### Introduction

This document serves as the Interagency Annual Operating Plan (AOP) for Fire Weather and Predictive Services (PS) for the Great Basin Geographic Area (GB). The general relationship between the National Weather Service (NWS) and the interagency fire management community is set forth in the National Interagency Agreement for Meteorological Services. This AOP provides specific procedural and policy information regarding the delivery of meteorological services to the fire management community within the GB as allowed under the umbrella of the National Agreement.

References include:

- National Weather Service NWSI 10-4: Fire Weather Services (<u>https://www.weather.gov/media/directives/010\_pdfs/pd01004curr.pdf</u>)
- Great Basin Mobilization Guide (<u>https://gacc.nifc.gov/gbcc/admin/docs/MobGuide/2024/2024FullMobGuide.pdf</u>)
- National Interagency Mobilization Guide (<u>https://www.nifc.gov/nicc/mobguide/index.html</u>)

# SIGNIFICANT CHANGES FOR 2025

- 1. Predictive Services Change in some graphics displays in daily briefings and podcasts, due to cancellation of GSL CAVE contract. Periodic staffing issues through fire season, due to expected temporary assignments to other regions, in order to temporarily fill recent PS vacancies.
- 2. NWS
  - a. Boise: Spencer Tangen is now a certified IMET. Fire weather briefing will use Google Meet instead of GoToMeeting. PDS RFWs may now be issued.
  - b. Elko: No available certified IMETs (Derek has transitioned to SPC). One IMET trainee, Craig Oswald, who is also the new fire weather team leader.
  - c. Flagstaff: Robert Rickey IMET, is now Fire Weather Program Leader.
  - d. Grand Junction: No IMETs available for dispatch.
  - e. Las Vegas: None.
  - f. Pocatello: None.
  - g. Reno: None.
  - h. Riverton: None.
  - i. Salt Lake City: None.

# **Organizational Directory**

Cooperating federal and state land management agencies in the Great Basin include:

Bureau of Land Management

Bureau of Indian Affairs



National Park Service

**USDA** Forest

Service



Wildlife Service

US Fish and



Utah Forestry, Fire and State Lands



Nevada Division of Forestry



Fire weather products and services are provided by Great Basin Predictive Services and the following NWS offices within the NWS Central and Western Regions:



Boise, ID Las Vegas, NV Salt Lake City, UT

Flagstaff, AZ Pocatello, ID Elko, NV

Grand Junction, CO Riverton, WY Reno, NV

Service area information Predictive Services and each NWS office is available in Appendix A. A condensed contact information list can be found in Appendix B. NOTE: All phone numbers are unlisted and should not be given to the general public.

# **National Weather Service Services and Responsibilities**

# I. Basic Services

Basic services constitute the collective suite of operational fire weather forecast products and professional services provided by the NWS. Any changes to these forecast services or implementation of new operational forecast products and/or services will be coordinated with the GB Predictive Services Unit (PSU) (Reference NWSI <u>10-403</u>) and with local land management officials within the County Warning Forecast Area (CWA) of the NWS office that is proposing the changes. Any non-operational forecast products will be clearly labeled as "Experimental".

# A. Required Core Grids and Web Based Fire Weather Decision Support

National Digital Forecast Database (NDFD) grids are used to produce a wide variety of products and services for fire weather support. Operational status of NWS grid elements is available at the following website: <u>https://digital.weather.gov/</u>

All NWS offices produce a digital forecast database that provides a variety of web accessible planning tools for fire weather partners. These tools can be of assistance to help determine the timing for a spot forecast request and include:

- Fire Weather Forecasts (FWF)
- Point Forecast Matrix (PFM)
- Digital Point Forecast
- Hourly weather graphs
- 48 Hr Element Meteogram

These tools are all available at any time via links on top of NWS office fire weather web pages. NWS offices may also produce other tools for their area of responsibility. If you have questions, ideas or need more information on digital planning tools, please contact your nearest NWS office listed in this AOP.

### B. Red Flag Warnings and Fire Weather Watches

The Red Flag Warning and Fire Weather Watch program is designed to provide land management officials with advanced notice of weather conditions that, when coupled with critical fuel conditions, can lead to extreme fire behavior or heightened potential for large fire starts. It is implicit that firefighter and public safety are of the utmost importance. Identification of Red Flag events is a shared, collaborative responsibility between land management officials and NWS fire weather forecasters. Weather forecasters must identify weather conditions that will contribute to extreme fire behavior or heightened large fire potential and land managers must provide information on the critical nature of fuels.

A <u>Red Flag Warning</u> will be issued when Red Flag weather criteria (defined below) are forecast to occur within the next 24 to 48 hours or are already occurring, and are coupled with critical fuel conditions. Longer lead times are encouraged when confidence is very high or the fire danger situation is critical.

NWS Offices have the option to use the phrase "Particularly Dangerous Situation" (PDS) within a Red Flag Warning product. The objective is to heighten awareness for fire weather situations that are exceptionally rare or impactful to the public and firefighting community. NWS offices have or will develop objective guidelines for when to include this language in Red Flag Warnings.

A <u>Fire Weather Watch</u> will be issued when there is a high potential for Red Flag weather criteria to be met in the 18 to 96 hour time frame. The watch may be issued for all or selected portions within a fire weather zone or region.

Fire Weather Watches and Red Flag Warnings will be issued in the off-season (November-April), after coordination with the GBCC. These will likely only be issued for strong and widespread events.

# 1. Criteria

Standardized criteria for issuance of Red Flag Warnings and Fire Weather Watches in the GB are a combination of weather and critical fuel conditions. These warnings can be issued for either dry and windy conditions, or when an elevated threat of fire causing lighting is expected given that the fuels are critical. These criteria can also be combined, and there is some flexibility in humidity parameters during extremely dry fuel conditions, along with interagency collaboration.



### The criteria for wind and relative humidity vary across GB:



The criteria for lightning-based warnings vary across GB:

### These criteria assume the following

- Fuels must be critical. Two sources of information exist for NWS weather forecasters to acquire the status of fuels: Primary choice will be the Critical Fuel Status webpage that is updated manually by Predictive Services. Secondary source can be the 7-Day Dryness Levels produced at GBCC. Each WFO can choose which method or combination of methods will be used to determine the fuel status.
- 2. Critical Fuel Status: The fuel condition for each FWZ within GB will either be set as critical, borderline, or non-critical during fire season. Please see the link below if using this method for determining the status of the fuels. https://gacc.nifc.gov/gbcc/predictive/cfs/#/

**7-Day Fire Potential Dryness Levels**: If the Dryness Level is either Dry (yellow) or Very Dry (brown) for the PSA in which the FWZ lies the fuels can be considered critical for Red Flag Warning purposes. (link)

**3.** Wind gust speed must be from NWCG compliant RAWS stations (20-foot) or a NWS/FAA ASOS station (10 meter). Wind gust speed measurements from other observation platforms will be used upon agreement between NWS and land management agencies.

# 2. Product Format and Content

A Red Flag Warning/Fire Weather Watch statement (RFW) will be used for issuing, updating, and canceling all Red Flag Warnings and Fire Weather Watches. This message will include:

- 1. Headline that includes a description of the watch or warning, a description of the area (i.e., fire weather zones, counties, agency administrative unit, etc.), and the time period for which the watch or warning is valid in bulleted format.
- 2. Short discussion detailing the causes and nature of the event.
- 3. Please provide feedback about this format along with any questions to your local WFO throughout the fire season.

# 3. Procedures and Access

When Red Flag Warnings and Fire Weather Watches are issued, they will be headlined in both the fire weather planning forecast and any subsequent spot forecasts. In the planning forecast, the headline shall appear at the beginning, before the discussion section, and at the beginning of each zone or zone grouping affected by the warning or watch. The headline will be in the same descriptive format as on the RFW product itself. If issuance of a Red Flag Warning or Fire Weather Watch requires an update of the planning forecast, the NWS office will notify the affected dispatch centers and the GB PSU as soon as possible during business hours.

Red Flag Warnings and Fire Weather Watches will remain in effect through the expiration time noted in the planning forecast, or until canceled or updated.

Red Flag Warnings and Fire Weather Watches can be accessed through the various NWS offices that serve the GB, the GB PSU web site, and WIMS. Links can be found in Appendix A.

At a minimum, when either a Red Flag Warning or a Fire Weather Watch is in effect, there will be an expanded FIRE WEATHER portion in the Area Forecast Discussion (AFD) issued twice daily from each NWS office. The AFD allows NWS offices to portray uncertainty and expand on reasoning beyond what is in other products. The Area Forecast Discussion is available on each NWS office's website.

# C. Spot Forecasts

Spot forecasts are site specific forecast products issued for wildfires, prescribed burns, aerial spraying, HAZMAT incidents, search and rescue, and other land management activities. Spot forecasts are available by request, 24 hours a day, 365 days a year. They are available to any federal, state, county or municipal agency as described in NWSI <u>10-401</u>.

Site Specific forecasts are considered one time requests. Updates will be issued when:

- 1. The forecaster determines that the current spot forecast does not adequately represent current or expected weather conditions, or;
- 2. Land management personnel communicate to the forecaster that the current forecast is unrepresentative of conditions at the site, or;
- 3. A typographical or formatting error is detected and could confuse the intended meaning.

Updates will be disseminated to users in the same manner as the original spot forecast. If the update is initiated by the NWS, a followup phone call will be made to inform the user (i.e., the original requestor) that an update has been issued. If the update is requested by the user, a contact point number will be provided.

Spot forecasts can be requested from <u>https://spot.weather.gov/</u> and users should call the local NWS office to ensure spot request was received, and to share critical forecast parameters and thresholds. Spot forecast feedback is always encouraged.

