

PENDLETON FIRE WEATHER OPERATION PLAN 2009

LOCATION:

National Weather Service Office
2001 NW 56th Dr.
Pendleton, OR 97801
Office website: <http://weather.gov/pendleton>

NEW FOR 2009:

Reorganized Red Flag Warning dissemination call list.
Expanded Red Flag Warning threat grids on briefing page.

OFFICE HOURS:

The Pendleton Fire Weather Program is committed to a program with staff trained to respond to fire weather needs 24 hours per day. Fire Weather shifts will be scheduled during the following times:

Land Management Season Shifts: 7:00 AM - 4:00 PM Monday - Friday.
Beginning late March or early April - May and late September - October.

Fire Season Shifts: 7:00 AM - 4:00 PM 7 days a week
Beginning late May or early June to late September.

The National Weather Service office in Pendleton is open 24 hours a day , 7 day a week and is fully staffed. **However, under the provisions of the National Agencies/NWS Agreement, special services provided by the Pendleton Fire Weather office will be done on a reimbursable basis.**

OFFICE PHONE NUMBERS:

Fire Weather Desk	(541) 276-8134
General	(541) 276-4493
Fax	(541) 276-8253

STAFF:

<u>Name</u>	<u>Position</u>	
Mike Vescio	Meteorologist-in-Charge	michael.vescio@noaa.gov
Dennis Hull	Warning Coordination Meteorologist	dennis.hull@noaa.gov
Jon Mittelstadt	Science and Operation Officer	jon.mittelstadt@noaa.gov
Joe Solomon	Fire Weather Program leader	joe.solomon@noaa.gov

All Senior and Journeyman Forecasters will train and be certified to issue all forecasts from the Fire Weather desk. However a **core group** of 4-6 forecasters will provide the majority of forecasts during the height of fire season.

<u>Name</u>	<u>Position</u>
<u>Joe Solomon</u>	Fire Weather Program Leader / Senior Forecaster / IMET
<u>Mary Smith</u>	Senior Forecaster
Roger Cloutier	Senior Forecaster
Vincent Papol	Senior Forecaster
<u>Gordon Hepburn</u>	Senior Forecaster
<u>Jon Bonk</u>	Journeyman Forecaster / IMET
<u>Robert Cramp</u>	Journeyman Forecaster
<u>Diann Coonfield</u>	Journeyman Forecaster
Alan Polan	Journeyman Forecaster
<u>George Perry</u>	Journeyman Forecaster
Diana koester	Journeyman Forecaster
Rachel Calder	Journeyman Forecaster

COMMUNICATIONS:

All forecasts, including spot forecasts, are input into the National Weather Service communication system, WIMS and on Pendleton's Internet home page. Forecasts can also be faxed to customers who do not have access to these systems. Internet address is: <http://weather.gov/pendleton>

WEATHER BRIEFINGS:

Internet based weather briefings will be held at 0930 PDT beginning in May. During Land Management season briefings will be held on Monday and Thursday. During peak fire season, normally mid June-September briefings will be held daily. Phone briefings are available 24 hours per day at 541-276-8134.

AGENCIES SERVED:

USFS: United States Forest Service;

Deschutes National Forest, Mt. Hood National Forest, Ochoco National Forest, Umatilla National Forest, Malheur National Forest, Wallowa-Whitman National Forest.

BLM: Bureau of Land Management;

Burns, Vale, Prineville, Spokane

NPS: National Park Service & Scenic areas;

John Day Fossil Beds National Monument, Whitman Mission National Historic Site, Columbia River Gorge Scenic Area

BIA: Bureau of Indian Affairs;

Umatilla Indian Agency, Warm Springs Indian Agency, Yakama Indian Agency

USF&W: United States Fish and Wildlife;

Hanford Reach National Monument & Saddle Mountain Refuge, Mid-Columbia Wildlife Refuge Complex (Cold Springs, McNary, McKay, Umatilla & Toppenish)

ODF & DNR: State Forestry Departments; Oregon Department of Forestry (Northeast Oregon District, Central Oregon District & Walker Range District), Washington Department of Natural Resources Southeast Division

County and Local Fire Jurisdictions in southeast Washington, central and northeast Oregon.

