South Central Oregon Fire Management Partnership

Interagency Fire Danger Operating Plan

April 2023

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South Central Oregon Fire Management Partnership

Interagency Fire Danger Operating Plan

Approved By: ***SCOFMP Oversight Committee***

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South Central Oregon Fire Management Partnership

Interagency Fire Danger Operating Plan

Recommended By: ***Operations Committee & Fire Danger Technical Group***

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I. INTRODUCTION

A. PURPOSE

Public, industry, and our own agency personnel expect interagency wildland fire management agencies to implement appropriate and timely decisions which ultimately result in safe, efficient, and effective wildland fire management actions. This plan is intended to document a decision-making process for agency administrators, fire program managers, fire operations specialists, dispatchers, agency cooperators, and firefighters by establishing interagency planning and response levels using historical weather/fire data and the best available scientific methods.

An appropriate level of preparedness to meet wildland fire management objectives is based upon an assessment of vegetation, climate, and topography utilizing the National Fire Danger Rating System (NFDRS). This plan provides a science-based tool for interagency fire managers to incorporate a measure of risk associated with decisions which have the potential to significantly compromise safety and control of wildland fires.

1. Preparedness

Interagency policy and guidance require numerous unit plans and guides to meet preparedness objectives. Some of these plans and guides are inter-related; some plans and guides provide the basis for other plans/guides as shown below.

This Fire Danger Operating Plan (FDOP) guides the application of information from decision support tools (such as NFDRS) at the local level. This FDOP is supplemental to the Fire Management Plan; it documents the establishment and management of a fire weather station network and describes how fire danger ratings will be applied to local unit fire management decisions. The actual implementation of the fire business thresholds is described in the following supplemental action plans.

a. Preparedness Plan

Preparedness plans provide management direction given identified levels of burning conditions, fire activity, and resource commitment, and are required at national, state/regional, and local levels. SCOFMP Preparedness Levels 1-5 are determined by incremental measures of general burning conditions, local fire activity, and local and regional resource commitment. Preparedness Levels are identified and documented in this FDOP; the associated decisions and planned actions are in *Appendix A*.

b. Staffing Plan

The Staffing Plan describes escalating responses that are usually noted in an applicable fire management plan (FMP). Mitigating actions are designed to enhance the unit's fire management capability during short periods (one burning period, holidays, or other pre-identified events) where normal staffing cannot meet initial attack, prevention, or detection needs. The decision points are identified and documented in this FDOP; the associated decisions and planned actions are in *Appendix B*.

c. Prevention Plan – Fire Danger Components

Prevention plans document the wildland fire problems identified by a prevention analysis. This analysis will not only examine human-caused fires, but also the risks, hazards, and values for the planning unit. Components of the plan include mitigation (actions initiated to reduce impacts of wildland fire to communities), prevention (of unwanted human-caused fires), education (facilitating and promoting awareness and understanding of wildland fire), enforcement (actions necessary to establish and carry out regulations, restrictions, and closures), and administration of the prevention program. Analysis of fire problems are identified and documented in this FDOP; the associated recommendations and considerations are in *Appendix C*.

d. Public Fire Restriction Plan

A Restriction Plan is an interagency document that outlines interagency coordination efforts regarding fire restrictions and closures. An interagency approach for initiating restrictions or closures helps provide consistency among the land management partners, while defining the restriction boundaries so they are easily distinguishable to the public. Based on the fire danger, managers may impose fire restrictions or emergency closures to private and public lands. Decision points when restrictions and/or closures should be considered are identified and documented in this FDOP; the associated decisions and planned actions are in *Appendix D*.

2. Wildfire Response

   a. Initial Response Plan

      Initial response plans, also referred to as run cards, specify the fire management response (e.g., number and type of suppression assets to dispatch) within a defined geographic area to an unplanned ignition, based on fire weather, fuel conditions, fire management objectives, and resource availability. Response levels are identified and documented in this FDOP. The number and type of suppression resources dispatched to a reported fire is documented in the associated Response Plan in *Appendix F*.

   b. Local Mobilization Plan

      The Lakeview Interagency Fire Center (LIFC) Mobilization Plan identifies standard procedures, which guide the operations of multi-agency logistical support activity throughout the coordination system. The Mobilization Plan is intended to facilitate interagency dispatch coordination, ensuring the timeliest and most cost-effective incident support services available are provided. Communication between Units, GACCs, State, Regional Offices and other cooperative agencies are addressed. Contact LIFC for more information.

3. Fuels Management

   Approval at the Regional or State Office level is required prior to ignition of prescribed fires at National Preparedness Levels 4 and 5. To limit the potential for mixed messages when at GACC or National Preparedness Levels 4 and 5, agencies should coordinate information on planned implementation of prescribed fires with interagency partners at the local, GMAC and NMAC levels (*Interagency Standards for Fire and Aviation Operations – Red Book, Chapter 17*). Applicable agency specific direction and documents are in *Appendix N*.

Policy and Guidance

Interagency policy and guidance regarding the development of Fire Danger Operating Plans can be found in the Interagency Standards for Fire & Aviation Operations (Red Book). Agency-specific direction can be found in:

- U.S. Forest Service – Manual 5120 - Fire Management - Preparedness
- Bureau of Land Management – Manual 9211 - 1 - Fire Planning Handbook
- National Park Service – Manual 18, Chapter 5 – Preparedness
- Fish and Wildlife Service – Fire Management Handbook, Chapter 10 - Preparedness
- Oregon Department of Forestry - ODF Policy (Login Required)

B. OPERATING PLAN OBJECTIVES

1. Provide a tool for agency administrators, fire managers, dispatchers, agency cooperators, and firefighters to correlate fire danger ratings with appropriate fire business decisions in fire danger planning area.

2. Delineate fire danger rating areas (FDRAs) in fire danger planning area with similar climate, vegetation, and topography.

3. Establish an interagency fire weather-monitoring network consisting of Remote Automated Weather Stations (RAWS) which comply with NFDRS Weather Station Standards (PMS 426-3).

4. Determine climatological breakpoints and/or fire business thresholds using the Weather Information Management System (WIMS), National Fire Danger Rating System (NFDRS), FireFamilyPlus software to analyse and summarize an integrated database of historical fire weather and fire occurrence data.

5. Define roles and responsibilities to make fire preparedness decisions, manage weather information, and brief fire suppression personnel regarding current and potential fire danger.

6. Determine the most effective communication methods for fire managers to communicate potential fire danger to cooperating agencies, industry, and the public.

7. Provide guidance to interagency personnel outlining specific daily actions and considerations at each preparedness level.

8. Identify seasonal risk analysis criteria and establish general fire severity thresholds.

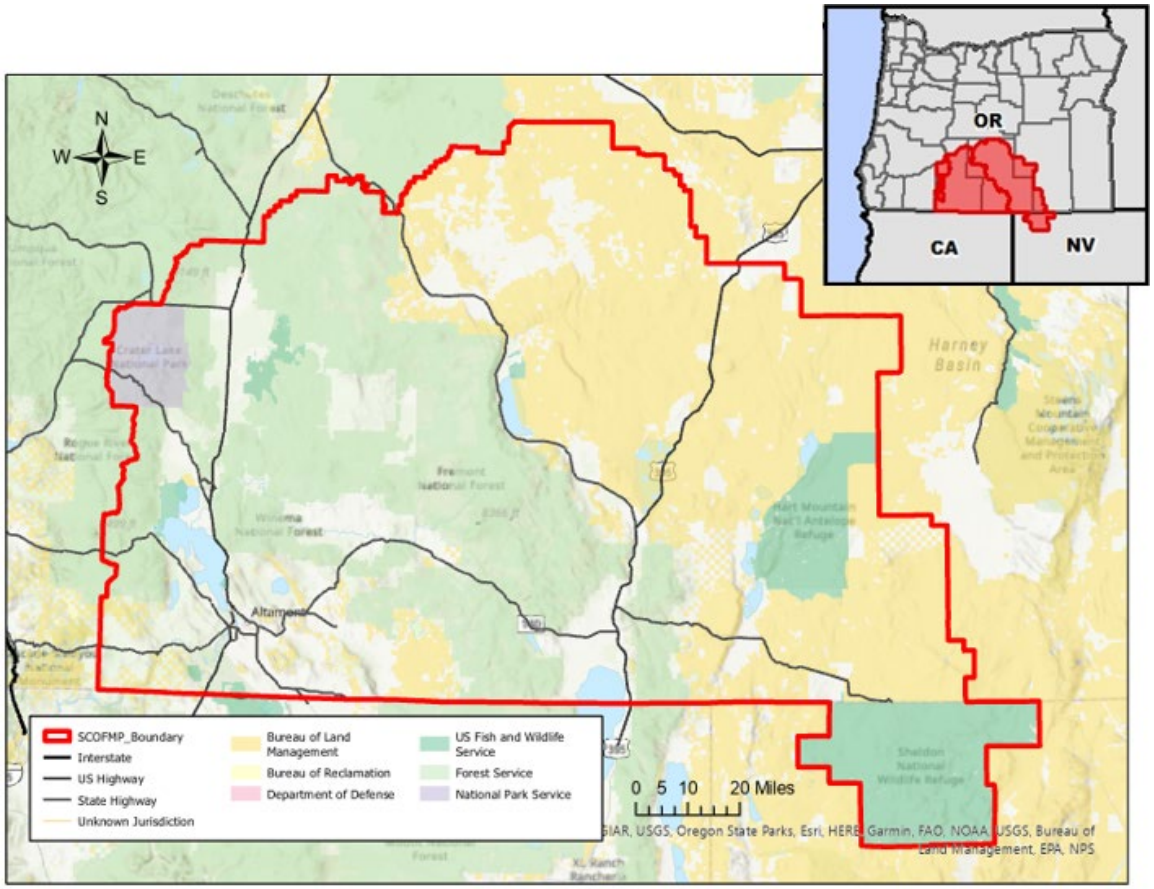
9. Identify program needs and suggest improvements for implementation of the Fire Danger Operating Plan.

II. FIRE DANGER PLANNING AREA INVENTORY AND ANALYSIS

A. ADMINISTRATIVE UNITS

This document serves as an interagency example of consistent and effective application of fire danger decisions is applied across multiple jurisdictional boundaries. Wildland fire management and suppression responsibilities are shared among Federal, State, and local cooperators. The South Central Oregon Fire Management Partnership (SCOFMP) is entered into by the Fremont-Winema National Forest, Lakeview District Bureau of Land Management, Klamath-Lake District - Oregon Department of Forestry, Crater Lake National Park, Sheldon-Hart National Wildlife Refuge Complex, and Klamath Basin National Wildlife Refuge Complex.