# 1. Content and Format

Spot Forecasts may contain the following elements as requested by the user

| Forecast Element   | Requirement | Remark  |
|--|-------------|---|
| Headline   | National    | Required if watch or<br>warning is in effect when<br>spot is issued   |
| Discussion   | National    |   |
| Sky/Weather  | National    |   |
| Temperature  | National    |   |
| Relative Humidity  | National    |   |
| Wind-20ft, 10-min<br>average                                     | National    |   |
| Transport wind, mixing<br>height, Chance of<br>wetting rain, etc | By request  | Request made via NW<br>Spot Web Interface or<br>Spot Forecast Request |

Table 1. Spot Forecast Elements

|                      |            | Form D-1   |
|----------------------|------------|--|
| HYSPLIT Trajectories | By Request | Request made via NWS<br>Spot Web Interface. See<br>#3 below for more |
|                      |            | detailed instructions  |

The valid time will be determined at the time of the request. Most spots contain three periods, usually "TODAY", "TONIGHT", and "TOMORROW" but users will indicate the period(s) for which a forecast is needed in their request.

# 2. Procedures for Requesting Spot Forecasts

Internet based NWS Spot is the standard for requesting and retrieving spot forecasts. It is accessible via web sites of the NWS offices that serve the GB and on the GB Predictive Services website, found in Appendix B. More detailed instructions on requesting and accessing NWS Spot Forecasts can be found here: <u>https://spot.weather.gov/</u>

When Internet access is not available, spot forecasts may be requested and disseminated via fax using spot forecast request form D1 (NWS <u>10-401</u>). Spot forecasts should be available within 60 minutes of the time the NWS office receives the request. If a spot forecast is not returned within 60 minutes, the requestor should contact the NWS office immediately. Spot forecasts should be requested no more than 24 hours in advance. Beyond this time, planning information should be used, including the fire weather planning forecast and fire weather point forecast matrix. For large burn plans, please coordinate multiple spot forecast requests with your local NWS office. It is strongly recommended that the requestor indicate the time he or she needs the forecast returned. If not specified in a spot forecast request, the NWS assumes the forecast is needed immediately.

The requestor must provide information about the location (latitude/longitude), slope aspect, drainage name, fuel type(s), top and bottom elevations of fire or project (if appropriate), size of fire or project, ignition time (if appropriate), and a contact name(s) and telephone number(s) of the responsible land management personnel. It is critically important that each spot forecast request also include quality, representative observations at, or near, the site or from a nearby representative RAWS station. A detailed description of the observation location relative to the project (if not at the site) should be provided. The description should include, at a minimum, distance and direction from the project or fire site, station elevation and aspect. It is preferable to have observations that indicate maximum and minimum temperature and humidity conditions near the fire location.

# 3. HYSPLIT Trajectories Request

HYSPLIT Trajectories is a model which determines trajectories for parcels at a given height above ground level. An easy method has been developed to take

advantage of the base information that is already input into the spot request form to generate automated HYSPLIT Trajectory forecasts. The HYSPLIT trajectories can be used for many purposes (i.e. HAZMAT, smoke, etc.).

The HYSPLIT output represents computer model forecasts without any human interaction. They do not take into account information on burn size or fuels, thus generate trajectory forecasts for 500, 1500, and 3000 meters AGL without regarding whether fire plume height will reach that altitude.

To utilize this feature, simply check the 'YES' radio button in the NOAA Hysplit Model section (to the right of 'Forecast Information') to receive HYSPLIT. If you want more than one person to receive the HYSPLIT run then just add additional email addresses separated by commas. You will receive an email that consists of a table of values, a GIF Hysplit trajectory map, and a KMZ trajectory map for loading into Google Earth. It is recommended that you try this procedure and get a feel for its content before using it for actual guidance on a burn or fire.

For more information, please visit <u>https://www.arl.noaa.gov/hysplit/</u>. If you have any questions, please contact your local fire weather program leader.

# 4. Spot Forecast Feedback Requirement

Good communication between fire managers and the NWS is critical for quality spot forecast services. Land management personnel should provide feedback to the NWS forecasters about the quality and accuracy of the spot forecast. Feedback should also be relayed to GACC meteorologists. Responsibility for providing fire line observations for the verification of forecast accuracy is with the land management agencies, as outlined under, "Fire Weather Observations," under Joint Roles in the AOP, and disseminated via the online spot request form.

### D. National Fire Danger Rating System (NFDRS) Forecasts

The National Weather Service will provide National Fire Danger Ratings System (NFDRS) forecasts valid at 1300 LST (1400 LDT) the next day after issuance. These forecasts are used to prepare the NFDRS fire danger indices for the next day. Stations that do not have valid observations in WIMS on time will not receive an NFDRS weather forecast and, thus, will not receive forecast fire danger indices for the next day.

### 1. Criteria for Issuance

NWS will issue NFDRS forecasts daily when NFDRS compliant observations are received. Edited NFDRS observations must be complete and available in WIMS by 1350 LST (1450 LDT) to be received by NWS in time to produce a forecast.

• If the unofficial or 'R' type 1400 LDT observation is available in WIMS, an

NFDRS forecast can be created and sent back to WIMS. Forecasts must not be sent to WIMS before the unofficial 1400 observation is received in WIMS because NFDRS forecasts will use yesterday's observation to calculate the NFDRS indices, which is incorrect.

# 2. Content and Format

The content and format shall comply with NWSI <u>10-401</u>. Each NFDRS forecast shall also include the 24 hr min and max temperature and relative humidity forecast and shall not include the 10 hr fuel moisture forecast. A wet flag of 'yes' should only be forecast if the forecaster is certain that precipitation will be of sufficient duration and amount to keep fuels wet or when expectation is that fuels will be snow covered. The actual NWS NFDRS forecast product is used only by WIMS and is not viewable directly by fire management personnel. NFDRS forecasts are available through 7 days.

# 3. Procedures

Each WFO shall produce individual NFDRS station (point) forecasts. Valid observations must appear on the 1400 LST (1500 LDT) observation collective or forecasts will not be generated. A second collective is generated around 1530 LDT to catch any missed (late) observations. Forecasts are in the form of a point (station specific) forecast. However, the form used should be coordinated with local land management officials and Predictive Services at the GACC. When point forecasts are issued, NWS will ensure that forecast values are statistically valid relative to climatological values for those stations.

# E. Planning Forecasts (FWF)

Planning forecasts (or preparedness forecasts) are issued by all NWS WFOs offices serving the GB. These forecasts provide general, zone-based information used in daily planning and preparedness.

# 1. Issuance Times During Fire Season

Two forecasts will be issued daily – a morning forecast issued no later than 0830 local time and an afternoon forecast issued by 1530 local time – 7 days a week during the fire season. Twice per day fire weather forecast requirements will normally run from the first Monday in May to the last Friday in October, with sub-regional variations dependent on weather, elevation and latitude. Local start and stop dates shall be coordinated between the NWS offices and fire weather customers, including the geographic area Predictive Services Units. Modifications to these start and stop dates are enumerated in Appendix B, National Weather Service Offices.

# 2. Issuance Outside Fire Season

NWS offices issue fire weather planning forecasts year round, however offseason forecasts may not be as detailed as those issued during the fire weather season. All NWS offices will issue spot forecasts upon request at any time of year.

# 3. Forecast Updates

Forecasts will be updated for the first 36 to 48 hour time period when: 1) A Fire Weather Watch or a Red Flag Warning is issued, canceled, or updated; 2) when any of the amendment criteria in Table 1 are met over a meteorologically significant area; or 3) typographic or formatting errors that confuse the intended meaning are found.

Table 2. Fire Weather Forecast and Associated Digital Data Amendment Criteria

| Forecast                           | AMEND when  |
|------------------------------------|---|
| No thunderstorms forecast.         | Thunderstorms occurring or are imminent prior to the next routine planning forecast issuance. |
| Wind speed of 15 mph or greater.   | Speed exceeds forecast by 10 mph or more.   |
| Average minimum RH is 16% to 40%.  | Differs by 10% or more.   |
| Average minimum RH is 15% or less. | Differs by 5% or more.  |

The NWS forecaster should notify all impacted Dispatch and Communications Centers when the forecast has been updated. The forecaster should also notify the Meteorologist or the Coordinator on Duty (COD) at the GACC. When notifying the GACC, do not use voicemail during normal business hours (published in Appendix A). During non business hours (i.e., overnight), no special notification is necessary.

# 4. Access

Forecasts are transmitted automatically to the Internet. Forecasts can be accessed through the various NWS offices that serve the Great Basin, the GB PSU web site, and WIMS. Links can be found in <u>Appendix B</u>.

# 5. Content and Format

Forecasts will conform to the national standard narrative format, per NWSI <u>10-401</u>. Morning forecasts will focus on the following 36 hours (3 operational periods). Afternoon forecasts will focus on the following 48 hours (4 operational periods). General extended outlooks will cover, at a minimum, the 3 to 7 day forecast period.

Each forecast will begin with pertinent headlines and a brief, non-technical weather discussion highlighting significant weather events or critical fire weather patterns.

Headlines are required for Red Flag Warnings and Fire Weather Watches and are encouraged for other significant fire weather elements that do not meet Red Flag criteria. Affected zone segments of the planning forecast must also include the appropriate headline.

