[Enter the Fire Weather and Fire Occurrence Analysis Document (FWOAD) Title]

*Instructions for the preparer are included in italics and should be removed upon completion, non-italicized text (outside of headers) is suggested content that, if relevant, may be included or replaced with relevant local direction/content.*

|  |
| --- |
| **Reviewed By:**  |
|   |  |  |   |
| *Replace with Name* - Fire Management Officer (FMO)*Office* |  | Date |   |
| **Prepared By:** |
|  |  |  |  |
| *Replace with Name - Title**Office* |  | Date |  |
| *(May be same person as “Reviewed By”, add lines as necessary)* |  |

Table of Contents

[I. Introduction 6](#_Toc141258249)

[II. Weather Observations 6](#_Toc141258250)

[III. Historical Weather Analysis 6](#_Toc141258251)

[IV. Fire Weather and Fire Occurrence Operating Procedures 6](#_Toc141258252)

[A. Roles and Responsibilities 6](#_Toc141258253)

[1. Compliance with Weather Station Standards 6](#_Toc141258254)

[2. Validation of Historic Fire Data 7](#_Toc141258255)

[3. Validation of Weather Data 7](#_Toc141258256)

[4. Preparation of FWOAD 7](#_Toc141258257)

[5. Update of FWOAD 7](#_Toc141258258)

[B. Seasonal Trend 7](#_Toc141258259)

[C. Daily Schedule 7](#_Toc141258260)

[Appendix 1 – Weather and Fire Occurrence Data 8](#_Toc141258261)

[1. Weather Data 8](#_Toc141258262)

[2. Fire Occurrence Data 8](#_Toc141258263)

# I. Introduction

The purpose of this document is to inform management response actions to wildland fires through analysis of historic weather and fire occurrence data. This document will help inform park superintendents, fire managers and other decision makers with base level analysis of normal conditions and help identify breakpoints for hazardous conditions. This document is a critical element in managing risk to firefighters and the public.

# II. Weather Observations

*Insert a map of Remote Automated Weather Stations (RAWS) or other points for weather data (e.g., manual sites) here:*

**Figure 1. Selected Weather Sites**

*Units with National Fire Danger Rating System (NFDRS) compliant weather stations managed in Weather Information Management System (WIMS) will identify one fuel model for each station in WIMS as Y using the Energy Release Component (ERC) index. If units have not performed detailed analysis to identify thresholds or breakpoints and fed that data back into WIMS it is recommended to use the 90th and 97th percentiles. This data will feed fire danger analysis on a national level and contribute to the maps available at:* [*http://wfas.net/*](http://wfas.net/)*/*

# III. Historical Weather Analysis

*Identify National Park Service (NPS) standard 90th and 97th percentile values in WIMS for consumption by national products here. Provide details in Appendix 1 on the process used to determine season, etc.*

# IV. Fire Weather and Fire Occurrence Operating Procedures

## A. Roles and Responsibilities

### Compliance with Weather Station Standards

*Identify who is responsible (by position(s) not name) for ensuring weather stations are compliant with National Wildfire Coordinating Group (NWCG) Standards (PMS 426-3) and timeframe for completion (e.g., annual, semi-annual, weekly).*

### Validation of Historic Fire Data

*Identify who is responsible (by position(s) not name) to validate (and provide corrections) historic fire data and timeframe for completion (e.g., annual, semi-annual, weekly).*

### Validation of Weather Data

*Identify who is responsible (by position(s) not name) to validate any weather sources outside of WIMS and timeframe for completion (e.g., annual, semi-annual, weekly).*

### Preparation of FWOAD

*Identify those involved (by name and position) in the preparation of this document.*

### Update of FWOAD

*Describe who will be responsible (by position(s) not name) for future updates of the FWOAD and timeframe for completion (keeping in mind that data review is required at a minimum of every two years, and a full update every five).*

## B. Seasonal Trend

*A seasonal trend analysis is a comparison of the historic weather/fuels records with current and forecasted weather/fuels information. The most significant indicators of seasonal fire severity will be graphically compared with historical averages and minimums or maximums; this graph will be routinely updated and distributed to fire management personnel throughout fire season. Seasonal trend analysis information may be used as a basis for pre-positioning critical resources, dispatching resources, and requesting additional resources (e.g., through fire severity funding).*

*Note: In many cases the GACC Predictive Services group will publish daily trend analyses for Predictive Service Areas throughout the fire season. If applicable, these could be utilized in lieu of a station level trend analysis.*

*Use this section to identify the wildland fire indicator(s) used (e.g., collected fuel moistures, Energy Release Component (ERC), Burning Index (BI), or Build-up Index (BUI)) and where they are posted for the seasonal trend analysis. Additionally, note the period of data used and typical fire season start and end or if year-round (see Appendix 1 for additional instructions).*

## Daily Schedule

*Insert daily schedule for capturing and archiving fire and weather information. Including who will be responsible (by position(s) not name).*

*Consider:*

* *Signage*
* *Web based information*
* *Seasonal Trend Analysis*
* *Pocket Cards*

# Appendix 1 – Weather and Fire Occurrence Data

*In this section, document the process used to evaluate weather and fire occurrence data, select a representative weather station(s), establish fire season length and climatological breakpoints.*

*High quality data is important to inform decisions - it is better to have accurate data for a shorter timeframe than questionable data for a longer term.*

### 1. Weather Data

*Document your weather data analysis in this section, including efforts to address significant missing data and evaluation of anomalies in the data set, noting that corrections to historic RAWS weather data can be entered in WIMS or corrected through the Western Regional Climate Center.*

*Document the process that you used to identify which weather sites are used and insert a map of selected weather sites in Section II.B of the template.*

*Units with NFDRS compliant weather stations managed in WIMS must identify one fuel model for each station in WIMS as Y using the ERC index. If units have not performed detailed analysis to identify thresholds or breakpoints and fed that data back into WIMS NPS offices are required to use the 90th and 97th percentiles. This data will feed fire danger analysis on a national level and contribute to the maps available at:* [*http://wfas.net//*](http://wfas.net/)

### 2. Fire Occurrence Data

*Contact your Regional Fire Planner or Fire GIS staff for the current protocols for downloading a complete fire occurrence data set for your unit and any adjacent units included in your analysis area.*

*Document your fire occurrence source data here, including efforts to address significant missing data and evaluation of anomalies in the data set.* *It is critical that the reader be able to understand the period of data used. The values for a fire season that spans the entire calendar year (Jan – Dec) will be much different from the values for a fire season that only spans part of the calendar year. Therefore, the period of data used for weather and associated start and end dates for fire season or if the fire season is year-round based on fire occurrence data, should be noted in Section IV.B - Seasonal Trend of the template.*