Dispatch Centers; Burns, Central Oregon, Central Washington, Northeast Oregon, Pendleton, Columbia Cascade, Hanford fire, Warm Springs BIA and Yakama BIA.

FORECAST SERVICES:

Land Management and Fire Weather Planning Forecasts:

Routine land management planning forecasts are issued seasonally in the early and late part of the burning season. They are available twice a day Monday through Friday by 0900 and 1530 PDT. Specific start and stop dates are coordinated with customer agencies. Routine fire weather planning forecasts are available twice daily during the heart of the fire season, usually from early June through late September. They will be issued by 0900 and 1530 PDT.

Spot forecasts/FARSITE/Special request Forecasts:

Spot forecast and **FARSITE weather data** are available year round for wildfires, prescribed fires, or any other critical land management activities conducted by ALL land management agencies. The NWS will support non-federal, non-wildfire activities such as HAZMAT and search and rescue. We are urging land managers to customize spot forecast requests for the parameters that are needed and provide critical weather thresholds that may adversely impact the burn, such as wind, relative humidity, or burn period. This will allow the forecaster to concentrate on the specific data and time line needed rather than a host of parameters that may be of little interest. Spot forecasts take precedence over normal office duties. **As implemented in 2003, the Region 6 National Weather Service offices will: require at least one observation from the fire site for prescribed spot requests. In addition valid times for spot forecasts will be 12 hours from issuance.**

Information required by the fire weather forecaster from the requesting agency is found on our internet web site: <http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=pdf> NWS form D-1, items 1-12, can be used for fax requests.

Feedback of how well the forecast verified is extremely valuable in order to provide more accurate subsequent forecasts. As such, the forecasters in Pendleton request all observations taken from the burn site be sent to our office. This may be accomplished through FAX or electronically.

NFDRS Forecasts

A numerical forecast is prepared and disseminated to WIMS by 1540 each afternoon from June through September. The forecasts are used to compute the expected NFDRS

indices valid for the following day. The number of NFDRS indices forecast by the weather office depends only on the number of NFDRS observations input into WIMS by the fire agencies. If observations are not entered into WIMS by 1500, a forecast will not be produced for that station.

Incident Meteorologist Services

Pendleton has certified Incident Meteorologists (IMETS) on staff available for wildfire, HAZMAT, or other emergency dispatches. To request an IMET, contact the appropriate fire agency dispatch office.

NON-FORECAST SERVICES:

There are several duties that fall into the non-forecast services, including but not limited to teaching assignments, customer meetings, customer consultations, preparation of annual reports, preparation of annual operating plans, program management, research and in-house training of personnel.

There is a need for advanced notice (**3 weeks**) for teaching assignments, customer meetings and consultations. The NWS-NWSEO Negotiated Agreement provides rules for scheduling of bargaining unit employees. NWS management has limitations regarding modification of the work schedule after it has become fixed without paying overtime.

All requests for teaching assignments, customers meetings and customer consultations will be honored provided they are scheduled more than three weeks ahead of time, and they do not conflict with other Fire Weather commitments. Every effort will be made to honor requests within three weeks pending schedule availability. For training requests, please contact Joe Solomon at NWFO Pendleton (541) 276-8134 or by e-mail joe.solomon@noaa.gov

FIRE WEATHER WATCHES 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 Districts:

Criteria:

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 or warning.

1. Refer to GACC “Dryness Level” for initial fuel moisture evaluation. Levels should be at a (Yellow) or higher (Brown).
2. The forecaster is required to check with fire/land management agencies to ensure fuels are dry and considered critical enough to carry or spread fire.
3. Forecasters should have a high degree of confidence (60% for watch, 80% warning) that the weather event will occur.