Forecasts for the first 36 or 48 hours will contain the elements shown in Table 3 below for each zone or zone grouping, listed in the order they will appear. Format examples and descriptions of forecast elements can be found in the appendices.

| Forecast<br>Elements<br>and Order               | Requirement | Remarks   |
|---|-------------|---|
| Headline(s)                                     | National    | As appropriate  |
| Sky/Weather                                     | National    |   |
| Temperature<br>and<br>optional 24<br>hour trend | National    | In complex terrain, temperature and RH should be<br>forecast at discrete elevations (e.g., 3000ft, 5000ft,<br>8000ft, etc.) or at generally accepted locations (i.e.,<br>valley bottom, midslope, etc.). These should be<br>coordinated with the local land management agencies<br>and Predictive Services. |
| Wind 20ft<br>RAWS<br>standard<br>(slope/valley) | National    | Wind speed must conform to the NWCG standard of 20ft, 10 min. average wind Additionally, forecast ranges should not exceed 10 mph. Wind gust speed must be from NWCG compliant RAWS stations  |
| Wind<br>Ridgetop (as<br>appropriate)            | National    | Wind speed must conform to the NWCG standard of<br>20 foot, 10 minute average wind. Additionally,<br>forecast ranges should not exceed 10 mph. Wind<br>gust speed<br>must be from NWCG compliant RAWS stations  |
| Chance of<br>Wetting Rain<br>(0.10 inch)        | Great Basin |   |
| Mean Mixing<br>Height                           | Optional    |   |
| Meant<br>Transport<br>Wind                      | Optional    |   |
| Ventilation<br>Index (ktft)                     | Optional    |   |
| Extended<br>forecast to<br>day 7                | National    | One extended forecast at the end of the planning forecast for each zone, per local agreement.   |

Table 3. Planning Forecast (FWF) Elements

# II. Participation in Interagency Groups

# A. Local Outreach Meetings

NWS offices should participate in at least one outreach meeting per year, usually prior to the start of the next fire season with local fire management units. These meetings can be used to strengthen the customer relationship, present new or changes to

services and address local concerns. GACC meteorologists should be notified of these meetings and strongly encouraged to participate. Similarly, fire agencies should advise the GACC of fire weather meetings they are planning. Remote meetings scheduled as needed for federal, state, and local partners.

# **B. GACC Meetings**

NWS WFOs and local Interagency Dispatch Centers within the GB should send a representative to the annual AOP meeting (if scheduled). Proxy representation is acceptable. A GACC wide fall review meeting can be used to review the previous season, discuss what worked and what did not and identify issues to be addressed for the next Annual Operating Plan.

### **III. Special Services**

NWS will provide and maintain a cadre of trained Incident Meteorologists (IMETs). A sufficient number of IMETs should be available to support multiple incidents during fire season and beyond. Information regarding the dispatch of IMETs, both within and outside the GB, can be found in the Great Basin Mobilization Guide.

### **IV. Forecaster Training**

The NWS recognizes the need for specialized training in fire weather meteorology for forecasters. Any NWS meteorologist producing fire weather products shall have met the requirements set forth in NWSI <u>10-405</u>.

# **Great Basin Services and Responsibilities**

The GB Predictive Services Unit resides at the Great Basin Coordination Center. The GBCC's primary mission is to provide resource support for the functional areas of overhead, crews, aircraft, supplies and equipment to the field for wildland fire and other emergency operations.

# CHANGES FOR THE 2025 SEASON

- 1. Change in some graphics displays in daily briefings and podcasts, due to cancellation of GSL CAVE contract.
- 2. Periodic staffing issues through fire season, due to expected temporary assignments to other regions, in order to temporarily fill recent PS vacancies.



# A. Operational Products and Decision Support Services

Predictive Services will produce a suite of products tailored to the tactical and strategic mission of the land management agencies within the GB. While the main

area of responsibility is at the geographic area level, Predictive Services will provide services to sub-units of the geographic area, such as dispatch centers and local administrative units. Contributions will also be made to the national level Predictive Services program.

# 1. 7-Day Significant Fire Potential Outlook

The 7-Day Significant Fire Potential Outlook addresses the potential for significant weather events (dry lightning outbreaks, precipitation events, wind events, etc.) that can impact fire occurrence or fire behavior in the next 7 days and that could require short-term decisions on resource availability and movements. The outlook will identify significant fire potential in a 3 category scale based on ERCs and 100 hour fuel moisture forecasts. Fire triggers (i.e., lightning, wind, Hot Dry and Unstable, etc.) will be incorporated to refine the potential on individual days.

The outlook will be issued every morning – Monday through Friday and on weekends during critical fire periods by 0830 MST/MDT, beginning May 27 and continuing through October 31. Seasonal start and stop dates may vary based on fire business needs and large fire potential. Updates will be made when it appears that observed or expected conditions are significantly different from those contained in the product.

More information on the 7 Day Outlook can be found on the Great Basin Predictive Services website. 7 Day Outlooks are archived daily.

# 2. Fire Potential Web Briefing

The briefing will be issued every morning -7 days a week during critical fire periods by 0900 MST/MDT, beginning at the start of fire season (typically late May), and continuing thru October 31 (or earlier depending on the end of Fire Season in all areas of the Great Basin). This briefing will focus on regional fire potential trends for the next 7-10 days.

# 3. Impact Map

The Impact Map is a text and graphics product which summarizes the highest impact fire potential conditions for the next 13 days. It will be issued every morning – 7 days a week during critical fire periods by 0900 MST/MDT, beginning at the start of fire season (typically late May), and continuing thru October 31 (or earlier depending on the end of Fire Season in all areas of the Great Basin).

### 4. Monthly/Seasonal Fire Potential Outlook

The Monthly Fire Potential Outlook is a broader, more general assessment of weather, climate, and fuels conditions across the area. It incorporates climate trends, potential weather, and fuels conditions and trends to make long term predictions of impacts on fire business. Outlooks will focus on potential for large

fire activity and time frames that will impact resource availability and mobilization relative to normal fire business for the time of year.

The Monthly outlook will be issued no later than 2 business days prior to the start of the month for which it is valid. Monthly outlooks will be produced by both the Predictive Services National Office and the GB PSU, following the same general format.

# 5. Fuel Status Tables and Map

The Fuels Status map is produced primarily to provide NWS forecasters with a snapshot of fuels conditions that would require a red flag warning or fire weather watch if weather conditions that would meet the red flag criteria (NWS Roles, Section B) are expected or are imminent. These do not replace the NFDRS observed and forecast indices for fire danger. Instead, the fuels status map highlights areas where fuel conditions would support large fire growth or extreme fire behavior as determined by fuels and fire specialists on the ground. The tabular and graphical information also do not preclude coordination between the NWS forecasters and the local land management agencies they serve.

The fuel status map has moved to a semi-automated system which integrates ERCs from user-selected RAWS stations and compares the average ERC for a zone with a threshold set for the zone by the responsible fuel specialist. Below is a chart detailing the workings of the semi-automated system:

The fuel status map will continue the experimental change of last year, using a user inputted system, where predictive services will coordinate weekly with fuel specialists (or more frequently if conditions warrant), and manually edit zones into the same 3 color schemes of:

- 1. Not Critical (green)
- 2. Marginally Critical (yellow)
- 3. Critical (red)

### 6. Fire Indices Information

Current Energy Release Component (ERC), 100hr and 1000hr charts, will be run locally at the GBCC and will be available at the Great Basin Predictive Services Website: ERC <u>http://gacc.nifc.gov/gbcc/fuels.php</u>

These charts track current Fire Danger conditions through a specified period of time and relate the current conditions to maximum, minimum and normal ranges.

These charts are updated daily during fire season, generally beginning June 1 and continuing through October 31 but also available throughout much of the year if data is available.

### B. Land Management Liaison

Predictive Services meteorologists will act as a liaison on issues regarding weather, climate, and fuels between the land management agency partners in the GB and service providers in these areas, including the NWS, private sector providers, and the research community.

# C. Monitoring, Feedback and Improvement of Fire Weather Information

Land management agencies will monitor all sources of fire weather information to ensure quality, consistency, and applicability. When significant issues arise, Predictive Services will address the issue with the service provider to enhance awareness and to work toward an appropriate solution.

Items of significance include, but are not limited to:

- 1. General forecast consistency between County Warning and Forecast Areas (CWFAs), dispatch zones, and land management administrative units.
- 2. Red Flag Warning and Fire Weather Watch consistency with established criteria, timeliness of issuance, coordination and applicability.
- 3. NFDRS forecast consistency with station climate histories.
- 4. Quality of fire line observations and spot forecast feedback from the field.
- 5. Overall adherence to policy and procedure, especially as set forth in the AOP.
- 6. Feedback from the field on the quality of all forecast products, especially Red Flag Warnings and Watches and Spot forecasts.

It is imperative that field personnel provide timely feedback to the NWS about products and services. This information will be used to gauge the quality and validity of products and services, to make improvements and resolve any conflicts or discrepancies between products. Feedback should be provided as soon as possible, for best immediate action. Feedback may be positive or negative but should always be constructive and intended to provide information that will help improve products and services. Comments can be submitted through Predictive Services or directly to the NWS (Cc'd to Predictive Services).

# D. Technology and Data Transfer

Predictive Services will work to integrate advanced technology into analytical and prediction systems for use in fire management planning and operations. This will include regional numerical modeling, weather and fuels data assimilation and dissemination, and continued research and development in fire meteorology. Where fire management computer systems, such as WIMS, are available, access will be granted to NWS for the purpose of obtaining and providing mission critical information, such as weather observations and forecasts.

# E. Fire Weather Observations

Weather observations will be provided by the land agencies to the NWS to ensure sufficient information is available to produce quality forecast products. RAWS observations will comply with NWCG standards for quality and timeliness. RAWS will be sited and maintained in accordance with the NWCG PMS 4263, "National Fire Danger Rating System Weather Station Standards."

Weather observations at or near the fire or project site are highly recommended when requesting a spot forecast. If this is not possible, observations from a nearby, representative RAWS site may be substituted. Fire-line observations are strongly preferred. Agency personnel should provide observations containing, at a minimum: temperature, humidity, wind speed and direction, and weather and sky condition that complies with guidance provided in NFES 2140, "Weather Station Handbook – an Interagency Guide for Wildland Managers." Keep in mind that the quality of the observation, or how representative it is of conditions at the fire or project site, will affect the precision a forecaster can provide in a spot weather forecast.

For large or complex planned projects requiring spot forecasts, such as prescribed burns, aerial spraying, rehabilitation, etc., it is strongly recommended that observations be taken for a minimum of seven (7) days, 24 hours a day, prior to commencement of the project. This will provide forecasters with a history of diurnal variations of weather, temperature, humidity, and wind at or near the project site. For smaller, less complex projects, such as pile burns, observations should be collected for a minimum of two (2) days.