1. Overview Map



2. Ownership and Protection Table

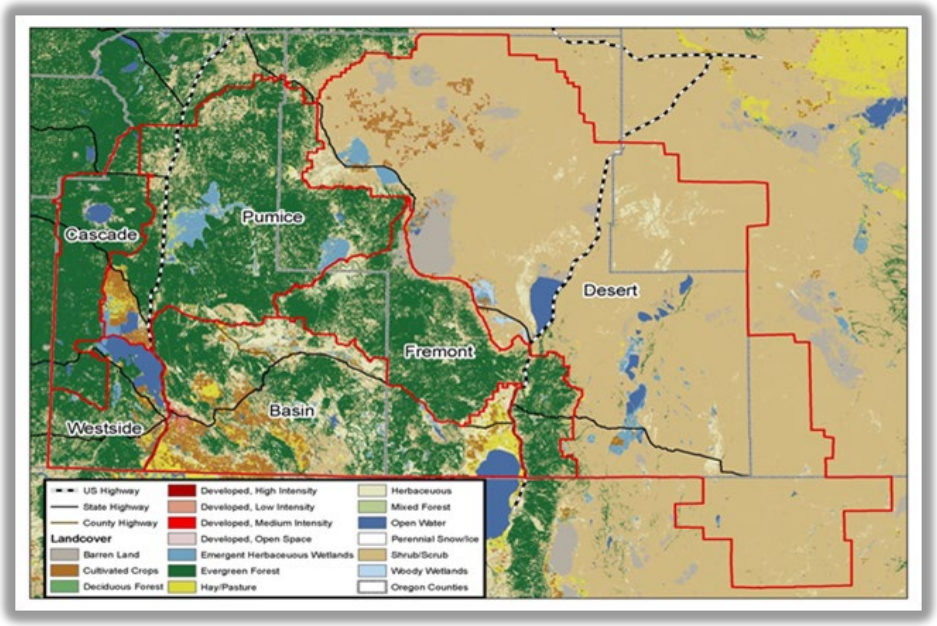
Agency	Acreage
USDA Forest Service	**2,252,587**
Bureau of Land Management	**3,374,463**
Oregon Department of Forestry	**1,542,297**
US Fish and Wildlife Service	
Sheldon-Hart Mountain NWR Complex	**851,504**
Klamath Basin NWR Complex (Oregon)	**75,708**
National Park Service	**183,224**
Total:	**8,279,783**

B. FIRE DANGER RATING AREAS

A Fire Danger Rating Area (FDRA) is defined as a large geographic area relatively homogenous with respect to *climate*, *vegetation,* and *topography*. Because of these similarities, it can be assumed that the fire danger within a FDRA is relatively uniform. Fire Danger Rating Areas were delineated based upon analysis of local topography (*Appendix G*), vegetation (*Appendix H*), and climate (*Appendix I*).

1. SCOFMP FDRA History

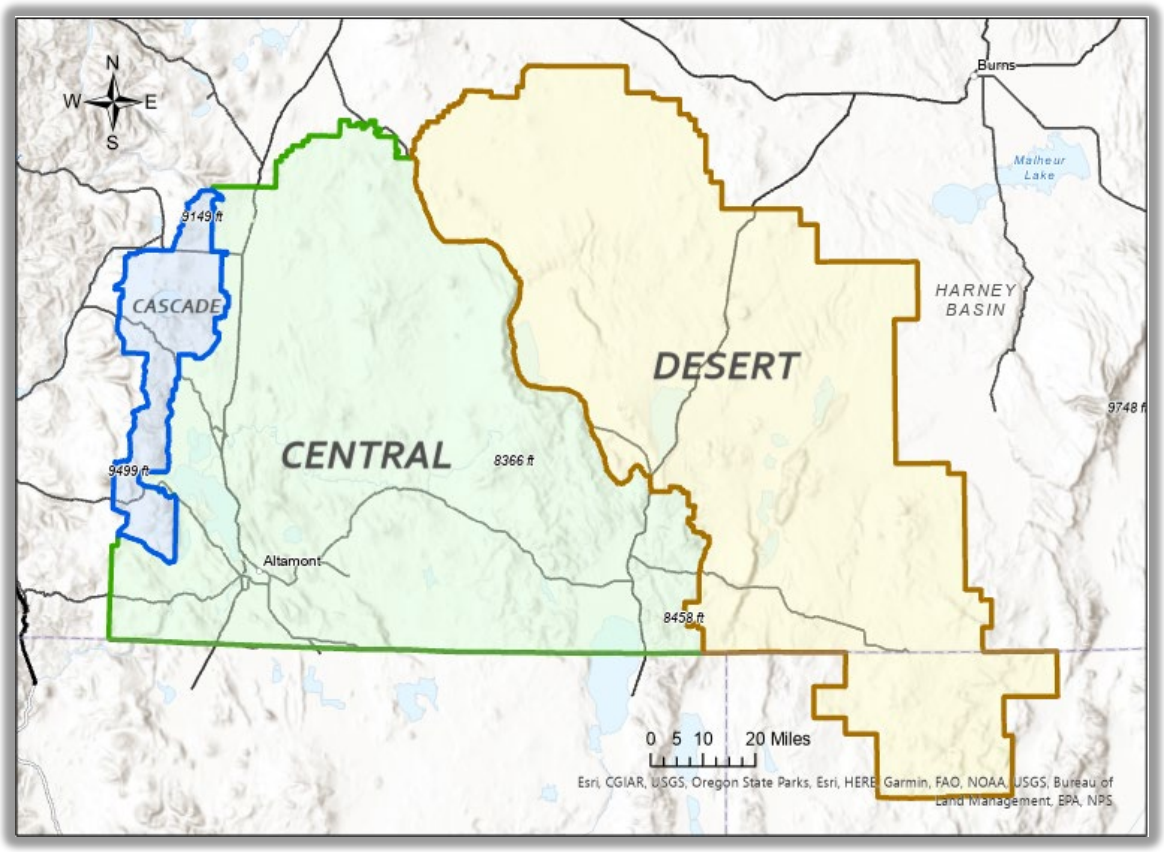
Beginning in 2002 a total of six fire danger rating areas within the SCOFMP area were delineated based on identifying areas of uniform fire danger. These six FDRA's are: Cascade, Westside, Basin, Pumice, Fremont, and Desert.



The ***Central*** FDRA was created after lengthy discussions amongst agency representatives in 2013. Differences in vegetation and climate were identified amongst the Westside, Basin, Pumice, and Fremont FDRAs, however it was determined that the differences were not significant enough to warrant separate *fire business decisions* amongst the four FDRAs. The Westside, Basin, Pumice, and Fremont FDRAs were then combined to form the ***Central*** FDRA for all fire danger planning and operational purposes.

A detailed description of each FDRA is in included in *Appendix L*. The final FDRA delineation is depicted below:

2. SCOFMP FDRA Map



3. FDRA Table

Fire Danger Rating Area	Acreage	% of Total
Cascade	**463,965**	**5%**
Central	**4,593,307**	**47%**
Desert	**4,758,438**	**48%**

C. WEATHER STATIONS

All SCOFMP Remote Automated Weather Stations (RAWS) comply with the National Wildfire Coordinating Group (NWCG) weather station standards. http://www.nwcg.gov/pms/pubs/PMS426-3.pdf .

Each RAWS receives, at a minimum, one annual on-site maintenance visit by either the local user or contracted personnel to ensure sensors are within calibration standards and verify site and station conditions.

1. RAWS Map

2. RAWS Catalogue Table (Active Stations Only)

STATION NAME	WIMS ID	NESDIS ID	AGENCY / OWNER	FDRA	ELEV	LATITUDE	LONGITUDE	REPORTING TIME
Seldom Creek	353339	32464502	USFS	Cascade	4875	42.4075	122.1914	07:50
Parker Mountain	353344	32655094	BLM	Central	5280	42.1050	122.2789	40:30
Chiloquin	353310	32404B1E	USFS	Central	4420	42.5771	121.8937	56:00
Timothy	353337	326146D8	USFS	Central	6099	43.2428	121.3531	08:40
Hoyt Creek	353343	326155AE	USFS	Central	5445	42.9764	121.4219	42:10
Klamath Marsh	353346	8374830C	USFWS	Central	4531	42.9533	121.5819	32:20
Calimus	353307	32616034	USFS	Central	6629	42.6314	121.5597	00:00
Summer Lake	353429	326E25AC	USFS	Central	5085	42.7219	120.7528	38:50
Coffee Pot	353422	32613048	BLM	Central	5206	42.5568	120.6022	44:50
Gerber Reservoir	353328	3250F1DC	BLM	Central	4950	42.2060	121.1381	45:00
Strawberry	353423	32479190	USFS	Central	5590	42.1892	120.8472	03:40
Summit	353421	3247A40A	USFS	Central	6113	42.1989	120.2469	03:30
Fort Rock	353406	325D74AE	BLM	Desert	4413	43.4320	120.8384	45:20
Rock Creek	353424	3264F296	USFWS	Desert	5650	42.5471	119.6578	27:40
Fish Fin Rim	353516	325D842A	BLM	Desert	4907	42.4718	119.1784	54:20
Catnip Mountain	260109	326500E8	USFWS	Desert	5750	41.9219	119.4972	27:30

3. Special Interest Groups (SIGs)

Special Interest Group (SIG):	Cascade	
Station / WIMS Number	***Station Name***	***Weight***
353339	Seldom Creek	1.00

Special Interest Group (SIG):	Central	
Station / WIMS Number	***Station Name***	***Weight***
353344	Parker Mountain	1.00
353310	Chiloquin	1.00
353328	Gerber Reservoir	1.00
353421	Summit	1.00

Special Interest Group (SIG):	Desert	
Station / WIMS Number	***Station Name***	***Weight***
353406	Fort Rock	1.00
353424	Rock Creek	1.00

III. FIRE DANGER RATING LEVELS

NFDRS utilizes the Weather Information Management System (WIMS) to process observed and forecast weather data stored in the National Interagency Fire Management Integrated Database (NIFMID) and produce fire danger ratings for corresponding weather stations. NFDRS outputs from the WIMS processor can be used to determine various levels of fire danger and is designed to model worst-case fire danger scenarios.

A. RESPONSE (OR DISPATCH) LEVEL

Response (or Dispatch) Levels are pre-planned actions which identify the number and type of resources (engines, crews, aircraft, etc.) initially dispatched to a reported wildland fire based upon fire danger criteria. SCOFMP Response Levels are based upon fire business thresholds established by analysis of climatological data *and* fire occurrence records.

B. STAFFING LEVEL

Staffing Levels will be used to make daily internal fire operational decisions. At the protection unit level, the staffing level can form a basis for decisions regarding the "degree of readiness" for initial attack resources and support resources. Although Staffing Level can be a direct output in WIMS, the WIMS output is only based upon weather observations and climatological percentiles. SCOFMP Staffing Levels will be based upon daily WIMS outputs factoring significant fire weather conditions typically found in Red Flag Warnings issued by the National Weather Service (NWS).

C. PREPAREDNESS LEVEL

Preparedness Levels are a five-tier fire danger rating decision tool that is based on NFDRS output(s) and other indicators of fire business such as projected levels of fire activity and local and regional resource commitment. Preparedness Levels will assist fire managers with long-term (weekly/monthly) decisions with respect to fire danger.

D. FIRE DANGER ADJECTIVE RATING LEVEL

In 1974, the Forest Service, Bureau of Land Management and State Forestry organizations established five standard Adjective Fire Danger Rating Levels descriptions for public information and signing.

Adjective Fire Danger Rating Level can be obtained as a direct output in WIMS; however, the Adjective Rating from WIMS is strictly based on weather and climatological percentiles without regard to historical fire occurrence. The preferred method to determine Adjective Fire Danger Rating thresholds based on statistical correlation of weather observations and fire occurrence. This FDOP will determine and implement Adjective Fire Danger Rating based upon fire business thresholds.

IV. FIRE DANGER OPERATING PROCEDURES

A. ROLES AND RESPONSIBILITIES

Effective and appropriate fire business decisions rely heavily on quality data, sound decision making processes, and confident interpretation of available data. Many individuals and groups are required to assure successful implementation of fire danger operating procedures and specific roles and responsibilities are addressed below.

1. Agency Administrators and Fire Program Managers

Fire program manager, (e.g., Unit FMO, Forest or BLM District FMO and Agency Administrator such as Forest Supervisors, District Managers, NWRC Project Leaders, Park Superintendents or District Foresters) will use this Fire Danger Operating Plan and NFDRS outputs as a tool to coordinate and to make informed fire related business decisions. The fire program manager and Agency Administrator are ultimately responsible for ensuring this plan is maintained, utilized, and communicated. Unit Fire Program Managers will also provide appropriate annual maintenance support for assigned weather stations.