Any one, or a combination of the following events combined with very dry fuels are criteria for the issuance of a Fire Weather Watch or a Red Flag Warning depending on the lead time:

- **LIGHTNING:** Abundant lightning (scattered thunderstorm coverage or greater) in conjunction with sufficiently dry fuels (fuels remain dry or critical during and after a lightning event). Warnings not needed for isolated coverage.
- **DRY & UNSTABLE AIRMASS:** High elevation Haines Index of 6 in combination with RH of 15% or less over half or more of a zone.
- **WIND & LOW HUMIDITY:** Significant sustained winds combined with low relative humidity (this includes significant dry cold frontal passages) which meet the criteria as defined below simultaneously at two or more locations for two consecutive hours.

Zone 609: criteria is RH 20% or less **AND** wind speed 10 mph or greater at **TWO** RAWS sites (including Grayback) or other supplementary stations.

Zone 610: criteria is RH 15 % or less **AND** wind speed of 10 mph or greater at **TWO** RAWS sites (including Haystack) or other supplementary stations.

Zone 611: criteria is RH of 15 % or less **AND** wind speed of 10 mph or greater at **TWO** RAWS sites (including Timothy) or other supplementary stations.

Zones 630, 631, 632, 633, 634, 635, 638, 675 & 681: Refer to Table A below.

Table A. National Weather Service Pendleton Wind vs. RH Red Flag/Fire Weather Watch Criteria Table

Note: This is only one element in determining the necessity for a Red Flag Warning or Fire Weather Watch and shall not be the solitary justification.

Columbia Basin ZONES 631 & 675

		SUSTAINED 20 FT WIND OVER WIDESPREAD AREA (10 MINUTE AVERAGE in MPH)				
		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

The Central and Northeast Mountains ZONES 630...632-635...638 AND ZONE 681

		SUSTAINED 20 FT WIND OVER WIDESPREAD AREA (10 MINUTE AVERAGE in MPH)					
		10	15	20	25	30	35+
RH	30%						
	25%					W	W
	20%			W	W	W	W
	15%			W	W	W	W
	10%		W	W	W	W	W

Central Oregon Zone 630 south of the Maury Mountains

		SUSTAINED 20 FT WIND OVER WIDESPREAD AREA (10 MINUTE AVERAGE in MPH)			
		15	20	25	30+
RH	20%		W	W	W
	15%		W	W	W
	10%	W	W	W	W

Red Flag Warning Dissemination:

Red Flag Warnings and Fire Weather Watches shall be issued using the Red Flag Statement (PDXRFPDT) and will also be headlined in the routine Fire Weather Forecast. All Red Flag Warnings and Fire Weather Watches will be cancelled using the Red Flag Statement (PDXRFPDT) and the Fire Weather Forecast will include a headline stating such.

All Red Flag Warnings will be disseminated utilizing the National Warning System (NAWAS) network

All issuances of Red Flag events will be coordinated beforehand with the agencies included in the watch/warning area and with adjacent fire weather offices if the watch/warning is for a zone on a common district boundary. A priority calling list has been established in order to rapidly disseminate Fire Weather Watches/Red Flag Warnings, or other information of rapidly changing or hazardous weather conditions that do not necessarily meet Red Flag criteria, but will affect fire control or pose a safety threat a priority calling list has been established. **NWS Pendleton will contact the dispatch offices affected by warnings who will then contact other affected land management agencies in those zones.**

USER AGENCY RESPONSIBILITIES:

There are several responsibilities of the user agencies including:

- Entering of 1300 PST NFDRS observations in WIMS.
- Site observations for Spot forecast requests. **A representative observation from the burn site is required for all prescribed fire spot forecast requests.**
- Quality Control of RAWS observations
- Timely maintenance of RAWS sites.

FORECAST VERIFICATION:

Routine verification will be made on Red Flag Warnings and Spot Forecast turnaround times. In addition, NFDRS trend forecasts for temperature, relative humidity, and fuel moisture will be verified. Results of the verification will be published in the Fire Weather Annual Summary and placed on the offices homepage.

FIRE WEATHER FORECASTER PROFICIENCY & CURRENCY STANDARDS:

Pendleton forecasters working the Land Management and Fire Weather shifts will meet the proficiency standards established by the National Weather Service. The National Weather Service and the Pacific Northwest Wildfire Coordination Group will review the progress in meeting the standards. Prior to each fire season, the Annual Operating Plan will provide a list of currently qualified forecasters and those expected to be qualified at each weather Forecast office who will be providing fire weather services during the upcoming year.