# F. Incident Response

The NWS is the provider of Incident Meteorologists (IMETs). Predictive Services meteorologists can respond to incidents when the NWS cannot provide a certified IMET within 24 hours of request receipt by the National Fire Weather Operations Coordinator (NFWOC). In these instances, and when requested by incident command staff, Predictive Services meteorologists will provide forecast support as a Technical Specialist until the arrival of a certified NWS IMET. Technical Specialists will not be used as a substitute for NWS IMETs. Forecast support will revert to the NWS IMET after a reasonable transition period.

### **Joint Responsibilities**

Predictive Services or NWS meteorologists may be asked to provide briefings to agency decision makers. These briefings generally occur during peak periods of the fire season or when a Multi Agency Coordination (MAC) Group has been convened. The briefings usually include a short term weather discussion of critical weather patterns and a longer term discussion of trends during the next several days. The briefings provide tactical (operational) and strategic (planning) information for land managers.

Briefing schedules vary with planning and staffing levels, fire activity, and management priorities. Predictive Services will provide briefing schedules and conference bridge phone numbers, as needed.

### **Coordination Calls**

GACC-wide weather and fuels coordination calls during the 2025 fire season will continue through the SLACK chat forum.

### NWSChat 2.0

NWSChat 2.0 is an online chat tool available to help NWS Meteorologists and Fire Managers better communicate, especially during periods of active fire weather. Fire Managers must register online to be given a username and password. Each NWS office hosts a Slack channel. There is now also a "gacc-great-basin" Slack channel (channel ID: C05ENQFN2D9) where all NWS offices within GB can post and fire managers throughout the GACC can see updates. For more info on NWSChat 2.0 see the website: <u>https://www.noaa.gov/NWSChat</u>. To register for NWSChat 2.0 see <u>https://partnerservices.nws.noaa.gov/registration/</u>

# Training

Training for weather sections of S190, S290, S390 and other fire weather courses can be provided at customer request. Requests can be made at any time of year to any of the NWS offices in the Great Basin. Requests will generally be met unless there are scheduling or staffing conflicts at the NWS office. In these cases, the requesting person or agency should provide alternate dates. If this is not possible, the NWS will assist in locating another trainer from another NWS office, or as necessity dictates, from the GACC. Reimbursement for NWS instructor travel costs is required for all training requests.

Cross training between NWS and GACC meteorologists is encouraged. NWS forecasters can detail at the GACC to gain an understanding of the decision support role Predictive Services fills in fire operations. GACC meteorologists can shadow NWS forecasters to view the forecast preparation process utilizing technologies available at NWS offices. Scheduling of cross training visits should be coordinated between the requesting meteorologist, and both the NWS Meteorologist-in Charge and the Predictive Services Program Manager.

### **Joint Responsibilities**

Predictive Services and NWS meteorologists will cooperatively develop, perform, and report verification results of prepared fire weather products. These will include, but are not limited to: Red Flag Warnings and Fire Weather Watches; NFDRS point forecasts; 7 Day fire weather/fire potential outlooks. Data sources used in verification must be well sited, representative of conditions being verified, and reliable. Data sources not listed explicitly in the AOP will be determined on a case by case basis by both NWS and Predictive Services meteorologists. Verification of Fire Weather Watches/Red Flag Warnings should generally occur within a few days of an event or a period of events. NWS and Predictive Services should discuss verification results at least annually at the end of the season to ensure consistent verification methods are used and to share lessons learned from each event.

Forecast zone boundaries shall be established and/or modified jointly by the NWS and the land management agencies with administrative responsibility for the affected lands. Predictive Services meteorologists should be included in negotiations. Existing zone boundaries may be modified to avoid splitting land management administrative boundaries between multiple NWS forecast areas. Changes must be agreed upon at least 6 months prior to implementation.

All Meteorologists should monitor the RAWS network for suspect or erroneous data, using sound meteorological judgment to determine if data is not representative of conditions. When an observation is identified as unrepresentative, forecasters should notify the GB Predictive Services meteorologist to initiate maintenance or repair of the station in question. Predictive Services will relay information regarding the network to, address issues and concerns with, and offer recommendations for improvements to the network to the USDA Forest Service Regional RAWS coordinator and to the BLM NIFC RAWS Program manager, as appropriate. Predictive Services will attempt to notify appropriate NWS offices of outages and restoration of services in a timely fashion, as time and human resources allow.

- Appendix A -(Not Published Online)

# - Appendix B -

### **NWS BOISE WEATHER FORECAST OFFICE**

### 1. CHANGES FOR THE 2025 SEASON

Fire weather briefings will no longer use GoToMeeting as the meeting platform the briefings are hosted on. The briefings will use Google Meet unless a better alternative is found. A method of recording the briefings will be pursued, but has not yet been established, and there is a possibility that only the live portion of a briefing will be available this season. However, the slides from the presentation will be sent out after each briefing, even if no recording is available.

Haines and LAL have been discontinued. No standard Haines replacement has been developed. Forecasters will highlight instability in the discussion portion of the Fire Weather Planning Forecast (FWF). Dry and unstable RFWs will still be issued in the forest zones. To replace LAL, a chance of thunder line listed as a percentage will be included in the FWF, but not spot weather forecasts. Red Flag Warning criteria will not be affected by this change.

Under extreme scenarios (generally greater than 99th percentile of wind/RH combination in/near populated areas), a Particularly Dangerous Situation (PDS) Red Flag Warning may be issued.

#### 2. HOURS OF OPERATION

Once-a-day issuance of the Planning Forecast (FWF) typically begins in mid-May, <u>but</u> will be dependent on ongoing weather and fuel conditions. These forecasts will be issued daily by 0830 MDT.

Starting dates for the full complement of fire weather products, including NFDRS Forecasts and twice-daily Planning Forecasts, will depend on variables such as fuel dryness and customer needs. This typically occurs by early June.

Staff meteorologists are available any time; 24 hours a day, 7 days a week. The fire weather desk is staffed from 0700 to 1500 MDT during the fire season along with the shoulder seasons.

### 3. STAFF AND CONTACT INFORMATION - See Appendix A.

### 4. FIRE WEATHER SERVICES

#### A. Description of the Boise Fire Weather District within the Great Basin:

#### West Central Idaho Mountains

Zone 401 – Western Payette NF and SITPA Zone 402 – Eastern Payette NF Zone 403 – Northern Boise NF Zone 421 – Southern Boise NF/Western Sawtooth NF

#### **Southwest Idaho**

- Zone 400 Northern Boise BLM Zone 420 – Treasure Valley BLM
- Zone 423 Owyhee Mountains Zone 424 Western Twin Falls BLM Zone 426 Southern Highland

### **B. Basic Meteorological Services**

**Weather Briefing:** A daily briefing will be conducted each day at 0930 MDT (0830 PDT) for all agencies via Google Meet, unless a better alternative briefing platform is found. Before and after peak fire season, it will be held only on Mondays and Thursdays, and briefings will begin on the same date as the twice-daily Planning Forecasts, typically early June. As fuels approach critical, it will be held daily. This typically occurs by late June or early July. The briefing will include a general discussion of weather conditions and forecasts for the current day, as well a brief discussion of the extended period. Model data, satellite loops, and other items of interest will be addressed for the forecast period. The briefing will usually be about 5-10 minutes, but may be longer during active fire periods.

A method of recording the briefings will be pursued but has not yet been established, and there is a possibility that only the live portion of a briefing will be available this season. However, the slides from the presentation will be sent out to all agencies after each briefing, even if no recording is available.

**Spot Forecasts:** Requests for spot forecasts will be completed as requested. For immediate requests, spot forecasts will be completed as soon as possible. Spot forecast requests can be submitted at: https://spot.weather.gov. Alternatively, in case of spot webpage outages, spot requests can be submitted over the phone via our 24/7 phone number.

To avoid any delays in receiving the Spot Forecast, please include all the appropriate information regarding the spot. This includes both top and bottom elevations, aspect, size, reference LAT/LON when requesting spot forecasts, etc. Please include any important weather thresholds that would cause issues for your fire in the "remarks" section of the spot request (i.e. gusts over 20 mph, RH < 20%, etc). Meteorological staff will address any thresholds which may include probabilities of exceeding the thresholds. Follow-up phone calls are always encouraged and feedback is extremely useful.

### C. Product Schedule

Morning Planning Forecast (FWF) Weather Briefing Afternoon Planning Forecast (FWF) NFDRS point forecast Fire Weather Watch / Red Flag Warnings Spot Forecasts By 0830 MDT At 0930 MDT By 1500 MDT By 1530 MDT Event Driven Upon Request

# D. Red Flag Events

**Interagency Coordination:** Before the issuance of a Red Flag Warning, there will be coordination with the affected agencies, neighboring NWS offices, and any affected

IMETs in order to assess fuel conditions and general fire danger. This coordination will be conducted during the internet briefing and/or via a separate phone call, except via Slack or Google Chat with neighboring NWS offices, IMETs in the Boise WFO, and GBCC meteorologists.

**Dissemination of Fire Weather Watches and Red Flag Warnings:** Each issuance, update, or cancellation of a Fire Weather Watch or Red Flag Warning will be relayed by telephone to the dispatch offices affected by the watch or warning.

**Criteria for Red Flag Warnings and Fire Weather Watches:** Forecaster discretion may be used at any time, and may be utilized to warn users of critical fire weather conditions not captured by official Red Flag Warning criteria. Otherwise, high to extreme fire danger in conjunction with dry fuels. (Dryness level yellow or brown, as defined by the Eastern Great Basin Geographic Coordination Center 7 day Fire Potential Outlook and/or agency input.)

in combination with the following weather conditions:

**Abundant lightning**. Areal coverage at least scattered (>25%) in nature. Note that forecasters have discretion to not issue a warning if storms are expected to be very wet. Additionally, if lightning is expected to be very efficient at starting new fires (extremely dry fuels, little to no rainfall), a warning may be issued with less than 25% areal coverage.

#### and/or

Wind gusts  $\geq$  30 mph for 3 hours or more; and relative humidity  $\leq$ 15%...EXCEPT  $\geq$  25 mph and RH  $\leq$  15% in the Boise and Payette NFs (zones 401, 402, 403, and 421).