2. Fire Danger Technical Group

Each participating agency will be responsible for providing a NFDRS technical specialist(s) to participate in the maintenance, review, and update of this plan. The following are current group members by agency:

- USFS, Fremont-Winema NF and BLM, Lakeview District: *Brett Smith*
- ODF, Klamath-Lake District: *Dustin Gustaveson* and *Randall Baley*
- USFWS, Sheldon-Hart NWRC: *Drew Taylor*
- NPS, Crater Lake National Park: *Scott Wickham*

Members of the Fire Danger Technical Group will monitor NFDRS to ensure validity, communicate any problems identified, review plan implementation, coordinate plan revisions, present the plan, and be available for NFDRS technical consultation. Some specific elements to monitor and coordinate are ensuring observations are selected appropriately (e.g., snow flag), consistent station management in WIMS (metadata and maintenance log), station maintenance (instrument errors, transmit times) and station location (eliminate redundant or inappropriate stations, propose new sites where appropriate).

3. **Fire Weather Station Owners/Managers**

Weather station owners for the South Central Oregon area as of the time of this writing are:

- WIMS owner for all SCOFMP stations: *Brett Smith*

WFMI Point of Contact (POC)

- USFWS, Klamath Basin NWRC: *John Brodbeck*
- USFWS, Sheldon-Hart NWRC: *Drew Taylor*
- Parker Mountain RAWS, BLM Medford: *Matt Watson*
- USFS, Fremont-Winema NF/ BLM, Lakeview: *Brett Smith*

The station owner is the primary contact for all issues regarding station management in WIMS. Physical maintenance and repair for the station is under the station owner's control. When weather station problems are identified the owner and/or POC will ensure that timely and appropriate corrections are made.

4. **Dispatch/Communication Center**

Personnel at Lakeview Interagency Fire Center (LIFC) are responsible for monitoring daily weather observations in WIMS. LIFC ensures previous, current day, and forecasted Energy Release Component (ERC), Burning Index (BI), and Staffing Level (SL) values are made available on the SCOFMP website. This information is used for pre-planned incident dispatching (*Appendix F*). Dispatching, staffing levels, and fire business decisions are based on Fire Danger Rating Area indices, updated from WIMS, which are provided on the SCOFMP website at https://scofmp.org/index.shtml .

5. **Duty Officers**

Unit Duty Officers will ensure that their respective personnel understand NFDRS outputs and how they are to be used. Unit Duty Officers are responsible for implementing this plan, and ensuring decisions are consistent with the intent of the plan.

6. **GIS Specialists**

GIS specialists will aid with the GIS processes and products that are used to display and calculate FDRA boundaries and information, delineate fire occurrence data, and assist in the various geospatial analyses necessary to maintain high data and information quality.

7. **National Weather Service**

The National Weather Service role in NFDRS is providing weather forecast input, which combined with fire agency input, allows the NFDRS software in WIMS to forecast the next day's fire danger indices. These indices impact agency resource management decisions, firefighter safety, and protection of the public and property. (*2022 Region 6 Fire Weather Annual Operating Plan*)

8. **Geographic Area Predictive Service / Meteorologist**

The Predictive Services Program supports the wildland fire community and incident coordination system with decision support information. This typically includes a synthesis of fire danger, fire weather, fire intelligence, and fire management resource information. Information generated by NWCC typically revolves around decision support in determining regional preparedness level, incident prioritization, and positioning of shared fire management resources. Predictive Services products include daily fire activity forecast, 7-Day significant fire potential, regional preparedness forecast, and monthly and seasonal significant fire potential outlooks. (*2022 Region 6 Fire Weather Annual Operating Plan*).

9. **Prevention / Education / Mitigation Specialists**

Specialists will maintain a working knowledge of NFDRS processes and resultant fire danger outputs to be able to effectively communicate fire danger to both internal and external agency partners as well as the public. Specialists may also assist with fire danger workload analysis to determine specific fire causes that contribute to increases in local workload and develop education and prevention plans (*Appendix C*) to address identified fire occurrence factors.

10. **Fire Planners**

Local fire planners will serve as NFDRS subject matter expert(s) and primary point of contact for NFDRS changes, updates, development, implementation, and evaluation of NFDRS related products. Local fire planners will serve as leads for analysis of weather and fire occurrence data to identify historical fire danger trends, document findings, reasoning, and results of analyses. Planners will also monitor seasonal fire danger and communicate fire danger conditions to appropriate audiences. Planners are responsible for the creation, review, edit, and maintain local area fire danger operating plans and associated plans.

B. SEASONAL SCHEDULE

1. Seasonal Chart

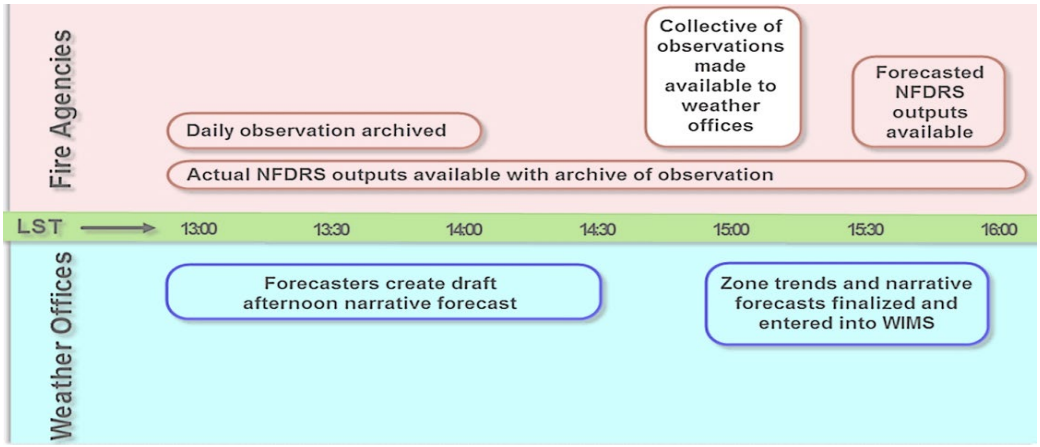
Automated processes have been developed to import data derived directly from the Weather Information Management System (WIMS) and automatically update numerous charts for display. Adjective Rating Level charts can be used to easily see, and to communicate current season tracking. Local seasonal trends for ERC, BI, dead and live fuel moistures, local precaution values, as well as short term temperature and relative humidity trends are available for each FDRA on the SCOFMP website at http://www.scofmp.org/firedngr.shtml

2. Fire Danger Pocket Card for Firefighter Safety

The Pocket Card for SCOFMP is a two-sided page including three charts, one for each Fire Danger Rating Area. The pocket card is posted on the National Wildfire Coordination Group (NWCG), Fire Danger Working Team, Pocket Card website at: https://famit.nwcg.gov/applications/WIMS/PocketCards/PocketCards

C. DAILY SCHEDULE

Daily Timeline



D. WEATHER STATION MONITORING AND MAINTENANCE

Each agency is responsible for annual maintenance, unscheduled maintenance, and calibration of their RAWS. The Remote Sensing Laboratory located at the National Interagency Fire Center (NIFC) maintains and calibrates BLM RAWS annually. USFS and USFWS RAWS are maintained by local personnel with calibrated equipment provided by the BLM Remote Sensing Laboratory through annual maintenance contracts.

V. FIRE DANGER PROGRAM NEEDS

A. WEATHER STATIONS

- Continued financial and logistical support of local personnel responsible for RAWS maintenance.
- Continue to maintain NFDRS standards at all sixteen SCOFMP weather stations to meet current and future NFDRS data needs.

B. TRAINING

- S-491, Intermediate National Fire Danger Rating System
    - Class is offered at the regional level
    - Continue to recruit candidates for attendance
    - Support the class by providing coaches and instructors as possible
    - Curriculum is currently being delivered virtually with small in-person groups. This delivery method has increased the number of students possible per class.
- N9035, RAWS Maintenance
    - Class is offered through the BLM RAWS Depot located in Boise, ID
    - Continue to recruit candidates for attendance
    - Encourage local personnel to accompany technicians to local RAWS for equipment and site maintenance
- Fire Investigation
    - Increasing the number and capabilities of fire investigation qualified personnel may help to determine specific cause classes for incidents. Locally there are steadily increasing numbers of fires listed in the miscellaneous or undetermined category. Specific fire cause determination would help fire prevention personnel to address problem fire locations and specific causes.

APPENDICES

APPENDIX A: PREPAREDNESS PLAN

A. Purpose

Preparedness plans provide management direction given identified levels of burning conditions, fire activity, and resource commitment, and are required at national, state/regional, and local levels. Preparedness Levels (1-5) are determined by incremental measures of burning conditions, fire activity, and resource commitment. SCOFMP Preparedness Levels are identified and documented in this FDOP.

B. Preparedness versus Staffing Levels

Preparedness Levels often get confused with Staffing Levels. Staffing Levels only consider short-term fire danger, while Preparedness Levels incorporate additional items, such as current level of local fire occurrence and suppression resource availability. Additionally, Preparedness Levels incorporate stable variables (e.g., ERC, Live Fuel Moisture, 1000-hr Fuel Moisture, etc.) to help with long-term decisions, such as the need to request severity funding or activation of public-use restrictions.

C. Policy and Guidance

Policy and guidance regarding the development of Preparedness Level plans can be found in chapter 10 of the Interagency Standards for Fire & Aviation Operations (Red Book). https://www.nifc.gov/standards/guides/red-book

Preparedness Level Plans are required at the national, state/regional, and local levels. These plans address the five Preparedness Levels (1-5) and provide management direction based on identified levels of burning conditions (fire danger), fire activity, resource commitment and/or availability, such as incident management teams assigned, and other considerations.

Preparedness Levels are established to assist fire managers with long-term (e.g., weekly or monthly) planning decisions based upon seasonal fire danger elements. The final Preparedness Level determination incorporates a measure of current and projected levels of resource commitment due to fire activity and a measure of ignition risk.

Refer to the Northwest Interagency Coordination Center (NWCC) Mobilization Guide for more information on Preparedness Level Plans. NWCC Publications

LOCAL PREPAREDNESS LEVEL WORKSHEET

SCOFMP Preparedness Level Matrix

Adjective Fire Danger Rating Level	LOW		MODERATE		HIGH		EXTREME	
Multiple 209s? *	No	Yes	No	Yes	No	Yes	No	Yes
(Intermediate Output)	PL1	PL2		PL3		PL4		PL5
Forecast "High-Risk" Weather Days? **	↓	No	Yes	No	Yes	No	Yes	No	Yes
Preparedness Level Output ***	PL1		PL2		PL3		PL4	PL5

* If there are ***two or more ICS-209*** forms being completed for large fire incidents within the SCOFMP area, select Yes in the matrix.

** If there are ***two or more High Risk days*** (red blocks) identified in the Seven Day Significant Fire Potential Outlook issued by NWCC Predictive Services, select Yes in the matrix. NWCC Predictive Services 7-Day Outlook

If Regional PL is greater than local PL ***output, consider adding 1 level.

