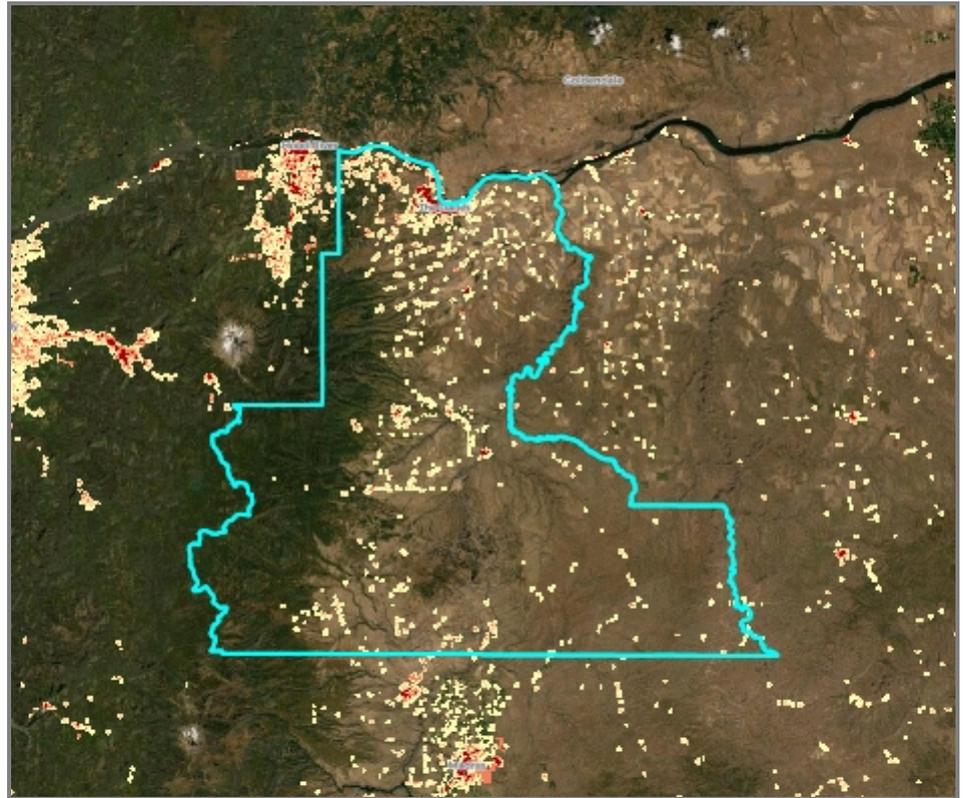
Generated: December 28, 2020

POTENTIAL IMPACT TO PEOPLE AND PROPERTY

Potential impact to people and property represents the exposure or consequence of wildfire on mapped highly valued assets including housing unit density and USFS private inholdings.

The Potential Impact data layers characterize exposure and susceptibility only, and do not include the likelihood of an area burning. This differentiates the Potential Impact layers from Wildfire Risk layers, which account for the burn probability in the risk rating.

The data values reflect a range of impacts from very high to low negative consequences. Positive benefits of wildfire are not mapped in this layer, assuming that any impact of wildfire to human development is negative.



Wasco County potential impact to people and property, if a wildfire were to occur.

Category	Description	Acres	%*
Very High	Potential impact is very highly negative to people and property (top 5%).	1,586	< 1
High	Potential impact is highly negative (80-95th percentile).	4,511	< 1
Moderate	Potential impact is moderately negative (50-80th percentile).	15,146	< 1
Low	Potential impact is slightly negative (0-50th percentile).	22,145	1
No Data	There is no people and property mapped in the area or it is considered non-burnable (urban, agriculture, barren, etc).	1,488,993	97