FORECAST DISTRICT:

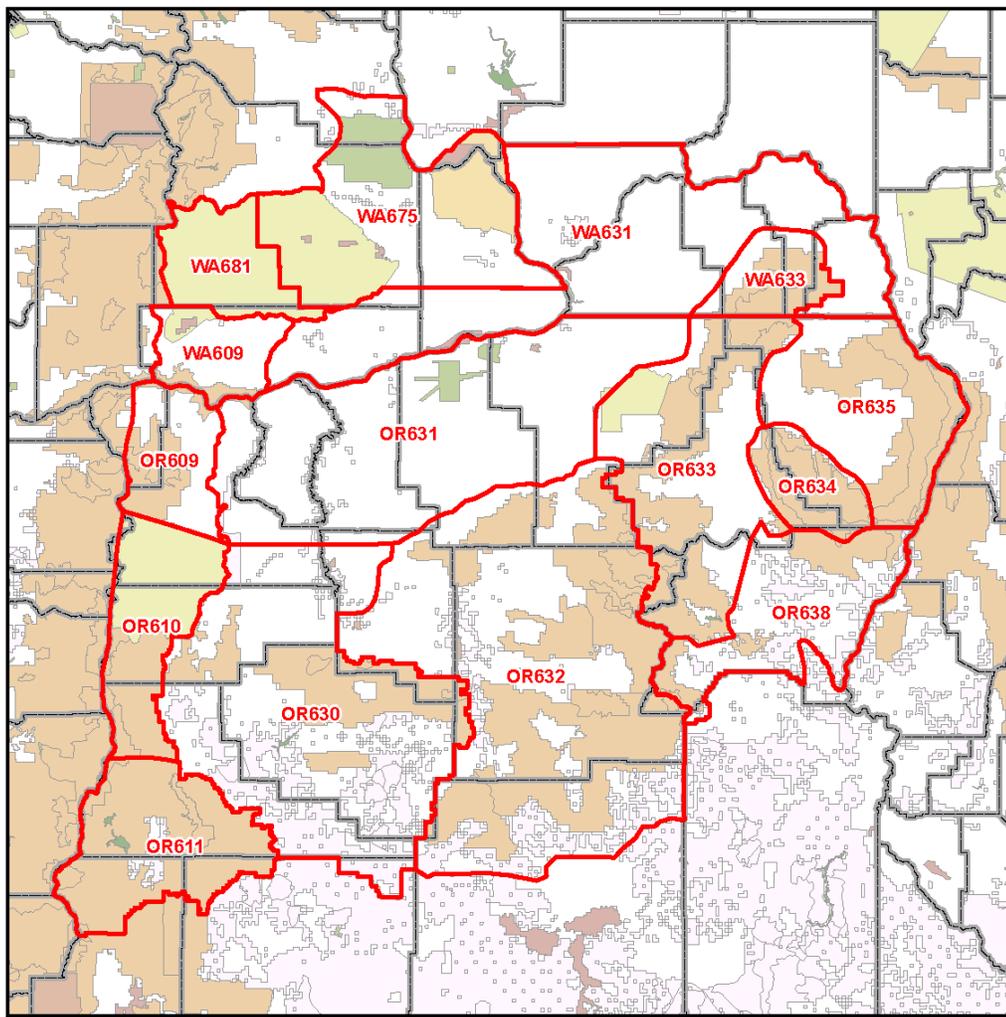
The Pendleton Fire Weather District currently covers the east slopes of the Cascades mountain range from the Deschutes National Forest to the alpine reaches of the Yakama Indian Reservation, central Oregon, the northeast quadrant of Oregon (including Baker county and Harney county north of highway 20), and Southeast Washington (Benton, Franklin, Klickitat, Yakima Walla Walla, Columbia, Garfield and Asotin counties). Please see the district map for specific outlines of the Fire Weather Zones.