SCOFMP Resource Draw Down Guide

- This Guide will be used as a tool to inform a long-term base need for Engines and Duty Officers during declared Fire Season. Engines are the primary SCOFMP initial attack resource and thus engines along with Duty Officers are the only measured elements within this Guide.
- Following pre-season interagency discussion, it was agreed that other types of suppression capable resources (Dozers, Crews, Aviation, etc.) may be considered towards minimum number of engines on an individual resource basis.
- SCOFMP overall response capacity and other resource availability will be captured on the combined SCOFMP Resource Totals table found on the Daily Staffing Page on the LIFC web site found at https://scofmp.org/staff.shtml . The numbers captured in the SCOFMP Resource Totals table will be updated daily using the "available" resources section of Daily Staffing.
- Weekly calls will be held during fire season to validate local Preparedness Levels and resource availability relative to long-term Draw Down levels and discuss Step-Up actions needed to meet or exceed minimum resource capability relative to current and expected fire workload.
- The SCOFMP Preparedness Level was used for long-term Draw Down analysis because it incorporates relatively stable fire danger indices (ERC) together with measures of current and expected fire workload and resource commitment.

SCOFMP PREPAREDNESS LEVEL	**PL 1**	**PL 2**	**PL 3**	**PL 4/5**
Minimum Engines Available *	**12 or More**	**18 or More**	**24 or More**	**30 or More**
Duty Officers **	**7 or more**	**7 or More**	**7 or More**	**7 or More**

* SCOFMP controlled engines that are available ***only*** to the SCOFMP area are counted towards the minimum. Engines that are committed or made available to areas *outside* of SCOFMP should ***not be counted***.

** Duty Officer minimums within this document are the same throughout fire season and only include minimum numbers needed for USFS, BLM, CLNP, and USFWS combined.

SCOFMP Resource Draw Down Guide (Cont.)

Supporting Reasoning and Analysis

Minimum Engines Available:

When evaluating the recommended number of engine resources to be available during varying levels of seasonal fire danger, consideration was given to recent fire scenarios that required significant initial resource commitment within the SCOFMP area. While every fire response is tiered to the current and expected conditions, a generalization was made that two scenarios exist that require significant commitment of local resources during initial attack – large fires and/or multiple fires. A quick analysis of SCOFMP fire history during the current analysis period 2010 through 2022 was conducted utilizing 500+ acres to represent a significant large fire and 10+ confirmed fires to represent a multiple fire day. Both scenarios may require local resources to be committed for varying time periods from a few hours to multiple days.

Year	Large Fire Occurrence	Multiple Fire Days	Total Days		Year	Large Fire Occurrence	Multiple Fire Days	Total Days	
2010	**3**	**4**	**7**		**2017**	**7**	**9**	**16**	
2011	**2**	**3**	**5**		**2018**	**4**	**2**	**6**	
2012	**2**	**2**	**4**		**2019**	**2**	**3**	**5**	
2013	**1**	**8**	**9**		**2020**	**3**	**1**	**4**	
2014	**4**	**8**	**12**		**2021**	**8**	**1**	**9**	
2015	**1**	**7**	**8**		**2022**	**1**	**3**	**4**	
2016	**2**	**1**	**3**			***Average Total Days per Year***		***7***	

Dates associated with the analysis above indicate large fire occurrence and multiple fire days occur, on average, between June 23rd and September 7th. These dates correspond well with average annual fire season declaration dates.

Numbers of minimum available engines also considered the local response plan. During times of dispatch level “Red” in the Central dispatch zone (most common response zone), a typical response will include 6 engines, along with other resources, to each incident. Minimum numbers of engines in the Draw Down Guide increase by 6 with each increase in local Preparedness Level to reflect the increasing potential for large fire and/or multiple fire occurrence.

Recommended Actions Guide

Preparedness Level (PL) Actions are guides for agency personnel to refer to when preparedness level thresholds are reached.

Agency Administrators

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5	Affected Entity
Agency Administrator	Ensure Resource Advisors (READ) are designated and available for fire assignments.			X	X	X	Agency
	Evaluate work/rest needs of fire staff.			X	X	X	Agency
	Provide appropriate support to fire staffs regarding the implementation of preparedness level actions (i.e. severity requests, restrictions and closure planning).			X	X	X	Agency
	Issue guidance to staff indicating severity of the season and increased need and availability for fire support personnel (i.e. availability for large fire support).				X	X	Agency

Fire Management Officers

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5	Affected Entity
USFS Fire Staff, BLM District FMO, NPS FMO, USFWS FMO, State PUF	Evaluate season severity data (NFDRS indices for the season, fuel loading, fuel moisture, drought indices, long-term forecasts).		X	X	X	X	Agency
	Brief agency administrator on burning conditions and fire activity.			X	X	X	Agency
	Review geographical and national preparedness levels and evaluate need to suspend local Rx fire activities.			X	X	X	Agency
	Ensure Prevention personnel have initiated media contacts and public education contacts.			X	X	X	Agency
	Ensure agency staff personnel are briefed on increasing fire activity.			X	X	X	Public Industry
	Consider fire severity request and pre-positioning of resources including suppression resources, aerial support, aerial supervision, command positions, dispatch, logistical support, and prevention.			X	X	X	Agency

	If preparedness level is decreasing, consult with Duty Officer/Dispatch Center Manager and consider release of pre-positioned or detailed personnel.				X	X	Agency Public Industry
	Evaluate crew and staff work/rest requirements.				X	X	Agency
	Coordinate with interagency partners the need for fire restrictions or closures.			X	X	X	Agency
	Communicate with Dispatch Center Manager on geographical conditions and resources availability.				X	X	Public Industry
	Consult with Prevention personnel regarding need for fire restrictions or closures.			X	X	X	Agency

Dispatch Center

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5	Affected Entity
LIFC	Consider pre-positioning or detail of off-unit IA dispatchers and logistical support personnel.			X	X	X	Agency
	Evaluate work/rest needs of center staff.			X	X	X	Agency
	If preparedness level is decreasing, consider release of pre-positioned or detailed dispatchers and logistical support personnel.		X	X	X		Agency

Duty Officers

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5	Affected Entity
Duty Officer(s)	Ensure incoming pre-position or detailed personnel are briefed on local conditions.			X	X	X	Agency
	Evaluate work/rest needs of IA crews, dispatchers and aviation bases.			X	X	X	Agency
	Consider patrols and pre-positioning of local IA resources in high risk areas.			X	X	X	Agency
	Consider pre-positioning and/or detailing of additional IA resources from off-unit.			X	X	X	Agency
	If preparedness level is decreasing, consider releasing pre-positioned and detailed resources.		X	X	X		Agency

Prevention/Mitigation

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5	Affected Entity
Fire Prevention/ Mitigation	Contact Public Information Officer, local media to inform of the start of fire season and the potential for local fire danger to increase.		**X**	**X**	**X**		Agency Public
	Provide public and industry with access to fire danger information, closures, restrictions, and warnings.		**X**	**X**	**X**	**X**	Agency Public Industry
	Post signs and warnings in camping and recreation areas.			**X**	**X**	**X**	Public
	Consider need for increased fire prevention patrols.			**X**	**X**	**X**	Agency
	Notify local media if High/Extreme fire danger and the need for increased public caution.			**X**	**X**	**X**	Public

APPENDIX B: STAFFING PLAN

Purpose

This Staffing Plan is intended to provide day-to-day guidance for decisions regarding the "degree of readiness" of initial attack (IA) resources. The Staffing Level (SL) is used as a basis to make daily internal fire operations decisions affecting our agency personnel. At each SL, this plan identifies:

- *Daily staffing*
- *Draw-down levels*
- *Step-up actions*

This Plan will function most effectively when decisions are made in preparation for escalating fire danger and potential fire activity. Waiting until the day of a critical event during extreme fire danger will prove this plan ineffective.

Policy and Guidance

Policy and guidance regarding the development of Staffing Plans can be found in chapter 10 of the *Interagency Standards for Fire & Aviation Operations* (Red Book).

Terminology

Staffing Index

The Staffing Index is the selection of an NFDRS output (ERC, BI, IC, SC) to provide the basis to calculate the Staffing Level. The SCOFMP area utilizes ***Burning Index (BI)*** for calculation of daily staffing level.

Staffing Level

Staffing Level is intended to provide fire managers with day-to-day (short-term) decision support regarding staffing of suppression resources. Staffing Level can be used to determine when additional workforce and resources may be necessary to ensure appropriate staffing in response to escalating fire danger.

Preparedness Level

Preparedness Levels often get confused with Staffing Levels. Staffing Levels only consider fire danger, while Preparedness Levels incorporate additional items, such as current and expected fire activity and resource availability. Additionally, Staffing Levels are intended to help with short-term decisions, while Preparedness Levels incorporate stable variables to help with long-term decisions, such as the need to request severity funding or activation of public-use restrictions (*See Appendix A: Preparedness Plan*).

Draw-Down Level

"Draw-Down" is the degree of response capabilities of an agency due to the impact of emerging activity within their home jurisdiction and/or their commitment of resources for incident response outside of their jurisdiction. Draw-down is expressed as the predetermined number/type of suppression resources that are required to maintain viable initial attack (IA) capability.

Step-up Plan

A Step-up Plan includes supplemental preparedness actions designed to enhance the unit's fire management capability during short periods (usually one burn period in anticipation of wind events, dry cold fronts, and lightning events) where normal staffing cannot foreseeably meet initial attack, prevention, or detection needs.

Factors Affecting Draw-Down

Draw-down levels can change dramatically in a short period of time. A few factors which can affect staffing and resource commitment/availability include the following:

Response (or Dispatch) Level

Staffing Levels have a direct effect on the ability to send pre-determined suppression resources to wildland fires, depending upon the Response Level (and vice versa). If an incident becomes prolonged or requires the commitment of resources beyond the initial response, the agencies capabilities can be affected.

Interagency Cooperation & Commitment

Lakeview Interagency Fire Center (LIFC) provides dispatch services to multiple agencies. When multiple agencies respond to incidents on each other's jurisdiction – based on the closest available resource(s) –coordination amongst the affected agencies is essential to maintain interagency relationships and provide effective and efficient response to incidents.

Multiple Fires

Maintaining capacity to respond to a reported incident is the intended outcome of a Staffing Plan. However, when more than one incident occurs concurrently within the respective unit's response area, a unit's capacity is certainly diminished and may be exhausted.

Staffing Levels

Staffing Level ***inputs*** can be obtained directly from the Weather Management Information System (WIMS) and adjusted according to the table below to generate Staffing Level ***output*** values. Staffing level inputs are generated by WIMS based solely on observed and forecast climatology and NFDRS calculations using the 90th and 97th percentile Burning Index. Staffing Level inputs are then adjusted according to potential short-term fire danger and/or ignition risk to produce SCOFMP Staffing Level ***output*** values.

Determination of Staffing Levels

SCOFMP Staffing Level Table									
Staffing Level Index (from WIMS)	1	2		3		4		5	
Red Flag Warning Issued?	↓	No	Yes	No	Yes	No	Yes	No	Yes
Staffing Level Output	1	2		3		4		5	

Step-Up Actions

The term draw-down is generally used to describe the level of commitment of an agency's resources at a certain point in time. Most importantly, it defines the agency's ability to perform its basic service levels. Once a level has been reached where basic service levels cannot be provided, actions should be taken to "step up" the capacity to a level enough to provide anticipated services. The table below contains step-up actions to be considered at various staffing level output values.

	Staffing Level Output				
Action	**1**	**2**	**3**	**4**	**5**
Aerial Detection		x	x	x	x
Extended Staffing Hours			x	x	x
Additional Suppression Staffing				x	x
Additional Dispatch Staffing				x	x
Additional Prevention and Patrol				x	x
Specialized Equipment (Aviation, Dozers, Water Tenders, etc.)				x	x

SCOFMP and National Mobilization Notes

All agencies have designated ordering procedures for incident and wildland fire support and services. These established ordering channels provide for: rapid movement of requests, agency review, efficient utilization of resources, and cost effectiveness. Local agency dispatch offices should use mutual aid agreements with cooperators whenever possible.