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

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



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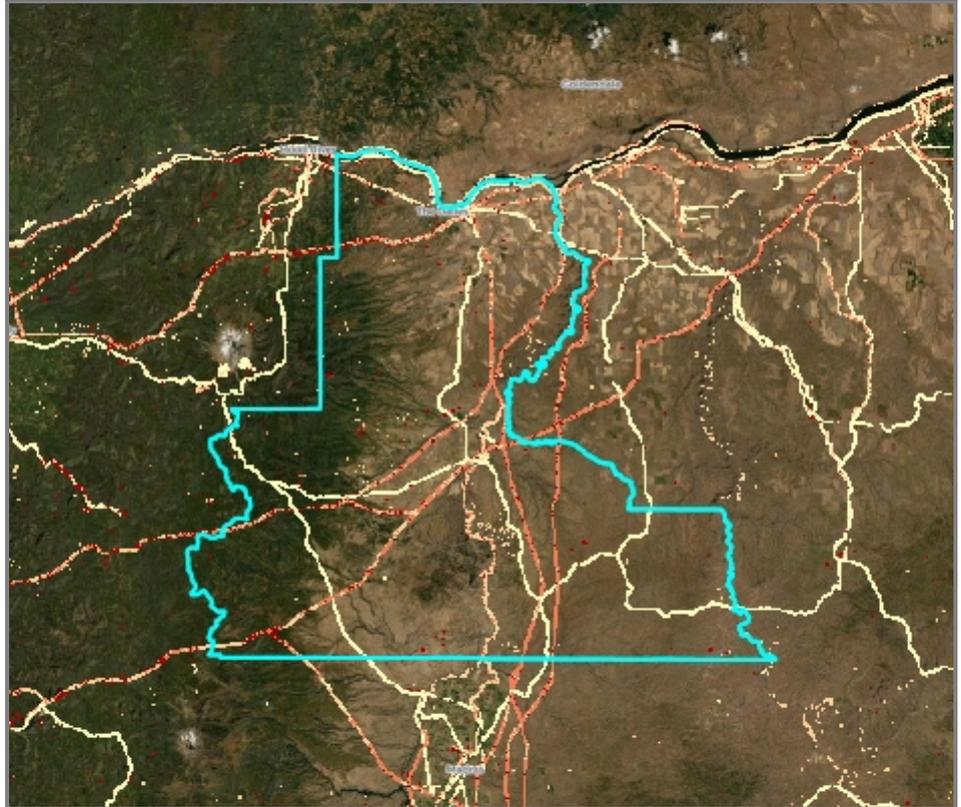
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POTENTIAL IMPACT TO INFRASTRUCTURE

Potential impact to infrastructure represents the exposure or consequence of wildfire on mapped highly valued assets including critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures.

The Potential Impact data layers characterize exposure and susceptibility only, and do not include the likelihood of an area burning. This differentiates the Potential Impact layers from Wildfire Risk layers, which account for the burn probability in the risk rating.

The resulting values reflect a range of impacts from a very high to low negative consequences. Positive benefits of wildfire are not mapped in this layer, assuming that any impact of wildfire to infrastructure is negative.



Wasco County potential impact to infrastructure, if a wildfire were to occur.

Category	Description	Acres	%*
Very High	Potential impact is very highly negative (top 5%).	4,302	< 1
High	Potential impact is highly negative (80-95th percentile).	18,241	1
Moderate	Potential impact is moderately negative (50-80th percentile).	12,178	< 1
Low	Potential impact is slightly negative (0-50th percentile).	15,882	1
No Data	There is no infrastructure mapped in the area or it is considered non-burnable (urban, agriculture, barren, etc).	1,481,777	97

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

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



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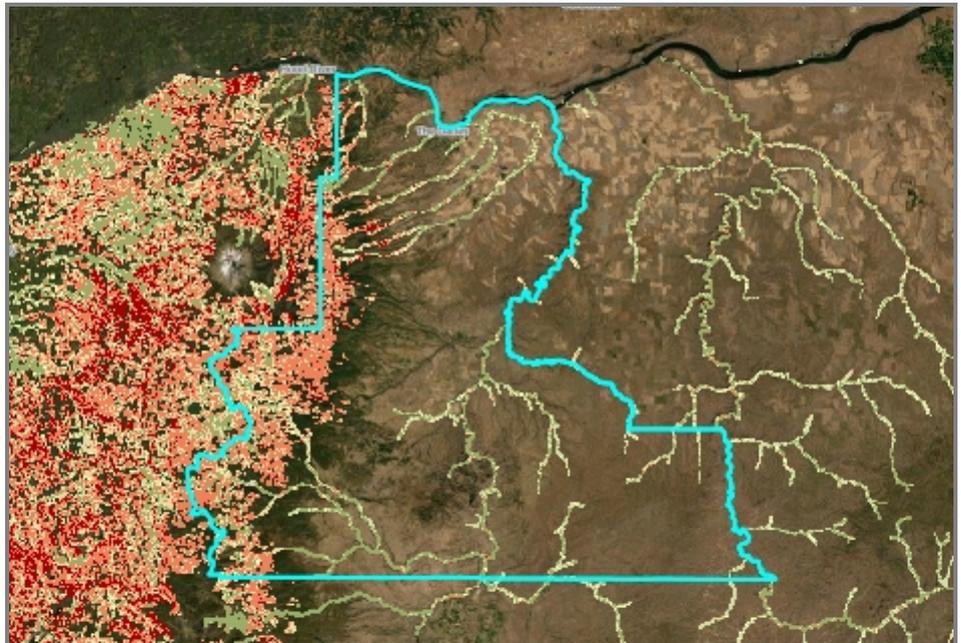
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POTENTIAL IMPACT TO WILDLIFE

Potential impact to wildlife represents the exposure or consequence of wildfire on mapped wildlife habitat for the following species: northern spotted owl, marbled murrelet, sage grouse, chinook salmon, coho salmon, steelhead trout, bull trout, redband trout, coastal cutthroat, and Lahontan cutthroat trout.

The Potential Impact data layers characterize exposure and susceptibility only, and do not include the likelihood of an area burning. This differentiates the Potential Impact layers from Wildfire Risk layers, which account for the burn probability in the risk rating.

The data values reflect a range of impacts from a very high negative consequences, where wildfire is detrimental (for example, sensitive habitat with fire-intolerant species), to a positive impacts of wildfire, where wildfire will produce an overall benefit (for example, improving wildlife habitat for fire-dependent species).



Wasco County potential impact to wildlife habitat, if a wildfire were to occur.

Category	Description	Acres	%*
Very High	Potential impact is very highly negative (top 5%).	4,429	< 1
High	Potential impact is highly negative (80-95th percentile).	56,858	4
Moderate	Potential impact is moderately negative (50-80th percentile).	16,666	1
Low	Potential impact is slightly negative (17-50th percentile).	6,894	< 1
Low Benefit	Potential impact is slightly beneficial to wildlife at low flame lengths (8-17th percentile).	14,359	< 1
Benefit	Potential impact is beneficial, with a cumulative positive impact on wildlife habitat (0-8th percentile).	32,564	2
No Data	There is no wildlife habitat mapped in the area, or it is considered non-burnable (urban, agriculture, barren, etc).	1,400,610	91

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

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



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Wasco County

1,532,385 Acres: (2,394 Sq. Miles)



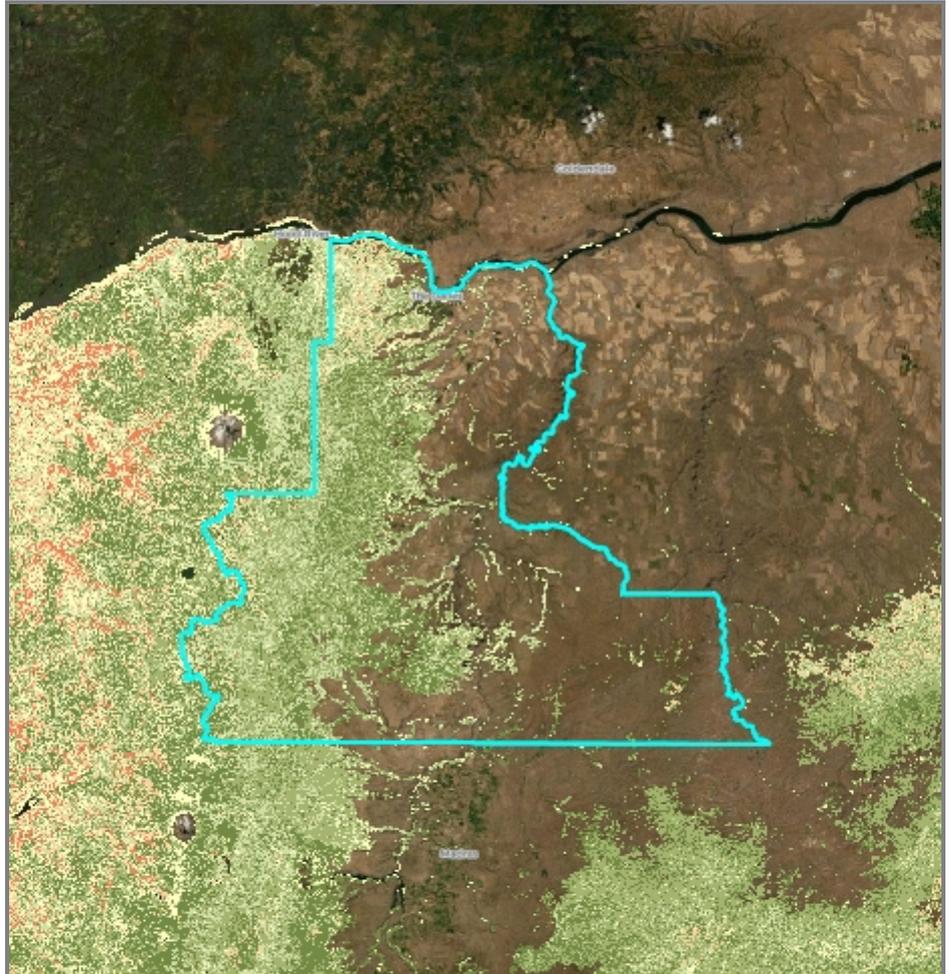
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POTENTIAL IMPACT TO FOREST VEGETATION

Potential impact to forest vegetation represents the exposure or consequence of wildfire on mapped forest vegetation. This layer provides information about departure of current vegetation condition relative to historical vegetation and reference conditions, and considers the natural role of fire to specific fire regime groups.

The Potential Impact data layers characterize exposure and susceptibility only, and do not include the likelihood of an area burning. This differentiates the Potential Impact layers from Wildfire Risk layers, which account for the burn probability in the risk rating.

The data values reflect a range of impacts from a very high negative rating, where wildfire will move the landscape further from historical or desired conditions, to positive, where wildfire will bring the landscape closer to historical or desired conditions. Note that wildfire impacts on rangeland and grassland vegetation were not simulated due to a lack of spatial data and adequate characterization of wildfire impacts on vegetation outside of forested communities.





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Wasco County potential impact to forest vegetation, if a wildfire were to occur.

Category	Description	Acres	%*
Very High	Potential impact is very highly negative (top 3%). Fire has a highly detrimental effect on the landscape, moving the landscape further from historical/desired conditions.	118,825	8
High	Potential impact is highly negative (87-97th percentile). Fire has a detrimental effect on the landscape, moving the landscape further from historical/desired conditions.	214,959	14
Moderate	Potential impact is moderately negative (52-87th percentile). Fire will move the landscape further from historical/desired conditions.	118,197	8
Low	Potential impact is slightly negative (19-52th percentile). Fire will move the landscape further from historical/desired conditions.	23,543	2
Low Benefit	Potential impact is slightly beneficial to forest vegetation at low flame lengths, potentially producing a "fuel treatment" effect (0.6-19th percentile).	15,007	< 1
Benefit	Potential impact is beneficial, with a cumulative positive impact on forest vegetation (0-0.6th percentile). There is potential for fire to bring the landscape closer to	1,048	< 1
No Data	There is no vegetation mapped in the area, or it is considered non-burnable (urban, agriculture, barren, etc).	1,040,801	68

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

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



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FIRE REGIME GROUPS

A fire regime is a description of the general characteristics of a fire area, including frequency, intensity, size, pattern, season, and severity of effects of wildfire in an ecosystem over an extended period of time, dependent on topography, weather, vegetation, and fire history. How intensely a fire burns determines the effects and severity. Overall impacts of fires will depend on the historical fire regime and the influence of changes to that regime through changes in forest structure, composition, and processes.

Existing vegetation has departed from historical conditions in some areas, which affects the current fire environment. This departure depicts relative degrees of alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. The potential impact to forest vegetation layer (and other potential impact layers) shows the areas where wildfire will move the landscape further from historical conditions, and where there are opportunities to use managed fire, active management, or other fuel treatments to bring the landscape closer to historical conditions.

Historically, higher fire frequency areas have lower fire severities. Vegetation in these areas is considered adaptive or resilient to fire due to this frequency. Examples include Ponderosa pine forests and dry mixed conifer forests. Lower frequency fire regime areas generally have higher severities, with vegetation and ecosystem elements usually considered sensitive due to their lack of exposure to fire. Examples include coastal forests, subalpine forests, alpine meadows, and many stream headwaters and riparian areas (see Existing vegetation).

Fire frequency suggests how often wildfire occurs (see Burn probability and Fire history data layers). Fire severity tells us how much impact wildfires are likely to have on the vegetation and other elements of an ecosystem (see Potential Impact data layers). The living and dead vegetation below forest canopies (shrubs, grasses, leaf litter, dead tree snags, etc.) also influences fire behavior (intensity and spread) and severity (impacts or effects). See Fuel models and Flame length data layers).

The national classification of fire regime groups commonly used includes five groups of fire frequency and severity pairs: I - frequent fire (0-35 years), low severity; II - frequent fire (0-35 years), stand replacement severity; III - 35-100+ years, mixed severity; IV - 35-100+ years, stand replacement severity; and V - 200+ years, stand replacement severity. Oregon has all of these historical fire regimes.

Maps of fire regime groups from LANDFIRE can be found here:

https://www.landfire.gov/geoareasmaps/2012/CONUS_FRG_c12.pdf.

Find more information about fire regime groups here: <https://www.landfire.gov/frg.php>.

Fire Regime table for major vegetation areas (in the Pacific Northwest):

https://www.fs.fed.us/database/feis/fire_regime_table/fire_regime_table.html#PacificNorthwest



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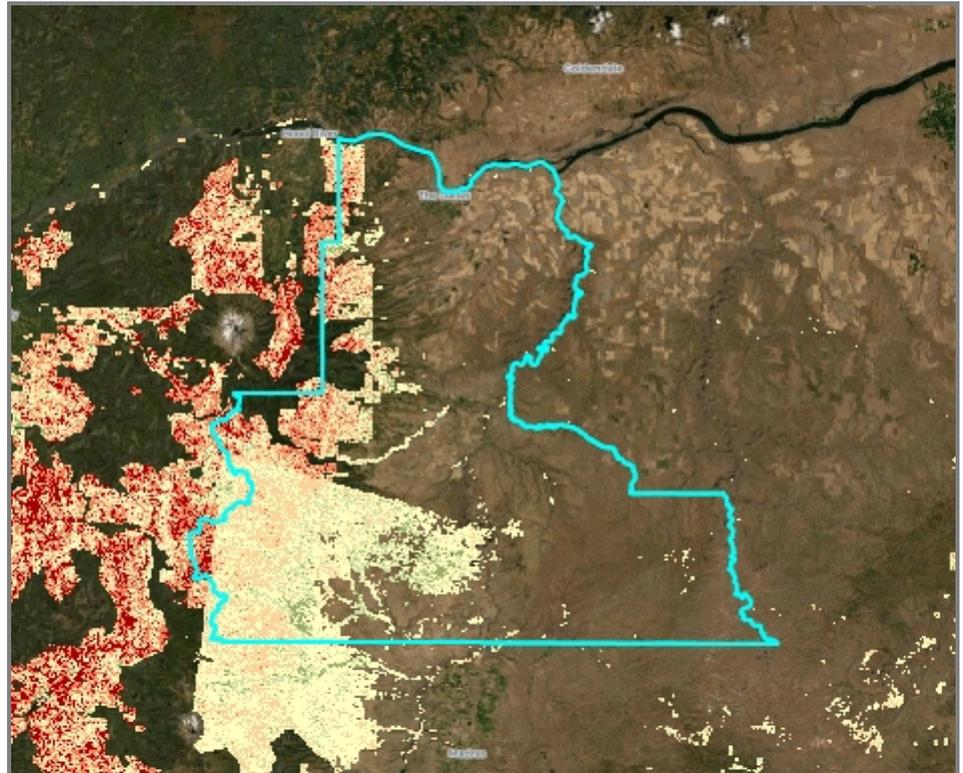
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POTENTIAL IMPACT TO TIMBER RESOURCES

Potential impact to timber resources represents the exposure or consequence of wildfire on mapped highly valued timber on US Forest Service, Tribal, private lands, BLM, and state-managed lands.

The Potential Impact data layers characterize exposure and susceptibility only, and do not include the likelihood of an area burning. This differentiates the potential impact layers from Wildfire Risk layers, which account for the burn probability in the risk rating.

The data values reflect a range of impacts from a very high negative rating, where wildfire is detrimental (for example early seral stage and/or sensitive forests), to positive, where wildfire may produce an overall benefit (for example, understory thinning treatment for fire-adapted species).



Wasco County potential impact to timber resources, if a wildfire were to occur.

Category	Description	Acres	%*
Very High	Potential impact is very highly negative (top 5%).	12,055	< 1
High	Potential impact is highly negative (80-95th percentile).	43,754	3
Moderate	Potential impact is moderately negative (50-80th percentile).	103,858	7
Low	Potential impact is slightly negative (19-50th percentile).	133,756	9
Low Benefit	Potential impact is slightly beneficial to timber resources at low flame lengths (9-19th percentile).	36,493	2
Benefit	Potential impact is beneficial, with a cumulative positive impact on timber resources (0-9th percentile).	15,292	< 1
No Data	There are no timber resources mapped in the area, or it is considered non-burnable (urban, agriculture, barren, etc).	1,187,172	77

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

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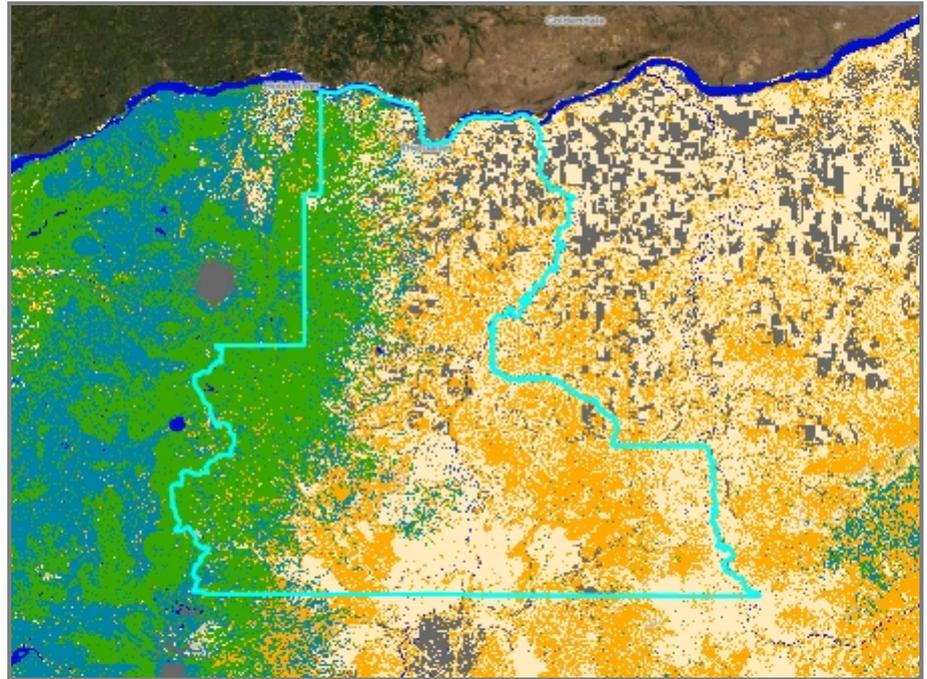


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FUEL MODEL GROUPS

Fuel models describe the fire-carrying materials that make up surface fuels, such as such as grasses, shrubs and litter (see next page). Fuel models are developed from climate characteristics, existing vegetation type, cover, height, and other vegetation characteristics, and help us understand the fuels igniting and carrying fire. These fuel models can be grouped into broad categories of burnable fuels based on descriptions of live and dead vegetation that represent distinct fuel types, size classes, and load distributions (amounts), shown in the map and chart below.

Fuels and other elements of the fuelscape in the risk assessment were extensively reviewed and refined by local expert consultation, and the fuelscape was updated to account for wildfires that occurred through 2017.



Wasco County fuel model groups (see next page for descriptions of codes)

Category	Description	Acres	%*
Grass	Fuel models 101-104, (GR1; GR2; GR3; GR4)	531,439	35
Grass/Shrub	Fuel models 121-123, (GS1; GS2; GS3)	420,940	27
Non-burnable-other	Fuel Models 91-93,99, (NB1; NB2; NB3; NB9)	115,269	8
Non-burnable-water	Fuel Models 98, (NB8)	10,226	< 1
Slash-blowdown	Fuel Models 202, (SB2)	0	0
Shrub	Fuel Models 141-147, (SH1; SH2; SH3; SH4; SH5; SH6; SH7)	26,079	2
Timber Litter	Fuel Models 181-189, (TL1; TL2; TL3; TL4; TL5; TL6; TL7; TL8; TL9)	107,334	7
Timber-Understory	Fuel Models 161-163, 165, (TU1; TU2; TU3; TU5)	321,093	21

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

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Table of Fuel Model Groups

40 Scott and Burgan Fire Behavior Fuel Models Description and Data Dictionary <https://www.landfire.gov/fbfm40.php>
<https://www.landfire.gov/DataDictionary/f40.pdf>