GEOGRAPHICAL FORECAST ZONES (See Zone Map):

The Pendleton Fire Weather forecast will be sectioned by Fire Weather Zone. OR609/WA609, OR631/WA631, and OR633/WA633 will typically be combined in a single zone forecast unless conditions warrant separating them. This will usually result in 12 separate zone forecasts. These zones are based on terrain, elevation, weather characteristics, and political boundaries. The zone names are as follows:

OR609 – East slopes of the northern Oregon Cascades
 WA609– East slopes of the southern Washington Cascades
 OR610– East slopes of the central Oregon Cascades
 OR611 – Deschutes national Forest
 OR630– Central mountains of Oregon
 OR631 – Lower Columbia Basin of Oregon
 WA631– Lower Columbia Basin of Washington
 OR632– Southern Blue and Strawberry mountains
 OR633 – Northern Blue mountains of Oregon and Washington
 WA633 – Blue mountains of Washington
 OR634 – Eagle Caps
 OR635 – Wallowa County
 OR638 – Baker Valley
 WA675– Eastern Washington southern Columbia Basin
 WA681– Yakama Alpine

Pendleton Fire Weather Zones



Legend

- Fire Zones
- Counties
- Federal Lands**
- BIA
- BLM
- BOR
- DOD
- FS
- FWS
- NPS
- OTHER
- States



Pendleton Fire Weather Station Index

Zone	Name	NFDRS	Type	Agency	Lat	Long	Elev	Slope/Aspect
WA 609	Goldendale	452403	Raws	DNR	45.8672	120.7230	1650	Flat knob-S
WA 609	The Dalles	452406	Metar	FAA	45.6190	121.1657	210	W-E valley
OR 609	Middle Mtn	350812	Raws	ODF	45.5794	121.5970	2500	N-S Ridge
OR 609	Pollywog	350912	Raws	USFS	45.4586	121.4464	3320	Low slope-S
OR 609	Wamic Mill	350913	Raws	USFS	45.2333	121.4500	3320	Upp slope-S
OR 609	Wasco Butte	350919	Raws	ODF	45.6167	121.3353	2345	Butte top
610	Sidwalter	350909	Manual	BIA	44.925	121.5347	3600	Butte top-Nw
610	Mt Wilson	350916	Raws	BIA	45.0397	121.6736	3780	Mid slope-Sw
610	Mutton Mtn	350917	Raws	BIA	44.9255	121.1978	4100	S-N Ridge
610	He He 1	350920	Raws	BIA	44.9559	121.4992	2689	Flat
610	Shitike Butte	352102	Manual	BIA	44.7449	121.6106	5000	Butte top
610	Eagle Butte	352106	Manual	BIA	44.8399	121.2338	3100	Butte top
610	Warm Spring	352108	Manual	BIA	44.7750	121.2541	1632	Valley
610	Metolius Arm	352110	Raws	BIA	44.6275	121.6147	3440	Butte-Sw
610	Colgate	352620	Raws	USFS	44.3156	121.6022	3280	Flat
611	Round Mtn	352605	Raws	USFS	43.7575	121.7102	5900	Butte top
611	Lava Butte	352618	Raws	USFS	43.9253	121.3429	4655	Butte top-S
611	Tepee Draw	352622	Raws	USFS	43.8322	121.0842	4740	Low slope-E
611	Black Rock	353342	Raws	USFS	43.527	121.8090	4880	Low slope-S
611	Cabin Lake	353402	Raws	USFS	43.4956	121.0597	4545	Flat
611	Tumalo Ridge	352621	Raws	ODF	44.0493	121.4001	4000	Ridge-Nw
630	Haystack	352107	Raws	USFS	44.4494	121.1297	3240	Flat
630	Brown's Well	353428	Raws	BLM	43.5628	121.2360	4500	Flat knob-Sw
630	Cold Springs	352701	Raws	USFS	44.3550	120.1335	4695	Flat
630	Salt Creek	352712	Raws	BLM	44.0467	120.6694	4200	Flat
630	Badger Creek	352711	Raws	USFS	44.0311	120.4083	5680	Mid slope-flat
630	Slide Mountain	352207	Raws	USFS	44.4622	120.2945	5700	Upp slope-Ne
630	Brer Rabbit	352208	Raws	USFS	44.333	119.770	5900	Valley-S
630	Board Hollow	350915	Raws	ODF	44.6038	120.6847	4200	Ridge-flat
WA631	Juniper Dunes	453201	Raws	BLM	46.3575	118.8683	950	Flat
WA631	Walla Walla	453302	Manual	NWS	46.0945	118.2858	1166	Flat
OR631	Patjens	351001	Raws	BLM	45.3219	120.9292	2230	Ridge-Sw
OR631	North Pole Rdg	350915	Raws	BLM	45.0329	120.5357	3500	Ridge-W
OR631	Umatilla NWR	351316	Raws	USFWL	45.9180	119.5675	270	Flat
OR631	Pendleton	351307	Manual	NWS	45.6975	118.8344	1482	Ridge-flat
632	Case	352329	Raws	USFS	44.9711	118.9297	3800	Ridge-flat
632	Tupper	351202	Raws	USFS	45.0667	119.4925	4200	Low slope-S
632	Board Creek	352330	Raws	BLM	44.5930	119.2770	5000	Ridge