#### and/or

Dry and unstable conditions in the Boise and Payette NFs (zones 401, 402, 403, and 421) with established large wildfires. Strict criteria will not be established for the 2025 season. Examples of dry and unstable conditions may include high mixing heights with hot temperatures and low humidity (breezy winds may also be a factor), and conditions favorable for significant pyrocumulus development. Numerical examples of dry and unstable conditions that have resulted in large plume development and large fire growth have included mixing heights > 12,000 feet AGL, RH < 20%, hot temperatures, and gusts > 20 mph. These conditions often develop as part of an upper level ridge breakdown or ahead of a cold front.

**Particularly Dangerous Situation Red Flag Warnings (PDS RFWs):** Under extreme scenarios (generally greater than 99th percentile of wind/RH combination in/near populated areas), a Particularly Dangerous Situation Red Flag Warning may be issued. Additionally, this will only be issued in coordination with the affected agencies, the GBCC, and neighboring WFOs. It is intended to be issued no more than every 3 to 5 years. This will be used to help alert partner agencies as well as the public to the extreme fire weather threat. Strict criteria will not be established for the 2025 season. However, wind gusts around 20 mph or greater above standard RFW criteria in

combination with critically low RH will be considered for a PDS RFW.

**Verification of Red Flag Warnings and Events:** NWS Boise will locally archive all Fire Weather Watches and Red Flag Warnings automatically. Statistically derived values of Probability of Detection (POD), False Alarm Rate (FAR), and Critical Success Index (CSI) will be calculated. These scores will be available to the Boise MIC, NWS Western Region Headquarters, and local customers including the GBCC meteorologists on a monthly basis. They will also be summarized in the end-of-season fire weather report which will be sent by January 2026.

# **NWS Boise Area of Responsibility**



### NWS FLAGSTAFF WEATHER FORECAST OFFICE

### 1. Changes for 2025 Season

IMET Robert Rickey is now the Fire Weather Focal Point.

### 2. Hours of Operation

Staff meteorologists will be on duty and available at any time, 24 hours a day, 7 days a week.

Forecast issued twice a day NLT 0730 and 1530 MST. (during the fire season)

Forecast issued once a day NLT 0730 MST. (outside of the fire season)

# 3. Staff and Contact Information

See Appendix A.

### 4. Fire Weather Services

# A. Description of Flagstaff Fire Weather District within Great Basin:

- Arizona Fire Weather zones
  - o Zone 104: Kaibab Plateau, excluding the Kaibab NF
  - o Zone 105: Marble and Glenn Canyons north of Colorado River

### **B. Basic Meteorological Services**

**Spot Forecasts:** Requests for spot forecasts will be received via the Flagstaff Fire Weather homepage found at:<u>https://spot.weather.gov/new-request</u>

### C. Product Schedule

Morning Fire weather forecast Afternoon fire weather forecast NFDRS point forecasts Fire Weather Watch/Red Flag Warning Spot Forecasts By 0730 MST By 1530 MST By 1500 MST Event-driven On request

### D. Red Flag Events

**Red Flag Criteria:** All three of the following criteria must occur simultaneously for 3 hours.

- A. Sustained 20-ft winds of 20 mph or greater and/or gusts of 35 mph or greater.
- B. Relative humidity of 15 percent or lower.
- C. A fire danger rating of high, very high or extreme.

**Interagency Coordination:** Before the issuance of a Red Flag Warning, there will be coordination with the affected agencies and neighboring NWS fire weather offices in order to assess fuel conditions and general fire danger.

**Dissemination of Fire Weather Watches and Red Flag Warnings:** Each issuance, update or cancellation of a Fire Weather Watch or Red Flag Warning will be relayed by telephone or fax to the dispatch office(s) and GACCs affected by the watch or warning.

**Criteria for Red Flag Events:** Standard criteria have been developed for the Great Basin and can be found starting on page 8. However, local criteria specific to an area may be used in addition to the standard criteria.



# WFO Flagstaff Fire Weather Zones

### **GRAND JUNCTION WEATHER FORECAST OFFICE**

### 1. CHANGES FOR 2025:

No certified IMET's available as of March 31 (Jeff Colton retired). One trainee identified but is going through initial phases of training and will not be available until 2026 at the earliest.

# 2. HOURS OF OPERATION

Staff fire weather meteorologists are on duty and available at any time, 24 hours a day, 7 days a week, 365 days a year.

### 3. STAFF AND CONTACT INFORMATION

See Appendix A.

### 4. FIRE WEATHER SERVICES

### A. Description of the Grand Junction Fire Weather District:

NWS Grand Junction CWA will issue all fire weather products for the fire zones in eastern Utah listed below. These products will include the Fire Weather Planning Forecast, Red Flag Warnings and Fire Weather Watches and spot forecasts.

Zone 485 – Eastern Ashley National Forest Zone 486 – Eastern Uintah Basin Zone 487 – Book Cliffs Zone 490 – Colorado River Basin Zone 491 – Southeast Utah

Please see the map at the end of this section.

### **B.** Spot Forecasts

The Grand Junction office prepares spot weather forecasts for prescribed burns and wildfires as requested for locations within the office's County Warning Area, which includes spots requested within fire zones listed above. The primary means of requesting and disseminating spot forecasts is the NWS Spot Internet-based spot request and reply program, found at:

https://spot.weather.gov/?lat=39.0&lon=-107.9&zoom=6

To ensure receipt by the fire weather forecaster, the requester should call the NWS after submitting each spot request. This call will serve two purposes: to confirm receipt of the request and provide an opportunity for the requester or the fire weather forecaster to ask questions. The forecaster will also be able to advise the requester of a possible delay in completing the forecast due to multiple spot requests. The fire weather forecaster will provide the same courtesy by calling the requesting agency after completing each spot forecast.

At the beginning of a project, observations from a nearby RAWS site may be used for the INITIAL spot request. Unless the RAWS site is physically located on the burn project, all further spot requests must include weather observations taken by on-site personnel or other on-site instrumentation.

### C. Product Schedule

Morning fire weather forecast Afternoon fire weather forecast NFDRS trends forecast Fire Weather Watch / Red Flag Warnings Spot forecasts NLT 0700 MDT NLT 1500 MDT NLT 1545 MDT Event-Driven Upon request

### **D. Red Flag Events**

WFO Grand Junction issues Red Flag Warnings and Fire Weather Watches for eastern Utah fire zones:

Zone 485 – Eastern Ashley National Forest Zone 486 – Eastern Uintah Basin Zone 487 – Book Cliffs Zone 490 – Colorado River Basin Zone 491 – Southeast Utah

**Interagency Coordination:** Before issuing a Fire Weather Watch or Red Flag Warning, NWS Grand Junction forecasters will coordinate with neighboring NWS fire weather offices, and assess fuel conditions and general fire danger using the GACC fuels page and from GACC/NWS conference calls. NWS Grand Junction will coordinate with the GACC meteorologist when considering a Fire Weather Watch or Red Flag Warning outside the normal fire season.

### E. Smoke Management Forecast

A Graphical Utah Clearing Index Forecast is available in the fire weather sections of the Grand Junction and Salt Lake City web pages.

WFO Grand Junction will include smoke management parameters (Mixing Height, Transport Wind, and Clearing Index) within the Fire Weather Planning Forecast

#### F. Incident Meteorologists (IMETs)

The Grand Junction office has no available certified IMET's for the 2025 season.



WFO Grand Junction Fire Weather Zones

### ELKO WEATHER FORECAST OFFICE

### 1. CHANGES FOR 2025

No available certified IMETs (Derek has transitioned to SPC). One IMET trainee (Craig Oswald (T)). Craig Oswald is the new Fire Weather Program Leader.

### 2. HOURS OF OPERATION

Staff meteorologists are on duty at WFO Elko 24 hours a day throughout the year. Scheduled dates and times for Fire Weather Planning Forecasts are:

- In-season: 5/1 through 10/31:
  - Forecast issued twice a day no later than 1530 PDT for day shift and no later than 0400 PDT for night shift.

# 3. STAFF AND CONTACT INFORMATION

See Appendix A.

### 4. FIRE WEATHER SERVICES

### A. Description of the Elko Fire Weather District:

Western Great Basin Fire Weather Zones

Zone 424 – Southeastern Humboldt County and Northern Lander County Zone 425 – White Pine and Northeast Nye County Zone 426 – Northern Nye County Zone 427 – Central Nevada Zone 437 – Humboldt County Zone 438 – Western Elko County/Northern Lander and Eureka Counties north of Interstate 80 Zone 469 – Central Elko County Zone 470 – Eastern Elko County

See map at the end of this section.

### **B. Basic Meteorological Services**

Spot Forecasts: Requests for spot forecasts will be received via the National Weather Service Spot Forecast Request web page: <u>https://spot.weather.gov/</u> Follow-up phone calls are encouraged when requesting spot forecasts.

Forecast feedback is imperative to improving services. In many cases, the only way the forecaster will know what happened on a remote incident is through feedback from the fire community. You can phone in concerns or comments about forecasts to the forecaster on duty. Feedback may also be submitted in the remarks section on the next internet spot forecast request, or by using the feedback option on the already processed internet-based spot forecast. Lastly, block 13 on the WS Form D-1 may be used in subsequent spot forecast requests. If forecast services or weather conditions significantly impact operations, please notify the WFO - Elko Forecaster on Duty at (775) 778-6720.

Impact-based sub-severe Special Weather Statements (SPSs): WFO Elko issues sub-severe special weather statements (SPSs). This product will provide forecast information for immediate fire weather concerns primarily affecting fire personnel on an incident. Either the incident commander or Dispatch Center will be notified to provide information on the impact and timing of the hazard.

### C. Product Schedule

Morning Fire weather forecast Impact-Based sub-severe Special Weather Statements Afternoon fire weather forecast NFDRS trends forecast Fire Weather Watch/Red Flag Warning Spot Forecasts

By 0630 PDT Event-driven By 1500 PDT By 1500 PDT Event-driven On request

# D. Red Flag Events

### InteragencyCoordination:

Before the issuance of a Red Flag Warning, there will be coordination with the affected agencies and neighboring NWS fire weather offices in order to assess fuel conditions and general fire danger.