Request comes from Incident into Dispatch; Dispatch will attempt to fill the request locally if possible. If unable to fill the request locally dispatch will go directly with Neighbors (using the Initial Attack Agreements) then on the NWCC/NICC if needed to fill request.

For Overhead resources: Requests will be processed as "fully qualified" unless "Trainee Required/Acceptable" is selected as an inclusion in IROC.

Ordering Channel Flow
INCIDENT ▶
DISPATCH CENTER▶
GEOGRAPHIC AREA COORDINATION CENTER▶
NATIONAL INTERAGENCY COORDINATION CENTER▶

Please contact LIFC (see page 67) for more information regarding specific ordering processes and considerations. The full *SCOFMP Mobilization Guide* is available from LIFC.

Funding

Each SCOFMP agency will have specific processes and funding mechanisms for step-up actions. If extended periods of time occur in Staffing Level 4 or 5, request(s) for severity funding should be considered (*See Appendix A: Preparedness Plan*).

APPENDIX C: PREVENTION PLAN

Wildfire prevention plans will provide guidance and direction for the fire prevention efforts in SCOFMP. The prevention group strives to reduce wildfire risks that pose a threat to life, property, public and employee safety, resource values, and management objectives. Utilizing education, engineering, and enforcement efforts allow prevention to concentrate on ignitions that pose the greatest potential to cause unacceptable damage or losses.

PURPOSE

The purpose of this prevention planning is to familiarize with the general strategies, work methods, and guidelines that are used in developing, prioritizing, and implementing a prevention program of work that maintains a high level of efficiency in both time and cost.

Prevention plans should be used as a reference guide for fire prevention personnel and fire management officers interested in knowing the overall strategies and tactics of the prevention program. Prevention plans are designed to give fire prevention personnel one document to work under. It is also intended for initial orientation for the new employee to fire prevention to be able to read and know our prevention plan program and goals.

The primary directive is to provide a balanced program for planning fire mitigation/prevention through risk management. Some risks are associated with threats to life and property, public and employee safety, resource, and management objectives. One of the goals of the fire prevention program is to develop and apply maximum prevention efforts to minimize the ignition of human-caused fires within the Wildland Urban Interface (WUI) and landscapes identified as high hazard. Future activities in fire prevention must be both practical and straightforward to plan, educate, and inform all people using the public lands as well as those people who live in the wildland urban interface and rural areas.

OBJECTIVES

Prevention plans Identify problem areas, causal factors, increasing trends, and implement measures aimed at reducing human-caused fires. Prevention plans can also create awareness of wildfire prevention problems so that all employees can share in the responsibility of fire prevention.

For more information reference individual agency prevention plans located at:

SCOFMP Ops Committee Sharepoint - Preparedness

The following chart is a guideline on how prevention activities respond to increases or decreases of the local adjective rating level. The following guidelines should be used for prevention efforts whenever there is increased potential of fire ignitions. When adjective ratings reach High to Extreme, extra staffing with the possibility of working outside the regular working hours should be considered (See *Appendix A and/or B*). The appropriate prevention signs should be posted based on the current and forecast National Fire Danger Rating System adjective rating levels (See *Appendix E*).

(See next page for Prevention Plan Chart and Guidelines)

Fire Danger Rating and Color Code	South Central Oregon Fire Management Partnership Analysis	Actions
Low (L) (Green)	Historically there have been few to no fires at this range of index values.	**Signage** – e.g., Campfires Dead Out! Drown your Campfire! **Patrols** – No need to increase "normal" operations. **Social Media** – Campfires are allowed, educate how to properly extinguish.
Moderate (M) (Blue)	Historically fires have occurred during this range of index values, but few to no large fires (as defined in the analysis) have occurred.	**Signage** – e.g., Campfires Dead Out! Drown your Campfire! **Patrols** – No need to increase "normal" operations. **Social Media** – Campfires are usually allowed, educate how to properly extinguish.
High (H) (Yellow)	Historically large fires have occurred during this range of index values. There may be less probability of high intensity, high resistance to control, than fires than in the extreme category.	**Signage** – Ensure signage matches restrictions in place if needed. Increase temporary signage. **Patrols** – Increase of public presence and consider ordering outside resources. **Social Media** – Increase presence/more posting. If campfires are allowed, educate how to properly extinguish. **PURs** – Starting to discuss restrictions.
Extreme (E) (Red)	Historically large fires have occurred at a higher rate with more fires for a given number of days than during the High range of index values. Large fires may have high intensity and a higher resistance to control.	**Signage** – Ensure signage matches restriction in place if as needed. Increase temporary signage. **Patrols** – Increase of public presence and order outside resources. **Social Media** – Increase presence/more posting. If campfires are allowed, educate how to properly extinguish. **PURs** – Discuss restrictions. If in place, get info to agencies and public. Post wide.

APPENDIX D: PUBLIC FIRE RESTRICTION PLAN

As much as possible, implementation of Public Fire Restrictions and Public Use Restrictions (PURs) are coordinated between agencies, but agencies can and have implemented PURs as needed to meet specific needs. The final decision to implement restrictions/closures will not only be based on fire danger levels but will also consider other political and social factors, preparedness levels, and current and expected fire activity.

- Declaration of Fire Season – An official declaration of Fire Season is made when seasonal fire danger reaches a level where common outdoor activities are prone to ignite unwanted fires. (ODF Restrictions & Closures) In an effort to prevent these fires from starting, the Oregon Department of Forestry imposes restrictions pertaining to public and work-related activities. Fire season declaration is coordinated and communicated amongst federal, state, and local agencies to maintain consistent fire danger messaging to the public as well as internal and external partners. Fire Season declaration is associated with the implementation of adjective fire danger rating levels (*Appendix E*) as well as Industrial Fire Precaution Level (IFPL - *Appendix M*). End of Fire Season declaration is made when seasonal fire danger has reduced, is forecast to remain low, and is typically associated with decreases in fire danger adjective rating and IFPL.

Agency specific PUR descriptions are included below.

1. U.S. Forest Service – Fremont-Winema NF

Public use restrictions are put in place when the fire danger reaches a point where there is high potential for human caused ignitions of unwanted fires. Restrictions are put in place to restrict smoking, driving vehicles off established road systems, building campfires, use of internal combustion engines, welding or cutting torches. Restrictions affecting the Sky Lakes Wilderness and/or Mount Thielsen Wilderness areas should be coordinated with the Rogue-Siskiyou National Forest and Umpqua National Forest, respectively, as much as possible to avoid confusion for wilderness users along the Pacific Crest Trail.

Unit fire managers and fire planner(s) will monitor relative fire danger in their area using field observations and NFDRS products. When implementation of public use restrictions is indicated, Interagency Fire Staff will make a recommendation of scope and timing of restrictions to the Forest Supervisor. These restrictions are then put in place using a Forest Supervisor's Order, which are tied to applicable Code of Federal Regulations (CFR).

2. Bureau of Land Management – Lakeview District

Public use restrictions are put in place when the fire danger reaches a point where there is high potential for human ignitions of unwanted fires. Restrictions are put in place to restrict smoking, driving vehicles off established road systems, building campfires, use of internal combustion engines, welding or cutting torches.

Unit fire managers and fire planner(s) will monitor relative fire danger in their area using field observations and NFDRS products. When implementation of public use restrictions is indicated, Interagency Fire Staff will make a recommendation to the District Manager. These restrictions are then put in place using a District Manager's Order, which are tied to applicable CFR.

3. Oregon Department of Forestry – Klamath-Lake District

1) Burning inside or within 1/8 mile of a forest protection district requires a permit. The forester, by use of the permit, shall prescribe conditions necessary to be observed in setting a fire and preventing it from spreading out of control. The forester may waive the requirement for a burn permit, except during a fire season. {ORS 477.515, OAR 629-043-0040}
2) Fire season is declared when conditions of fire hazard exist in a forest protection district and continue until fire hazard conditions no longer exist. The State Forester issues a formal proclamation to place a district into fire season, which remains in effect until lifted by the State Forester. {ORS 477.505}
   Prohibited acts during fire season:
   a) Smoking while working or traveling in an operation area; and
   b) The use of fuses and caps for blasting {ORS 477.510}.
   c) Discharging an exploding target or tracer ammunition on land that is inside the district or is within one-eighth of a mile of the district; or
   d) Tracer ammunition discharged by the person crosses above land that is inside the district or is within one-eighth of a mile of the district. {ORS 477.512}
3) Public closures designated by proclamation {ORS 477.535-550}:
   a) Regulated closures, limits what the public can do while they are on forestland such as: campfires, smoking, non-industrial power saw use, motorized vehicles, travel requirements, metalwork, fireworks, exploding targets, tracer ammunition, and sky lanterns.
   b) Permit closure limits public access to forestland. People must have written permission from the District before they can enter the closed area.
   c) Absolute closures limit all access to forestland. Everyone is banned from entering the designated area, except to prevent and extinguish fires.

4. U.S. Fish & Wildlife Service – Sheldon–Hart Mountain NWRC

Public use restrictions are put in place when the fire danger reaches a level where there is high potential for human caused ignitions of unwanted fires. Restrictions are issued to restrict smoking, back country use, operating vehicles off unimproved system roads, building campfires, welding or cutting torches, or other spark generating industrial activities.

Unit fire managers and fire planner(s) will monitor relative fire danger in their area using field observations and NFDRS products. When implementation of public use restrictions is indicated, unit fire manager(s) will make a recommendation to the Refuge Project Leader. These restrictions are then put in place by Project Leader Order which are tied to applicable CFR.

a. Campfire use (wood or charcoal) is only allowed within designated public campgrounds, on developed campsites with established campfire rings during non-restricted periods.

b. Fireworks are prohibited on the refuges at all times (50 CFR 27.41)

5. U.S. Fish & Wildlife Service – Klamath Basin NWRC

Public use restrictions are put in place when fire danger reaches a level where there is high potential for human caused ignitions of unwanted fires. Restrictions are issued to restrict smoking, off-road travel, mowing, welding or other potential spark generating activities.

Unit fire managers and fire planner(s) will monitor relative fire danger in their area using field observations and NFDRS products. When implementation of public use restrictions is indicated, unit fire manager(s) will make a recommendation to the Refuge Project Leader. These restrictions are then put in place by Project Leader Order, which are tied to applicable CFR.

a) Camping and campfires are prohibited on the refuges at all times.

b) Fireworks are prohibited on the refuges at all times (50 CFR 27.41).

Decision to Implement Fire Use Restrictions

The Fire Management Officer will recommend implementation of restrictions based on current and potential conditions based on the following factors:

* Weather data
* Fuels data
* Amount of standing water in marsh units
* Public use trends (holidays, hunting seasons, etc)
* Period of Fire Season

* Fire situation and available resources within and adjacent to the FDRA
* Fire use restrictions and emergency closures on adjoining public lands
* Regional and national preparedness plan levels
* Social-political factors

The Fire Management Officer will consult with the Refuge Managers and Project Leader. The Project Leader will render a decision and coordinate efforts with adjoining public land managers for public notification.

Partial Public Use Fire Restrictions

1. Decision Point Criteria
Once the following conditions have been reached, and are anticipated to continue for an extended period of time, fire use restrictions will be implemented:

* Similar fire restrictions are in effect or being considered for adjoining public lands
* NFDRS Staffing Class for Chiloquin RAWS is three or higher
* Public Fire Danger Rating of Extreme

2. Smoking
Smoking is permitted only in the following areas:

* In vehicles, provided that an ashtray is used for ashes and butts.
* Within an area at least three (3) feet in diameter that is barren or free of all flammable materials. Ashes and butts must be disposed of safely and may not be discarded on the ground.

