



# Rogue Basin Wildfires and Drinking Water Supplies



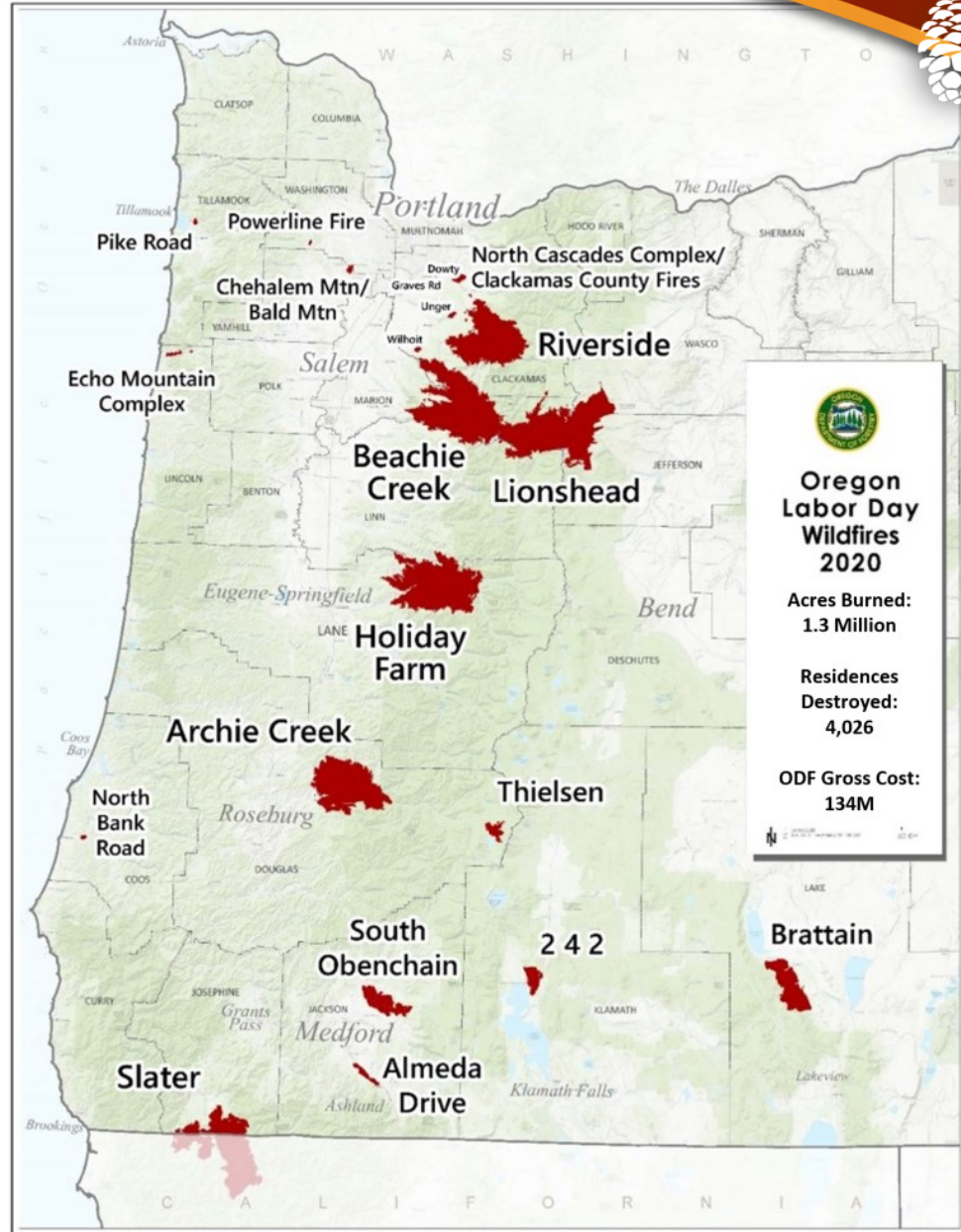
Senator Jeff Golden, Oregon Senate District 3  
&  
Doug Grafe, Chief of Fire Protection, ODF

Tanker drop over  
Almeda Fire, 2020

# Oregon Labor Day Wildfires 2020

## Fire Briefing Map

Post Sept. 7



# Oregon Statewide - All Agencies Average Acres Burned by Decade



Oregon All Agencies - Average Acres Burned by Decade

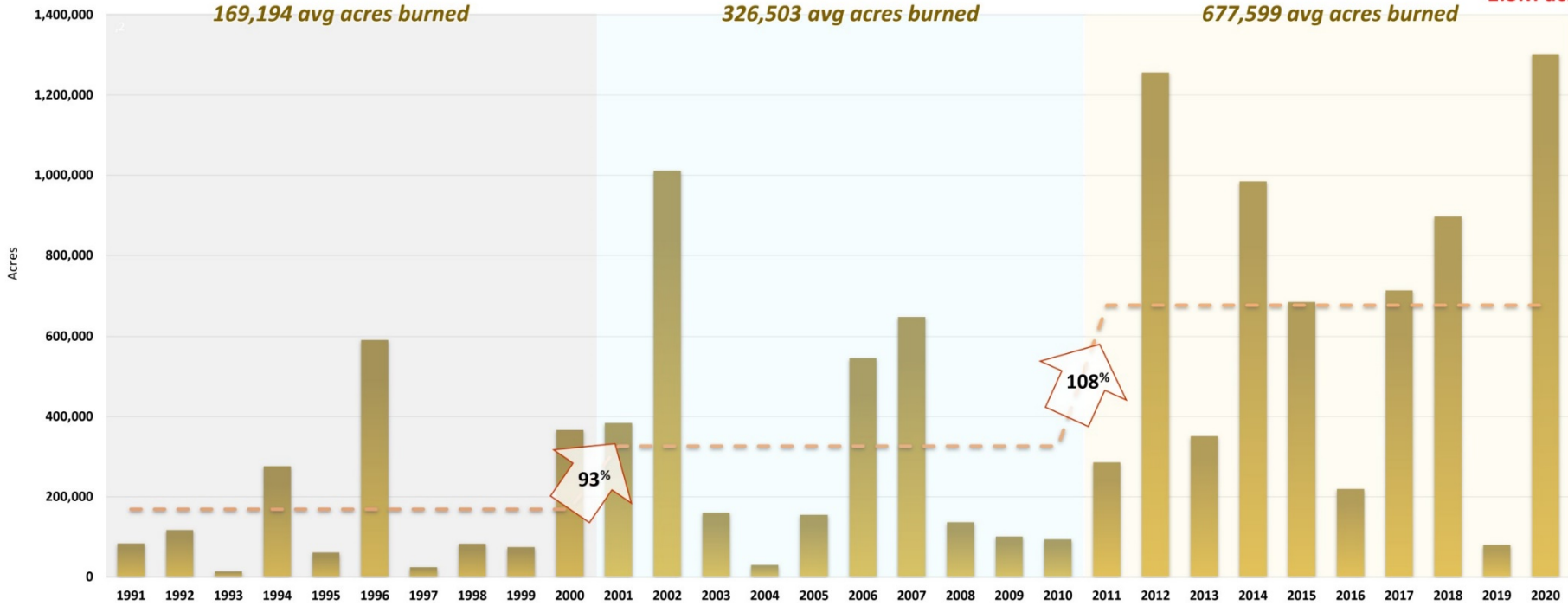
12/03/2020 WFDSS, Short (USFS RDA), NIFC, NWCC, ODF, and reconciled 2020 large fire and IRWIN data with NWCC.

**2020 YTD:  
~1.3M acres**

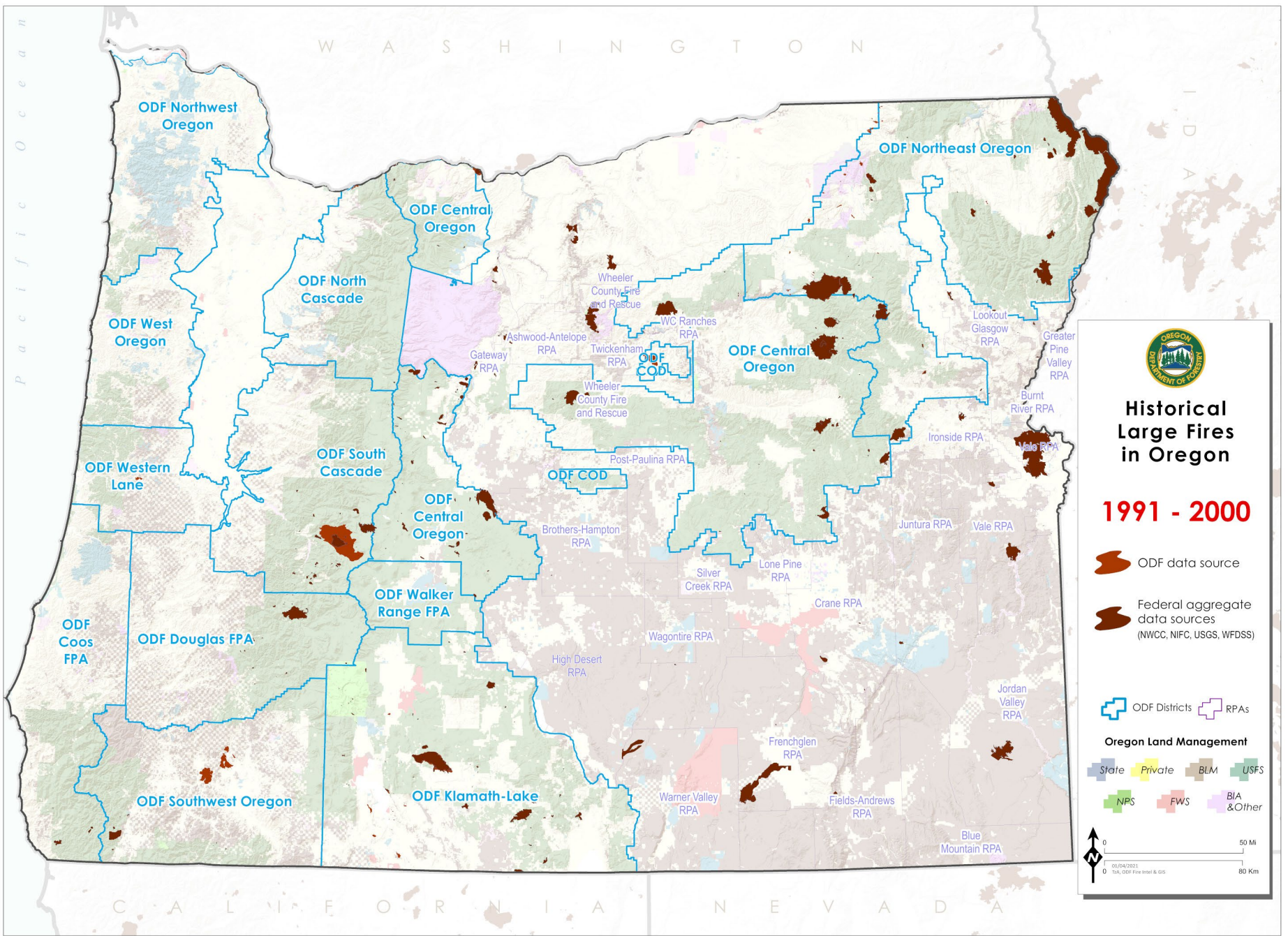
**169,194 avg acres burned**

**326,503 avg acres burned**

**677,599 avg acres burned**



All 2020 data is considered draft until end of calendar year and all incident data has been assessed and recorded.



## Historical Large Fires in Oregon

1991 - 2000

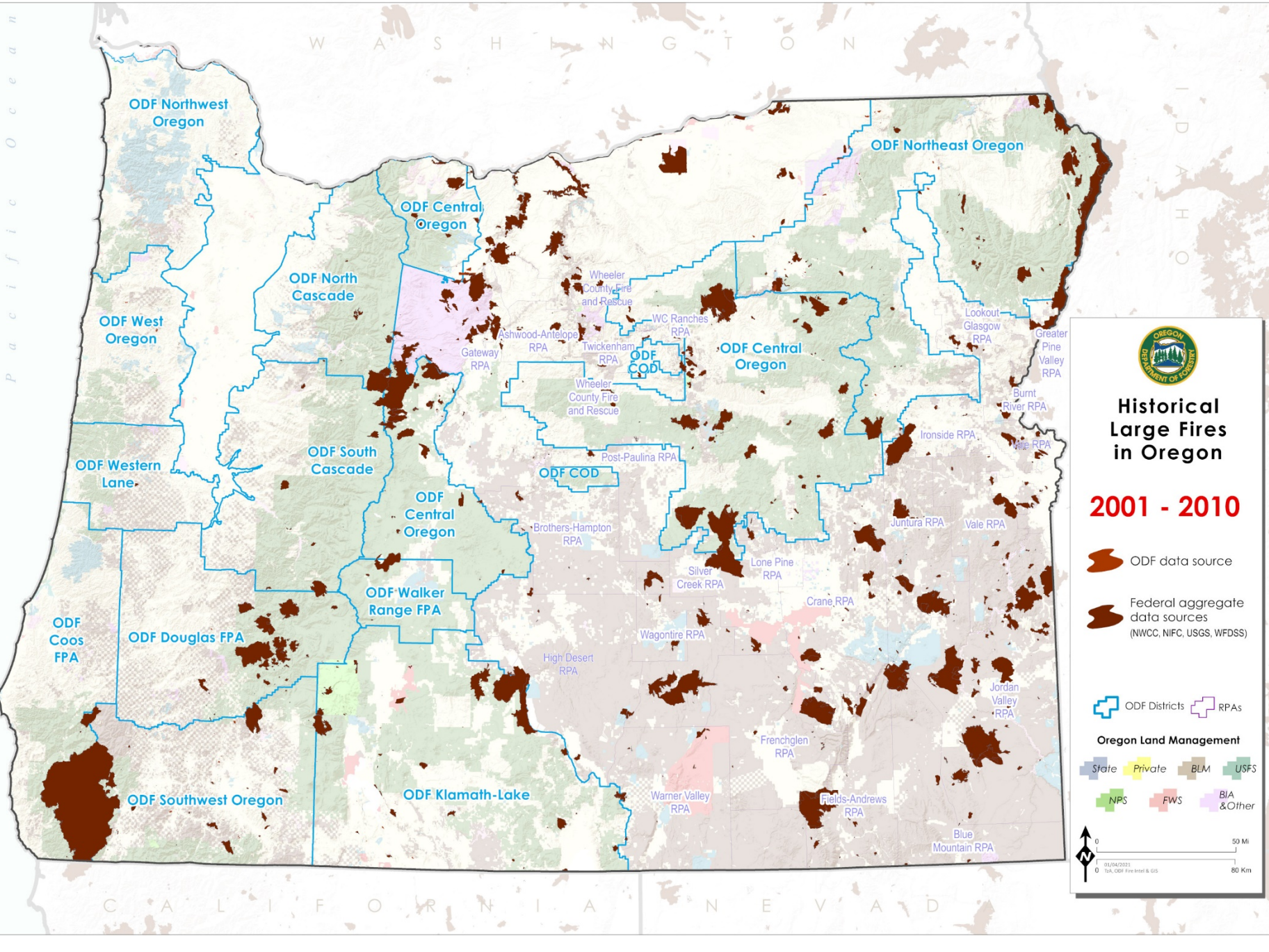
-  ODF data source
-  Federal aggregate data sources (NWCC, NIFC, USGS, WFDSS)

-  ODF Districts
-  RPAs

### Oregon Land Management

-  State
-  Private
-  BLM
-  USFS
-  NPS
-  FWS
-  BIA & Other





# Historical Large Fires in Oregon

**2001 - 2010**

- ODF data source
- Federal aggregate data sources (NWCC, NIFC, USGS, WFDSS)

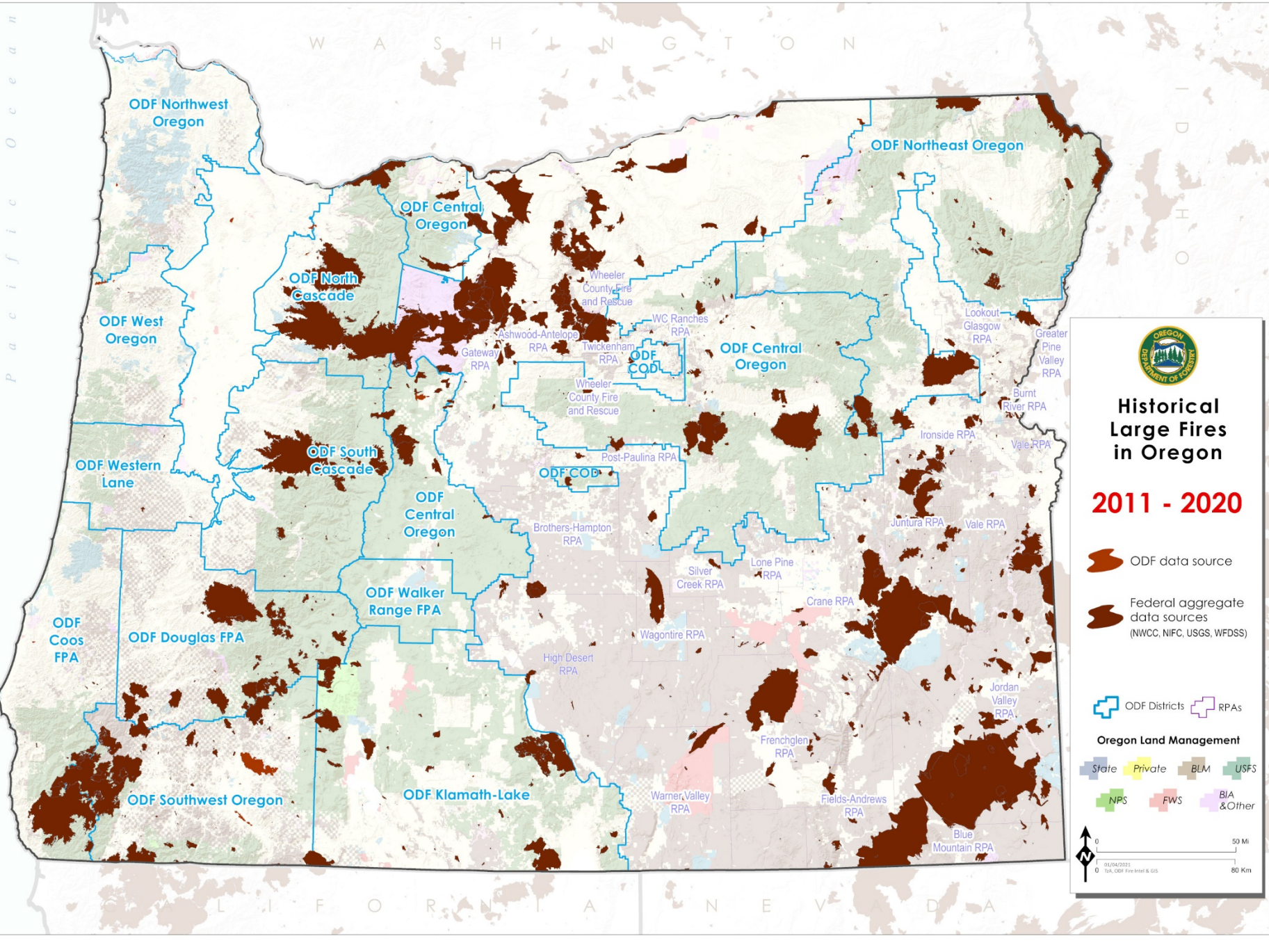
- ODF Districts
- RPAs

### Oregon Land Management

- State
- Private
- BLM
- USFS
- NPS
- FWS
- BIA & Other

0 50 Miles  
0 80 Km

01/04/2011  
10k, ODF Fire Intel & GIS



## Historical Large Fires in Oregon

2011 - 2020

- ODF data source
- Federal aggregate data sources (NWCC, NIFC, USGS, WFDSS)

- ODF Districts
- RPAs

### Oregon Land Management

- State
- Private
- BLM
- USFS
- NPS
- FWS
- BIA & Other





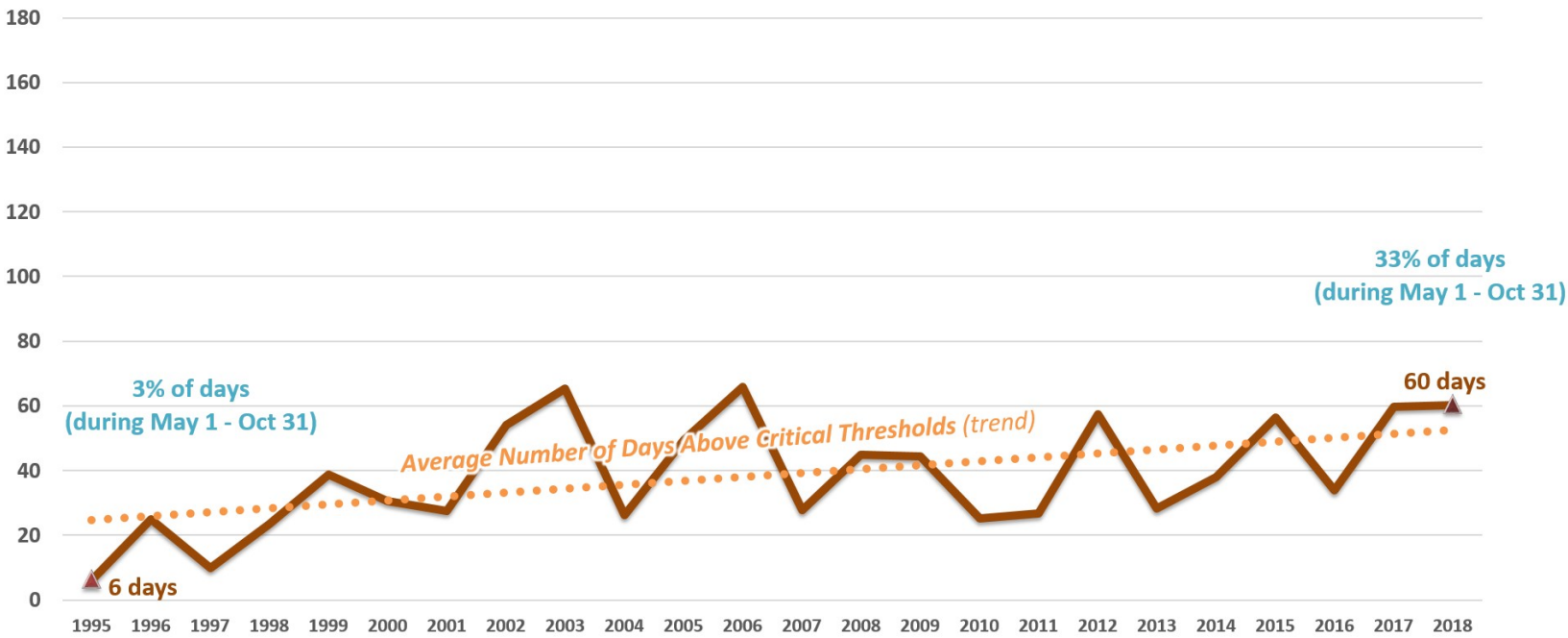
# Fire Season Severity Increasing Across OR



## Fire Season Severity - Average Number of Days of Exceeding Critical ERC Percentiles All ODF Fire Danger Rating Areas 1995-2018

Average number of days 1995-2018 where all ODF Fire Danger Rating Area (FDRA) ERC values exceeded locally-set critical percentile ERC thresholds. Data is from WIMS, dated May 1 - Oct 31 (184 days), although actual *declared* fire season dates vary per year.

**Fire Season Days  
(May 1 - Oct 31)**



The Energy Release Component (ERC) is an index from the National Fire Danger Rating System (NFDRS). ERC is related to how hot a fire could burn at the flaming front, based on cumulative drying of live and dead fuels. Through the fire season, as live fuels cure and dead fuels dry, ERC values increase, providing a good reflection of seasonal drying of fuels and drought conditions. The ERC can serve as a good characterization of fire season as it tracks seasonal fire danger trends well. Fuel loading, woody fuel moistures, and larger fuel moistures all have an influence on the ERC. ERC has low variability, and is the best fire danger component for indicating the effects of intermediate to long-term drying on fire behavior. For more information: [http://gacc.nifc.gov/oscc/predictive/fuels\\_fire-danger/psa\\_nfdrs/ercindex.html](http://gacc.nifc.gov/oscc/predictive/fuels_fire-danger/psa_nfdrs/ercindex.html)

# The Normal Fire Environment

Modeling Large Wildfire Suitability  
using

Past, Present, and Future Climate Normals

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2017

Zhiqiang Yang - Co-Director Lab. For Applications of Remote Sensing in Ecology

Raymond Davis - Monitoring Lead - Older Forests & Spotted Owls. USFS R6

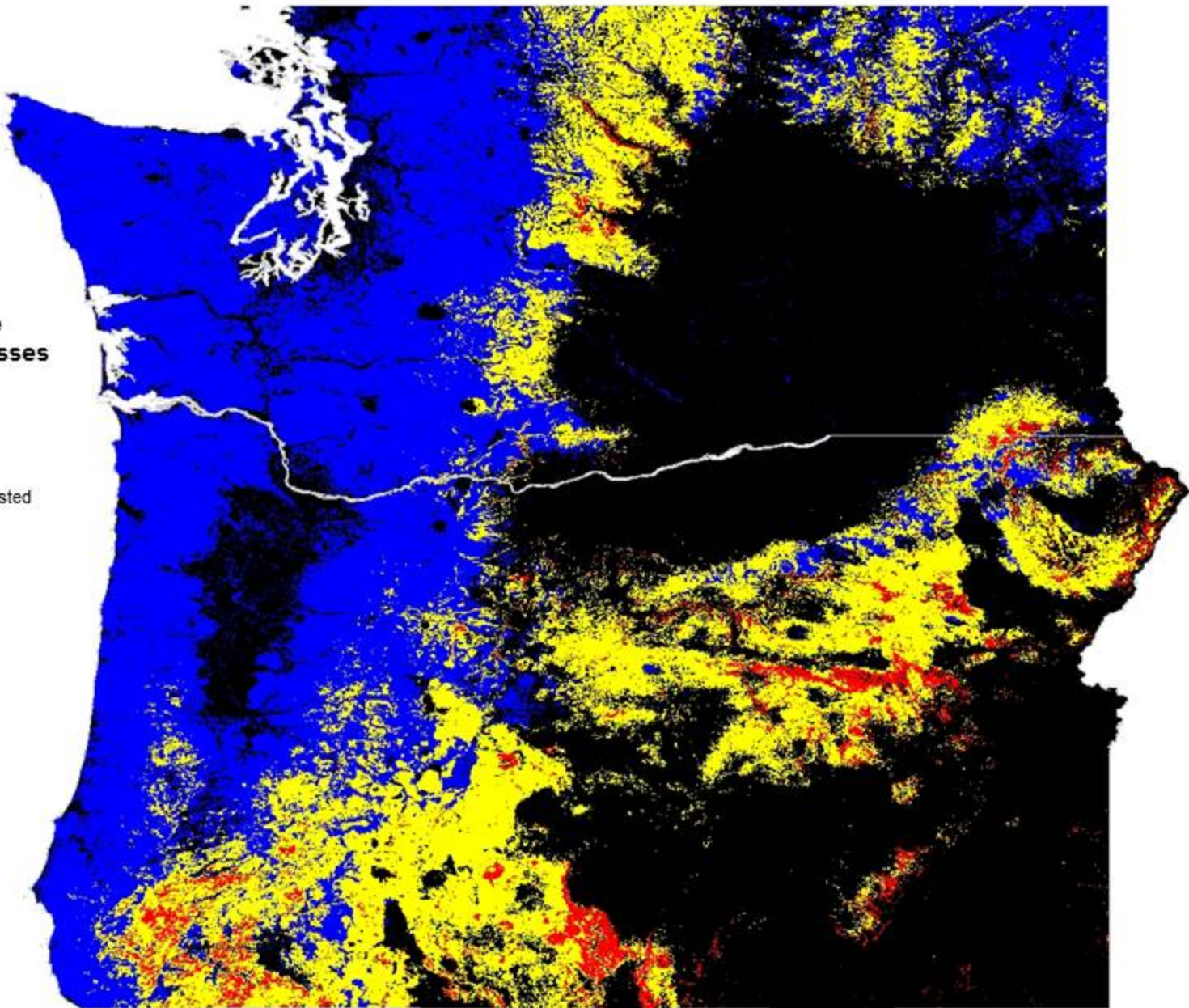
Andrew Yost - Forest Ecologist, Oregon Department of Forestry

Cole Belongie - GIS Specialist USFS R6



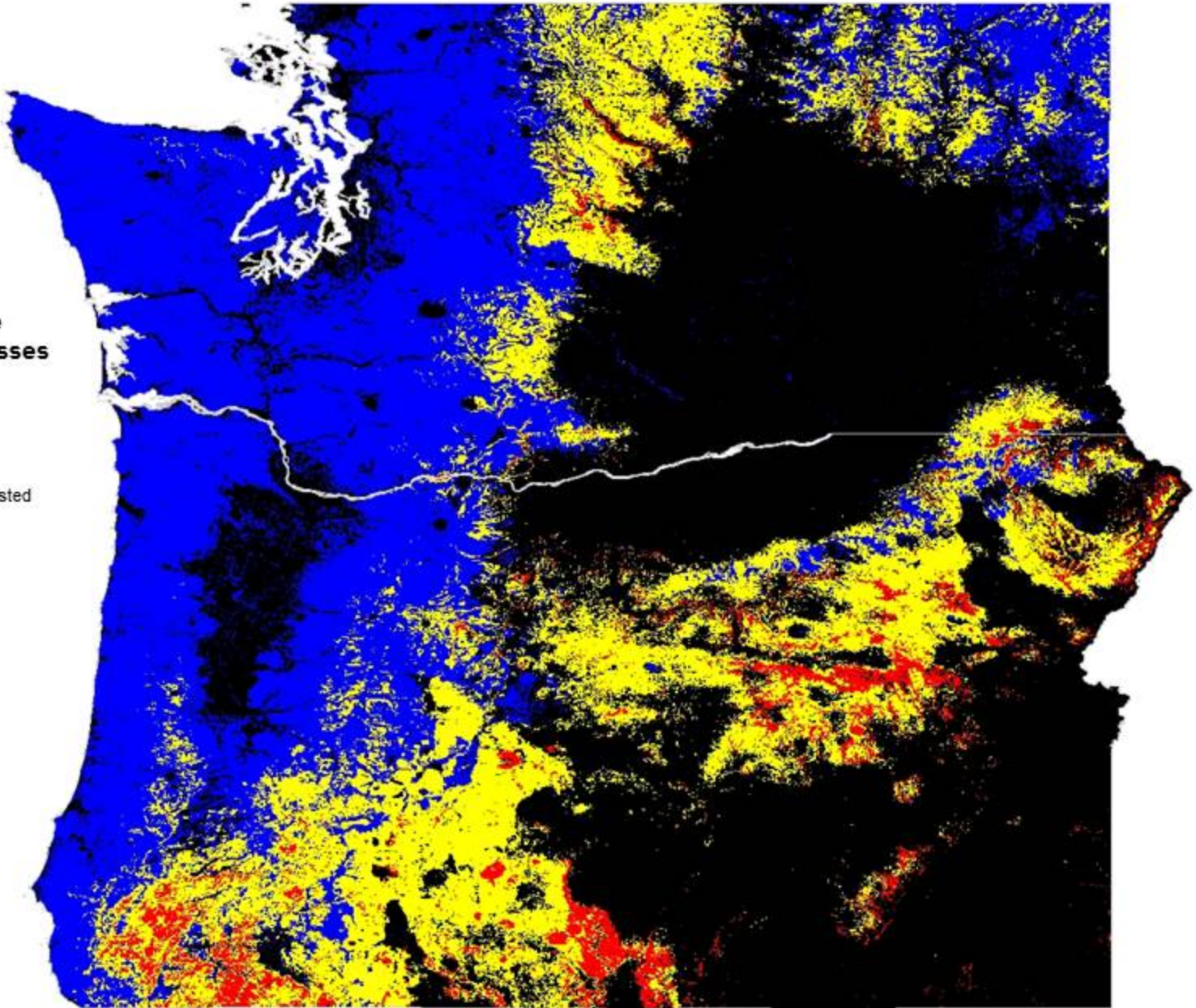
# Baseline Model (1971-2000)

## Large wildfire suitability classes



# Current Normal (1981-2010)

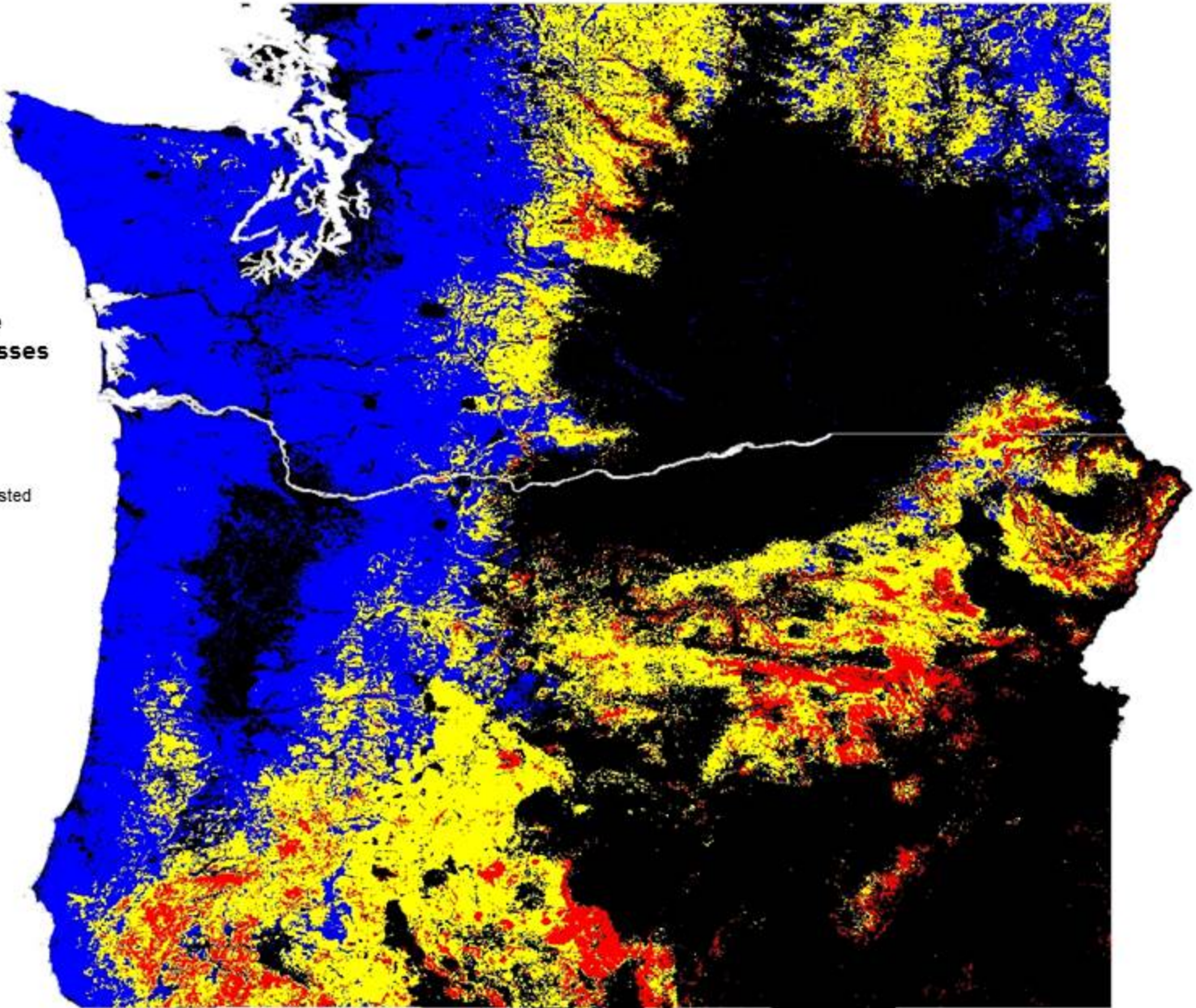
## Large wildfire suitability classes



# Future Normal (1991-2020)

## Large wildfire suitability classes

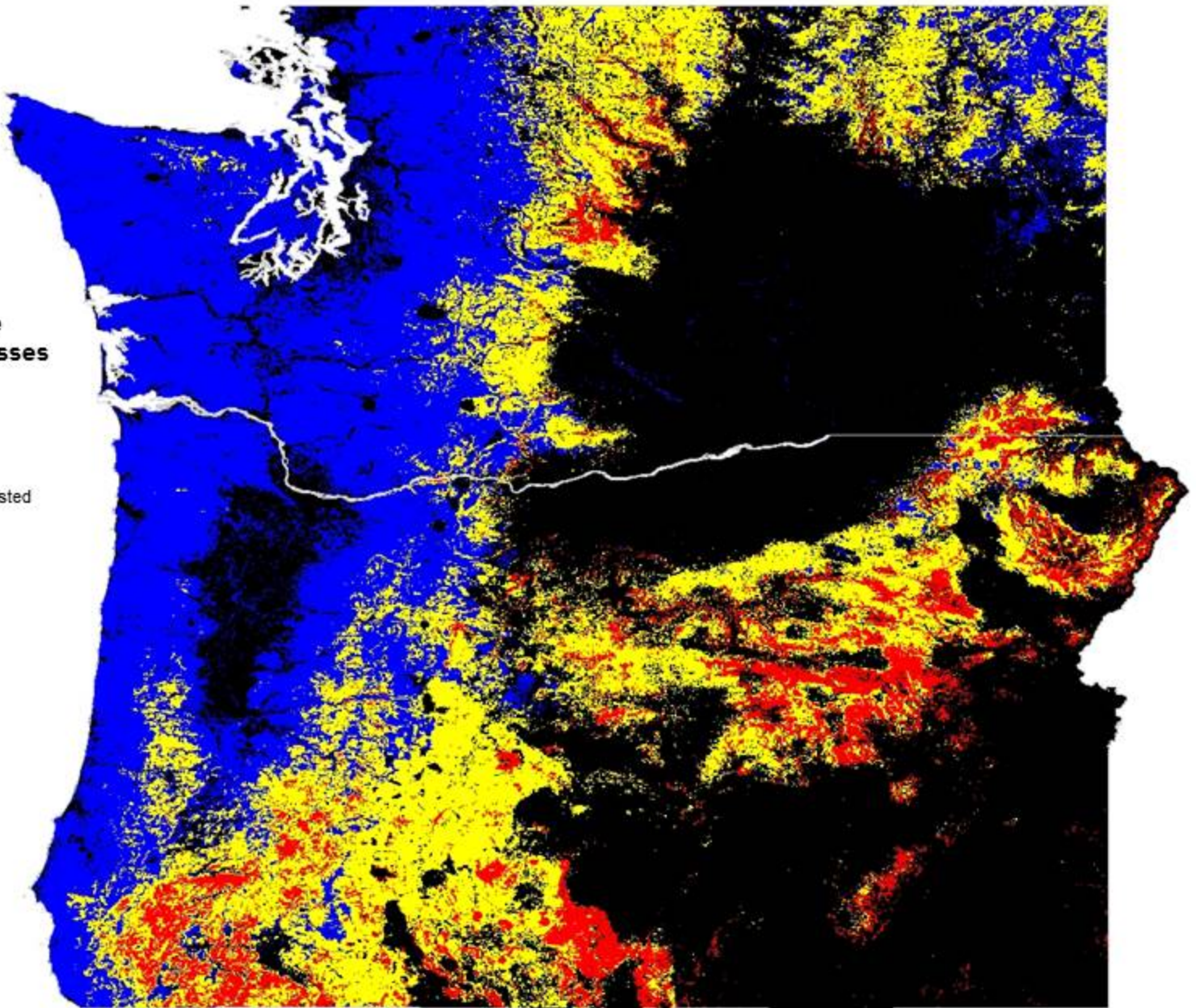
- Low
- Mod
- High
- Non-forested



# Future Normal (2001-2030)

## Large wildfire suitability classes

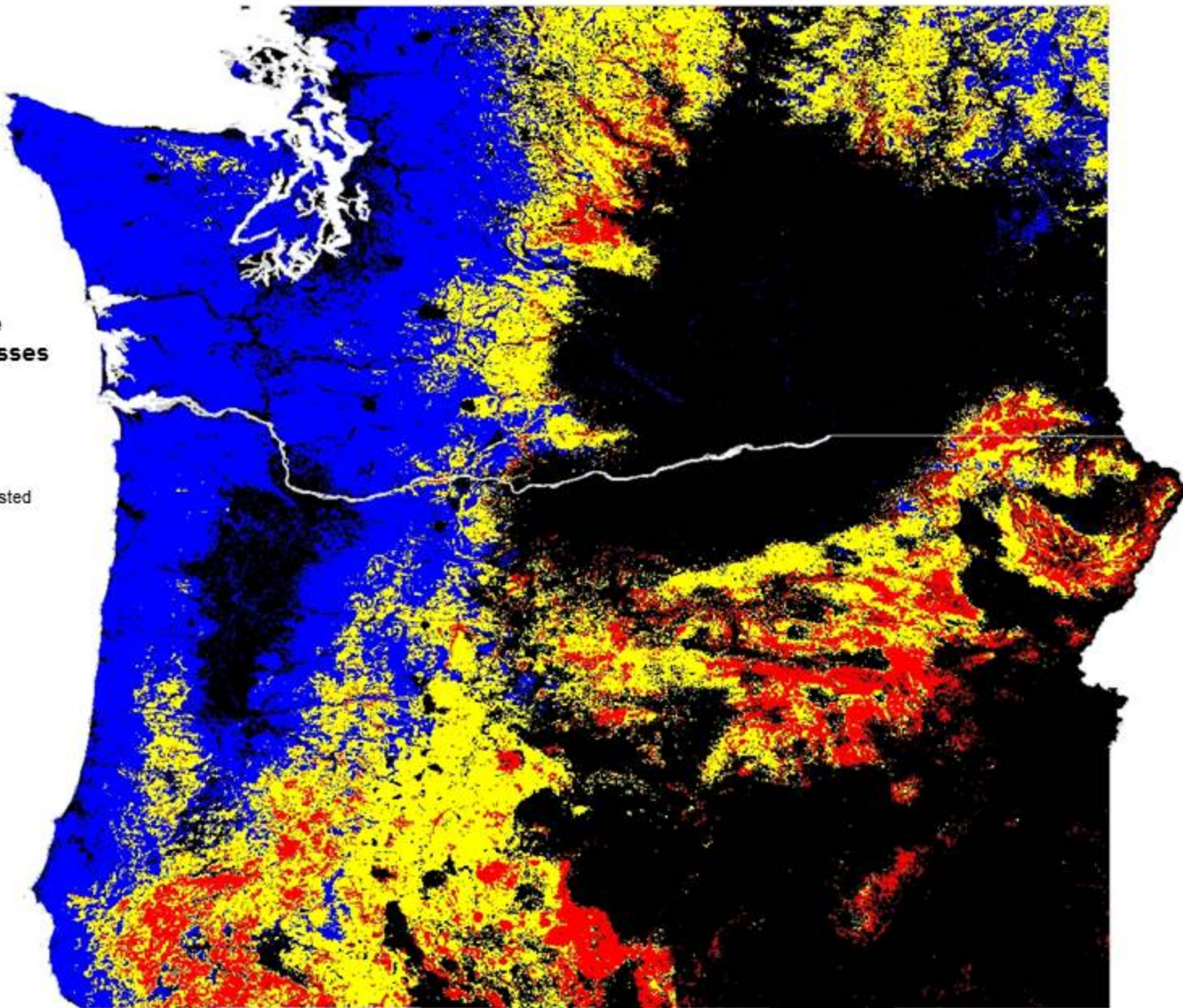
- Low
- Mod
- High
- Non-forested



# Future Normal (2011-2040)

## Large wildfire suitability classes

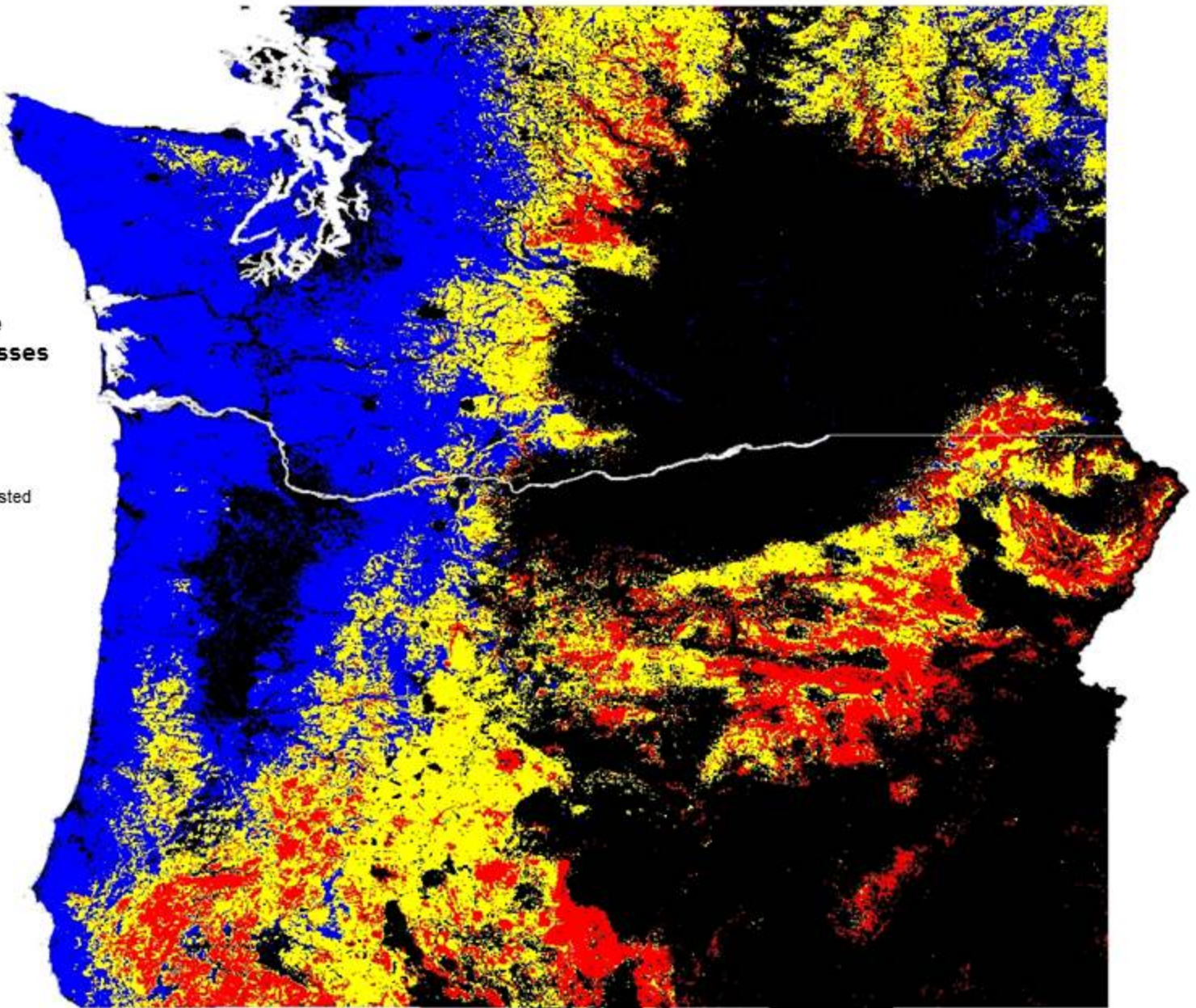
- Low
- Mod
- High
- Non-forested



# Future Normal (2021-2050)

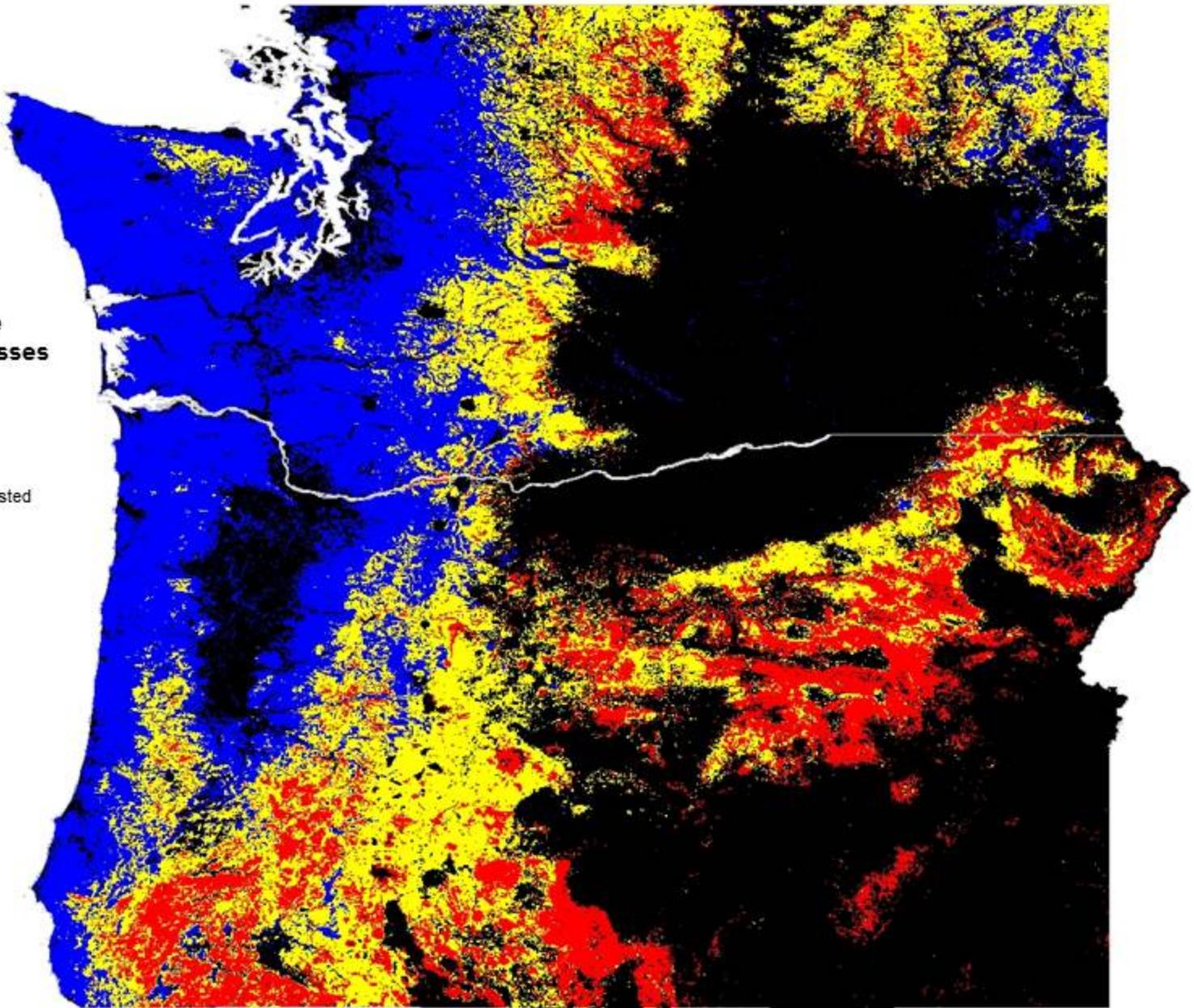
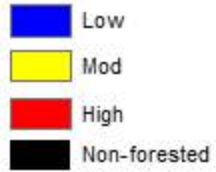
## Large wildfire suitability classes

- Low
- Mod
- High
- Non-forested



# Future Normal (2031-2060)

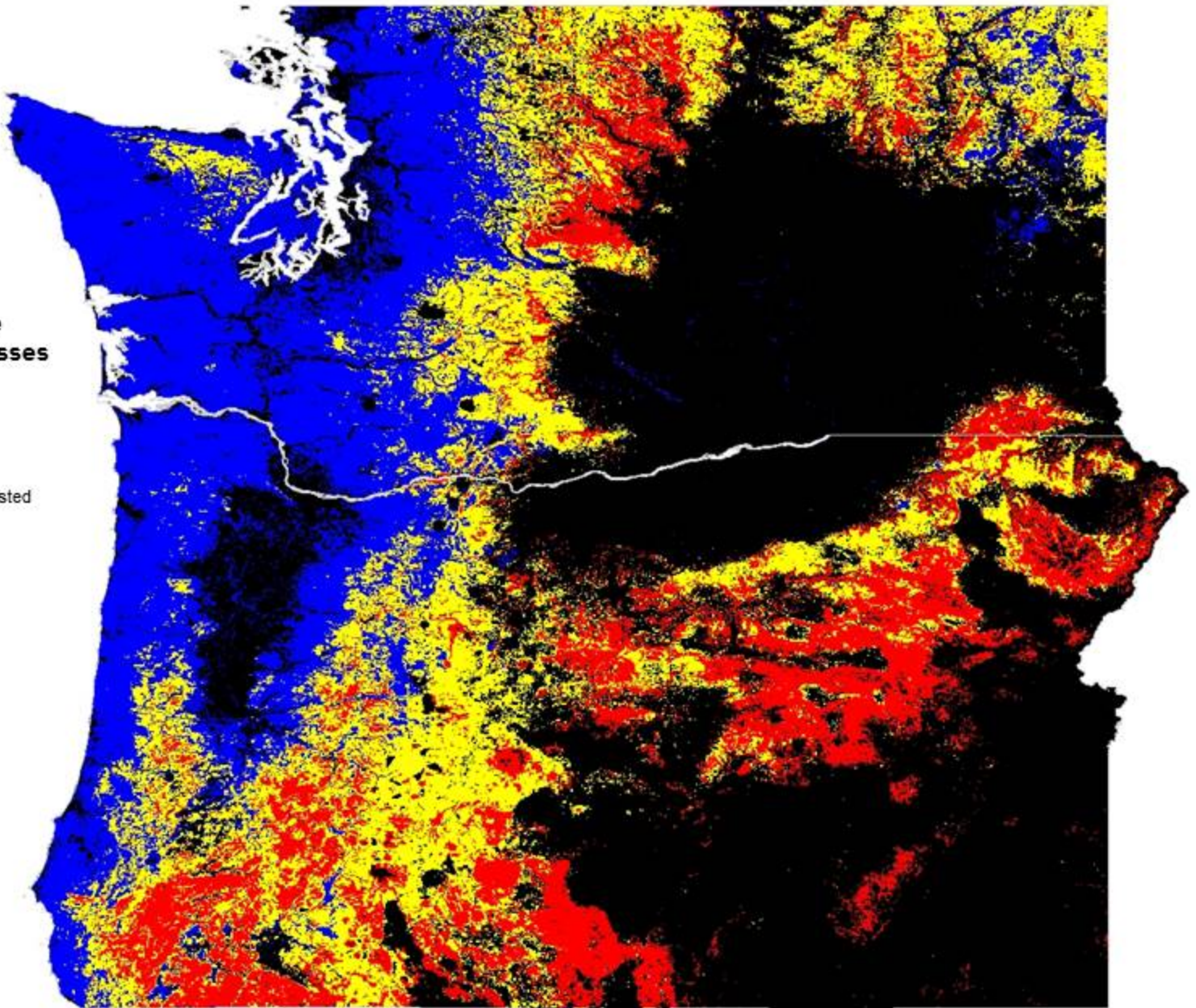
## Large wildfire suitability classes



# Future Normal (2041-2070)

## Large wildfire suitability classes

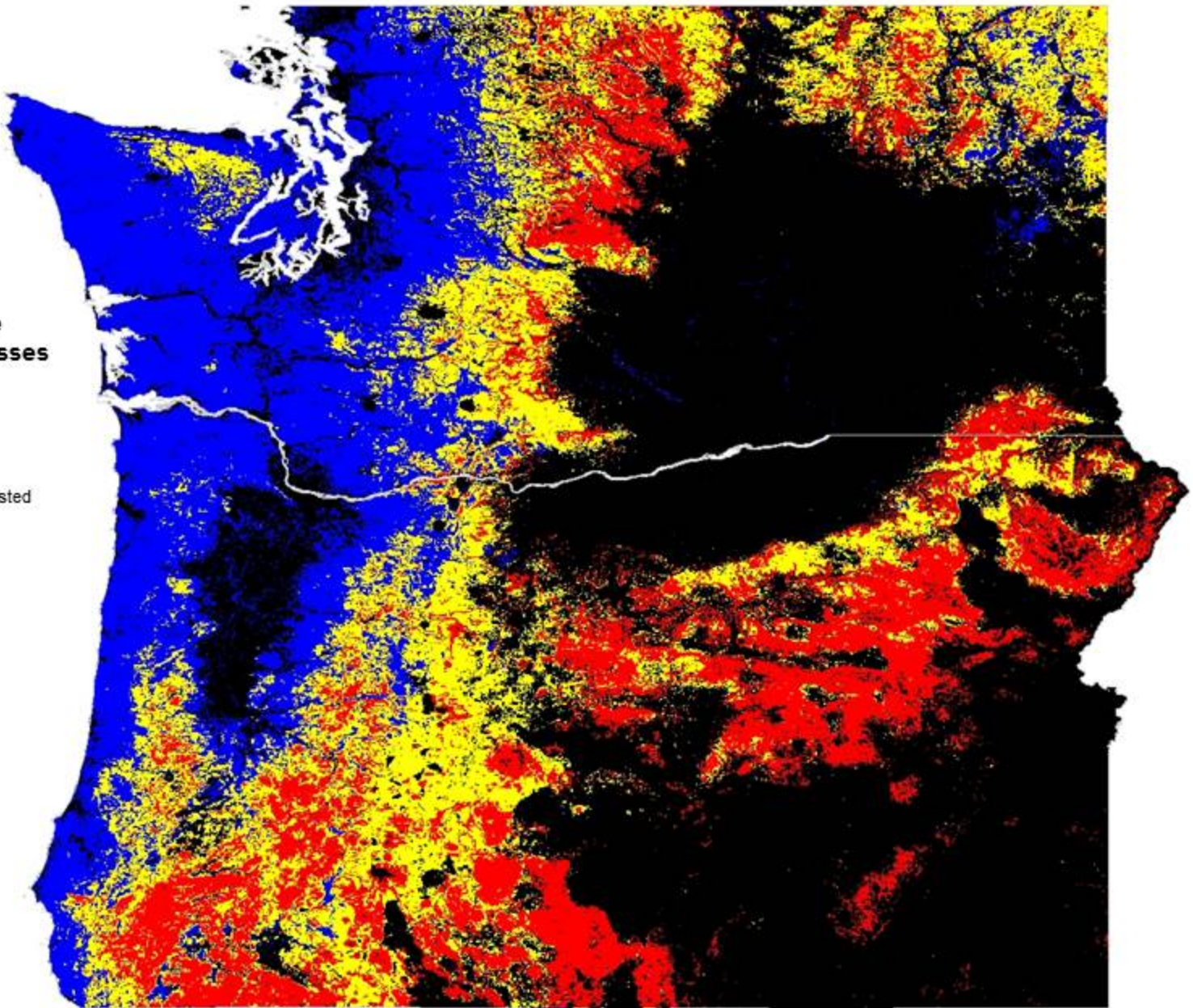
- Low
- Mod
- High
- Non-forested





