



Oregon Department of Forestry

Orientation to Fighting Fire In Oregon



Presentation Overview

- Overview of Oregon's forests
- Introduction to ODF and Fire Protection Division
- Statewide Coordination and Resources
- Fire History and Fire Environment
- Fire Finance
- Risk Management and Safety

Keep cell phones handy for capturing links to websites shown in this presentation

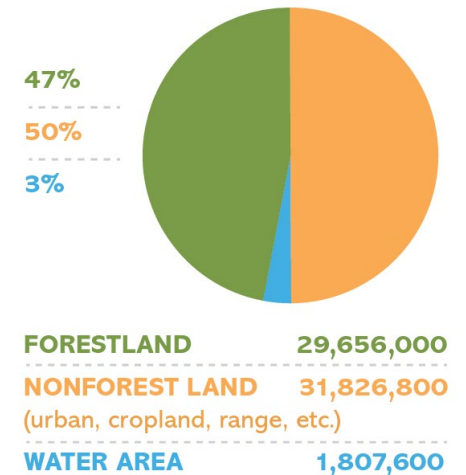
Oregon's Forests

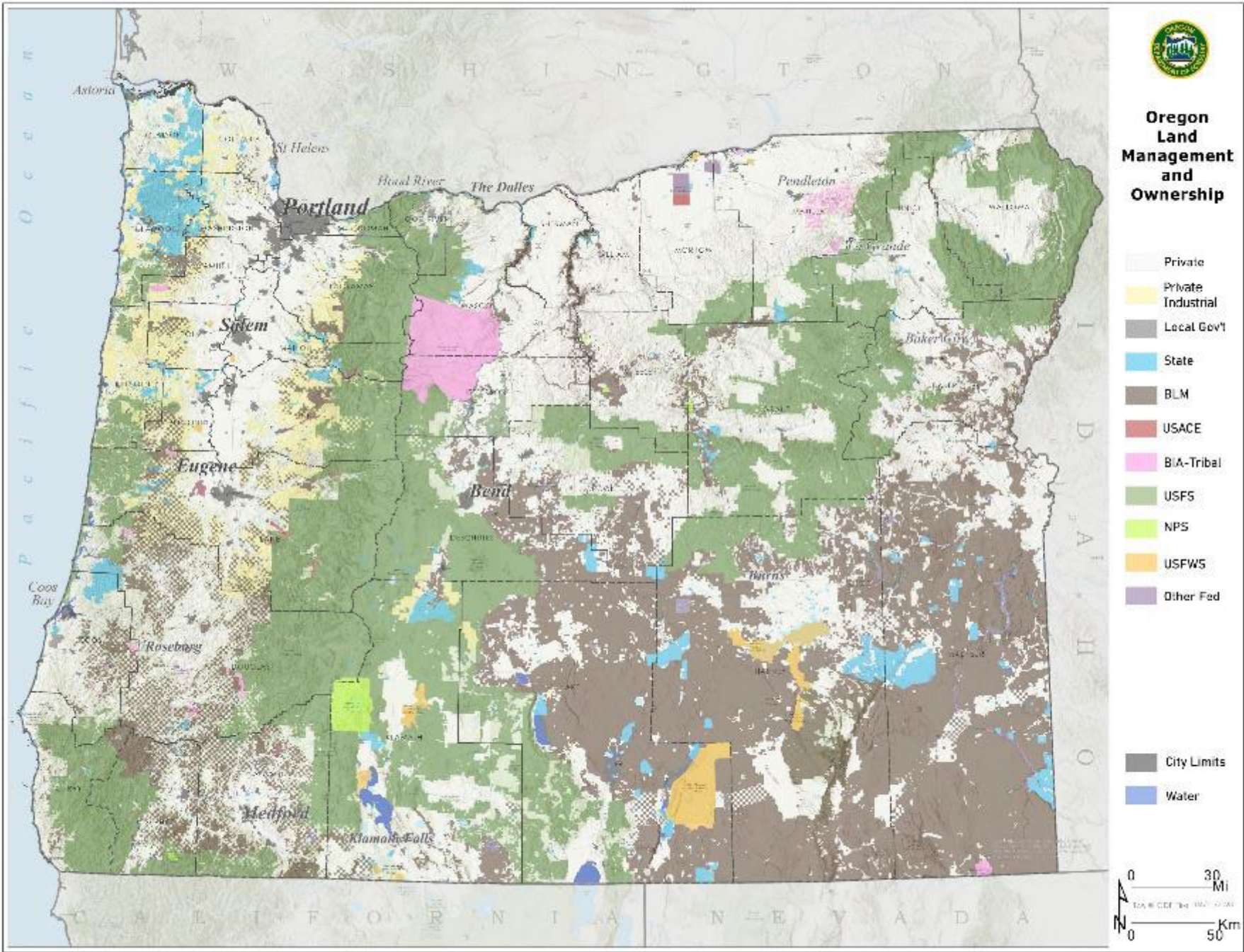


- Approximately ~30 million of acres of forestland
- Diverse conditions - Coastal strip to Chaparral to High Desert
- **ODF protects ~16 million acres**
- 100+ year premise remains constant - protect Oregon's forest land through aggressive IA to contain cost and minimize resource loss
- Fire Protection is a partnership (landowners, ODF and the State)
- Protection responsibility is intermingled with 1,000s of miles of common boundaries

"Fires don't recognize these boundaries"

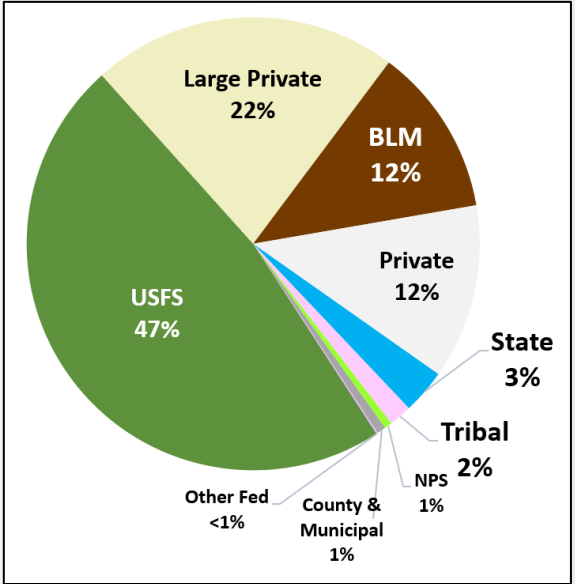
Oregon total land area (acres)





Land Management & Ownership

Forestland Ownership

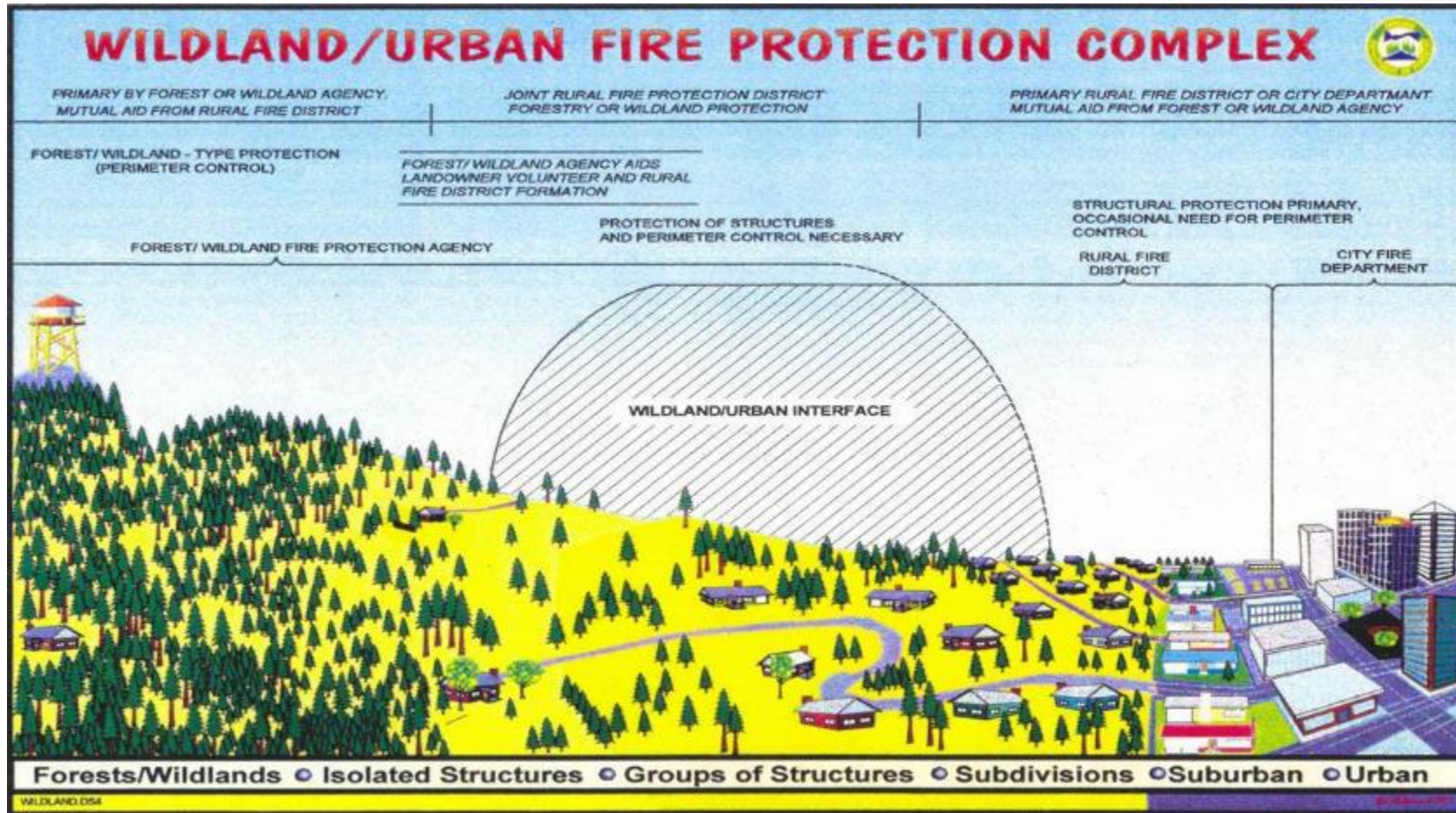


Forestland Ownership acreages from OFRI 2023 Forest Facts



Overlapping Protection Systems

- wildland
- wildland-urban-interface (WUI)
- rural
- structural





Oregon Wildland Urban Interface

USFS RDA
Univ-Wisc
SILVIS
2020 Wildland
Urban
Interface for Oregon

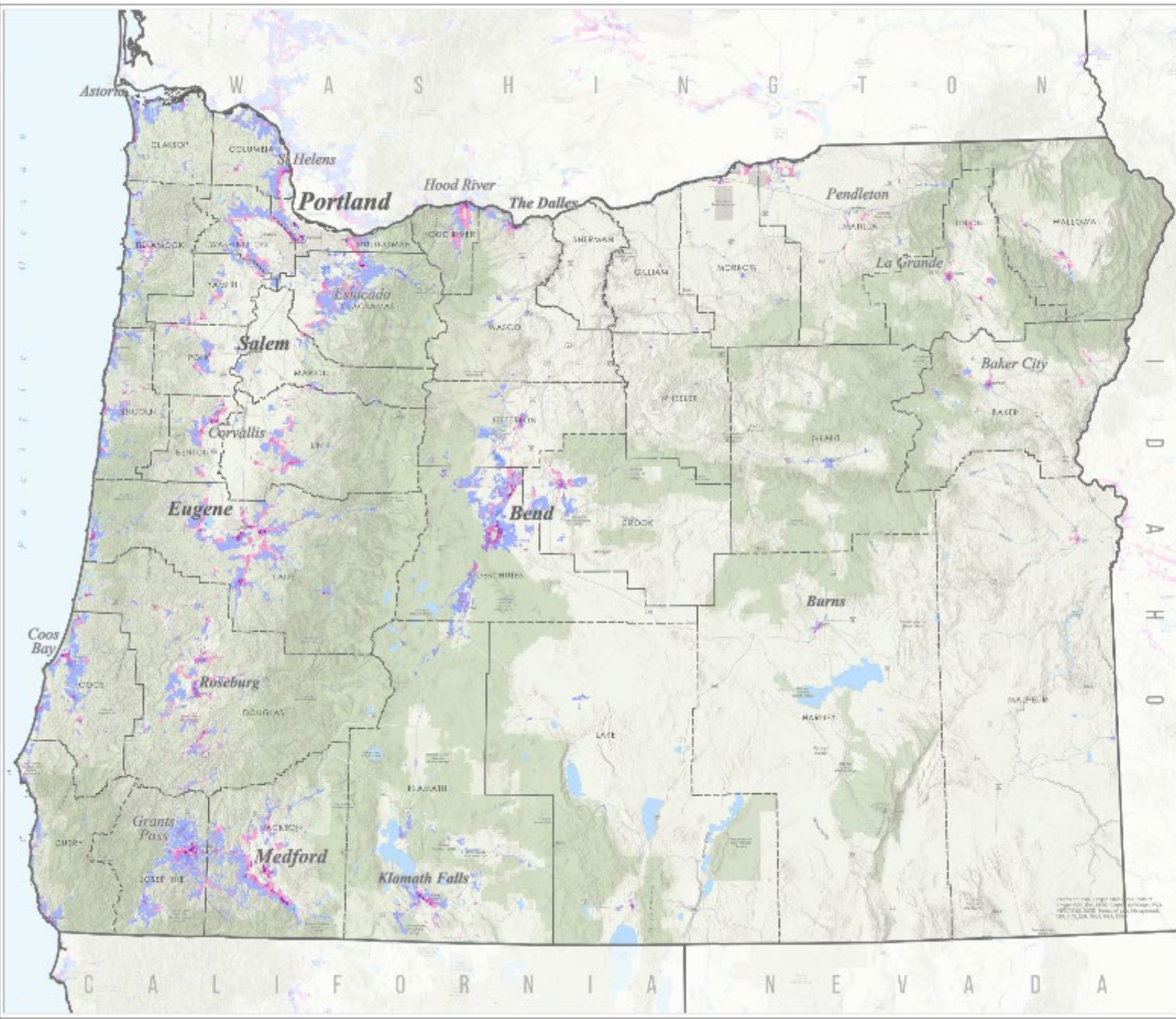
- High Density Interface
- Med Density Interface
- Low Density Interface
- High Density Intermix
- Med Density Intermix
- Low Density Intermix

Incorporating 2003 census and 2015 land cover vegetation data, WUI areas shown here are from the 3rd edition of "The 1990-2002 Wildland-Urban Interface of the conterminous United States", produced by the Univ. of Wisconsin-Silvis, and updated from the US Forest Service Research Data Archive. WUI parameters are based on the Federal Register definition (Federal Register 65(271), 2001).

This map shows high, med, and low density intermix, "interface" and "intermix" areas within Oregon. These areas are the WUI, with a minimum of 5 housing units per sq. km (200 acres) and >20% wildland vegetation. Intermix areas have >20% wildland vegetation cover and interface areas have >75% wildland vegetation cover.

Although these data and associated analysis have been reviewed for accuracy and completeness and approved for release by the Forest and Wetland Silviculture Lab, no warranty is made regarding the reliability of the data or the other system or for general or scientific purposes, nor shall the use of the data constitute any such warranty.

Revised: Volker C.; Henson, David R.; Madenjian, Harold H.; Larson, Franklin S.; Mankowski, Todd D.; McManus, Andrew S., 2012. The 1990-2012 Wildland-Urban Interface of the conterminous United States - geospatial



- About 2.4M acres of Intermix and Interface WUI in Oregon (2020 UnivWisc Silvis)
- 65% of ODF fires originate within 1 mile of the WUI
- 87% of these fires are human-caused



Introduction to ODF

- *Agency Organization*
 - *Salem, Field*
- *ODF Areas, Districts, Reference Map*



ODF Top-Line Organizational Chart

May 2024

OREGON BOARD OF FORESTRY

Cal Mukumoto
State Forester
Agency Head 4
Pos. #: 022322
MEAH 7854 SR43X

Heidi Steiner
HR Deputy Director
HR Manager 2
Pos. #: 152143
MMS 7344 SR33X

Human Resources
Shauneen Scott
HR Director
HR Manager 3
Pos. #: 063383
MMS 7343 SR35X

Internal Audit
Vacant
Chief Audit Executive
Internal Auditor 3
Pos. #: 010030
MMN 5618 SR31

Legislative Affairs
Derrick Wheeler
Legislative Coordinator
Ops & Policy Analyst 4
Pos. #: 026276
MMN 0873 SR32

Executive Support Supervisor
Esmeralda Boies Supervising
Executive Assistant
Pos. #: 058291
MESN 0833 SR26

Agency Administration
Wendy Heckman
Deputy Director, Agency Administration
Business Operations Administrator 2
Pos. #: 002270
MESN 7081 SR40X

Mike Shaw
Deputy State Forester
Business Operations Administrator 2
Pos. #: 063381
MESN 7081 SR40X

Business Services Division
James Short
Business Services Chief/CFD
Business Operations Administrator 1
Pos. #: 026931
MMS 7082 SR38X

Business Services Division
Tara Sell
Business Services Deputy
Business Operations Mgr 3
Pos. #: 006046
MMS 7083 SR35X

Kyle Williams
Deputy Director, Fire Operations
Business Operations Administrator 2
Pos. #: 167368
MESN 7081 SR40X

Justin Hallett
Administration Division Chief
Business Operations
Administrator 1
Pos. #XXXXXX
MMN 7082 SR38X

Shared Stewardship
Nathan Beckman
Shared Stewardship
Coordinator
Operations and Policy Analyst 4
Pos. #: 132178
OAD 0873 SR32

Forest Resources Division
Josh Barnard
Division Chief
NRPISA 1
Pos. #: 000151
MESN 7462 SR38X

State Forests Division
Mike Wilson
Division Chief
NRPISA 1
Pos. #: 001522
MESN 7462 SR38X

Fire Protection Division
Chris Cline
Interim Division Chief
NRPISA 1
Pos. #: 017981
MESN 7462 SR38X

Northwest Oregon Area
Don Everingham
Area Director
Area Forest Manager
Pos. #: 010541
MMS X8262 SR35F

Southern Oregon Area
Dave Larson
Area Director
Area Forest Manager
Pos. #: 009921
MMS X8262 SR35F

Eastern Oregon Area
Brian Pew
Area Director
Area Forest Manager
Pos. #: 009481
MMS X8262 SR35F

Equipment Pool
Brian Quigley
Business Ops Manager 2
Pos. #: 000823
MMS 7084 SR33X

Tribal Affairs
Deanna Grimstead
Deputy Tribal Liaison
Ops & Policy Analyst 3
Pos. #: 1132284
OAD 0872 SR30

FPA and Monitoring
Kyle Abraham
Deputy Chief
NRPISA 2
Pos. #: 010954
MMS 7464 SR33X

Ron Zilli
Deputy Chief
NRPISA 2
Pos. #: 010954
MMS 7464 SR33X

Operations
Ron Graham
Deputy Chief of Fire Protection
WIP Mgr 2
Pos. #: 040688
MMS 7844 SR33X

Astoria District
Dan Goody
District Forester
District Forest Manager
Pos. #: 000338
MMS 8261 SR33F

South Cascade District
Craig Pettinger
Acting District Forester
District Forest Manager
Pos. #: 036205
MMS 8261 SR33F

Central Oregon District
Rob Pentzer
District Forester
District Forest Manager
Pos. #: 009024
MMS 8261 SR33F

Facilities Capital Management
D. Chris Stewart
Facilities Manager
Construction Project Manager 3
Pos. #: 017690
MMS 3269 SR33X

Safety and Risk Management
Vacant
Safety and Wellness Consultant
Safety Specialist 2
Pos. #: 010910
MMC X1346 SR 27

All Lands
Mike Kroon
Deputy Chief
NRPISA 2
Pos. #: 033884
MMS 7464 SR33X

Policy and Planning
Tim Holchbach
Deputy Chief
NRPISA 2
Pos. #: 132161
MMS 7464 SR33X

Forest Grove District
Mike Cafferata
District Forester
District Forest Manager
Pos. #: 013970
MMS 8261 SR33F

SW Oregon District
Dave Larson
Acting District Forester
District Forest Manager
Pos. #: 007023
MMS 8261 SR33F

Klamath-Lake District
Teresa Williams
District Forester
District Forest Manager
Pos. #: 013250
MMS 8261 SR33F

Information Technology
Brent Grimsrud
Chief Information Officer
Chief Information Manager 2
Pos. #: 035170
MMS 7444 SR33X

Safety and Risk Management
Eric Pineda
Safety and Wellness Coordinator
Safety Specialist 1
Pos. #: 132276
MMN X1345 SR 23

Chrystal Bader
Executive Support
Exec. Support Specialist 2
Pos. #
OAD
Stacy McCarter

North Cascade District
Steve Wilson
District Forester
District Forest Manager
Pos. #: 002871
MMS 8261 SR33F

Tillamook District
Kate Skinner
District Forester
District Forest Manager
Pos. #: 017143
MMS 8261 SR33F

Western Lane District
Ole Buch
District Forester
District Forest Manager
Pos. #: 006076
MMS 8261 SR33F

NE Oregon District
Matt Howard
District Forester
District Forest Manager
Pos. #: 011944
MMS 8261 SR33F

Resource Planning Office
John Tokarczyk
Manager (WOC)
Natural Resource Spec. 4
Pos. #: 025660
OAD 8504 SR30

Coos Forest Protective Association
Tyler McCarty
District Supervisor
District Forest Manager
N/A
MMS 8261 SR33F

Walker Forest Protective Association
R.D. Buell
District Supervisor
District Forest Manager
N/A
MMS 8261 SR33F

West Oregon District
Michael Curran
District Forester
District Forest Manager
Pos. #: 014228
MMS 8261 SR33F

Douglas Forest Protective Association
Pat Skrip
District Supervisor
District Forest Manager
N/A
MMS 8261 SR33F

REI
Laura Fredrickson
Recreation, Education & Interpretation Prog. Mgr.
NRPISA 2
Pos. #: 0109110
MMS C7008 SR33X

Administrative Rules/Agency Policy/Coop
Sabrina Perez
Ops & Policy Analyst 4
Pos. #: 132185
MMN 0873 SR32

State Forests Operations
Vacant
State Forests Ops Manager
NRPISA 2
Pos. #: 106574
MMS C7008 SR33X

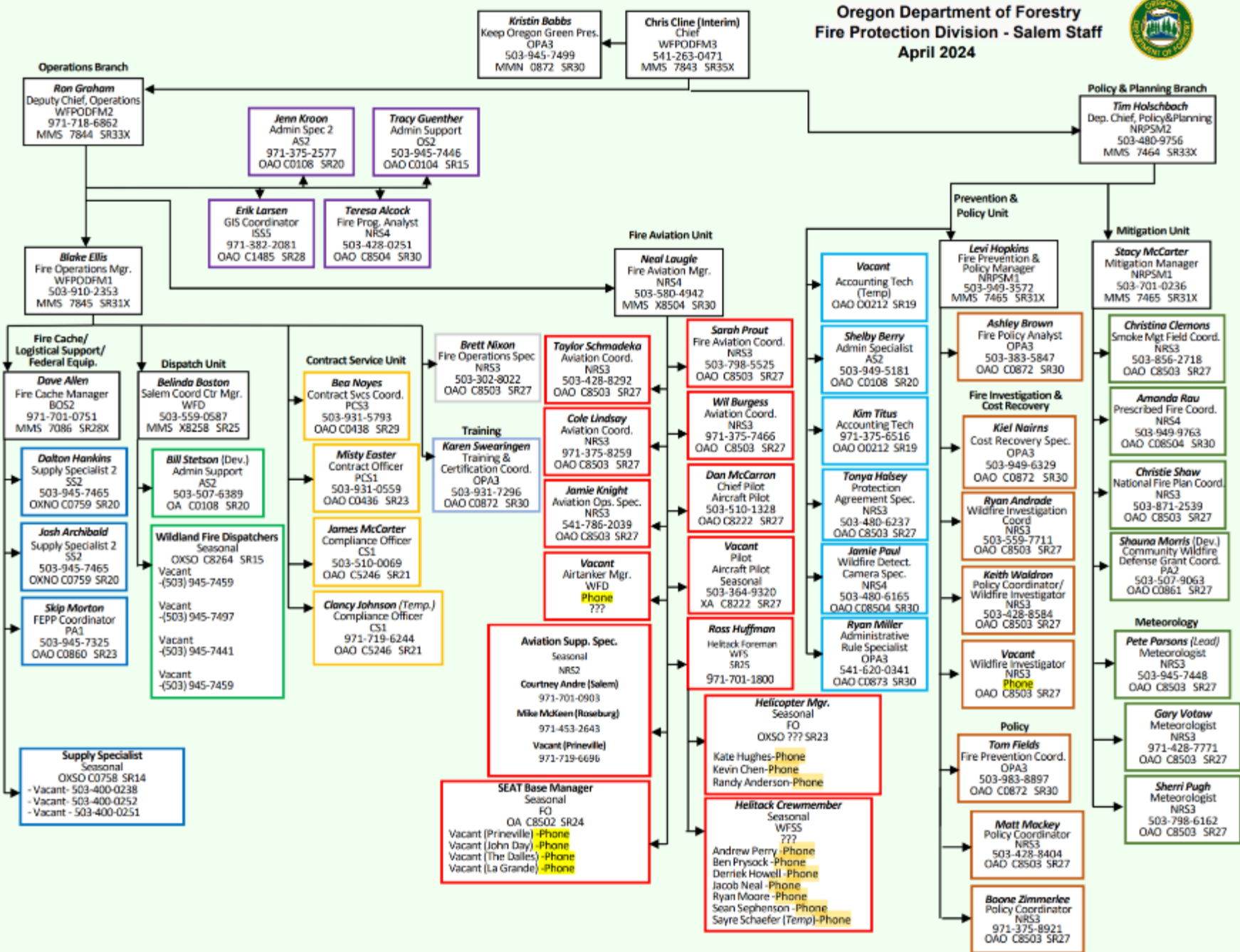
Samantha Hoffman
Executive Support
Exec. Support Specialist 2
Pos. #: 028635
OAD 0119 SR20



Oregon Department of Forestry

Top-Line Leadership Org Chart

Oregon Department of Forestry
Fire Protection Division - Salem Staff
April 2024



Oregon Department of Forestry

Protection Division Org Chart



ODF Reference Map



- Showing Areas, Districts, and Units of ODF
- Also showing Rangeland Fire Protection Associations



Fire Protection Division

- Purpose, Policy, Primary Mission/Priorities
- Oregon's Complete and Coordinated Fire Protection System
- Recent Fire History
- Large Fire Costs and Fire Suppression Effectiveness



Purpose, Policy, Primary Mission/Priorities

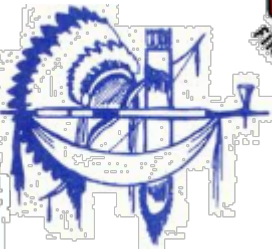
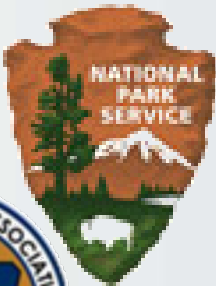


- Purpose:
 - Protect Forests from Fire
- Forest Protection Policy:
 - Preserve & conserve forest resources by preventing and suppressing forest fires
- Primary Missions/Priorities:
 - Protection of life
 - Protecting forest resources
 - Structural protection shall not inhibit forest resource protection

Oregon's Complete and Coordinated Fire Protection System



OREGON FOREST & INDUSTRIES COUNCIL



WASHINGTON STATE DEPARTMENT OF Natural Resources





Aviation, Crews,
Resources



Statewide Coordination

Incident Resource Agreements -- Resources

| 413 Type 2 Crews | 72 Faller Single, Faller Mods | 66 Medical (staff, ambulances, BCMU, REMS) | 5 Mobile Showers |
|--|-------------------------------|--|------------------|
| 240 Dozers 205 Excavators 186 Water Tenders 136 Engines 143 Log Truck/Loader/Shovel/Processors 92 Skidders/Skidgines 62 Feller Bunchers 60 Runners 41 Mulcher Masticators 40 Dump Trucks 14 Chippers | | | |
| 648 additional equipment, transports, overhead positions and services/supplies | | | |

- Crews and Cooperators
- 3 Incident Management Teams & equipment
- Coordination with federal agencies
- 50+ aviation companies
- Landowners provide annually:
 - 640 trained personnel
 - 445 pieces of equipment
- Resources from 12 ODF Districts
 - 200 engines
 - 400 firefighters
 - 15 large bulldozers
 - Look-outs and dispatchers





Aircraft Types and Missions

| Aircraft Type | Total (50) | Aircraft Mission |
|---------------------------------|------------|--|
| Helicopter, Type 1 | 1 | Heavy Helicopter with 700 gallons of water capacity. |
| Helicopter, Type 2 | 8 | Medium Helicopter with 200-300 gallons of water capacity. |
| Helicopter, Type 3 | 1 | Light Helicopter with 100-150 gallons of water capacity. |
| Helicopter, Type 3 Helitack | 3 | Aerial delivery of fire fighters with 100-150 gallons of water capacity. |
| Large Air Tanker | 1 | Heavy Aircraft with 3000 gallons of fire retardant capacity. |
| Single Engine Air Tanker | 7 | Single Engine Air Tanker with 800 gallons of fire retardant capacity. |
| Fire Bosses | 2 | Scooping Single Engine Air Tanker with 800 gallons of fire retardant capacity |
| Detection Aircraft | 7 | Light Fixed Wing Aircraft used for Fire Detection and Aerial Supervision of Tactical Aircraft assigned to an incident. |
| Unmanned Aircraft Systems (UAS) | 20 | Type 3 UAS (some with infrared capability) support fire line operations such as mapping, situational awareness and |

Call When Needed (CWN) Aircraft

- 43 - Type 1 Helicopters
- 46 - Type 2 Helicopters
- 42 - Type 3 Helicopters
- 24 - Light Fixed-Wings
- 25 - SEAT/Fire Bosses
- 13 - Large Air Tankers
- 5 - UAS Service Providers
- Total Aircraft: 198**

"Severity" Contracted Aircraft

- 1 - Large Air Tanker
- 7 - Single Engine Air Tankers
- 2 - Fire Bosses
- 2 - Light Fixed Wing
- 1 - Heavy Helicopter
- 5 - Medium Helicopters
- 1 - Light Helicopter (Helitack)
- Total Aircraft: 19**

Association/District Contract Aircraft

- 3 - Medium Helicopters
- 3 - Light Helicopters (2 are Helitack)
- 3 - Light Fixed Wing
- Total Aircraft: 9**

State/Association-Owned Aircraft

- 2 - Light Fixed-Wing
- 20 - Unmanned Aircraft Systems
- Total Aircraft: 22**



Aviation Resource Map

ODF AVIATION RESOURCES

OREGON DEPARTMENT OF FORESTRY



2023

STATE & ASSOCIATION

AMP AIRCRAFT
100 W/FLY 30 MINUTES



WFLD AIRCRAFT PART-TIME
170 W/FLY 30 MINUTES



DISTRICT CONTRACTED

AMP AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



TR & CWT & TR & PWDACK
100 W/FLY 30 MINUTES



TR & CWT & TR & PWDACK
100 W/FLY 30 MINUTES



TR & CWT & TR & PWDACK
100 W/FLY 30 MINUTES



SEVERITY CONTRACTED

EMERGENCY AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



EMERGENCY AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



EMERGENCY AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



EMERGENCY AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



EMERGENCY AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



EMERGENCY AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



EMERGENCY AIRCRAFT
100 W/FLY 30 MINUTES



DEFCON
100 W/FLY 30 MINUTES



MAP FEATURES

Airports in Use by ODF

ODF State Headquarters

ODF District Headquarters

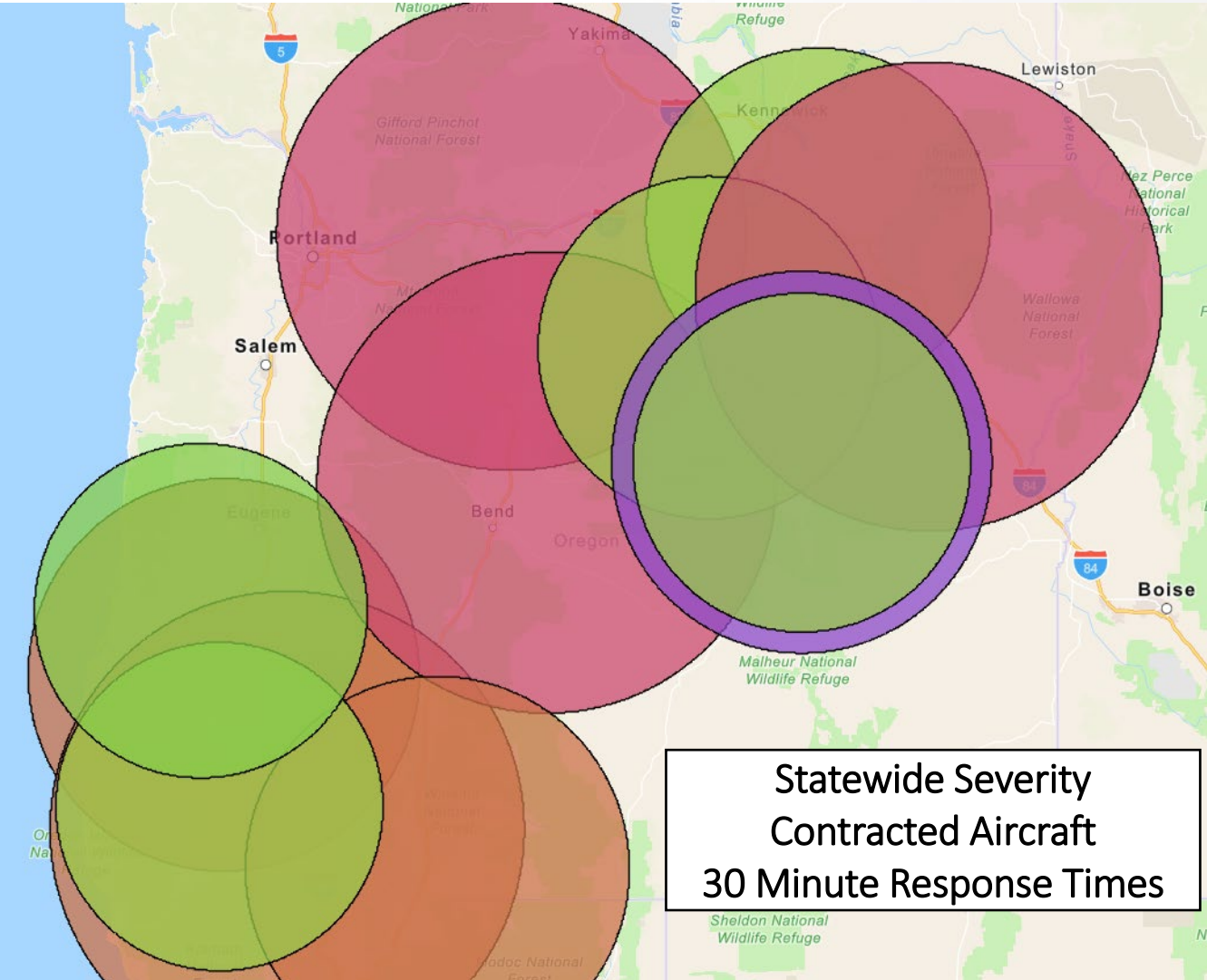
ODF District Boundary

RPA Boundary

Draft 2023



| Aircraft Type | # of Aircraft | Operational Characteristics |
|---------------------------------------|---------------|---|
| Type 1 Helicopter | 3 | Heavy Helicopter with 700 gallons of water capacity. |
| Type 2 Helicopter | 8 | Medium Helicopter with 200-300 gallons of water capacity. |
| Type 3 Helicopter | 1 | Light Helicopter with 100-150 gallons of water capacity. |
| Type 3 Helitack Helicopter | 3 | Aerial delivery of fire fighters with 100-150 gallons of water capacity. |
| Single Engine Air Tanker (SEAT) | 4 | Single Engine Air Tanker with 800 gallons of fire chemical capacity. |
| Single Engine Scoopers | 2 | Scoping Single Engine Air Tanker with 800 gallons of fire chemical capacity. |
| Detection Aircraft | 5 | Light Fixed Wing Aircraft used for Fire Detection and Aerial Supervision of Tactical Aircraft assigned to an incident. |
| Unmanned Aircraft Systems (UAS) | 30 | Type 3 UAS (some with infrared capability) support fire line operations such as mapping, situational awareness and detection. |
| Call When Needed Aircraft (All Types) | 100+ | Emergency access to Airtankers, Helicopters, Light Fixed Wing Aircraft, and Uncrewed Aircraft Systems |



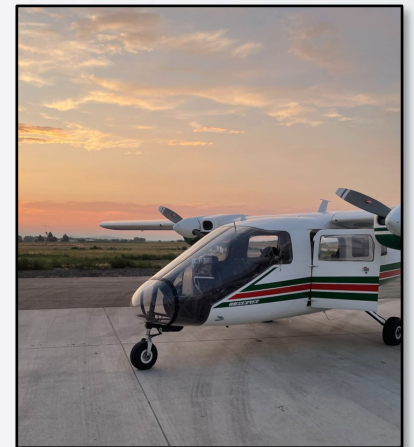
Aircraft 30-Minute Response Times

Statewide Severity Contracted Aircraft 30 Minute Response Times



ODF Multi-Mission Aircraft

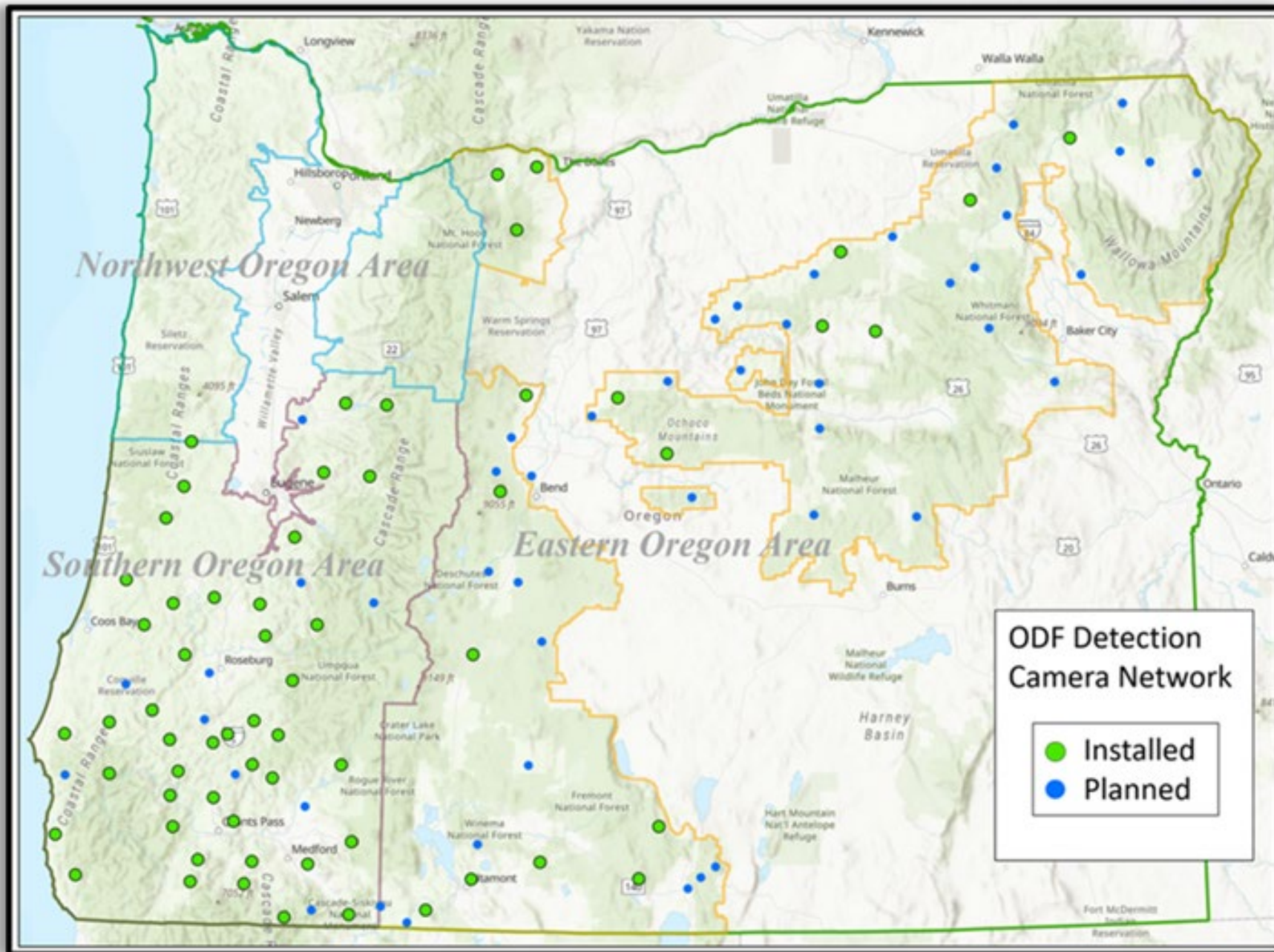
- IR and visible camera capability
- Video and images available in SOFSA





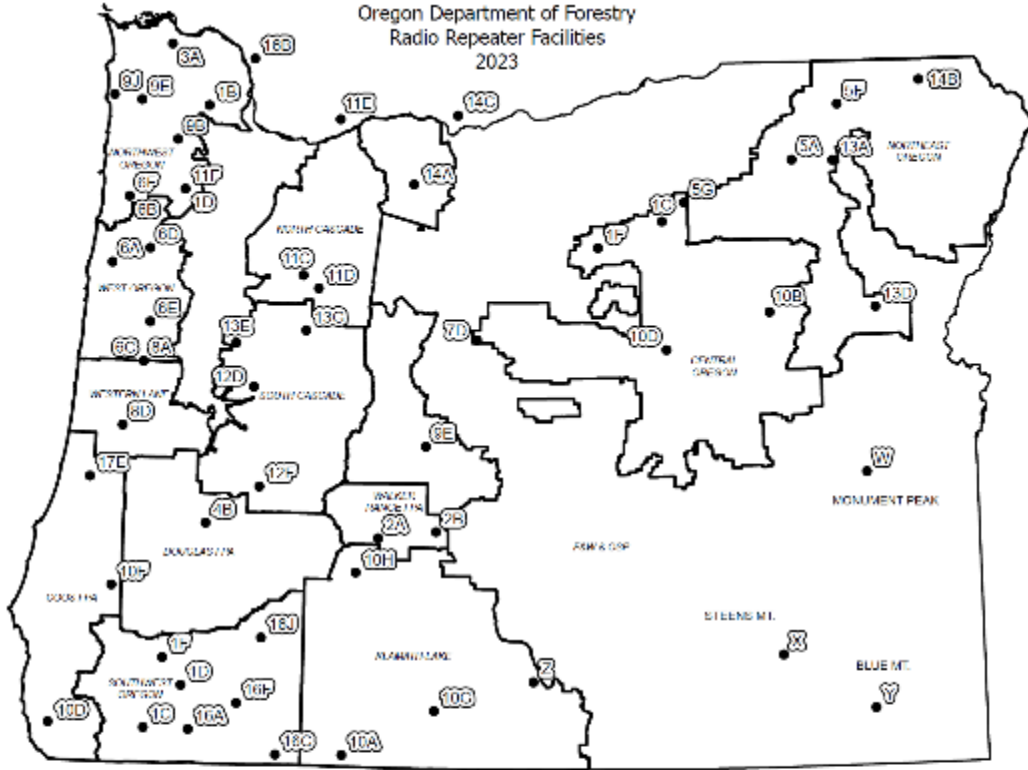
Smoke Detection Cameras

- 86 active cameras
- Video and images planned for viewing in SOFSA





Oregon Department of Forestry
Radio Repeater Facilities
2023



CH = Channel Number ★ = Primary Relay ENC = Tone Encode DEC = Tone Decode

| DIST | CH/ENC | NWOA | DFC |
|------|-----------------|------|-----|
| AS | 3A NICOLA | ★ | A |
| | 9E RECTOR | | B |
| TM | 9I ANGORA | | B |
| | 6F HILBO | | B |
| | 9B SO SADDLE | ★ | B |
| | 1B BUXTON | ★ | D |
| FG | 1D BALD HEAVEN | | B |
| | 16B GREEN MT | | B |
| | 11F HIGH HEAVEN | ★ | F |
| NC | 11E SKAMANIA | | F |
| | 11C MT HORFS | | F |
| | 11D HALLS RIDGE | | F |
| | 6E MARY'S PEAK | ★ | E |
| | 6D LAUREL MT | | F |
| WO | 6C PRAIRIE MT | | E |
| | 6A FLICHER | | F |
| | 6B HERB | | F |

| DIST | CH/ENC | SOA | DFC |
|------|--------------------|-----|-----|
| | 13L SCOTT MT | ★ | L |
| SC | 13G COUGAR ROCK | | E |
| | 12D MT NEBO | ★ | D |
| | 12F FAIRVIEW | | D |
| WL | 8A PRAIRIE MT | ★ | A |
| | 8D ROMAN NOSE | | A |
| DG | 4B DOUGLAS SYS | ★ | B |
| | 17E CFFA COOS | ★ | E |
| CS | 10F SIGNAL TREE | | G |
| | 10D CFFA CURRY | | G |
| | 11F SEXTON MT | ★ | F |
| | 1C LITTLE GRAYBACK | | F |
| | 1D FIELDER MT | | F |
| SW | 16F ROCKY ANN | ★ | F |
| | 16C SODA MT | | F |
| | 16A TULLOWBOX | | F |
| | 16I FLOUNCE ROCK | | F |

| DIST | CH/ENC | EOA | DFC |
|------|------------------|-----|-----|
| WB | 2A WALKER MT | ★ | A |
| | 2B WASTINA | | A |
| | 7D GRIZZLY | ★ | D |
| | 9L SUGAR PINE | | D |
| | 1F SNOWBOARD | | D |
| CO | 1C MADISON | | D |
| | 10D ALDRICH | ★ | D |
| | 10B DIXIE | | D |
| | 14C STACKER | ★ | D |
| | 14A FLAG POINT | | D |
| | 5A TIP TOP | | A |
| NE | 5G BLACK MT | ★ | A |
| | 14B COURTNEY | | A |
| | 6F SPOUT SPRINGS | | A |
| | 13A MT FAMILY | | A |
| | 13D BEAVER RIDGE | | A |

| DIST | CH/ENC | EOA | DFC |
|-----------|-----------------|-----|-----|
| | 10A HAWKLER | ★ | A |
| KL | 10G YANAX BUTTE | | A |
| | 10H WELCH BUTTE | | A |
| | MONUMENT PEAK | | W |
| F&W & CSP | STEARNS MT | ★ | X |
| | OLUL MT | | Y |
| | ROUND PASS | | Z |

| | RX | TX | ENC | DEC |
|---|----------|----------|-------|-------|
| W | 151.1900 | 159.3525 | 151.8 | 151.4 |
| X | 151.1900 | 159.3525 | 151.4 | 151.4 |
| Y | 151.1900 | 159.3525 | 167.9 | 151.4 |
| Z | 151.2050 | 159.3525 | 167.9 | 151.4 |

| Name | CH/RX | TX | ENC/DEC | MODE |
|----------------------|----------|----------|----------|------------|
| District Repeater 1 | 151.1450 | 159.3450 | | TONES |
| District Repeater 2 | 151.1925 | 159.3150 | 15 | MTL-151.8 |
| District Repeater 3 | 151.1800 | 159.2525 | optional | 8.12+146.2 |
| District Repeater 4 | 151.1800 | 159.4275 | | 1.15+151.8 |
| District Repeater 5 | 151.1800 | 159.4425 | | 1.15+162.2 |
| District Repeater 6 | 151.1875 | 159.2325 | | 1.15+167.9 |
| District Repeater 7 | 151.1750 | 159.2025 | | 1.16+179.9 |
| District Repeater 8 | 151.1625 | 159.1075 | | 6.17+161.3 |
| District Repeater 9 | 151.1500 | 159.1425 | | WRC-159.7 |
| District Repeater 10 | 151.2050 | 159.6750 | | 1.19+173.8 |
| District Repeater 11 | 151.2050 | 159.4650 | | |
| District Repeater 12 | 151.2200 | 159.1075 | | |
| District Repeater 13 | 151.2425 | 159.4050 | | |
| District Repeater 14 | 151.4375 | 159.3975 | | |
| District Repeater 15 | 151.1150 | 159.2550 | | |
| District Repeater 16 | 151.1750 | 159.4125 | | |
| District Repeater 17 | 151.4375 | 159.3850 | | |
| Red Mt | 151.2400 | 151.2400 | 159.7 | 159.7 |
| White Mt | 151.2100 | 151.2100 | 159.7 | 159.7 |
| Blue Mt | 159.2025 | 159.2025 | 159.7 | 159.7 |
| Orange Mt | 159.0225 | 159.0225 | 159.7 | 159.7 |
| Green Mt | 179.2250 | 179.2250 | 159.7 | 159.7 |
| NCS Call Up | 168.5500 | 168.5500 | | |
| NCS-ORF-1st | 159.2400 | 159.2400 | 159.7 | 159.7 |
| NCS-LPS-1st | 168.2000 | 168.2000 | | |
| NCS-BM-1st | 173.6750 | 173.6750 | | |
| NCS-Fire Marshall | 151.2000 | 151.2000 | | |
| NCS-WDR-1st | 151.4150 | 151.4150 | 103.5 | |
| Fire Cache Tac 1 | 151.2350 | 151.2350 | 159.7 | 159.7 |
| Fire Cache Tac 2 | 151.2500 | 151.2500 | 159.7 | 159.7 |
| Fire Cache Tac 3 | 151.3550 | 151.3550 | 159.7 | 159.7 |
| Fire Cache Tac 4 | 151.2850 | 151.2850 | 159.7 | 159.7 |
| Fire Cache Tac 5 | 151.4350 | 151.4350 | 159.7 | 159.7 |
| Fire Cache Tac 6 | 151.4600 | 151.4600 | 159.7 | 159.7 |
| Fire Cache Tac 7 | 151.4750 | 151.4750 | 159.7 | 159.7 |
| Fire Cache Tac 8 | 151.2800 | 151.2800 | 159.7 | 159.7 |
| F/C Mt. 1 RTT | 151.4000 | 159.4650 | 151.8 | |
| F/C Mt. 2 Backup | 151.4500 | 159.4500 | 151.8 | |
| F/C Mt. 2 RTT | 151.4450 | 159.0550 | 149.2 | |
| F/C Mt. 3 Backup | 151.4300 | 159.4500 | 149.2 | |
| F/C Mt. 3 RTT | 151.2800 | 159.2700 | 167.2 | |
| F/C Mt. 3 Backup | 151.4300 | 159.4500 | 167.2 | |
| WV-10 | 155.7525 | 155.7525 | 159.7 | 159.7 |
| WV-11 | 151.1350 | 151.1350 | 159.7 | 159.7 |
| WV-12 | 154.4525 | 154.4525 | 159.7 | 159.7 |
| WV-13 | 158.7375 | 158.7375 | 159.7 | 159.7 |
| WV-14 | 159.4725 | 159.4725 | 159.7 | 159.7 |
| WV-1029 | 155.3475 | 155.3475 | 159.7 | 159.7 |
| W-Guard | 168.6250 | 168.6250 | 110.9 | |

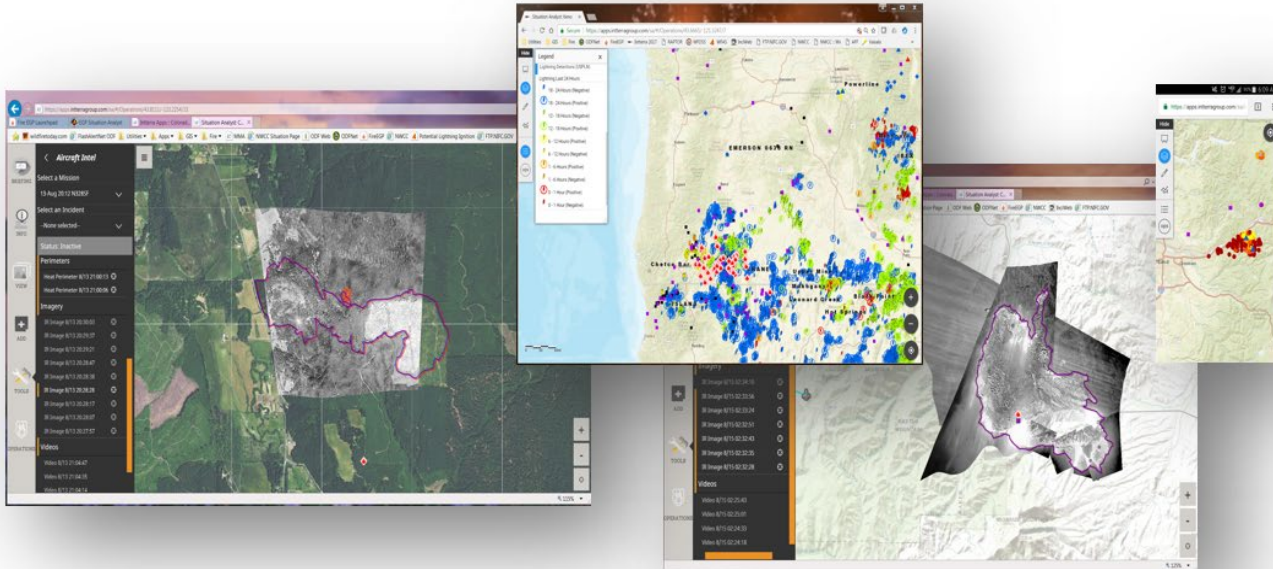
Statewide Radio Network



Published April 2023



SOFSFA: State of Oregon Fire Situation Analyst



- Statewide common operating picture of wildfire incidents and response for the Oregon Department of Forestry and the Oregon State Fire Marshal
- Available on any device with internet connection
- Register here:
<https://www.oregon.gov/odf/fire/pages/contact-sofsa.aspx>





Fire History

- ODF 10 Year Fire History
- ODF Decadal Fire History
- Oregon Decadal Fire History
- Oregon Decadal Fire History Maps



ODF Recent Fire History: Number of Fires



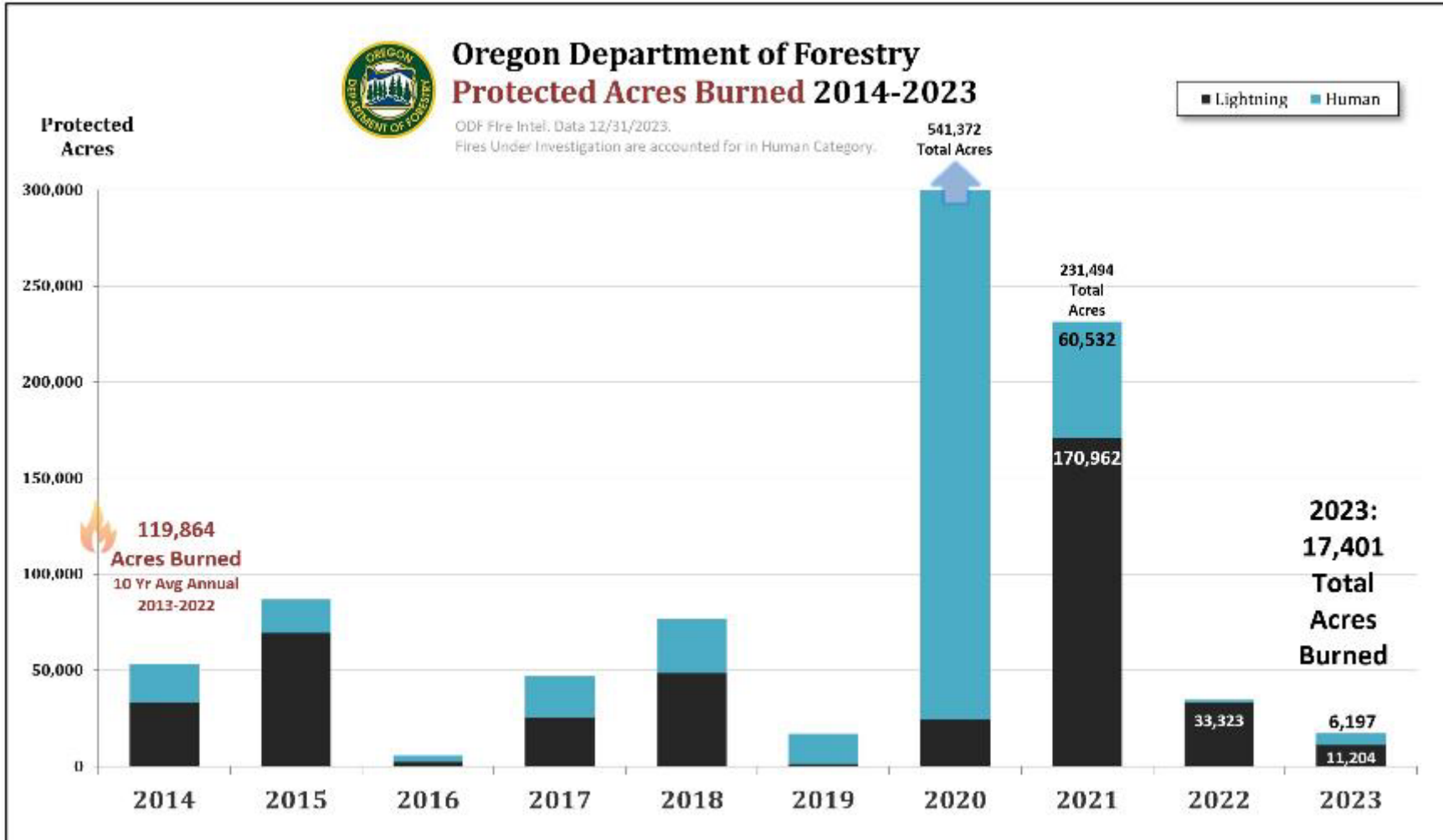
Oregon Department of Forestry Number of Fires 2014-2023

ODF Fire Intel. Data 12/31/2023.
Fires Under Investigation are accounted for in Human Category.



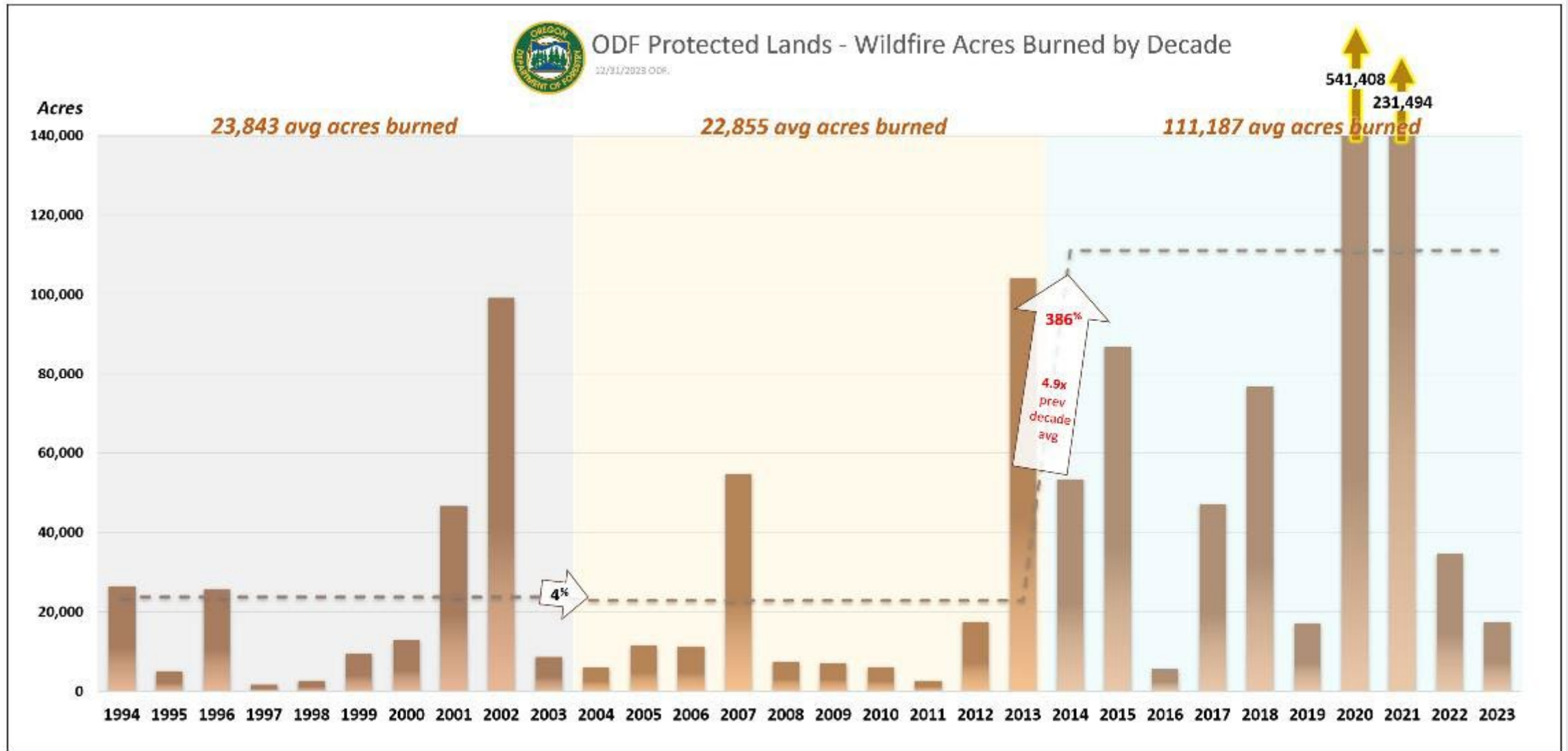


ODF Recent Fire History: Acres Burned



47% of Oregon wildfires start within ODF Districts, but only 18% of the state's acres burned are on ODF protected lands.

Acres Burned by Decade – ODF Protection

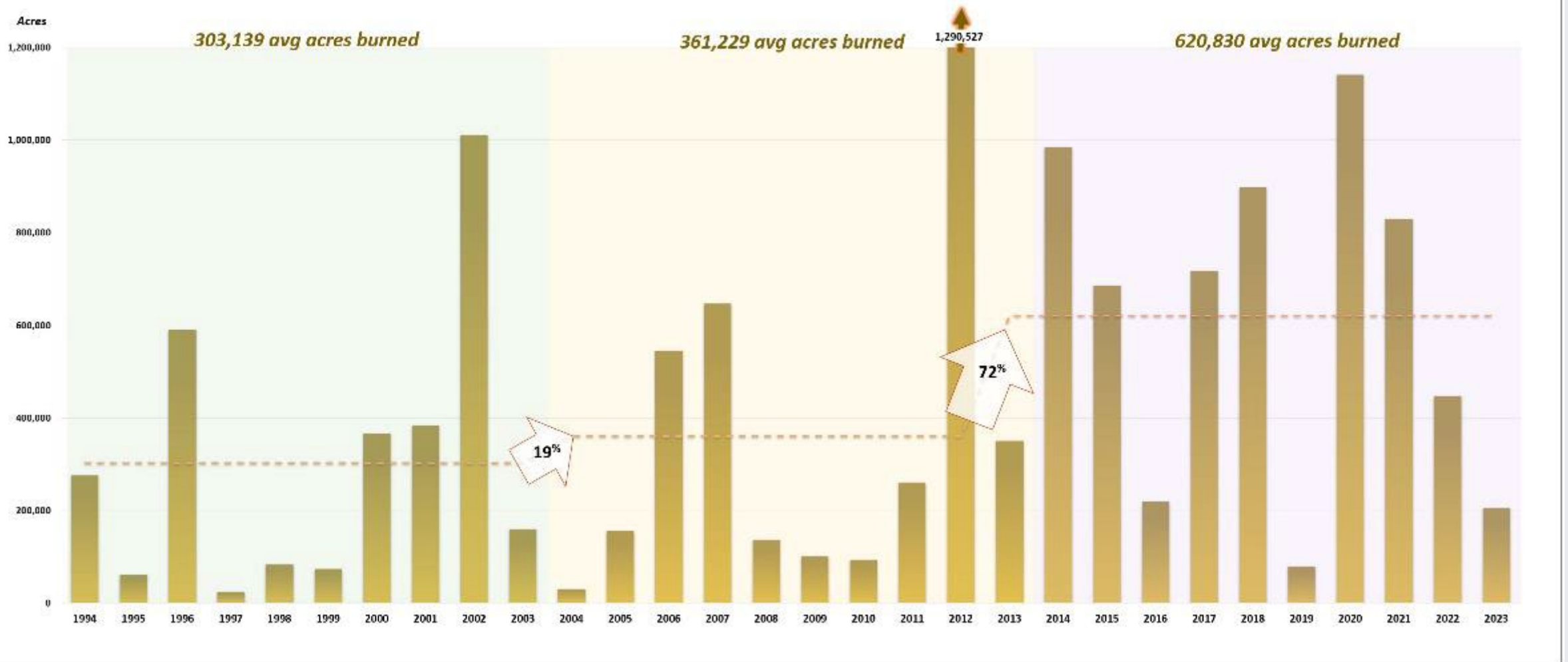


Acres Burned by Decade – All Jurisdictions

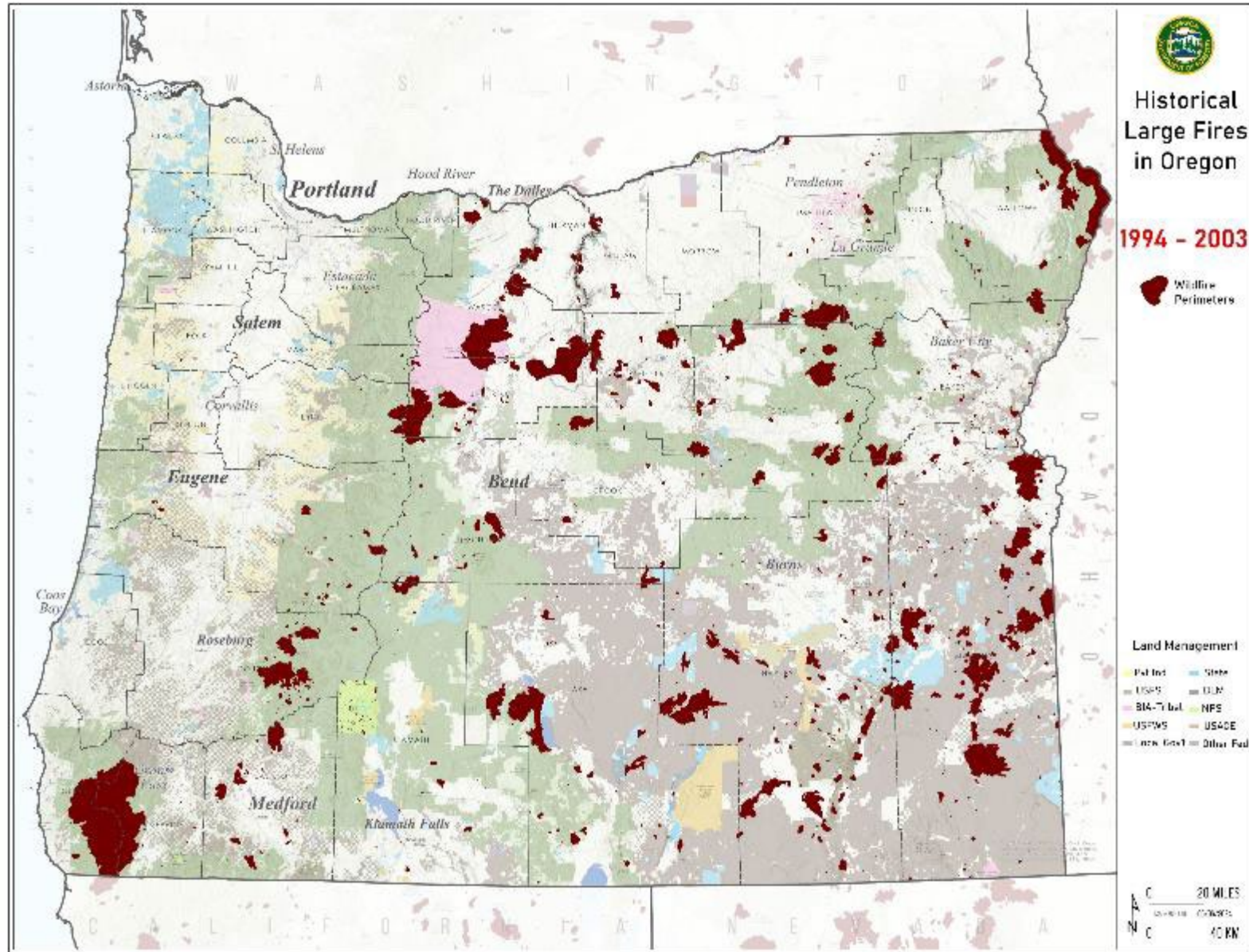


Oregon All Agencies - Wildfire Acres Burned by Decade

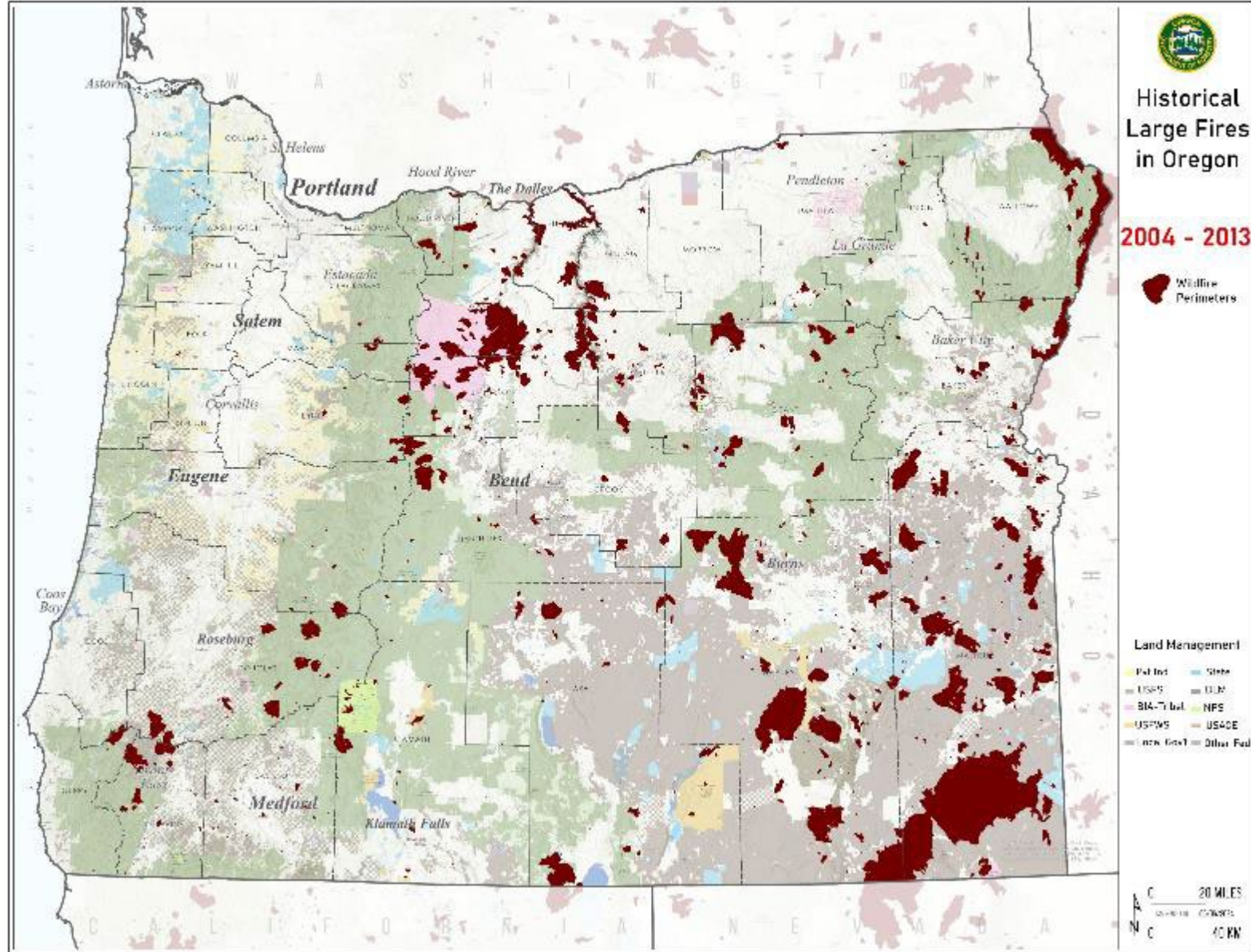
12/31/2023. NIFC, NWCC, ODF.



Oregon Large Fire History 1994-2003



Oregon Large Fire History 2004-2013



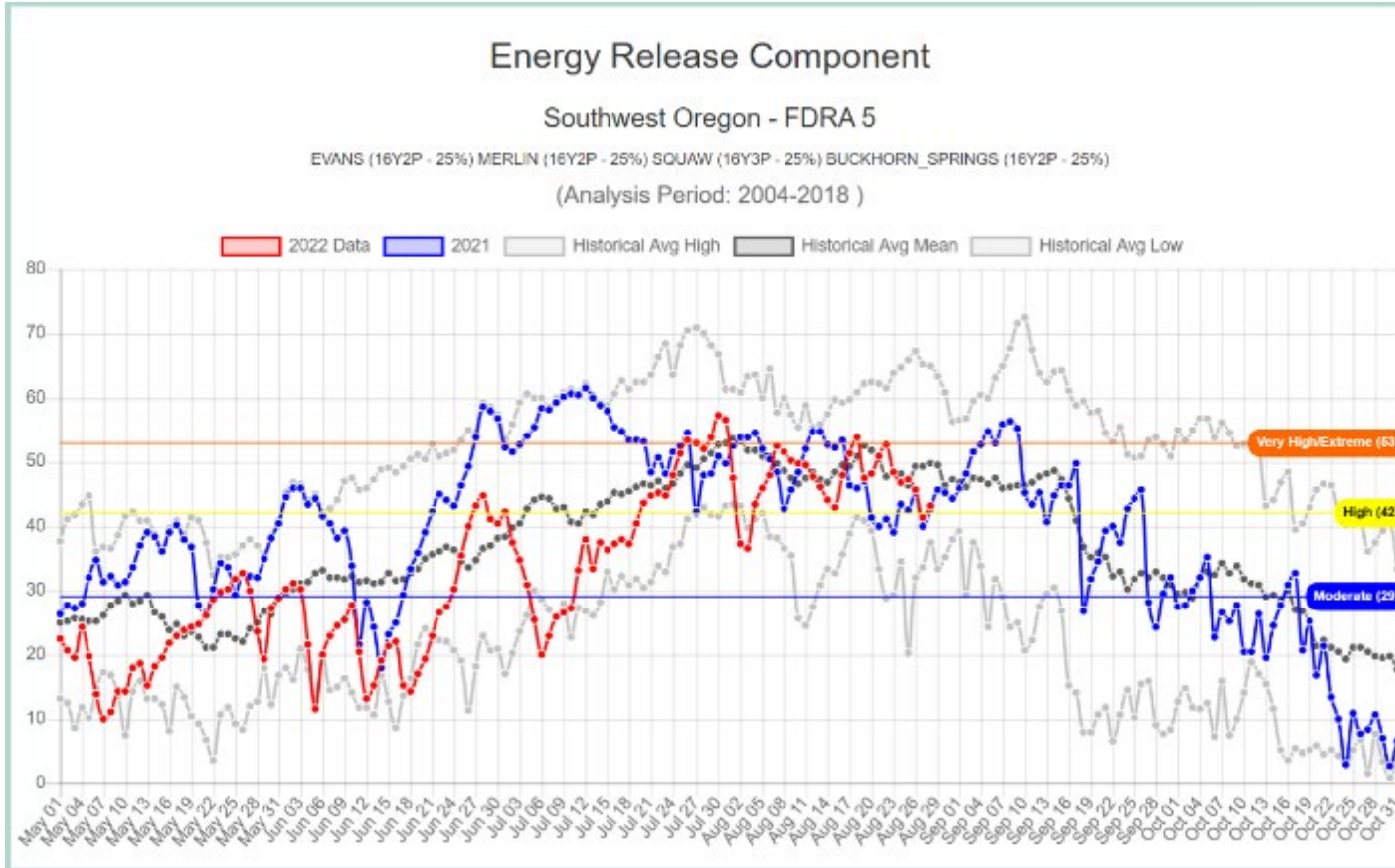


Fire Environment

- *NFDRS*
- *Pocket Cards*
- *Significant Fire Potential*



NFDRS



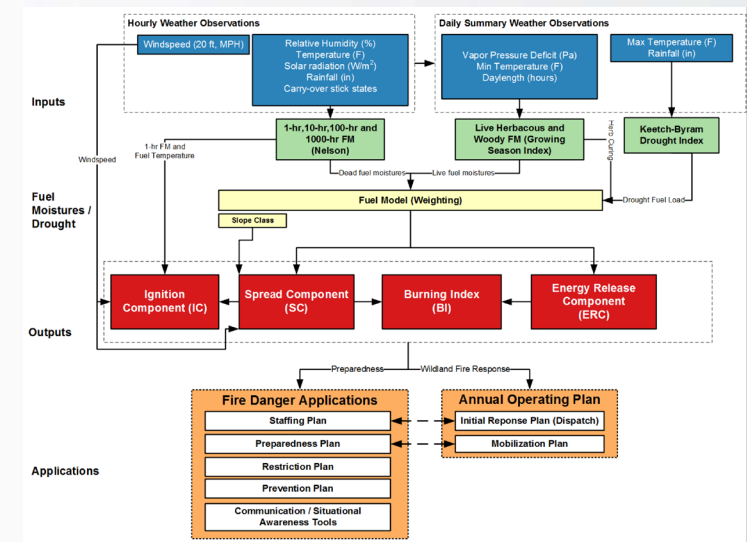
- NFDRS gives *ratings of potential* for fires to ignite, spread, and require suppression.
- **Outputs are shown in Charts, Pocket Cards, Fire Danger Operating Plans, Maps**

- The National Fire Danger Rating System (NFDRS) is a computer model that allows land management agencies to estimate fire danger across a landscape
- It is a decision support tool for management decisions and to support firefighter safety
- NFDRS was implemented in 1972 to give a consistent national approach to fire danger
- In 1994 ODF adopted the system and in 2022 ODF transitioned to the updated version 4 NFDRS



NFDRS Inputs and Outputs

| Inputs | Outputs |
|---|---|
| <ul style="list-style-type: none"> Historical weather data from Remote Automatic Weather Station (RAWS) (temp, RH, wind, etc.) Historical fire data (date, size, cost (ODF), location) Fuel model, topography, climate class | <ul style="list-style-type: none"> ERC (Energy Release Component) Available energy at the head of the fire (BTU/ft²) SC (Spread Component) Rating of the forward rate of spread (Ft/Min) BI (Burning Index) Difficulty to control fire Combination of ERC & SC IC (Ignition Component) Probability that a firebrand will cause a fire requiring suppression Fuel Moisture Estimates |



Fuel Models of NFDRS V4

Table 8
New fuel models for NFDRS V4 and their mappings to Fire Behavior Fuel Models (FBFMs) from Scott and Burgan

| FM Code | Fuel Type | FBFM Equiv | Code |
|---------|-------------|------------------|-----------|
| V | Grass | Grass 2 | GR2 (102) |
| W | Grass-Shrub | Grs-Shrub 2 | GS2 (122) |
| X | Brush | Shrub 9 | SH9 (149) |
| Y | Timber | Timber litter 1 | TL1 (181) |
| Z | Slash | Slash-Blowdown 2 | SB2 (202) |



NFDRS Pocket Cards

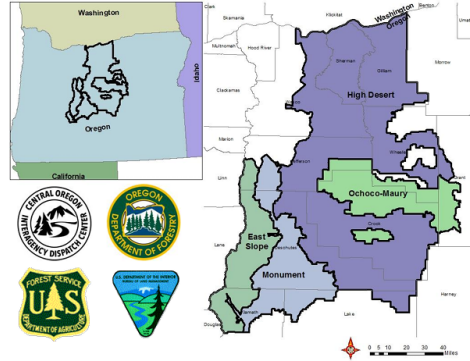
Central Oregon Interagency Fire Danger Pocket Card 2021

- National Forests: Ochoco NF, Deschutes NF
- Bureau of Land Management: Prineville District
- Oregon Department of Forestry: Prineville/Sisters Unit
- 4 Fire Danger Rating Areas
 - East Slope – Crest of the Cascades east to WUI boundaries
 - Monument – Newberry Volcanic Monument, Green Ridge, and WUI
 - High Desert – Lower Deschutes and John Day River canyons, shrub and grasslands
 - Ochoco-Maury – Western extent of the Blue Mountains

Local Thresholds for All FDRAs – Watchout

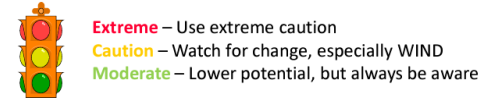
Combinations of any of these factors may greatly increase fire behavior!

- Sustained 20-foot Wind Speed over 10 mi/hr
- Relative humidity less than 20% (or overnight recovery less than 45%)
- Temperature over 80 degrees
- 1000 hr fuel moisture less than 11%

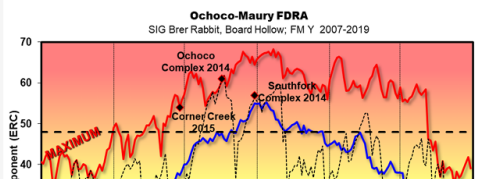
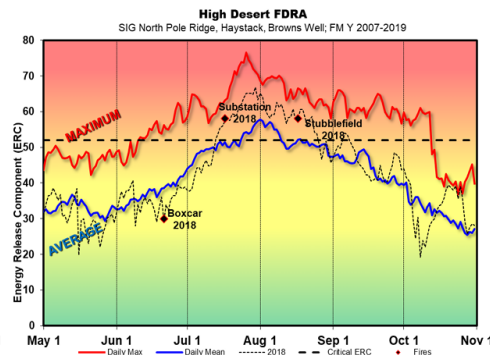
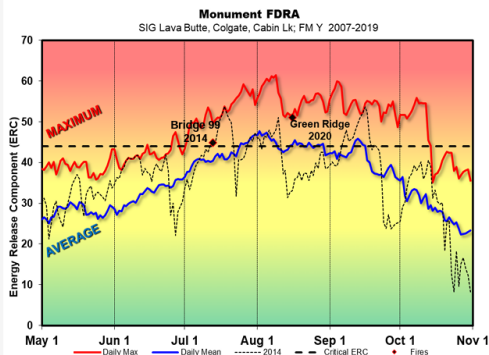
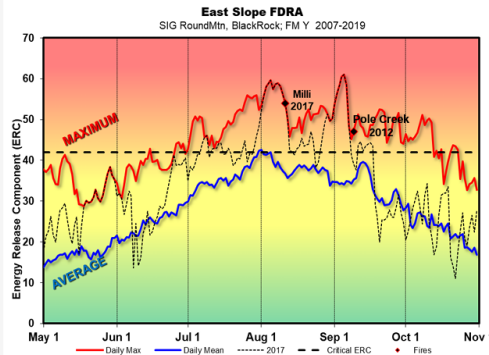


Interpretation of Charts:

- Title—Describes the Fire Danger Rating Area (FDRA) the chart applies to.
- Subtitle—Identifies weather stations (RAWS) utilized*, NFDRS fuel model, and years analyzed.
- MAXIMUM—Highest ERC recorded for that day during the analysis period.
- AVERAGE—Average ERC recorded for that day during the analysis period.
- Critical ERC—Threshold that captures the largest percentage of large fires in the lowest percentage of days as analyzed in FireFamily Plus.
- Year – Each FDRA chart graphs one recent year to remember.
- Fire name/year—ERC for the discovery date of a memorable fire.
- NFDRS 2016 Fuel Model Y—Timber



*All stations comply with NWCG weather station standards



Remember what Fire Danger tells you:

- ERC displays seasonal fire danger trends calculated from temperature, RH, solar radiation, and precipitation
- Wind speed is NOT part of the ERC calculation
- Watch local conditions and variations across the landscape (e.g., Fuels, Weather, and Topography)
- Obtain local weather forecasts, note the WIND forecast

Past Experience

- Large Fires are often the result of fire danger combined with abundant

- Created for every Fire Danger Rating Area using local parameters and thresholds
- Describes watch-out conditions and past fire experience in terms of NFDRS
- Many in Oregon are interagency cards
- Visit this web page for current ODF pocket cards or capture the QR code below:
<https://www.oregon.gov/ODF/Fire/Pages/firefighting.aspx>

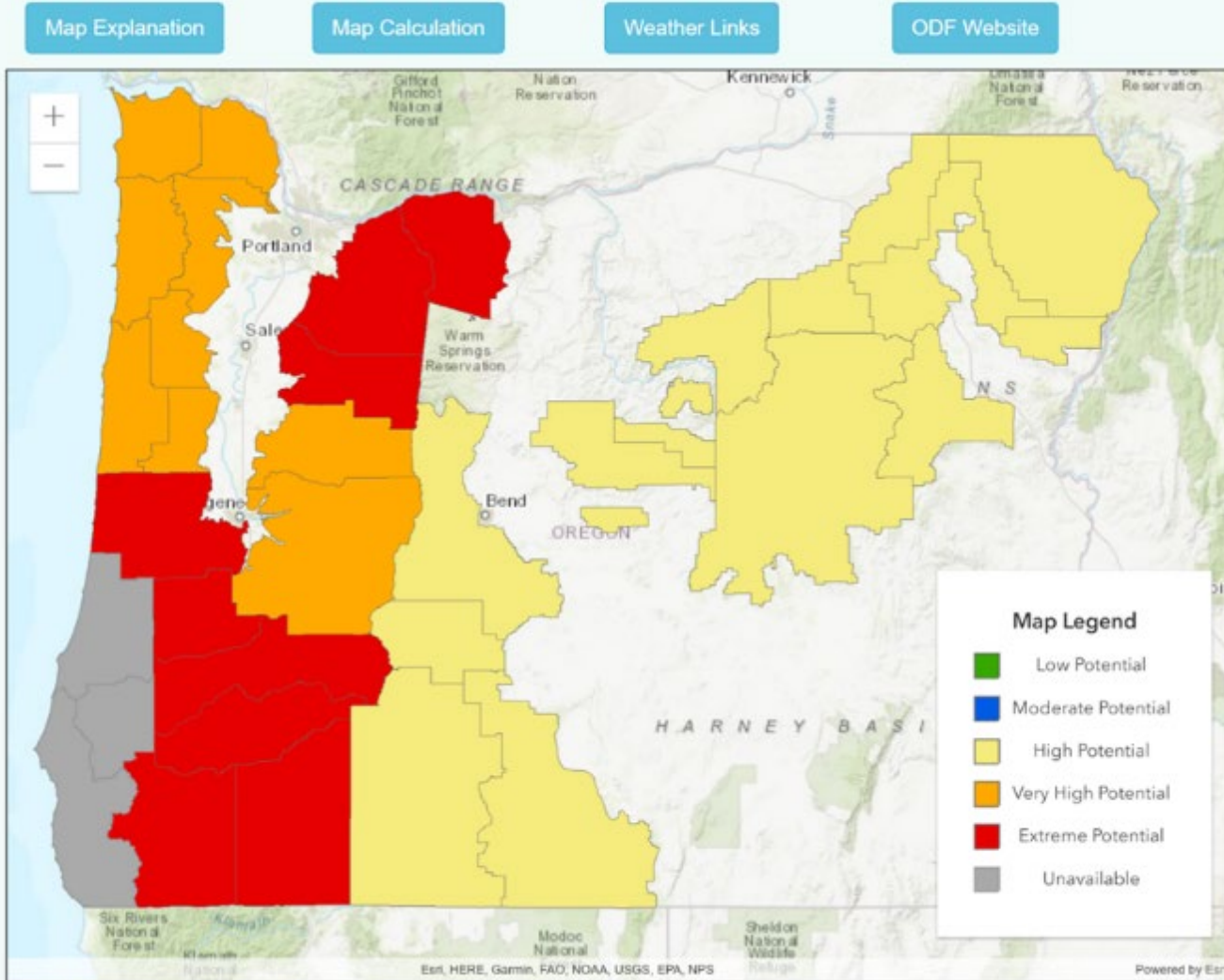


The ODF Significant Fire Potential Map displays ODF fire business thresholds indicating the potential for significant fires costing more than \$25K to occur. The map is not an [adjective class rating](#) or Fire Danger map, or a Regulated Use map. For Fire Danger maps try USFS WFAS [Observed](#) and [Forecasted](#) Fire Danger map products. For ODF Regulated Use and Industrial Fire Precaution Levels, please see the ODF [Statewide Regulated Use Map](#).

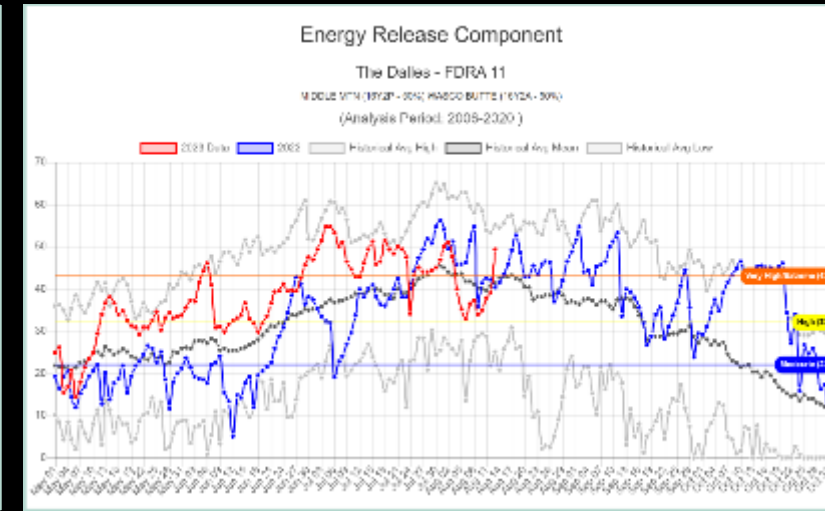
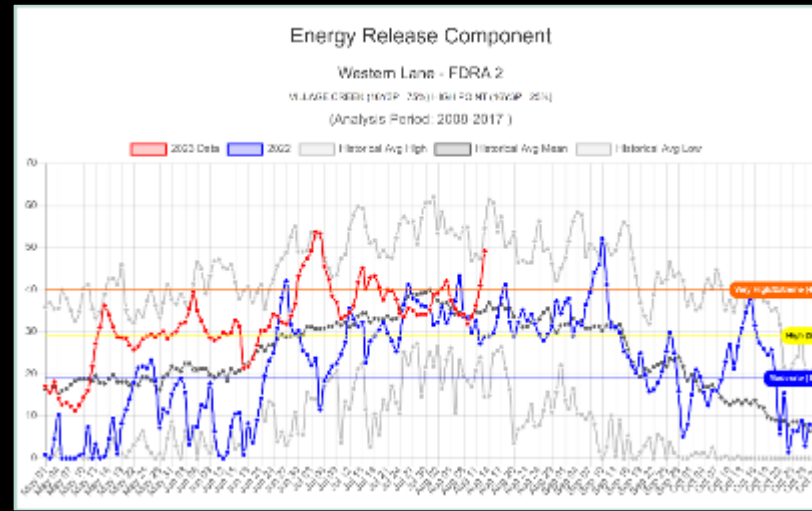
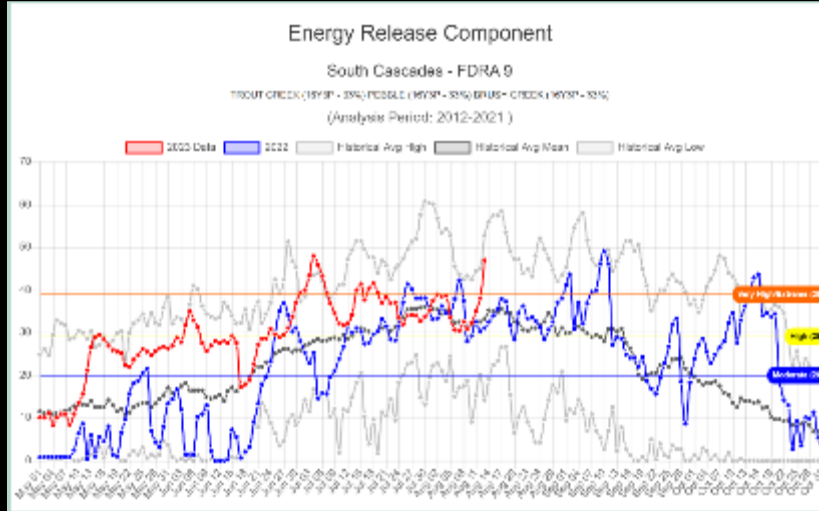


ODF Significant Fire Potential

- ODF has a website that charts daily NFDRS outputs for ODF Districts
<https://apps.odf.oregon.gov/SignificantFirePotential/#!/>
- The map shows the potential for large **costly** fires using an ODF cost factor
- Click any ODF District on the map to view daily NFDRS charts (ERC, etc.)



ODF significant fire potential – ERC - examples



South Cascade

Western Lane

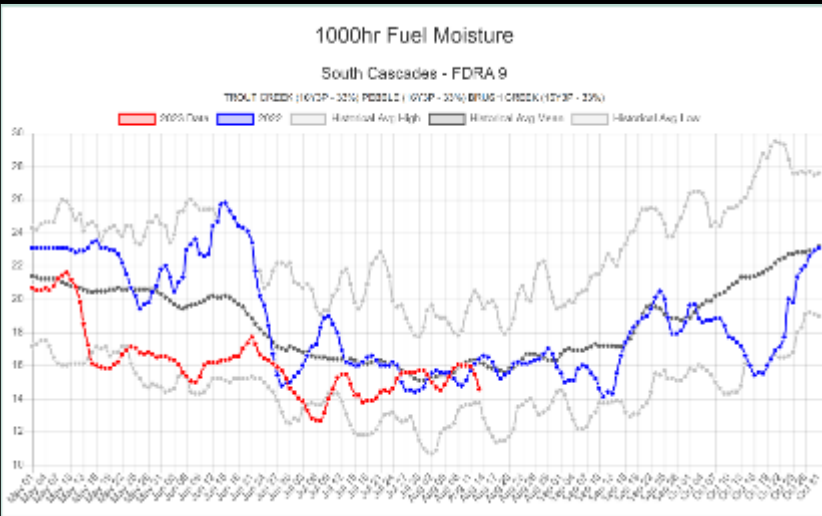
The Dalles

The potential for large costly fires in each District is shown as ERC thresholds from NFDRS, using a cost factor in addition to fire history and climatology.

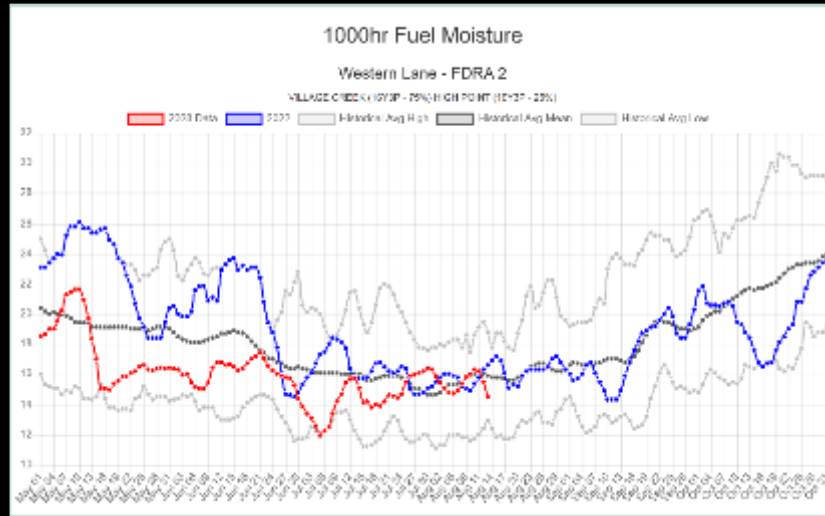
Energy Release Component (ERC)

Related to available energy at the flaming front of a fire, factors in live and dead fuel moistures, weighted toward heavy fuels and tracks the influence of drought over the season

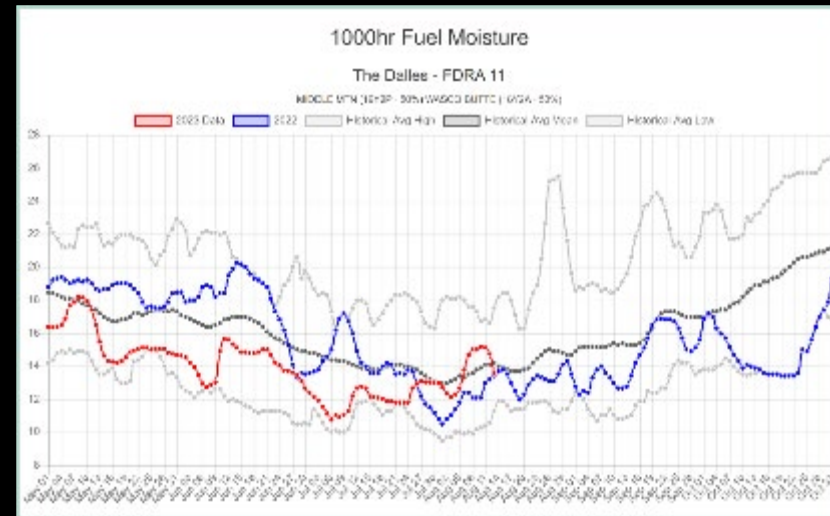
large fuel moistures - examples



South Cascade

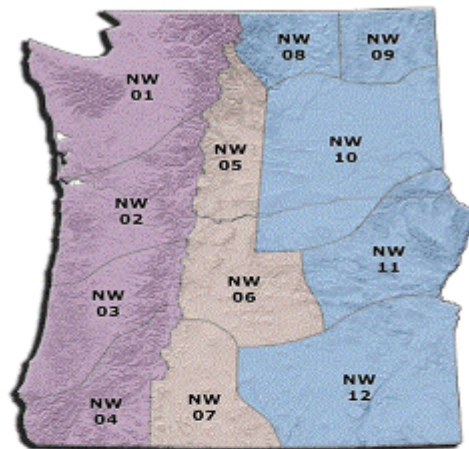
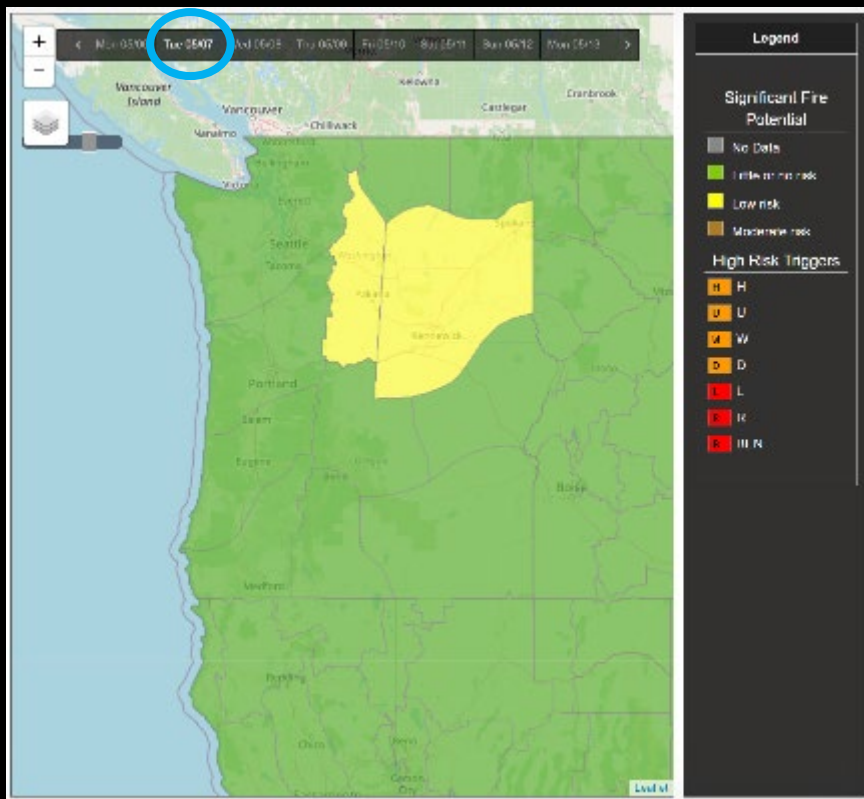


Western Lane



The Dalles

NWCC significant fire potential



Legend

Significant Fire Risk Levels

| | |
|------------------|--|
| Low | - The Overall Fire Environment suggests a very low risk for significant fires (less than 1% chance) |
| Moderate | - The Overall Fire Environment suggests a moderate risk for significant fires (1 - 4% chance) |
| Elevated | - The Overall Fire Environment suggests a moderately high risk for significant fires (5 - 19% chance) |
| High Risk | The risk for significant fire(s) is very high (≥ 20%) Triggers: 1. L (Significant Lightning) 2. BEN (Critical Burn Environment) |

The assessment of Significant Fire risk considers three main factors including: weather elements, number of ignitions, and background fire danger.

Significant Fire risk is derived objectively via statistical methods that combine all three factors. **High Risk** levels (≥ 20% probability of a significant fire) are usually due to numerous fire starts from lightning. Human fires don't often result in a large fire probability above 20%.

Pacific Northwest 7 Day Significant Fire Potential



Tuesday, 5/7/2024

| Predictive Service Areas | ytd | Today | Wed | Thu | Fri | Sat | Sun | Mon |
|--------------------------|-----|-------|-----|-----|-----|-----|-----|-----|
| NW01 | | | | | | | | |
| NW02 | | | | | | | | |
| NW03 | | | | | | | | |
| NW04 | | | | | | | | |
| NW05 | | | | | | | | |
| NW06 | | | | | | | | |
| NW07 | | | | | | | | |
| NW08 | | | | | | | | |
| NW09 | | | | | | | | |
| NW10 | | | | | | | | |
| NW11 | | | | | | | | |
| NW12 | | | | | | | | |

Fire Weather: Showers return this afternoon across much of western Oregon and Washington plus the Blue Mountains as low pressure exits the region. Significant warming and drying will occur under high pressure beginning Wednesday. High pressure is likely to remain well into next week, though a weak disturbance may bring some showers and drier thunderstorms to the eastern PSAs Sunday and Monday.

Refer to local NWS forecasts for details in your area.

Note: NWCC 7-day Significant Fire Potential Outlooks are issued Monday through Friday, excluding holidays, during the off season.

Fire Potential: Prolonged rain this past weekend will mitigate the risk of significant fire activity across most PSAs for several days. However, north-central Washington received very little rain. Snow free portions of that area will see significant fire potential increase sooner as the warming and drying occurs. ERCs will continue to climb into next week, though be offset where green-up is underway.

Fire Danger Trends:

https://gacc.nifc.gov/nwcc/application/v1/views/predict/fire_fuel_graphs.php

Preparedness Level:

Northwest: 1

National: 1

-Jon Bank

Fire Finances

- *Types of Employees*
- *Shift Tickets*
- *Supervisor Responsibility*
- *Meal Breaks*





Types of Employees

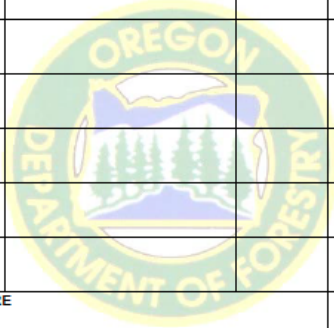
- Government (State, Federal, County, etc.)
- Contractors
- AD – temporary ODF employee
- Industrial – temporary ODF employee with timber industry experience
- Crews
 - Contract Crews (20 firefighters)
 - Inmate Crews (10 inmates)





Shift Tickets

| EMERGENCY EQUIPMENT/PERSONNEL SHIFT TICKET | | | | | 1. DIV/UNIT | 2. SHIFT | | | |
|--|--------------------------------|---|---|------------------------------|-----------------------------------|---------------------|----------------|---------------|--------------------------|
| 3. OWNER/CONTRACTOR (name) | | | | 4. CONTRACT/AGREEMENT NUMBER | | 5. RESOURCE REQ NO. | | | |
| 6. TYPE OF RESOURCE: GOVERNMENT <input type="checkbox"/> CONTRACT <input type="checkbox"/> PRIVATE <input type="checkbox"/> | | | 7. ORDERED DOUBLE SHIFTED YES <input type="checkbox"/> NO <input type="checkbox"/> | | 8. INCIDENT NAME | | | | |
| 9. INCIDENT NUMBER | | 12. REMARKS (released, down time and cause, problems, etc.) | | | | | | | |
| 10. EQUIPMENT TYPE | | 11. EQUIPMENT MAKE/MODEL | | 13. OWNER ID NUMBER | | | | | |
| 14. LICENSE, VIN, SERIAL OR TAIL # | | | | | | | | | |
| 15. DATE MO/DAY/YR | 16. EQUIPMENT USE (circle one) | | | 19. FLIGHT CODE | 20. OPERATOR/PERSONNEL NAME(S) | 21. JOB | PERSONNEL TIME | | 24. PERSONNEL SIGNATURES |
| | 17. BEGIN | 18. END | | | | | 22. BEGIN | 23. END | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 25. DIV SUP/ODF REP PRINT | | | SIGNATURE | | | 26. DATE SIGNED | | 27. POSTED BY | |



XXXXXX

- Personnel Shift Tickets– for crews
- Equipment Shift Tickets – for single resource and equipment



Supervisor Responsibility

- Review shift ticket for accuracy
- Sign shift ticket if you have witnessed the work, and make sure resource signature is there
- Collect the white and green copies of the shift ticket
- Supervisor turns the white shift ticket into finance
- Supervisor keeps the green copy of shift ticket as reference
- If resource has been notified of release, note the time and date of release on final shift ticket
- Equipment without an operator is not paid
- For contract firefighting crews, only the crew boss is paid for briefing
- At the end of the assignment, personnel will receive a time report showing hours worked on the incident.





Meal Breaks

- ODF employees receive paid meal breaks at an incident per union contract
- Contract firefighting crews record meal breaks on personnel shift tickets
- Other agency employees should follow their own agency policy regarding breaks on a fire



Safety and Risk Management

- *Overview*
- *Driving and Vehicle Use*
- *Claims*
- *Other Hazards*



- Work to Rest Ratio is 2:1, shifts should not exceed 16 hours per day
- After 14 days or before 21 days, a day of rest and rotation will be scheduled
- Accidents are reported to your immediate supervisor
- Incident Analysis Investigation Forms are completed for all injuries or accidents
- All injury or accident reporting forms are available from the Safety Officer
- Each agency is responsible to use their own forms for hospital or doctor visits

Safety & Risk Management Overview





Driving and Vehicle Use

Driving is one of the most dangerous things you will ever do at home and at work

- While on travel status requiring and overnight stay, a department vehicle may be used for transportation to meals and recreation
- Seatbelts are required at all times
- Cell Phones: Talking on a cell phone with a hands-free device while driving is acceptable in ODF vehicles and personal vehicles while on ODF business. Texting, e-mailing and holding a phone to your ear is not.

An Accident Report Packet for state-owned vehicles should be located in the glove box of every state-owned vehicle.





Claims

- If private property is damaged, property owners can file a claim through Risk Management
- Do not promise repair or reimbursement
- Forms are available in the Finance Section
- Claim forms are completed by the property owner and mailed to the address on the form





Other Hazards

- Smoke
- Poison Oak, Bees, Snakes, Bears
- Hazard trees and snags
- Abandoned mine shafts
- Steep, rugged terrain, rolling materials, loose and rocky soil
- Extreme weather conditions
- Downed power lines



—
Thank you

and welcome to Oregon