# **Dissemination of Fire Weather Watches and Red Flag Warnings:**

Each issuance, update or cancellation of a Fire Weather Watch or Red Flag Warning will be relayed by a variety of methods, including NWSChat 2.0 (Slack) or phone, depending on the needs of the dispatch center. Typically, the GACC will be notified of planned Fire Weather Watches and Red Flag Warnings during the coordination call. Otherwise, NWS Elko will notify the GACC in instances where no coordination call is planned.

### Criteria for Red Flag Warnings and Fire Weather Watches:

Standard criteria have been developed for the Western Great Basin and can be found starting on page 4. However, local criteria specific to an area may be used in addition to the standard criteria.

issued by the WFO. Weather conditions promoting the spread of wildfire include scattered dry thunderstorms and/or gusty winds combined with critically low RH.

- 1. Dry Thunderstorm coverage of 15% or more of a fire weather zone or zones.
- 2. Forecast minimum relative humidity of 15% or less and winds, including gusts (20 foot 10 min avg) expected of 30 MPH or more for 3 or more non-consecutive hours.
- 3. In the judgment of the forecaster, weather conditions that promote a critical fire weather situation. These conditions may include strong microburst or downburst winds, cold frontal passage or strong wind shift, and in rare circumstances, extremely hot and dry conditions.

Special circumstances in the overall fire environment (i.e. extremely dry fuels during the off-season) could necessitate the issuance of Fire Weather Watches and/or Red Flag Warnings.

# E. Additional Decision Support Services

**Heads-up emails:** NWS Elko will send out heads-up emails to local fire partners ahead of expected significant fire weather events and ahead of expected elevated fire weather conditions. Examples of significant fire weather events in this context would be: A large or widespread dry lightning outbreak, long duration synoptic wind and low RH event, or a situation where several on-going large fires are combined with a significant dry lighting outbreak or synoptic event. This would limit the issuance of the heads-up emails to an infrequent basis. Examples of elevated fire weather conditions in this context would be: "Local Thresholds - Watch out" conditions outlined on agency pocket cards. To be added to the email list, please contact the Fire Weather Program Team.

**Social Media:** NWS Elko routinely makes updates to their pages on Facebook and X. Although warnings are not disseminated through social media, updates will highlight upcoming critical fire weather events. Since the Elko CWA lacks a major media market, social media is an important avenue for the public in central and northeastern Nevada to receive fire weather updates.

Facebook: <a href="http://www.facebook.com/US.NationalWeatherServiceElko.gov">http://www.facebook.com/US.NationalWeatherServiceElko.gov</a>

X: <u>https://x.com/nwselko/</u>

# WFO Elko Fire Weather Zones



# NWS LAS VEGAS WEATHER FORECAST OFFICE

# 1. Changes for 2025 Season

None.

### 2. Hours of Operation

Staff meteorologists are on duty at WFO Las Vegas 24 hours a day throughout the year. Scheduled dates and times for the Fire Weather Planning Forecast and NFDRS forecasts are:

- Planning Forecast issued twice daily by 0700 and 1500 PDT as fire potential increases.
- NFDRS forecast issued by 1530 PDT.
- Off season:
  - Planning Forecast issued once daily by 0700 local time. NFDRS forecast issued by 1430 PDT.
- Depending on variables such as fuel parameters and customer need, seasonal Fire Weather dates may begin earlier in the season or continue later in the season.

# 3. Staff and Contact Information

See Appendix A.

# 4. Fire Weather Services

- A. Description of the Las Vegas Fire Weather Area (Great Basin Portion):
  - Fire Weather Zones in the Great Basin:
    - o Northern Zone 101: Lake Mead National Recreation Area
    - o Northern Zone 102: Northwest Plateau (Arizona Strip) and Northwest Deserts
    - o Zone 460: Central Nevada Dispatch Southern Deserts & Esmeralda and parts of Central Nye County
    - o Zone 461: Lincoln County Ely Dispatch
    - o Zone 462: Nye County Deserts LV Dispatch
    - o Zone 463: Sheep Range
    - o Zone 464: Spring Mountains
    - o Zone 465: Clark and SW Lincoln County Deserts
    - o Zone 466: Lake Mead and Colorado River LV Dispatch

See map at end of this section.

### **B.** Basic Meteorological Services

Spot Forecasts: Requests for spot forecasts will be received via the Las Vegas Fire Weather homepage found at: <u>https://spot.weather.gov/</u>
#### C. Product Schedule

Morning Fire weather forecast Afternoon fire weather forecast NFDRS point forecasts Fire Weather Watch/Red Flag Warning Spot Forecasts NLT 0700 Pacific Time NLT 1530 Pacific Time NLT 1530 Pacific Time Event-driven On request

## D. Red Flag Events

**Interagency Coordination:** Before the issuance of a Red Flag Warning, there will be coordination with the affected agencies and neighboring NWS fire weather offices to assess fuel conditions and fire danger.

**Dissemination of Fire Weather Watches and Red Flag Warnings:** Each issuance, update or cancellation of a Fire Weather Watch or Red Flag Warning falling between normal narrative forecast issuance times will be relayed by telephone to the dispatch office(s) and GACC affected by the watch/warning.

#### Criteria for Red Flag Warnings and Fire Weather Watches:

Fuels are critical and sustained winds greater than or equal to 20 mph or gusts greater than or equal to 35 mph for 3+ hours and relative humidity less than or equal to 15% OR Dry Thunderstorms with areal coverage of widely scattered or greater (>15%) in a fire weather zone.

(Standard criteria have been developed for the Great Basin and can be found on page 4. However, local criteria specific to an area may be used in addition to the standard criteria. For Las Vegas, red flag criteria will include sustained winds greater than or equal to 20 mph and/or gusts greater than or equal to 35 mph for 3 or more hours in a given period.)

#### E. Smoke Management Forecast

Mixing Height, Transport Winds and Ventilation Category are provided for each zone in the fire weather planning forecast. That information is provided for a single point in each zone with that point noted at the end of the fire weather planning forecast.

#### F. Incident Meteorologists (IMETs)

The Las Vegas NWS office has one IMET available for dispatch – Andy Gorelow.

#### G. Additional Decision Support Services

**Heads-up emails:** NWS Las Vegas will send out heads-up emails to local fire partners ahead of expected weather events. To be added to the email list, please contact Andy Gorelow (andy.gorelow@noaa.gov) and Trevor Boucher (trevor.boucher@noaa.gov).

**Social Media:** NWS Las Vegas routinely makes updates to their pages on Facebook and X. Although warnings are not officially disseminated through social media, updates will highlight upcoming critical fire weather events.

Facebook: http://www.facebook.com/US.NationalWeatherServiceLasVegas.gov

#### X: https://x.com/nwsvegas/



## WFO Las Vegas Fire Weather Zones

# POCATELLO WEATHER FORECAST OFFICE

## 1. CHANGES FOR 2025 SEASON

No changes.

#### 2. HOURS OF OPERATION

Staff meteorologists are on duty at WFO Pocatello 24 hours a day throughout the year. Concerns about current or developing weather conditions may be discussed anytime by calling (208) 232-9357.

## 3. STAFF AND CONTACT INFORMATION

See Appendix A.

## 4. FIRE WEATHER SERVICES

#### A. Description of the Pocatello Fire Weather District:

East Central Idaho Mountains...

<u>Zone 475</u> – East Salmon River Mountains/Salmon NF: includes the western half of the Salmon-Challis NF and portions of Idaho Falls BLM District. <u>Zone 476</u> – Lemhi and Lost River Range/Challis NF: includes the eastern half of the Salmon-Challis NF and portions of the Idaho Falls BLM District. <u>Zone 422</u> – Sawtooth Range/Northern Sawtooth NF: includes the Sawtooth NRA.

#### Upper Snake River Plain...

<u>Zone 425</u> – Middle Snake River Valley/Twin Falls BLM: Includes Twin Falls BLM District north of the Snake River, Minidoka NWR, and Craters of The Moon NM. <u>Zone 410</u> – Upper Snake River Valley/Idaho Falls BLM: Includes Northeast portion of the Idaho Falls BLM District, Camas NWR, Idaho Department of Lands – Cotton Protective District, southeastern Birch Creek and Little Lost River Valleys.

Upper Snake Highlands...

<u>Zone 411</u> – Centennial Mountains and Snake River Range/Targhee NF: Caribou-Targhee NF north of Palisades Reservoir, excluding the eastern slopes of the Lemhi Mountain Range.

#### Southeast Idaho Highlands...

<u>Zone 427</u> – Goose Creek and Raft River Valley/Southern Sawtooth NF: Includes the southern portion of the Sawtooth NF, and portions of the Twin Falls BLM District south of the Snake River.

Zone 413 – Caribou Range/Caribou NF: Caribou-Targhee NF south of Palisades

Reservoir, portions of the Idaho Falls BLM District east of Snake River, Grays Lake NWR, and Bear Lake NWR.

## **B. Scheduled Services**

Seasonal schedule for the Fire Weather Planning Forecast is:

| Third Monday in May, as needed after twice daily issuance ends.    | Forecast issued once a day NLT 0700<br>MDT        |
|--|---|
| Third Monday in June through the end of significant fire activity. | Forecast issued twice a day NLT 0700 and 1530 MDT |

Start and end dates may be adjusted depending on weather, fuel status or customer request.

| Recorded Briefings (Year-Round)<br>https://www.weather.gov/pih/Briefing | NLT 0600 Local Time<br>focus shifts to seasonal concerns<br>(winter, spring flooding, wildfires) |
|---|--|
| Morning fire weather forecast   | NLT 0700 MDT   |
| Afternoon fire weather forecast   | NLT 1530 MDT   |
| NFDRS forecast (Year Round)   | NLT 1545 MDT   |
|   |  |

#### C. On-Demand/Event Driven Services

# FMO Coordination Calls:

Staff Meteorologists are available to participate in weekly FMO Coordination Calls held by the dispatch centers. Participation will be primarily focused on obtaining information on operational issues and needs of the FMOs on the call, and may include a short weather update if requested by the FMO group.