# Future Normal (2051-2080)

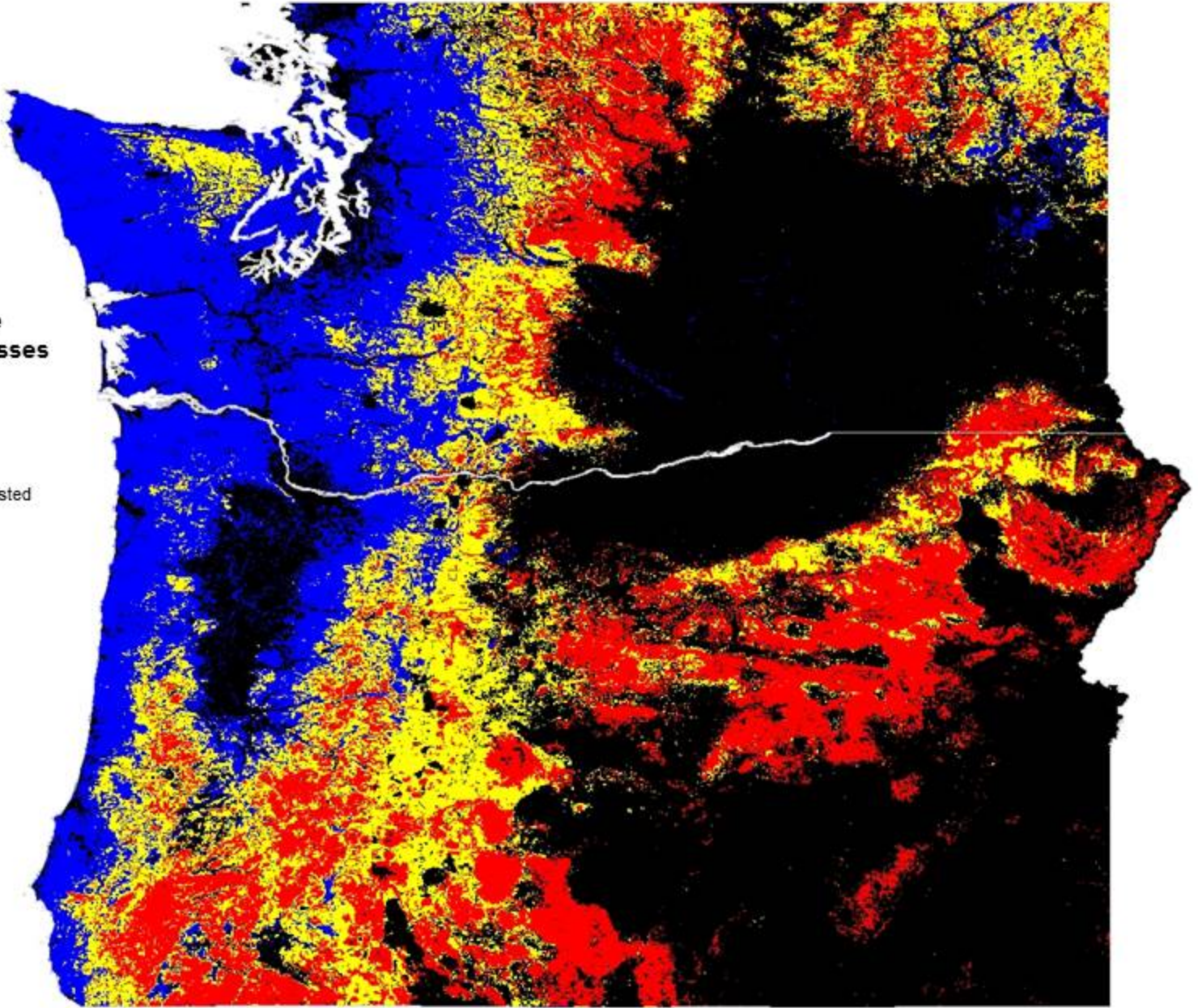
## Large wildfire suitability classes



# Future Normal (2061-2090)

## Large wildfire suitability classes

- Low
- Mod
- High
- Non-forested



# Future Normal (2071-2100)

## Large wildfire suitability classes

- Low
- Mod
- High
- Non-forested