632	Keeney 2	352332	Raws	USFS	44.6661	118.9219	5120	Ridge
632	Crow Flat	353515	Raws	USFS	43.8413	118.9521	5130	Valley-S
632	Allison	353501	Raws	USFS	43.9214	119.5964	5320	Valley-S
632	Fall Mountain	353524	Raws	USFS	44.2970	119.0370	5949	Sw-Ne Ridge
632	Antelope	353524	Raws	BLM	44.0384	118.4163	6460	N-S Ridge
632	Mitchell	352209	FTS	ODF	44.5819	120.1806	2550	Nw-Se Valley
632	Crane Prairie	352305	Raws	USFS	44.1601	118.4704	5373	Valley-S
OR633	Eden	351518	Raws	USFS	45.8763	117.6160	3500	Upp slope-S
WA633	Alder Ridge	453803	Raws	USFS	46.2685	117.4983	4550	Ridge-S
OR633	J Ridge	351414	Raws	USFS	45.1135	118.4051	5180	Upp slope-Se
OR633	Black Mtn Rdg	351319	Raws	USFS	45.5738	118.2385	4965	Ridge-Sw
OR633	Lagrande 1	351417	Raws	ODF	45.5508	118.0133	3079	Low slope-E
634	Point Prom 2	351419	Raws	USFS	45.3547	117.7044	6600	N-S Ridge
634	Minam	351416	Raws	USFS	45.3539	117.6328	3590	Se-Nw Valley
635	Roberts Butte	351520	Raws	USFS	45.6811	117.2067	4300	N-S Ridge
635	Harle Butte	351502	Raws	USFS	45.3282	116.8774	6071	Butte top-S
638	Elk Creek	352126	Raws	USFS	44.7577	117.9711	6576	Upp Slope
638	Blue Canyon	352416	Raws	BLM	44.6700	117.9336	4200	Low slope Sw
638	Sparta Butte	352418	Raws	USFS	44.8850	117.3383	4300	Mid slope-Sw
638	Flagstaff Hill	352123	Raws	BLM	44.8141	117.7289	3945	Hill Top-W
638	Morgan Mtn	352420	Raws	BLM	44.5014	117.2983	4200	N-S Ridge
638	Yellowpine	352124	Raws	USFS	44.5263	118.3230	4200	Low slope-E
675	Saddle Mtn	452701	Raws	USFWL	46.6944	119.6936	650	Flat
675	High Bridge	452318	Raws	BIA	46.0811	120.5440	2106	Mid slope-N
681	Signal Peak	452307	Raws	BIA	46.2269	121.1375	5052	Ridge-S
681	Mill Creek	452304	Raws	BIA	46.2625	120.8622	2928	Mid slope-flat
681	Teepee Creek	452317	Raws	BIA	46.1642	121.0331	2980	Mid slope-flat
681	Grayback	452404	Raws	DNR	45.9908	121.0838	3766	Ridge