# Hazard Monitoring/Storm Tracking:

Staff Meteorologists will attempt to monitor publicly available sources of fire information to identify when new fire incidents have been detected by fire agencies and when significant changes are reported for ongoing fire incidents. When new incidents or significant changes to ongoing incidents are noted, Staff Meteorologists may (time and duties permitting):

- → Initiate contact with the Dispatch Center (new incidents) to obtain more information on the emerging incident and determine if further monitoring or support is appropriate (i.e. smoke check or level of resource response).
- → If an event warrants further monitoring or support, and a weather hazard is anticipated to impact an incident, the forecaster may:
  - Time permitting, contact the Dispatch Center to provide information on the impact and timing of the hazard; AND/OR
  - Issue a significant Weather Advisory (SPS) for storms not meeting severe (SVR)/tornado(TOR) warning criteria: OR
  - ◆ Issue a SVR or TOR if appropriate criteria is met
- → This process and response is intended to supplement, and not replace, weather monitoring conducted by staff at Dispatch Centers or on incidents.

## Incident Team In-Briefings:

The Weather Forecast Office in Pocatello welcomes the opportunity to participate in local Incident Command System In-Briefings, to share knowledge of the local area, and assist both the assigned Incident Meteorologist and Incident Staff as appropriate

Spot Forecasts: Requests are submitted at: https://spot.weather.gov/

Completed forecasts at: <u>https://spot.weather.gov/</u>

# **On-site Decision Support for Interagency Fire Centers:**

During peak fire season, WFO Pocatello offers on-site decision support for the three Interagency Fire Centers. For travel costs and support of a meteorological technical specialist, an agreement between the Fire Center and WFO Pocatello must be arranged if overnight stays are necessary. Once this is clear, the Dispatch Center can order a technical specialist through IROC from National Weather Service Pocatello. Conditions that may warrant this kind of support include numerous initial or extended attack incidents in the Area of Responsibility where an Incident Meteorologist is not normally ordered. The technical specialist can provide support to aviation assets or other nearby units as needed and fits within the specialist's times of availability.

#### **Red Flag Watches/Warnings:**

#### Interagency Coordination:

Before a Red Flag Warning is issued, there will be coordination with the affected agencies to assess fuel conditions and general fire danger. The Critical Fuels Status page maintained by Predictive Services is a primary source of fuels information. The 7-Day Fire Potential product issued by Predictive Services will also be used, along with coordination with the affected agencies.

The forecaster on day shift will usually make the necessary coordination calls. If timing requires, the evening or midnight shift may upgrade a previously coordinated Fire Weather Watch to a Red Flag Warning.

#### **Dissemination of Fire Weather Watches and Red Flag Warnings:**

Less than 24 Hour Dispatch Center Staffing:

- During staffed hours, each issuance, update or early cancellation will be relayed by phone to the affected dispatch office(s) and the GB GACC.
- During non-staffed hours and where the conditions of the warning are not expected to develop until later in the day:
  - SIIDC, CIIFC: Notification will be provided by group email to all members in the affected dispatch center(s). Please verify receipt of the watch/warning as soon as practical.
  - EIIFC: Notification will be provided by phone ASAP after 700am.
- During non-staffed hours:
  - If unforeseen warning conditions develop, notification will be provided by phone at the on-call number provided by the affected center(s).
  - If a warning is canceled prior to expiration time, a single call will be made to GBCC Predictive Services.

#### **Red Flag Warning Criteria:**

Fire Weather Watches and Red Flag Warnings, are issued for conditions of <u>very high or</u> <u>extreme fire danger</u> (as determined by land management agencies) and <u>dry fuels</u>, in combination with one of the following:

- Scattered or greater (≥ 25% of aerial coverage) wet or dry thunderstorm activity. We will coordinate with local dispatch centers on the preference for RFWs based on current and forecasted weather and fuels conditions.
- Winds gusts for any three or more hours ≥ 25 mph for Southeast Idaho Mountains, ≥ 30 mph for the Snake River Plain and relative humidity is ≤ 15 percent.
- 3. In the judgment of the forecaster, weather conditions will create a critical fire control situation. These conditions may include strong microburst winds, passage of a cold front or a strong wind shift.

# WFO Pocatello Fire Weather Zones



Figure 1 WFO Pocatello Fire Weather area of responsibility (solid color areas).

## **RENO WEATHER FORECAST OFFICE**

#### 1. CHANGES FOR 2025

None

# 2. HOURS OF OPERATION

Depending on variables such as fuel parameters and customer need, seasonal Fire Weather Hours of Operation will be:

5/15 through 10/31: 0800-1600 PDT, Forecast issued twice a day 0400-0730 and NLT 1530 PDT.

Staff meteorologists are on duty and available at any time, 24 hours a day, 7 days a week.

## 3. STAFF AND CONTACT INFORMATION

See Appendix A.

# 4. FIRE WEATHER SERVICES

#### A. Description of the Reno Fire Weather District:

Western Great Basin Fire Weather Zones

| Zone 420 Northern Sierra Front including Carson City, Douglas, Storey,   |  |  |
|--|--|--|
| Southern Washoe, Western Lyon, and Far Southern Lassen Counties          |  |  |
| Zone 421 Southern Sierra Front including Alpine, Northern Mono, Southern |  |  |
| Lyon, and Western Mineral Counties                                       |  |  |
| Zone 423 West Humboldt Basin in Pershing County                          |  |  |
| Zone 429 Lahontan Basin including Churchill and Eastern Mineral Counties |  |  |
| Zone 458 Northern Washoe County  |  |  |
| Zone 272 Greater Lake Tahoe and Truckee Area, including the Carson Range |  |  |

See map at end of this section.

#### **B. Basic Meteorological Services**

**Spot Forecasts:** Requests for spot forecasts will be received via the Reno Fire Weather homepage found at: <u>https://spot.weather.gov/</u>

Follow-up phone calls are encouraged when requesting spot forecasts. In the event internet communications are not available, spot requests may be made by phone.

Forecast feedback is imperative to improving services. In many cases, the only way the forecaster will know what happened on a remote incident is through feedback from the fire community. You can call with concerns or comments about forecasts to the forecaster on duty. Feedback may also be submitted in the remarks section on the next spot request, or by using the feedback option on the already processed internet-based spot forecast. If forecast services or weather conditions significantly impact operations, please notify the Fire Weather Program Leader, via phone or email. See Appendix A for contact information.

## C. Product Schedule

Morning fire weather forecast Afternoon fire weather forecast NFDRS forecast Fire Weather Watch / Red Flag Warnings Spot forecasts 0400-0730 PDT NLT 1530 PDT NLT 1545 PDT Event-Driven Upon request

## D. Red Flag Events

**Interagency Coordination:** Before the issuance of a Red Flag Warning, there will be coordination with the affected agencies and neighboring NWS fire weather offices in order to assess fuel conditions and general fire danger.

**Dissemination of Fire Weather Watches and Red Flag Warnings:** Each issuance, update or cancellation of a Fire Weather Watch or Red Flag Warning will be relayed by telephone to the dispatch office(s) and GACC affected by the watch/warning.

**Local Criteria for Red Flag Events:** Standard criteria have been developed for the Western Great Basin and can be found starting on page 4. However, local criteria specific to an area may be used in addition to the standard criteria.

**Lake Tahoe Basin (Fire Zone 272):** Wind gusts >30 mph with Relative Humidity less than 20%, conditions must present for 3 hours or more.

When fuel moisture become extreme, Red Flag Warnings will be issued for Gusts > 30 mph regardless of humidity. Fuel Moisture will be closely coordinated with the Lake Tahoe Basin Management Unit and other partner agencies to determine when they transition from critical to extreme.

# E. Briefings

**Reno Fire Weather Briefing Calls:** These will be conducted through the fire season as needed at 0945. Briefings will be held daily during critical fire weather patterns or during periods of numerous ongoing wildfires. Calls will consist of an overview of the warnings and watches throughout the region, a satellite/radar overview, with detailed analysis of critical fire weather parameters such as winds, humidity and lightning.

#### F. Additional Decision Support Services

**Fire Partner emails:** NWS Reno will send out heads up emails to local fire partners ahead of expected weather events. To be added to the email list, please contact Tony Fuentes (tony.fuentes@noaa.gov).

**Dispatch Center Support:** NWS Reno will send fire weather forecasters to the Sierra Front Interagency Dispatch Center in Minden, Nevada during high-impact weather events. The NWS or Sierra Front Center Manager may initiate support at the SFIDC during widespread lightning events that are expected to start new wildfires as well as critical wind events during on-going wildfires. NWS Reno will provide a forecaster to go to the Dispatch Center whenever possible, as long as staffing allows.

**Social Media:** NWS Reno routinely provides updates on Facebook and X. Although warnings are not disseminated through social media, updates will highlight upcoming critical fire weather events.

Facebook: http://www.facebook.com/nwsreno

X: <u>https://x.com/nwsreno</u>



#### **WFO Reno Fire Weather Zones**

# NWS RIVERTON WEATHER FORECAST OFFICE

#### 1. Changes for 2025 Season

No changes.

#### 2. Hours of Operation

Staff meteorologists will be on duty and available at any time, 24 hours a day, 7 days a week.

## 3. Staff and Contact Information

See Appendix A.

## 4. Fire Weather Services

## A. Description of Riverton Fire Weather District:

- Great Basin Fire Weather zones
  - o Zone 414: Bridger-Teton NF in Lincoln County and Sublette County.
  - Zone 415: Bridger-Teton NF in extreme western Fremont County and southwest Park County, Teton County excluding much of the Caribou-Targhee NF and extreme northwest Sublette County.
  - o Zone 416: Bridger-Teton NF and surrounding mountains in Sublette County east of Highway 189/191 and a small portion of Fremont County west of the Continental Divide.

