



National Weather Service Pendleton

2023 Operating Plan

National Weather Service Pendleton

LOCATION:

National Weather Service Office
2001 NW 56th Dr.
Pendleton, OR 97801

Office Homepage: <https://www.weather.gov/pdt/>

Fire Weather Webpage: <https://www.weather.gov/wrh/fire?wfo=pdt>

Facebook Page: <https://www.facebook.com/US.NationalWeatherService.Pendleton.gov>

Twitter Page: <https://twitter.com/NWSPendleton>

Twitter Handle: @NWSPendleton

Each NWS office in the Pacific Northwest has a Facebook page, Twitter account, and a YouTube channel. Current information about Fire Weather may be included in social media feeds as time allows, but such information is intended as supplemental information for the general public; NWS use of social media is not intended to meet the specialized needs of the wildland firefighting community.

OFFICE PHONE NUMBERS (all available 24-hours):

General (541) 276-4493

Fax (541) 276-8253

CHANGES FOR 2023:

- Changes in staff—Our new Warning Coordination Meteorologist (WCM), Katy Branham, arrived from Boise, Idaho in 2022.
- Christel Bennese will be co-leader of the fire weather program.
- Matt Callihan will return for his second year as an IMET trainee. Thomas Schuldt will be a new IMET trainee this year.
- A significant change to the fire weather briefings. The event driven webinars will be replaced with routine webinars on Monday-Friday at 0930, excluding holidays. We will continue to provide the Sunday email outlook and PDF emails on Saturday and

holidays, if conditions warrant (see “Weather Briefings” for more details). NWS Pendleton will have a dedicated Impact Decision Support Service (IDSS) shift during the weekdays to allow for improved services to our partners and public. An announcement to the first day of the webinars will be sent via email as we approach fire season.

FORECAST DISTRICT:

The Pendleton Fire Weather District covers the east slopes of the Cascade Mountain range from the Deschutes National Forest north to the Wenatchee National Forest in Kittitas County, Central Oregon, the northeast quadrant of Oregon (including Wallowa county, portions of Baker county, and Harney county north of highway 20), and Southeast Washington (Benton, Franklin, Klickitat, Yakima, Kittitas, Walla Walla, Columbia, Garfield, and Asotin counties).

Dates:

The Pendleton Fire Weather Program is committed to a program with staff trained to respond to incident needs 24 hours per day, 7 days a week. The dates are flexible to meet conditions and the needs of the community:

Spring / Fall Burning Seasons:

May 1st – May 31th and October 1nd – October 31st

Summer Peak Wildfire Season:

June 1st – September 30th

STAFF:

<u>Name</u>	<u>Position</u>	<u>email Address</u>
Mike Vescio	Meteorologist-in-Charge	
Edward Townsend	Science and Operations Officer	
Katy Branham	Warning Coordination Meteorologist	
Mary Wister	Fire Weather Program Leader/IMET	mary.wister@noaa.gov
Christel Bennese	Co-Fire Weather Program Leader	christel.bennese@noaa.gov
Matt Callihan	IMET trainee	
Thomas Schuldt	IMET trainee	

There will be always be a forecaster on shift certified to issue spot forecasts and will remain annually proficient.

WEATHER BRIEFINGS:

NWS Pendleton will continue to provide a weekly outlook for fire weather every Sunday by 1500 PDT beginning April 30 through the end of October (or longer if necessary) again this season. A series of slides will demonstrate the impacts through the week.

In addition, forecasters will provide a routine webinar from Monday through Friday at 0930 PDT via GoToWebinar. The starting date for the webinar will be announced as weather and fuels become drier (typically mid-May). Copies of the presentation slides will be provided shortly after the webinar.

On Saturdays and holidays, an email will be provided before 1500 PDT that will discuss fire concerns in the next 3-5 days that meet the “yellow” or higher criteria seen below.