Group	Description
Grass Fuel models 101-104, (GR1; GR2; GR3; GR4)	GR1: Short, sparse dry climate grass is short, naturally or heavy grazing, predicted rate of fire spread and flame length low GR2: Low load, dry climate grass primarily grass with some small amounts of fine, dead fuel, any shrubs do not affect fire behavior GR3: Low load, very coarse, humid climate grass continuous, coarse humid climate grass, any shrubs do not affect fire behavior GR4: Moderate load, dry climate grass, continuous, dry climate grass, fuelbed depth about 2 feet
Grass/Shrub Fuel models 121-123, (GS1; GS2; GS3)	GS1: Low load, dry climate grass-shrub shrub about 1 foot high, grass load low, spread rate moderate and flame length low GS2: Moderate load, dry climate grass-shrub, shrubs are 1-3 feet high, grass load moderate, spread rate high, and flame length is moderate GS3: Moderate load, humid climate grass-shrub, moderate grass/shrub load, grass/shrub depth is less than 2 feet, spread rate is high and flame length is moderate
Non-Burnable-Other	Fuel Models 91-93, 99, (NB1; NB2; NB3; NB9) NB1: Urban NB2: Snow/Ice NB3: Agriculture NB9: Barren
Non-burnable-Water	Fuel Model 98, (NB8): Water
Slash-blowdown	Fuel Model 202, (SB2): Moderate load activity fuel or low load blowdown, 7-12 t/ac, 0-3 inch diameter class, depth about 1 foot, blowdown scattered with many still standing, spread rate and flame low
Shrub Group Fuel Models 141-147, (SH1; SH2; SH3; SH4; SH5; SH6; SH7)	SH1: Low load dry climate shrub, woody shrubs and shrub litter, fuelbed depth about 1 foot, may be some grass, spread rate and flame low SH2: Moderate load dry climate shrub, woody shrubs and shrub litter, fuelbed depth about 1 foot, no grass, spread rate and flame low SH3: Moderate load, humid climate shrub, woody shrubs and shrub litter, possible pine overstory, fuelbed depth 2-3 feet, spread rate and flame low SH4: Low load, humid climate timber shrub, woody shrubs and shrub litter, low to moderate load, possible pine overstory, fuelbed depth about 3 feet, spread rate high and flame moderate SH5: High load, humid climate grass-shrub combined, heavy load with depth greater than 2 feet, spread rate and flame very high SH6: Low load, humid climate shrub, woody shrubs and shrub litter, dense shrubs, little or no herbaceous fuel, depth about 2 feet, spread rate and flame high SH7: Very high load, dry climate shrub, woody shrubs and shrub litter, very heavy shrub load, depth 4-6 feet, spread rate somewhat lower than SH6 and flame very high



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Timber Litter Group	TL1: Low load compact conifer litter, compact forest litter, light to moderate load, 1-2 inches deep, may represent a recent burn, spread rate and flame low TL2: Low load broadleaf litter, broadleaf, hardwood litter, spread rate and flame low
Fuel Models 181-189, (TL1; TL2; TL3; TL4; TL5; TL6; TL7; TL8; TL9)	TL3: Moderate load conifer litter, moderate load conifer litter, light load of coarse fuels, spread rate and flame low TL4: Small downed logs moderate load of fine litter and coarse fuels, small diameter downed logs, spread rate and flame low TL5: High load conifer litter, light slash or dead fuel, spread rate and flame low TL6: Moderate load broadleaf litter, spread rate and flame moderate TL8: Large downed logs, heavy load forest litter, larger diameter downed logs, spread rate and flame low TL8: Long needle litter, moderate load long needle pine litter, may have small amounts of herbaceous fuel, spread rate moderate and flame low TL9: Very high load broadleaf litter, may be heavy needle drape, spread rate and flame moderate
Timber-Understory Group	TU1: Low load dry climate timber grass shrub, low load of grass and/or shrub with litter, spread rate and flame low TU2: Moderate load, humid climate timber-shrub, moderate litter load with some shrub, spread rate moderate and flame low TU3: Moderate load, humid climate timber grass shrub, moderate forest litter with some grass and shrub, spread rate high and flame moderate
Fuel Models 161-163, 165, (TU1; TU2; TU3; TU5)	TU5: Very high load, dry climate shrub, heavy forest litter with shrub or small tree understory, spread rate and flame moderate

This report was generated from the Advanced Oregon Wildfire Risk Explorer map viewer: tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning. 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.

How to Cite:

Accessed from the Oregon Wildfire Risk Explorer on December 28, 2020

URL: https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning

Primary data Source: USDA Forest Service Pacific Northwest Quantitative Wildfire Risk Assessment (2018)

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



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