3. Fireworks
Fireworks are prohibited on the refuges at all times.

4. Vehicular Travel
All motorized vehicles are required to carry the following equipment

* One shovel not less than 26 inches in length, with a blade not less than eight inches wide.
* One water container of at least one gallon filled to capacity or a 2.5 pound fully charged fire extinguisher.

* One axe or Pulaski with a handle at least 26 inches in length and a head weight of not less than two pounds.

* Vehicles parked off roadways must be in an area barren of flammable material, including vegetation.

* Spark arresting devices must be properly installed and maintained on all internal combustion engines.

5. Power Saws

Power saw operations are restricted for commercial and non-commercial activities as governed by the current Industrial Fire Precaution Levels (IFPL).

6. Mowing Operations

Mowing operations are restricted for commercial and non-commercial activities as governed by the current Industrial Fire Precaution Levels (IFPL).

7. Notification

News releases and public service announcements detailing restrictions to be implemented will be issued as directed by the Project Leader. Efforts to coordinate like public use restrictions will be coordinated with neighboring agencies. Public use restrictions will be posted at Refuge Offices.

Full Public Fire Use Restrictions

1. Decision Point Criteria

Once the following conditions have been reached, and are anticipated to continue for an extended period of time, additional fire use restrictions will be implemented based on the following conditions:

* Similar fire restrictions are in effect or being considered for adjoining public lands.

* NFDRS Staffing Class for Chiloquin RAWS is at four or higher.

* ERC is trending above the 97th percentile.

* Fire suppression workload is active.

2. Smoking

Smoking is permitted only in the following areas:

* In vehicles, provided that an ashtray is used for ashes and butts.

3. Fireworks

Fireworks are prohibited on refuges at all times.

4. Notification
News releases and public service announcements detailing restrictions to be implemented will be issued as directed by the Project Leader. Efforts to coordinate like public use restrictions will be coordinated with neighboring agencies.

Public use restrictions will be posted at Refuge Offices. Road barriers with attached notices will be placed as appropriate.

5. Additional Emergency Fire Restriction Orders
Full or partial refuge closures may be issued as determined by the Project Leader.

Procedures for lifting Fire Use Restrictions or Closures when fire danger and fire occurrence levels moderate, the Fire Management Officer will recommend the reduction of fire use restrictions and emergency closures. The Fire Management Officer and Refuge Managers will use the same factors previously used to implement the restrictions to develop a recommendation for the Project Leader to approve.

6. National Park Service – Crater Lake National Park

Public use restrictions and emergency closures for fire prevention purposes are implemented based upon the analysis of weather and fuels data, visitor use trends, and the fire situation within the park. Seasonal fire restrictions may limit or prohibit the use of wood or charcoal fires and smoking within the park. Wood and charcoal fires are currently allowed in the grills and grates provided at Mazama Campground, Employee housing areas, and the grates provided at designated picnic sites within in the Rim Village Picnic area. Wood fires are always prohibited in the back country or any other location not mentioned above. Fireworks are always prohibited within the park. Additional Emergency Fire Restriction Orders can be put in place by Park Superintendent Order.

Public use restrictions and emergency closures shall be made in compliance with the requirements set forth in 36 Code of Federal Regulations (CFR), sections 1.5 and 2.13(c). Decision memoranda will be approved by the Park Superintendent when fire use restrictions, or emergency closures for fire prevention or public safety reasons, are implemented. Whenever fire use restrictions or area closures are implemented, public notice must be given in compliance with 36 CFR, section 1.7.

APPENDIX E: FIRE DANGER ADJECTIVE RATING LEVELS

Adjective Fire Danger Rating Definitions and Analysis

The table on the following page describes the Adjective fire danger rating definitions. The two columns on the left are copied out of "Gaining an Understanding of the National Fire Danger Rating System" and are considered the national standard. The column on the right describes the point where fire business thresholds were consistently identified through local analysis and utilized in this plan. This plan currently does not use the "VERY HIGH" adjective rating.

Public Fire Danger Communication

During declared fire season a coordinated fire danger adjective rating system will be utilized by all agencies within the SCOFMP area using **four** levels displayed on signs throughout the area. Fire Danger Adjective Rating Levels for SCOFMP are based on ERC data from each FDRA with input from the ODF Significant Fire Potential Map . For analysis purposes a "fire season" of May 1 through October 31 was used.

As much as possible, Fire Danger Adjective Rating Levels will be the same for all SCOFMP FDRAs and agencies. This effort will promote consistency of public messages and minimize potential administrative conflicts. Although the data is derived from FDRA analysis, a best practice is to implement Adjective Rating Levels by administrative unit. Federal agencies use Adjective Rating Levels to communicate fire danger information to internal and external partners and the public. The Oregon Department of Forestry uses Adjective Rating Levels to communicate fire danger information to the public and to regulate industrial operations.

Fire Danger Rating and Color Code	Description	SCOFMP Analysis
Low (L) (Green)	Fuels do not ignite readily from small firebrands although a more intense heat source, such as lightning, may start fires in duff or punky wood. Fires in open cured grasslands may burn freely a few hours after rain, but woods fires spread slowly by creeping or smoldering, and burn in irregular fingers. There is little danger of spotting.	Historically there have been few to no fires at this range of index values.
Moderate (M) (Blue)	Fires can start from most accidental causes, but except for lightning fires in some areas, the number of starts is generally low. Fires in open cured grasslands will burn briskly and spread rapidly on windy days. Timber fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel, especially draped fuel, may burn hot.	Historically fires have occurred during this range of index values, but few to no large fires (as defined in the analysis) have occurred
High (H) (Yellow)	All fine dead fuels ignite readily, and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High intensity burning may develop on slopes or in concentrations of fine fuels. Fires may become serious and their control difficult unless they are attacked successfully while small.	Historically large fires have occurred during this range of index values. There may be less probability of high intensity, high resistance to control, and fires than in the Extreme category. Large fires during this range of index values may be most related to fine fuels.
Very High (VH) (Orange)	Fires start easily from all causes and, immediately after ignition, spread rapidly, and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high intensity characteristics such as long-distance spotting and fire whirlwinds when they burn into heavier fuels.	***Not Used in SCOFMP Area***
Extreme (E) (Red)	Fires start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high intensity burning will usually be faster and occur from smaller fires than in the very high fire danger class. Direct attack is rarely possible and may be dangerous except immediately after ignition. Fires that develop headway in heavy slash or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions the only effective and safe control action is on the flanks until the weather changes or the fuel supply lessens.	Historically large fires have occurred at a higher rate, more fire for a given number of days, than during the High range of index values. Large fires may have a higher resistance to control due to greater intensity, more fuel participating in the fire due to all components of fuel being more available, drier.

The following table displays results of the most recent SCOFMP FDRA analysis 2010-2022:

SCOFMP Fire Danger Adjective Rating Levels

	CASCADE		CENTRAL		DESERT	
FUEL MODEL	Fuel Model Y				Fuel Model X	
INDEX	ERC	Percent of Fire Season *	ERC	Percent of Fire Season *	ERC	Percent of Fire Season *
LOW	0-22	31%	0-29	21%	0-39	21%
MODERATE	23-29	22%	30-39	24%	40-59	29%
HIGH	30-37	27%	40-51	32%	60-71	20%
EXTREME	38+	20%	52+	23%	72+	30%
ANNUAL PRECENTILES						
ERC	Fuel Model Y				Fuel Model X	
90TH PERCENTILE	38		53		80	
97TH PERCENTILE	44		60		90	

* *For analysis purposes, fire season dates set to May 1 through October 31* **Fire**

Family Plus Correlations and Analyses

1. Fire Weather history was re-created for 7 representative RAWS using a quality control process resulting in the most consistent, least erroneous historic weather data available. NFDRS 2016 fuel models require numerical input from Solar Radiation sensors to perform fire danger calculations. Solar Radiation sensors were initially installed on all local representative RAWS in 2010 therefore historical weather data prior to 2010 was excluded from analysis. Weather data from 2010-2022 was available and imported into Fire Family Plus.

2. Fire Danger Rating Areas were developed based on Vegetation, Climate, and Topography using GIS tools and data (*See section II and Appendices G, H, and I*).

3. Fire histories of the USFS Fremont-Winema NF, BLM Lakeview District, ODF Klamath-Lake District, Crater Lake NP, USFWS Klamath Basin NWRC and Sheldon-Hart Mountain NWRC were obtained.

a) Data was imported into Fire Family Plus and exported to GIS.

b) The Fire history table was edited only to eliminate duplicate fires (reported by multiple agencies) using GIS.
c) All agency fire histories were assigned to the appropriate Fire Danger Rating Area.
d) The GIS Fire table was imported into Fire Family Plus as a custom import. A custom agency (SCOFMP) was created allowing fire history to be selected by Fire Danger Rating Area.

4. Fire Family Plus probability analyses were conducted for each FDRA using representative RAWS within the FDRA. Probability Fire Analysis graphs were used to identify the best fit by looking for the best separation between All Days, Fire Days, Multiple Fire Days, and Large Fire Days. The statistics do not always correlate with the best fit looking at the graphs.

5. Specific to fire danger adjective rating levels, the NFDRS index Energy Release Component (ERC) had the best fit by consistently having the best visual correlation over the range of values.

a) All NFDRS v.4 fuel models were considered throughout the analysis process. Fuel model Y was chosen for Cascade and Central FDRAs with fuel model X being chosen for the Desert FDRA. (See *Appendix K* for more information)
b) Indices analysed extensively included ERC, Burning Index (BI), and 1000hr fuel moisture with ERC and BI having a higher correlation.

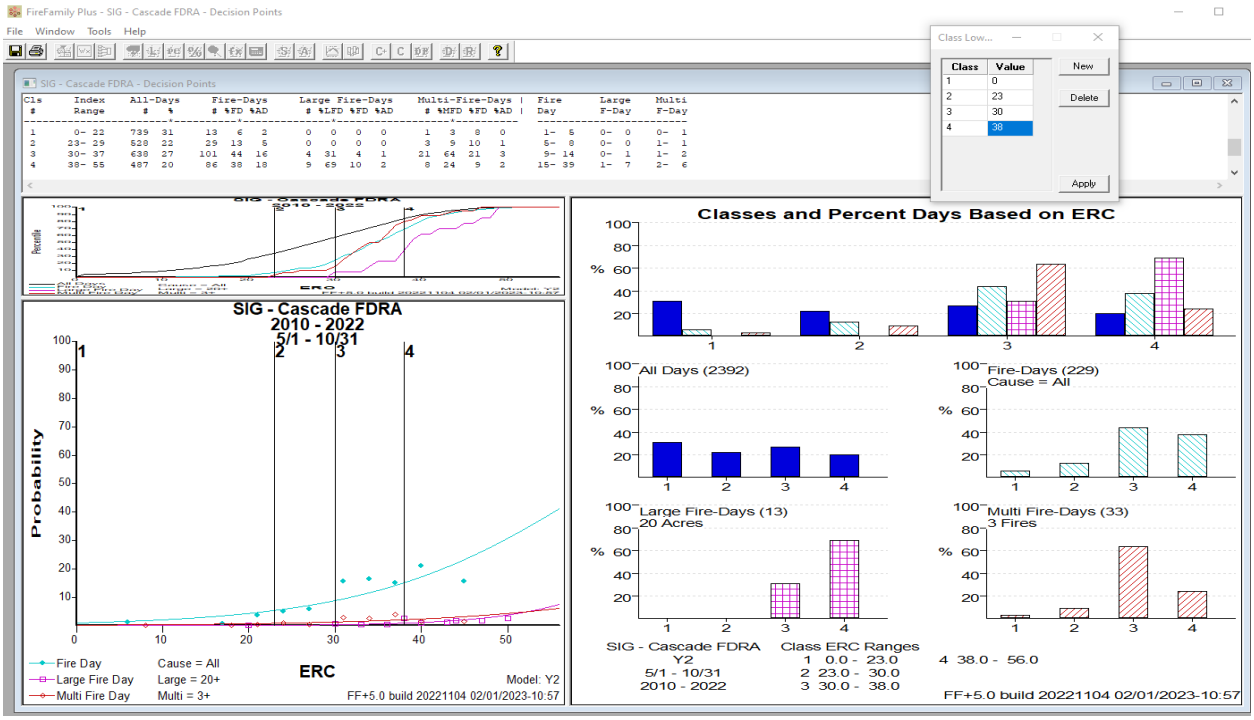
1) ERC frequently had good visual correlation but not always the best statistical correlation. Thresholds were relatively easy to identify and tend to filter all days reasonably well.

2) BI had good visual correlation but lacked consistency with a better fit for Large Fire Days. Possible reasons could include that the day of maximum fire growth does not always occur on the ignition date which is used in the analysis. Thunderstorms could start numerous fires on a certain day while also providing some precipitation which could cause the BI to have a low value that day. Some of the fires resulting from the lightning could grow significantly large on a later date when the BI has a higher value. For analysis purposes, final fire size is associated with the day of ignition when the BI value was low. It is still possible BI could be a good index to use in decision making but needs to be monitored.

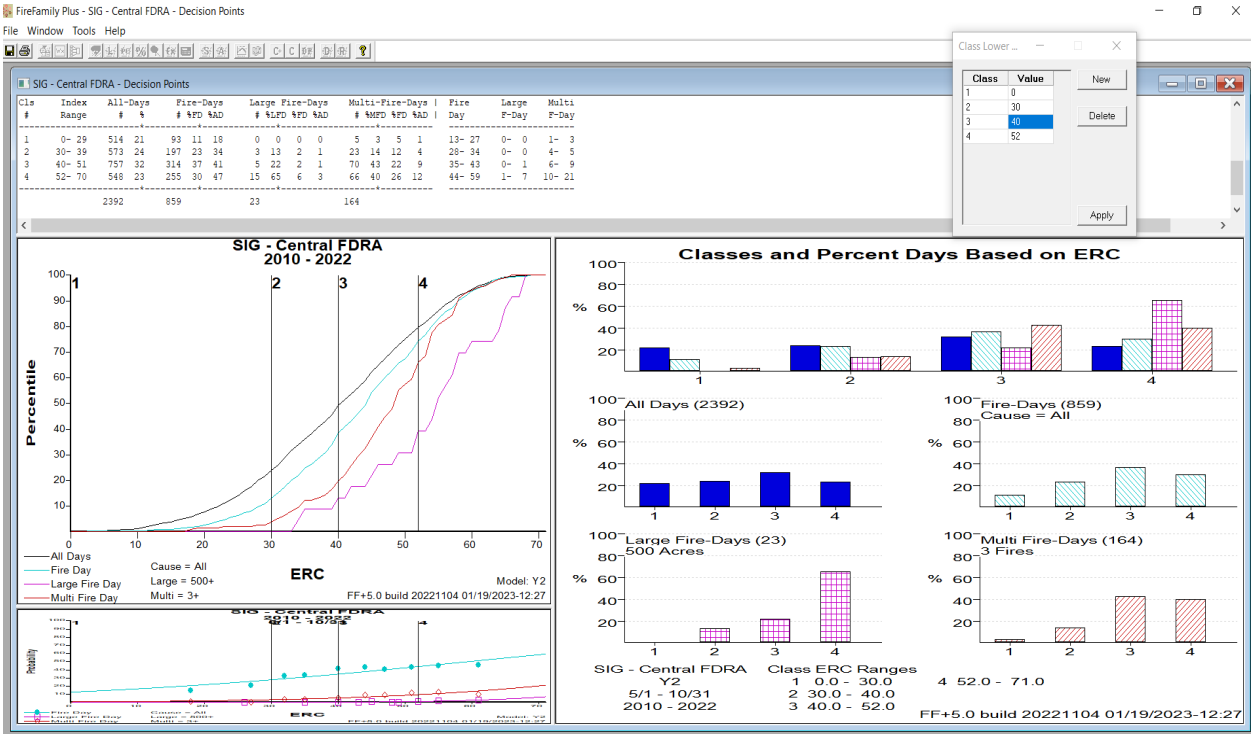
3) Specific to the Cascade FDRA, a large fire analysis was conducted using historical fire progression data to identify significant fire growth days. Significant fire growth days, as opposed to date of discovery, were analysed, and resulted in better correlations of fire danger indices to large fire growth days.

FIREFAMILYPLUS DECISION POINTS GRAPHS

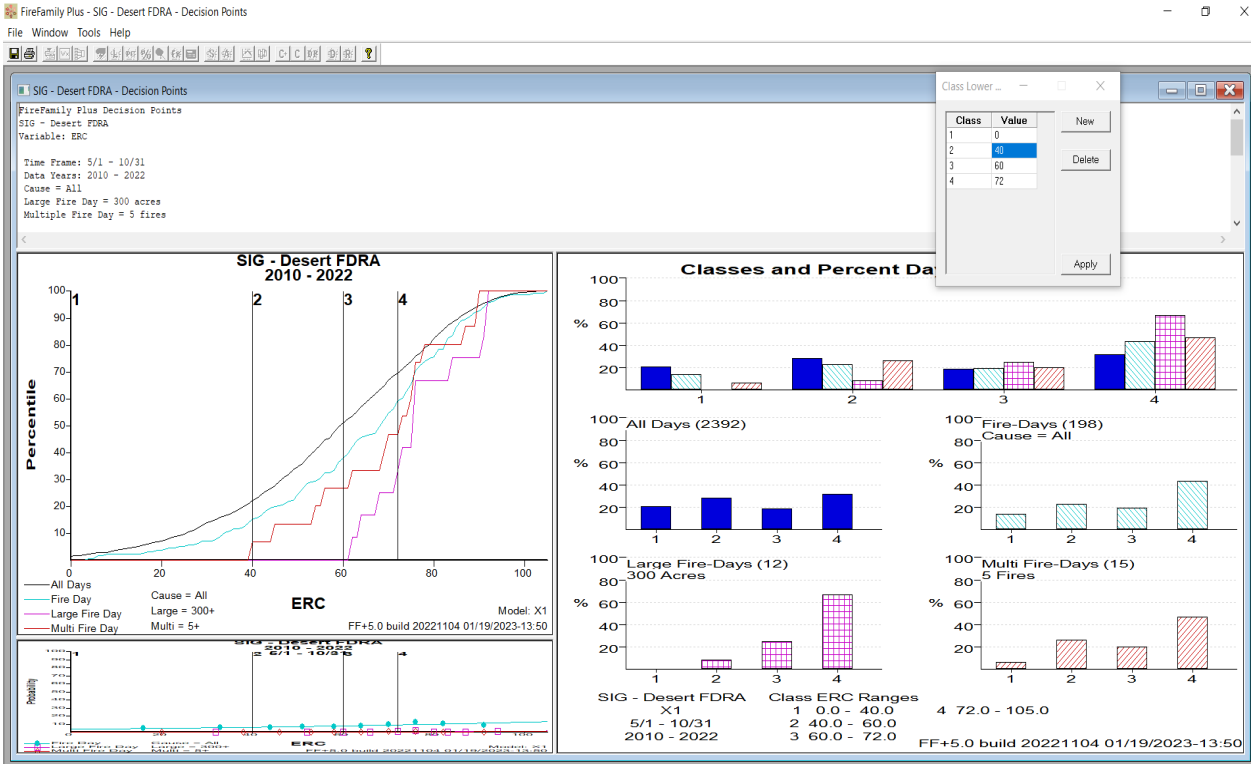
CASCADE FDRA (Fuel Model Y)



CENTRAL FDRA (Fuel Model Y)



DESERT FDRA (Fuel Model X)



APPENDIX F: RESPONSE PLAN

I. INTRODUCTION

A. PURPOSE

Local-level Initial Pre-planned Response Plans, also referred to as "Run Cards", specify the fire management response (e.g., number and type of suppression assets to dispatch) within a defined geographic area to an unplanned ignition, based on fire weather, fuel conditions, fire management objectives, and resource availability.

B. Terminology

1. Response Level

   Response levels (e.g., "Low/Blue", "Moderate/Yellow", "High/Red") are established to assist fire managers with decisions regarding the most appropriate response to an initial fire report until a qualified Incident Commander arrives at the incident. FireFamily Plus software is used to establish the Response Level thresholds following a statistical analysis of fire occurrence and historical weather for each FDRA. Each agency will utilize the same Response Levels calculated for each FDRA in response to wildland fires in the Lakeview Interagency Fire Center (LIFC) dispatch area.

2. Response Zone

   Response Zones have been identified for the LIFC dispatch area. Response zones may be based on various criteria such as: common management objectives, land use, fire load, dispatch locations, estimated response times, WUI locations, topographical features, vegetation communities, etc.

3. Dispatch Center

   Each geographic area has established dispatch centers that mobilize and demobilize resources directly with the geographic area coordination center. For SCOFMP, the Lakeview Interagency Fire Center (LIFC) is the focal point for mobilizing firefighting resources between units within the dispatch area responsibility, coordinating incoming resources into the dispatch area, dispatching resources mobilized out of the dispatch area, and collecting and disseminating fire intelligence information within dispatch area and with the geographic area coordination center.

4. Pre-Planned Response Plan

   Each dispatch center with the responsibility for initial response to wildland fires shall have a pre-planned response plan that allocates resources to new wildland fires in accordance with fire management direction, initial attack agreements, and established ordering procedures. The pre-planned response plan will be reviewed and updated annually prior to fire season.

II. RESPONSE PLAN

RESPONSE LEVEL TABLE

Agency personnel use the response level (dispatch level) to assign an appropriate mix of suppression resources to a reported wildland fire based upon fire danger calculations. Response levels are derived from the most appropriate NFDRS index and/or component that have a high level of correlation to historical fire occurrence. Burning Index (BI) utilizing NFDRS Fuel Model Y has been determined to be the most appropriate NFDRS index that statistically correlates to the potential for large fires to occur in the Cascade and Central FDRAs. In the Desert FDRA, NFDRS fuel model X Burning Index (BI) showed good correlation to observed fuel conditions and weather trends commonly associated with large fire occurrence.

During declared fire season, Response Levels will be established each day utilizing the Response Level Table. Each FDRA has an assigned Special Interest Group (SIG) for the purposes of calculating the daily response level (see below for analyses and decision point range determinations). For analysis purposes a "fire season" of May 1 through October 31 was used.

Duty Officers and/or the LIFC Operations Coordinator will retain the discretion to modify the response level for any given incident.

SCOFMP Response Level Table

	CASCADE		CENTRAL		DESERT	
FUEL MODEL	Fuel Model Y				Fuel Model X	
INDEX	Burning Index (BI)	Percent of Fire Season *	Burning Index (BI)	Percent of Fire Season *	Burning Index (BI)	Percent of Fire Season *
BLUE	0 – 19	35%	0 – 25	34%	0 – 101	40%
YELLOW	20 – 26	43%	26 – 32	36%	102 – 126	20%
RED	27+	22%	33+	30%	127+	40%
ANNUAL PRECENTILES						
BURNING INDEX (BI)	Fuel Model Y				Fuel Model X	
90TH PERCENTILE	27		35		172	
97TH PERCENTILE	30		38		203	

**For analysis purposes, fire season dates set to May 1 through October 31*

RUN CARD OVERVIEW

Dispatch Run Cards will be used for determining the initial response to reported incidents during locally declared “fire season”. Annual fire season dates correspond with seasonal changes in local fire danger indices. Outside of declared fire season dates, notification of smoke reports will be made directly to the appropriate jurisdictional Duty Officer.