Fire Weather Impact Level Table

Situation	Fire Weather Watch or Red Flag Warning	Impact Level
Impactful fire weather not expected	No	1
Elevated fire danger (highlight the impact as a headline in RFW)	No	2
Low-end Red Flag Event (High Fire Danger)	Yes	3
Abundant Lightning with LAL 3 or higher and not accompanied by significant rainfall (> than 0.25").	Yes	3
Wind and Low RH	Yes	3
Dry and Unstable Air Mass	Yes	3
Moderate- or high-end Red Flag event (Extreme fire danger with large ongoing fires)	Yes	4
Red Flag Event with extreme wildfire conditions with large ongoing fires (e.g., Labor Day 2020)	Yes	5

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As always, please contact the office at (541) 276-4493 for any concerns or questions you have. Weather consultation is available 24 hours per day, year round, by calling the fire weather desk.

FORECAST SERVICES:

Forecast Grids/Graphics:

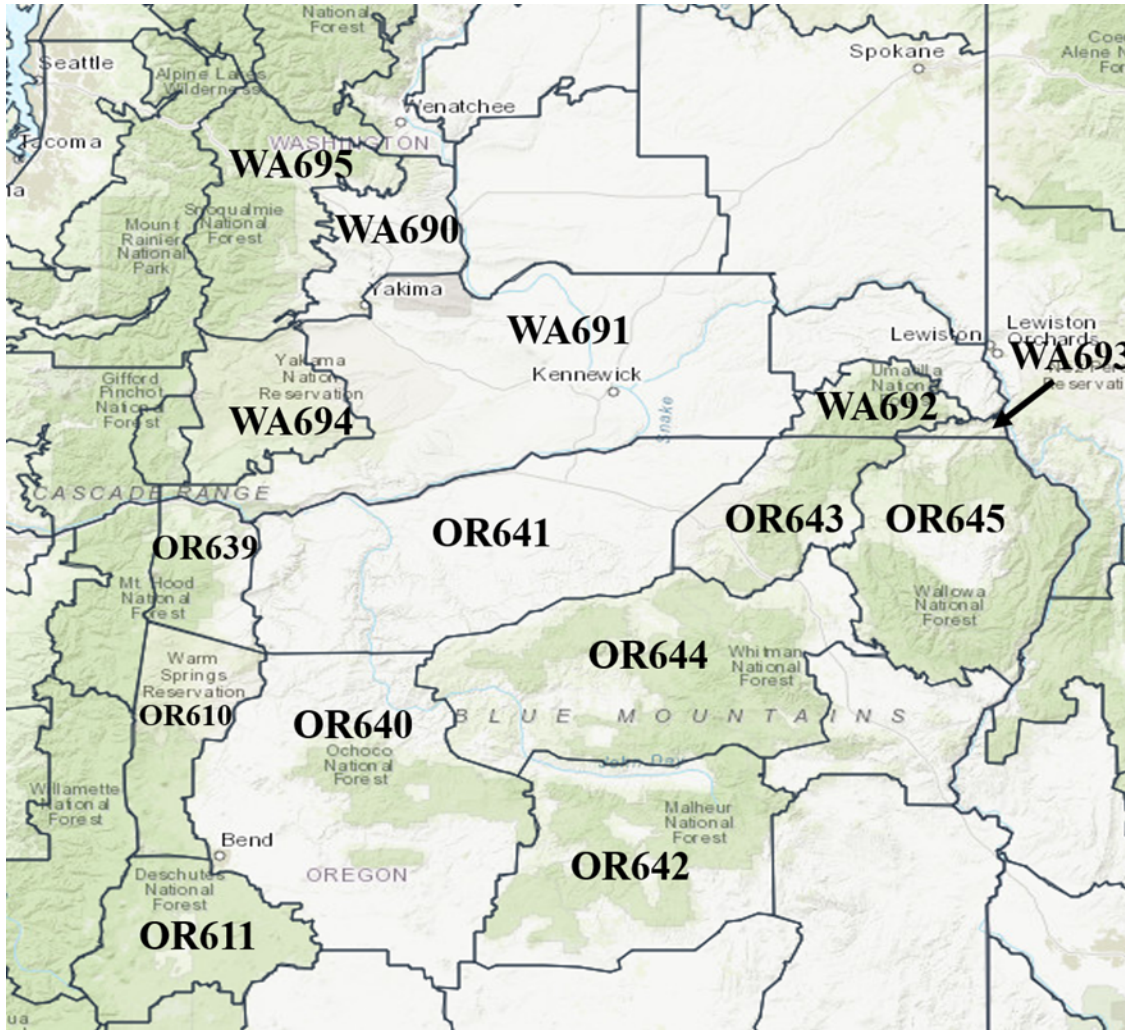
Fire Weather Planning Forecasts:

Fire Weather Planning Forecasts are available twice a day 7 days a week no later than 0700 PDT and 1500 PDT.

The Pendleton Fire Weather forecast area of responsibility is sectioned by Fire Weather Zones. OR641/WA691, OR643/WA692, and OR645/WA693 will typically be combined into single zone forecasts unless conditions warrant separating them. This usually results in 11 separate zone forecasts. These zones are based on terrain, elevation, weather characteristics, and political boundaries. Please see the district map on the following page for specific outlines of the Fire Weather Zones.

The zone names are as follows:

- OR610 – East slopes of the central Oregon Cascades
- OR611 – Deschutes National Forest
- OR639 – East slopes of the northern Oregon Cascades
- OR640 – Central Oregon Mountains
- OR641 – Columbia Basin of Oregon
- OR642 – Southern Blue and Strawberry Mountains
- OR643 – Northern Blue Mountains of Oregon
- OR644 – Central Blue Mountains
- OR645 – Wallowa District
- WA690 – Kittitas Valley
- WA691 – Lower Columbia Basin of Washington
- WA692 – Blue Mountains of Washington
- WA693 – Southeast Washington Grande Ronde Valley
- WA694 – Yakama Alpine District
- WA695 – East Slopes of the South Central Washington Cascades



Fire Weather Watch and Red Flag Warnings:

Specific Red Flag criteria differ for each situation and district. The following are criteria that would warrant the issuance of a Fire Weather Watch or Red Flag Warning in the Pendleton Fire Weather area of responsibility:

Underlying conditions:

Fire Weather Watches or Red Flag Warnings are issued when the fuels will readily burn and weather conditions will promote extreme burning. The three steps below are forecaster guidelines for determining the need for a watch/warning.

1. Refer to GACC “Overall Fire Environment” for probability of large fires. Levels should not be Green (less than 1% chance).
2. The forecaster is required to check with fire/land management agencies to ensure fuels are considered critically dry enough to carry or spread fire. Usually, the fire weather program manager will have already done this and declare when a zone is eligible for RFWs for the remainder of the season.

However, if a forecaster strongly feels that a RFW is needed but a zone has not yet been declared eligible, the forecaster can check with the fire/land management agencies themselves via the morning briefing call or with individual phone.

3. Forecasters should have a high degree of confidence (60% for watch, 80% warning) that the Red Flag weather event will occur.

Red Flag Warning Criteria:

Any single event, or a combination, of the following events combined with critically dry fuels is criteria for the issuance of a Fire Weather Watch or a Red Flag Warning depending on the lead time:

- **LIGHTNING:** Abundant lightning in conjunction with sufficiently dry fuels (fuels remain dry or critical during and after a lightning event). Warnings are not typically issued for isolated coverage events. Warnings not typically issued for events that will be accompanied by significant rain (greater than 0.25 inches). However, if a lightning event will occur with significant rain, but is then followed by very hot and dry conditions, a warning may be issued if holdover/sleeper fires are a concern.

Resulting Impact of the Event: Numerous fire starts can spread fire resources too thin resulting in a greater likelihood of a start becoming a large and potentially costly wildfire.

- **DRY & UNSTABLE AIRMASS:** High elevation Haines Index of 6 in combination with RH of 15% or less over half or more of a zone. Warnings may also be issued for a Haines 5 in situations where large fires may be impacted. Ground truth indicates that there is very little to no difference in fire activity between Haines 5 and Haines 6 days.

Resulting Impact of the Event: Very dry and very unstable conditions create a high likelihood that a fire start will exhibit explosive growth and extreme burning conditions. Extreme fire behavior is possible including rotating smoke columns and fire whirls (a.k.a. fire tornados) along with an increased threat to fire fighter safety. Note: this event does not start fires but can have a significant impact to ongoing fires.

- **WIND & LOW HUMIDITY:** Significant sustained winds combined with low relative humidity (this includes significant dry cold frontal passages) that meets the criteria as defined below at **TWO** or more RAWS locations simultaneously for two consecutive hours. Other supplementary locations (converted to RAWS 20 foot/10 minute average wind standards) may also be used if they are deemed representative of burning conditions at the time.

Zone OR639: Relative Humidity at 20% or less **AND** sustained wind speed 10 mph or greater.

Zone OR610: Relative Humidity at 15% or less **AND** sustained wind speed 10 mph or greater. Haystack RAWS (located in zone OR640) will be included for verification purposes in this zone as well.

Zone OR611: Relative Humidity at 15% or less **AND** sustained wind speed 10 mph or greater. Timothy RAWS (located in zone OR624) will be included for verification purposes in this zone as well.

Zone WA690: Relative humidity of 20% or less **AND** wind speed 15 mph.

Zone WA695: Relative humidity of 25% or less **AND** wind speed 15 mph.

Zones OR640, OR/WA641, OR642, OR/WA643, OR644, OR/WA645, WA675, & WA681: Refer to the following tables:

Columbia Basin - Zones OR641/WA691		Sustained Wind (MPH) Over Widespread Area				
		10	15	20	25	30+
RH	35%					W
	30%				W	W
	25%			W	W	W
	20%		W	W	W	W
	15%		W	W	W	W
	10%		W	W	W	W

The Central and Northeast Oregon Mountains / Yakama Alpine - Zones OR640, OR642, OR643, OR644, OR645, WA692, WA693 and WA694

		Sustained Wind (MPH) Over Widespread Area				
		10	15	20	25	30+
RH	30%					W
	25%				W	W
	20%			W	W	W
	15%		W	W	W	W
	10%		W	W	W	W

Red Flag Warning Dissemination:

A Red Flag Warning dissemination call list has been established in order to rapidly disseminate Fire Weather Watches, Red Flag Warnings, or other rapidly changing weather conditions that do not necessarily meet Red Flag criteria, but will affect fire control or pose a safety threat. **NWS Pendleton will contact the affected dispatch centers who will then contact other affected land management agencies in those zones per the following Table:**

Red Flag Warning dissemination call list to Dispatch Centers

NWS PDT



Zone WA = Washington OR = Oregon	ORBMC 541- 963-7171	ORCOC 541- 316-7772	ORJDC 541- 575-1321	WACCC 360- 891-5140	WACWC 509- 884-3473	WAHNC 509- 373-3221	ORWSC 541- 553-2413	WAYAC 509- 865-6653
OR 639				▲				
OR 610		▲					▲	
OR 611		▲						
OR 640		▲						
WA691	▲			▲	▲	▲		▲
OR 641	▲	▲						
OR 642	▲	▲	▲					
WA692	▲							
OR 643								
OR 644	▲							
WA693	▲							
OR 645								
WA690					▲			▲
WA695					▲			

▲ Indicates to call Dispatch Center(s) based on which zone(s) warning(s) issued for.