See map at end of section.

#### **B. Basic Meteorological Services**

**Spot Forecasts:** Requests for spot forecasts will be received via the NWS Spot Forecast homepage found at: <u>https://spot.weather.gov</u>

#### C. Product Schedule

| Morning Fire weather forecast       |  |  |
|-------------------------------------|--|--|
| Afternoon fire weather forecast     |  |  |
| NFDRS point forecasts               |  |  |
| Fire Weather Watch/Red Flag Warning |  |  |
| Spot Forecasts                      |  |  |

By 0700 MDT NLT 1500 MDT NLT 1545 MDT Event-driven On request

Depending on variables such as fuel parameters and customer needs, the schedule for the Fire Weather Planning Forecast is as follows:

| November through April | Automated forecast (no discussion)<br>issued once a day NLT 0700<br>MST/MDT.       |
|------------------------|--|
| May and October        | Forecast issued once a day NLT 0700<br>MDT unless conditions warrant<br>twice/day. |
| June through September | Forecast issued twice a day NLT 0700 and 1530 MDT.                                 |

## D. Red Flag Events

**Interagency Coordination:** Before the issuance of a Red Flag Warning, there will be coordination with the affected agencies and neighboring NWS fire weather offices in order to assess fuel conditions and general fire danger.

**Dissemination of Fire Weather Watches and Red Flag Warnings:** Each issuance, update or cancellation of a Fire Weather Watch or Red Flag Warning will be relayed by telephone to the dispatch office(s) and GACC affected by the watch/warning.

# Criteria for Red Flag Warnings and Fire Weather Watches:

Standard criteria have been developed for the Great Basin and can be found starting on page 4. However, the following local criteria may be used in addition to the standard criteria.

- 1. Widely scattered or greater coverage of dry lightning, or widely scattered or greater coverage of thunderstorms after an extended dry period, even though some or most of the thunderstorms are expected to be wet.
- 2. A combination of dry, warm, unstable, and windy conditions, that in the judgment of the fire weather forecaster, creates conditions favorable for extreme fire behavior. For example, a strong, dry cold frontal passage could create these conditions.

#### **Red Flag Verification**

Red Flag Warnings for Winds and RH will be considered verified when sustained winds or frequent gusts of 25 mph or higher are observed, combined with an RH of 15 percent or lower for any three hour observations within a given zone. The

three observations can be from one sensor or multiple sensors, but must encompass 3 separate hours out of a consecutive 8 hour period.



#### **Riverton WFO Fire Weather Zones**

# NWS SALT LAKE CITY WEATHER FORECAST OFFICE

#### 1. Changes for the 2025 Season

None.

#### 2. Hours of Operation

Sunday May 4th through Saturday October 18th - Designated Fire Weather Desk 0700-1600 MDT

Depending on variables such as fuel parameters and customer need, and with consultation from the GACC and Interagency Fire Centers, the beginning and end dates during which the fire weather desk is staffed is subject to change.

Staff meteorologists will be on duty and available at any time, 24 hours a day, 7 days a week.

Fire Weather Planning Forecasts will be issued twice daily, NLT 0500 and 1500 MDT.

#### 3. Staff and Contact Information

See Appendix A.

#### 4. Backup Operations

On occasion, SLC may be unable to perform normal operations. In this event, WFO Grand Junction, CO (GJT) will serve as SLC's primary backup and WFO Pocatello, ID (PIH) will serve as SLC's secondary backup.

#### 5. Fire Weather Services

#### A. Description of Salt Lake City Fire Weather District:

# WFO SLC will produce Site-specific (Spot), NFDRS Forecasts, RFW, and FWF for their CWA which includes the following zones:

**Zone 478, "Salt Lake Desert".** This zone includes the Great Salt Lake Desert and the Wasatch Front from Nephi to the Idaho border.

**Zone 479, "Wasatch Mountains".** This zone includes the Wasatch Mountains, Wasatch Mountain Valleys, the Cache Valley and the Bear River Valley along the Wyoming border.

**Zone 480, "Uinta Mountains".** This zone includes the north slopes of the Uinta Mountains in Summit County.

**Zone 481, "Western Ashley National Forest".** This zone includes the south slopes of the Uinta Mountains in Duchesne County.

**Zone 482, "Western Uintah Basin".** This zone includes the western portion of the Uintah Basin in Duchesne County.

**Zone 483, "Southern Ashley National Forest".** This zone includes the Ashley National Forest in the extreme eastern portion of Wasatch County and southwest Duchesne County.

**Zone 484, "Tavaputs Plateau".** This zone includes the Tavaputs Plateau and the western portion of the Book Cliffs.

**Zone 488, "Manti National Forest".** This zone includes the northern portion of the central mountains, otherwise known as the Wasatch Plateau. This area is mostly contained within Sanpete County.

**Zone 489, "San Rafael Swell".** This zone includes Castle Country and the San Rafael Swell.

**Zone 492, "Central Utah West Desert".** This zone includes the west desert of Juab and Millard Counties, as well as the northern half of the Sevier Valley.

**Zone 493, "Central Utah Mountains".** This mountainous zone lies mainly within the counties of Sevier and Piute, as well as the western portion of Wayne County. **Zone 494, "Henry Mountains".** This zone includes the Henry Mountains, northwest portion of Canyonlands, and the eastern portion of Capitol Reef National Park.

**Zone 495, "Color Country West Desert"**. This zone includes most of the lower elevations of Iron and Beaver Counties.

**Zone 496, "Color Country Mountains".** This zone includes the higher terrain of southwest Utah from the Pine Valley Mountains, eastward to Boulder Mountain, and the western portion of Capitol Reef National Park.

**Zone 497, "Mojave Desert".** This zone includes the northern portion of the Arizona Strip, within Washington County, Utah.

Zone 498, "Grand Staircase". This zone includes the Grand

Staircase-Escalante National Monument in Kane and southern Garfield Counties, as well as the Lake Powell region.

See map at the end of this Fire Weather Services section.

# **B. Basic Meteorological Services**

The following services are provided to Land Management Agencies in the state of Utah:

When severe weather events may impact prescribed burn and/or wildland fire

operations, the following approach should be followed. Upon request from fire personnel, workload permitting, Weather Forecast Office personnel will provide monitoring of a staffed fire incident until no longer needed, or the request is rescinded. Any perceived severe weather hazard information should be relayed via phone communication to the appropriate dispatch office.

Severe weather events include, but are not limited to, thunderstorms with erratic winds and/or the potential to produce flash flooding or debris flows, frontal passages, strong synoptic wind events, and downslope wind events.

**Partner Email Briefing:** Partner Email Briefings, including an overview of potentially hazardous weather conditions over the next 7 days, will be issued by 10 a.m. each Monday. Event-driven briefings will be issued by 10 a.m. on other days of the week, as appropriate. Updated briefings will be sent if changes to messaging, primarily tied to impacts, are needed. Any updated briefings will generally be sent by 3 p.m. Please send any requests related to the Partner Email Briefing distribution list to <u>nws.saltlakecity@noaa.gov</u>.

**Emergency Fire Weather Briefings:** During emergency situations when a Site-specific (Spot) Forecast will take too long to initiate, please call for weather information. Ask to speak with the Fire Weather Forecaster on duty. If a fire weather forecaster is not available, ask to speak with the Lead Forecaster.

**Smoke Management Forecasts (SMF):** Disseminated once a day with forecaster input from May 4th through October 18th by 0500 MDT. During the off season this product will be automated with no forecaster input. A graphical and point based Clearing Index forecast is also available on the <u>Clearing Index</u> webpage.

#### Site-specific (Spot) Forecasts:

Please utilize the web-based system on our homepage to request Site-specific (Spot) Forecasts: <u>https://spot.weather.gov</u>

#### Fire Weather Watches/Red Flag Warnings (RFW):

Each issuance, update or cancellation of a Fire Weather Watch or Red Flag Warning falling between normal narrative forecast issuance times will be relayed by telephone to the dispatch office(s) and GACC affected by the watch/warning.

**Dry Lightning or Low RH and Strong Winds:** FMOs, FBAs, and Burn Bosses are encouraged to call the Fire Weather Forecaster on duty whenever there is any concern about critically dry fuels and/or severe fire behavior.

Fire Weather Watches and Red Flag Warnings are based on the standard criteria set forth in the the following section of this document:

*NWS Roles 1. Basic Services – B. Red Flag Warnings* section.

**Gridded Forecast Products:** The Point Forecast Matrix (PFM) is available and accessible by clicking on a point on the map on the <u>Fire Weather Web Page</u>. This

tabular seven day forecast now contains detailed forecast parameters at 3 hour resolution out through 7 days.

**Fire Weather Color Matrix:** The experimental <u>Fire Weather Matrix</u> is available. This product is a color matrix used specifically for identifying trends of several key parameters. The Fire Weather Matrix for specific RAWS locations can be accessed from the <u>Fire Weather Data Page</u>.

Any suggestions on how to improve any forecast services are very welcome; please email or call the Fire Weather Program Leader, Mike Seaman.

#### C. Product Schedule

Morning Fire Weather Planning Forecast (FWF) Smoke Management Forecast (SMF) Afternoon Fire Weather Planning Forecast (FWF) National Fire Danger Rating System Forecast (NFDRS) Fire Weather Watch/Red Flag Warning (RFW) Site-specific (Spot) Forecast By 0500 MDT By 0500 MDT By 1500 MDT By 1545 MDT Event-driven On request



# Salt Lake City WFO Fire Weather Zones

#### Effective Dates for the Annual Operating Plan

The effective period for this Annual Operating Plan shall be from 1 May 2025 to 30 April 2026. The AOP shall be deemed official when all signatories have accepted and signed the document. Updates or amendments may be added upon agreement of all signatories.

Signatures (Electronically Stored Separately)

Brett Ostler Chair of Great Basin Coordinating Group Boise Bureau of Land Management

Date:

Mark Loeffelbein Western Region Fire Weather Program Manager National Weather Service

Date: