

What is Fire Weather?

Weather is a critical ingredient in the development and behavior of both wildfire and prescribed burns. High winds, high temperatures, low humidities, instability and dry lightning are the critical weather elements that determine the potential for fire ignition and fire behavior. A detailed knowledge of the fire weather forecast is essential for operational decision making, and is vital to land management personnel if critical fire weather conditions are forecast. The National Weather Service works around the clock to ensure the most accurate forecast, warnings and data are readily available to fire management and fireline personnel.

Spot Forecasts

Spot forecasts are highly refined, meso-scale products, drafted upon request, by meteorologists at the National Weather Service Forecast office. These forecasts are "Site Specific" forecasts created to inform the requesting agency of expected weather conditions at a specific site and time. They may be requested by Land Management agencies for wildfires or prescribed burns and by local Government agencies for Search and Rescue or Recovery Missions and land or water-based HAZMAT spills or releases, etc. Spot Forecasts may be requested online from the National Weather Service web page or by phone from the local Weather Service Forecast Office. At the user's discretion, these products are quickly drafted and disseminated to the requester either online or via fax.

The Red Flag Program

The Red Flag Program was developed to warn fire fighters and fire management officials of the potential for large fire growth and other hazardous burning conditions related to weather events. This Watch and Warning program is driven primarily by high temperatures, low humidities, an unstable atmosphere and strong winds; all of which can lead to a dangerous fire environment. When critically dry or cured fuels (90th percentile ERC values) coincide with critical Fire Weather conditions, Fire Weather Watches and Red Flag Warnings (RFW) are issued to alert users of life threatening fire conditions, potential for new fire starts or possible control problems with existing fires.

Fire Weather Watch: A Fire Weather Watch is issued to raise user awareness levels when there is a high potential for the development of a Red Flag Event. A Watch will only be issued (or continued) in the first 12-hour time period for dry thunderstorm events. For other events, the watch will be issued 12 to 96 hours in advance of the expected onset of criteria. The watch may be issued for all, or selected portions, within a fire weather zone or area.

Red Flag Warning: A Red Flag Warning is used to warn of an impending, or occurring Red Flag Event. Its issuance denotes a high degree of confidence that weather and fuel conditions consistent with Red Flag Event criteria are occurring or will occur in 24 hours or less. The warning may be issued for all, or selected portions within a fire weather zone or area.

Fire Weather Event Criteria: Fire Weather Watches and Red Flag Warnings are issued during Fire Season in the Seattle Fire Weather District, when fuels are critically dry and the following are occurring or expected to occur within the next 12 to 96 hours:

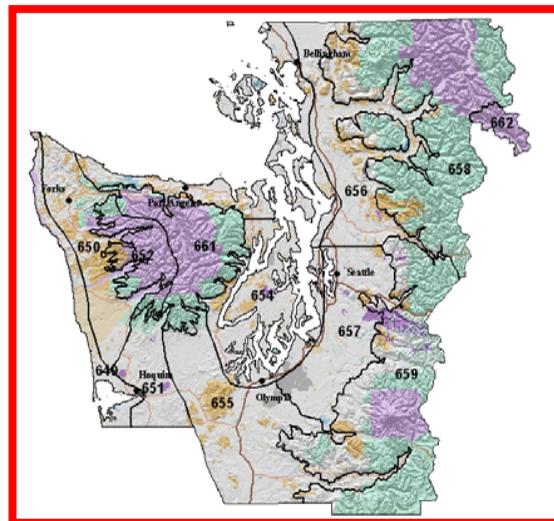
- Strong East winds and Low Relative Humidity (Fire Weather Zones 649-661)
- Strong West winds and Low Relative Humidity (Fire Weather Zone 662)
- Significant Lightning, scattered or greater in aerial coverage.
- Very Dry and Unstable Air Mass.

1914 - 95 Years - 2009

Fire Weather Planning Forecast

National Weather Service Offices with a Fire Weather Program issue standardized products known simply as The Fire Weather Planning Forecast (FWF). These intuitive forecast products portray a wealth of meteorological variables forecasted through the next seven days. The product begins with a listing of the current warnings and watches, followed by a text discussion of the ongoing weather pattern. Next is a three to four burning period forecast composed of: forecast sky and weather conditions, temperature and relative humidity values, 20-foot wind speeds and directions, chance of Wetting Rain, Haines Index, etc. This forecast information is concluded with a three to seven day text forecast and an eight to fourteen day outlook.

Seattle Fire Weather Zones



Incident Meteorologists



National Weather Service Incident Meteorologists (IMETs) have been assisting with wildfire suppression efforts since 1914. Today, beside fire suppression efforts, they are also being used in other sensitive situations, such as HAZMAT; oil and chemical spills or releases; and national security and natural disaster relief efforts. IMETs provide critical and timely weather information and support anytime and anywhere a disaster strikes. IMETs are specially trained in micro-meteorology and deploy with laptops, satellite-enabled communication and 4X4 vehicles to provide accurate and timely on-site weather support.

Fire Weather Briefings

Statewide, fire weather briefings are conducted every morning during the active fire season in conjunction with the National Weather Service Forecast Office in Spokane. Topics include: a summary of the current weather conditions, the Fire Weather problem of the day and an outlook of possible fire weather related problems 3-7 days out. Access to this briefing is available for fire, emergency and land management agencies by contacting either the Seattle or Spokane National Weather Service offices.

The Spokane, Seattle and Backup briefing pages can be accessed via Seattle Fire Weather web page under the "Admin" tab.

Hours of Operation

The Fire Weather Desk is operational from 7 AM to 5 PM, 7 days-a-week, during the active fire season, normally from about the 1st week in July to the end of September. Spot Forecast support is available 24/7, year round.

Contact Information

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Fire Weather Program



***National Weather
Service
Seattle/Tacoma, WA***



<http://www.wrh.noaa.gov/firewx/?wfo=sew>