ORBMC = Blue Mountain Interagency Dispatch

ORJDC=John Day Dispatch

ORCOC = Central Oregon Dispatch

WACWC=Central Washington Dispatch

WAHNC = Hanford Fire

WACCC = Columbia Cascade Dispatch

WAYAC=Yakama BIA Dispatch

ORWSC=Warm Spring BIA

IMET Support:

Forecasters at National Weather Service Pendleton will provide 24-hour forecast support to IMETs that may be dispatched in the local area. Forecasters will communicate either through direct phone calls, video conferencing, Google chat,, or the use of NWSChat..

NON-FORECAST SERVICES:

All requests for teaching assignments, customer meetings, and customer consultations will be honored provided they are scheduled more than three weeks ahead of time. Every effort will be made to honor requests made within a period of less than three weeks depending on schedule availability. Please contact Mary Wister or Christel Bennese at NWS Pendleton (541) 276-4493, or by e-mail (mary.wister@noaa.gov and christel.bennese@noaa.gov) to schedule these services.

Zone	Name	NFDRS	Type	Agency	Lat	Long	Elev	Slope/Aspect
OR639	Middle Mtn	350812	RAWS	ODF	45.5794	121.5970	2500	N-S Ridge
OR639	Pollywog	350912	RAWS	USFS	45.4586	121.4464	3320	Lwr slope-S
OR639	Wamic Mill	350913	RAWS	USFS	45.2333	121.4500	3320	Upr slope-S
OR639	Wasco Butte	350919	RAWS	ODF	45.6167	121.3353	2345	Butte top
OR610	Sidwalter	350909	Manua l	BIA	44.925	121.5347	3600	Butte top-NW
OR610	Mt Wilson	350916	RAWS	BIA	45.0397	121.6736	3780	Midslope-SW
OR610	Mutton Mtn	350917	RAWS	BIA	44.9255	121.1978	4100	S-N Ridge
OR610	He He 1	350920	RAWS	BIA	44.9559	121.4992	2689	Flat
OR610	Shitike Butte	352102	Manua l	BIA	44.7449	121.6106	5000	Butte top
OR610	Eagle Butte	352106	Manua l	BIA	44.8399	121.2338	3100	Butte top
OR610	Warm Springs	352108	RAWS	BIA	44.7750	121.2541	1632	Valley

OR610	Metolius Arm	352110	RAWS	BIA	44.6275	121.6147	3440	Butte-SW
OR610	Colgate	352620	RAWS	USFS	44.3156	121.6022	3280	Flat
OR611	Round Mtn	352605	RAWS	USFS	43.7575	121.7102	5900	Butte top
OR611	Lava Butte	352618	RAWS	USFS	43.9253	121.3429	4655	Butte top-S
OR611	Tepee Draw	352622	RAWS	USFS	43.8322	121.0842	4740	Lwr slope-E
OR611	Black Rock	353342	RAWS	USFS	43.527	121.8090	4880	Lwr slope-S
OR611	Cabin Lake	353402	RAWS	USFS	43.4956	121.0597	4545	Flat
OR611	Tumalo Ridge	352621	RAWS	ODF	44.0493	121.4001	4000	Ridge-NW
OR640	Haystack	352107	RAWS	USFS	44.4494	121.1297	3240	Flat
OR640	Brown's Well	353428	RAWS	BLM	43.5628	121.2360	4500	Flat knob-SW
OR640	Cold Springs	352701	RAWS	USFS	44.3550	120.1335	4695	Flat
OR640	Salt Creek	352712	RAWS	BLM	44.0467	120.6694	4200	Flat
OR640	Badger Creek	352711	RAWS	USFS	44.0311	120.4083	5680	Midslope-flat

OR640	Slide Mountain	352207	RAWS	USFS	44.4622	120.2945	5700	Upr slope-NE
OR640	Brer Rabbit	352208	RAWS	USFS	44.333	119.770	5900	Valley-S
OR640	Board Hollow	352109	RAWS	ODF	44.6038	120.6847	4200	Ridge-flat
WA691	Juniper Dunes	453201	RAWS	BLM	46.3575	118.8683	950	Flat
WA691	Goldendale	452408	RAWS	DNR	45.881	120.634	1690	Flat knob-S
WA691	The Dalles	452406	ASOS	FAA	45.6190	121.1657	210	W-E valley
WA691	Saddle Mtn	452701	RAWS	USFWL	46.6944	119.6936	650	Flat
OR641	Patjens	351001	RAWS	BLM	45.3219	120.9292	2230	Ridge-SW
OR641	North Pole Rdg	350915	RAWS	BLM	45.0329	120.5357	3500	Ridge-W
OR641	Umatilla NWR	351316	RAWS	USFWL	45.9180	119.5675	270	Flat
OR642	Crow Flat	353515	RAWS	USFS	43.8413	118.9521	5130	Valley-S
OR642	Allison	353501	RAWS	USFS	43.9214	119.5964	5320	Valley-S

OR642	Fall Mountain	352327	RAWS	USFS	44.2970	119.0370	5949	SW-NE Ridge
OR642	Antelope	353524	RAWS	BLM	44.0384	118.4163	6460	N-S Ridge
OR642	Crane Prairie	352305	RAWS	USFS	44.1601	118.4704	5373	Valley-S
OR642	Yellowpine	352124	RAWS	USFS	44.5263	118.3230	4200	Lwr slope-E
WA692	Alder Ridge	453803	RAWS	USFS	46.2685	117.4983	4550	Ridge-S
OR643	Eden	351518	RAWS	USFS	45.8763	117.6160	3500	Upr slope-S
OR643	Black Mtn Rdg	351319	RAWS	USFS	45.5738	118.2385	4965	Ridge-Sw
OR643	LaGrande 1	351417	RAWS	ODF	45.5508	118.0133	3079	Lwr slope-E
OR644	Case	352329	RAWS	USFS	44.9711	118.9297	3800	Ridge-flat
OR644	Tupper	351202	RAWS	USFS	45.0667	119.4925	4200	Lwr slope-S
OR644	Board Creek	352330	RAWS	BLM	44.5930	119.2770	5000	Ridge
OR644	Keeney 2	352332	RAWS	USFS	44.6661	118.9219	5120	Ridge
OR644	J Ridge	351414	RAWS	USFS	45.1135	118.4051	5180	Upr slope-SE

OR644	Elk Creek	352126	RAWS	USFS	44.7577	117.9711	6576	Upr Slope
OR645	Point Prom 2	351419	RAWS	USFS	45.3547	117.7044	6600	N-S Ridge
OR645	Roberts Butte	351520	RAWS	USFS	45.6811	117.2067	4300	N-S Ridge
OR645	Harl Butte	351502	RAWS	USFS	45.3282	116.8774	6071	Butte top-S
OR645	Sparta Butte	352418	RAWS	USFS	44.8850	117.3383	4300	Midslope-SW
WA690	Ellensburg	452203	ASOS	FAA	47.03	120.54	1560	NW-SE valley
WA694	Signal Peak	452307	RAWS	BIA	46.2269	121.1375	5052	Ridge-S
WA694	Mill Creek	452304	RAWS	BIA	46.2625	120.8622	2928	Midslope-flat
WA694	Teepee Creek	452317	RAWS	BIA	46.1642	121.0331	2980	Midslope-flat
WA694	Grayback	452404	RAWS	DNR	45.9908	121.0838	3766	Ridge
WA694	High Bridge	452318	RAWS	BIA	46.0811	120.5440	2106	Midslope-N
WA695	Sedge Ridge	452306	RAWS	DNR	46.58	120.90	4300	Ridge

WA695	Sawmill Flats	452221	RAWS	USFS	46.98	121.08	3500	Midslope-S
WA695	Peoh Point	452206	RAWS	DNR	47.15	120.95	4020	Midslope-NE
WA695	Swauk	452219	RAWS	USFS	47.25	120.67	3773	Upr slope-N