The Interagency Run Cards are developed by a group of interagency representatives to provide guidance to LIFC for initial attack dispatching of wildland fire suppression resources within pre-identified geographic areas (response zones).

The run cards will be used to determine the initial response when a wildfire is reported. When a qualified Incident Commander (IC) is on scene of the fire, they may adjust the pre-established initial attack response as identified on the run card by cancelling resources currently responding (or about to be dispatched) or by ordering additional resources as needed. Until such time as an IC is on scene, the Duty Officer is responsible for the fire response and can modify the run card as necessary.

During periods of large/multiple fire activity, when there are not enough resources to fill the run cards, Duty Officers will coordinate with LIFC to determine incident prioritization and response (see Multiple Fire Plan).

RUN CARD PROCEDURES:

- During working hours, LIFC will dispatch the closest available resource according to the appropriate Fire Danger Rating Area (FDRA) Dispatch Response Level.
- After resource duty hours, dispatchers will contact the jurisdictional Duty Officer, who will determine the level of response.
- Any resource *not dispatched* by LIFC will not be considered as meeting the run card requirements for numbers of resources during the initial attack dispatch.

MULTIPLE FIRE PLAN:

Periodically the SCOFMP area receives widespread lightning activity resulting in numerous starts, many of these are single tree lightning ignitions. It is not possible to dispatch the number and type of resources called for in the run card plan to each of these fires. The SCOFMP Multiple Fire Plan is designed to provide guidance to Duty Officers and LIFC staff to coordinate an initial response under these multiple start conditions. Contact LIFC for latest copy of the SCOFMP Multiple Fire Plan.

SOUTH CENTRAL OREGON FIRE MANAGEMENT PARTNERSHIP

DISPATCH RESPONSE PLAN FOR DECLARED FIRE SEASON

RESPONSE ZONE: **CASCADE**

DISPATCH RESPONSE LEVEL	BLUE	YELLOW	RED
	LOW	MODERATE	HIGH
MODULE (Engine or Squad)*	2	4	6
DOZER**		1	1
HELICOPTER		Standby	1
AIR ATTACK		Standby	1
SEAT		Standby	Standby
AIR TANKER		CHECK AVAIL	Standby
WATERTENDER		CHECK AVAIL	Standby

DUTY OFFICER, LIFC COORDINATOR AND INCIDENT COMMANDER HAVE THE OPTION TO INCREASE OR DECREASE THE INITIAL RESPONSE.

* Modules dispatched to NOT include more than two squads (e.g. 20-person crew = 2 modules)

**Dispatch CRT in IA Zone 1 on USFS and USFWS land

Notifications

Duty Officer of **ALL** Fires
911 (RFD's) of **ALL** Fires in or within 1 mile of their jurisdiction
Adjacent Dispatch Center(s) if near a border

Consider the Following

Fire Investigator- Coordinate with D.O.

Agency Resource Advisor
Agency Representation on **ALL** Fires

Coordinate with DO on Move-up resources

Type 3 IC on fires with potential for significant growth or duration

STANDBY= LOCATE & PLACE 1 ON STANDBY FOR IMMEDIATE DISPATCH (paid).
CHECK AVAIL= Locate resource and check availability.

Module is an Engine or 4-10 person squad

Block Card is for the initial dispatch of SCOFMP agency controlled resources only. RFPD and/or RFPA resources are not included in intial response considerations.
Dispatch level set using Cascade FDRA

BICC(Burns): 541-573-4410
COIDC (Redmond): 541-216-7700
MEDFORD ODF: 541-664-1213
RVCC (Medford):541-618-2510
WALKER RANGE: 541-433-2451
UMPQUA: 541-957-3325
EICC (Eugene): 541-225-6400
SIFC (Susanville): 530-257-5575
CNIDC (Winnemucca): 775-623-1555
YREKA: 530-842-3380
MODOC: 530-233-4581
KLAMATH CO 911: 541-884-4876
LAKE CO 911: 541-947-2504
MODOC CO 911: 530-233-4416

SOUTH CENTRAL OREGON FIRE MANAGEMENT PARTNERSHIP

DISPATCH RESPONSE PLAN FOR DECLARED FIRE SEASON

RESPONSE ZONE: **Central**

DISPATCH RESPONSE LEVEL	BLUE	YELLOW	RED
	LOW	MODERATE	HIGH
MODULE (Engine or Squad)*	2	4	6
DOZER**		1	1
HELICOPTER		Standby	1
AIR ATTACK		Standby	1
SEAT		Standby	1
AIR TANKER		CHECK AVAIL	Standby
WATERTENDER		CHECK AVAIL	Standby

DUTY OFFICER, LIFC COORDINATOR AND INCIDENT COMMANDER HAVE THE OPTION TO INCREASE OR DECREASE THE INITIAL RESPONSE.

* Modules dispatched to NOT include more than two squads (e.g. 20-person crew = 2 modules)

**Dispatch CRT in IA Zone 1 on USFS and USFWS land

Notifications

Duty Officer of **ALL** Fires

911 (RFD's) of **ALL** Fires in or within 1 mile of their jurisdiction

Landowners of **ALL** Fires

Adjacent Dispatch Center(s) if near a border

Consider the Following

Fire Investigator- Coordinate with D.O.

Agency Resource Advisor

Agency Representation on **ALL** Fires

Move-up resources-coordinate with D.O.

Type 3 IC on fires with potential for significant growth or duration

Jefferson Agreement for incidents near the CA/OR border

STANDBY= LOCATE & PLACE 1 ON STANDBY FOR IMMEDIATE DISPATCH (paid).

CHECK AVAIL= Locate resource and check availability.

Module is an Engine or 4-10 person squad

Block Card is for the initial dispatch of SCOFMP agency controlled resources only. RFPD and/or RFPA resources are not included in intial response considerations.

Dispatch level set using Central FDRA

BICC(Burns): 541-573-4410
COIDC (Redmond): 541-216-7700
MEDFORD ODF: 541-664-1213
RVCC (Medford):541-618-2510
WALKER RANGE: 541-433-2451
UMPQUA: 541-957-3325
EICC (Eugene): 541-225-6400
SIFC (Susanville): 530-257-5575
CNIDC (Winnemucca): 775-623-1555
YREKA: 530-842-3380
MODOC: 530-233-4581
KLAMATH CO 911: 541-884-4876
LAKE CO 911: 541-947-2504
MODOC CO 911: 530-233-4416

SOUTH CENTRAL OREGON FIRE MANAGEMENT PARTNERSHIP

DISPATCH RESPONSE PLAN FOR DECLARED FIRE SEASON

RESPONSE ZONE: **CRATER LAKE NP**

DISPATCH RESPONSE LEVEL	BLUE	YELLOW	RED
	LOW	MODERATE	HIGH
MODULE (Engine or Squad)*	1	1	2
AIR ATTACK		CHECK AVAIL	1
HELICOPTER		CHECK AVAIL	STANDBY
SMOKE JUMPERS/RAPPELLERS		CHECK AVAIL	CHECK AVAIL
AIR TANKER		CHECK AVAIL	CHECK AVAIL
WATER TENDER		CHECK AVAIL	STANDBY

DUTY OFFICER, LIFC COORDINATOR AND INCIDENT COMMANDER HAVE THE OPTION TO INCREASE OR DECREASE THE INITIAL RESPONSE.

* Modules dispatched to NOT include more than two squads (e.g. 20-person crew = 2 modules)

Duty Officer permission needed before **ANY** retardant use.

Notifications

Duty Officer of **ALL** Fires

Adjacent Dispatch Center(s) if near a border

Consider the Following

Fire Investigator- Coordinate with D.O.

Agency Resource Advisor

Agency Representation on **ALL** Fires

Type 3 IC on fires with potential for significant growth or duration
Move-up resources-coordinate with D.O.
If within 1/2 mile of Headquarters, Mazama, or Rim Villages coordinate with D.O. for structure protection

STANDBY= LOCATE & PLACE 1 ON STANDBY FOR IMMEDIATE DISPATCH (paid).
CHECK AVAIL= Locate resource and check availability.

Module is an Engine or 4-10 person squad
Block Card is for the initial dispatch of SCOFMP agency controlled resources only. RFPD and/or RFPA resources are not included in intial response considerations.
Dispatch level set using Cascade FDRA

BICC(Burns): 541-573-4410
COIDC (Redmond): 541-216-7700
MEDFORD ODF: 541-664-1213
RVCC (Medford):541-618-2510
WALKER RANGE: 541-433-2451
UMPQUA: 541-957-3325
EICC (Eugene): 541-225-6400
SIFC (Susanville): 530-257-5575
CNIDC (Winnemucca): 775-623-1555
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KLAMATH CO 911: 541-884-4876
LAKE CO 911: 541-947-2504
MODOC CO 911: 530-233-4416

SOUTH CENTRAL OREGON FIRE MANAGEMENT PARTNERSHIP

DISPATCH RESPONSE PLAN FOR DECLARED FIRE SEASON

RESPONSE ZONE: **DESERT**

DISPATCH RESPONSE LEVEL	BLUE	YELLOW	RED
	LOW	MODERATE	HIGH
Module (Engine or Squad)*	2	3	4
HELICOPTER		1	1
AIR ATTACK		CHECK AVAIL	1
SEAT**		CHECK AVAIL	1
WATER TENDER		CHECK AVAIL	CHECK AVAIL
SMKJ		CHECK AVAIL	CHECK AVAIL
DOZER***		CHECK AVAIL	CHECK AVAIL
AIRTANKER		CHECK AVAIL	CHECK AVAIL

DUTY OFFICER, LIFC COORDINATOR AND INCIDENT COMMANDER HAVE THE OPTION TO INCREASE OR DECREASE THE INITIAL RESPONSE.

* Modules dispatched to NOT include more than two squads (e.g. 20-person crew = 2 modules)

**Check with D.O. prior to sending SEAT if incident is in or near limited suppression area

***Project leader permission needed for **ANY** dozer use on USFWS lands.

Notifications

Duty Officer of **ALL** Fires

911 (RFD's) of **ALL** Fires in or within 1 mile of their jurisdiction

Landowners of **ALL** Fires

Adjacent Dispatch Center(s) if near a border

Consider the Following

Fire Investigator- Coordinate with DO

Agency Resource Advisor

Agency Representation on **ALL** Fires

Move-up resources-coordinate with DO

Type 3 IC on fires with potential for significant growth or duration

Fort Rock Management Plan and Wilderness Study Areas

STANDBY= LOCATE & PLACE 1 ON STANDBY FOR IMMEDIATE DISPATCH (paid).
CHECK AVAIL= Locate resource and check availability.

Module is an Engine or 4-10 person squad
Block Card is for the initial dispatch of SCOFMP agency controlled resources only. RFPD and/or RFPA resources are not included in intial response considerations.
Dispatch level set using Desert FDRA

BICC(Burns): 541-573-4410
COIDC (Redmond): 541-216-7700
MEDFORD ODF: 541-664-1213
RVCC (Medford):541-618-2510
WALKER RANGE: 541-433-2451
UMPQUA: 541-957-3325
EICC (Eugene): 541-225-6400
SIFC (Susanville): 530-257-5575
CNIDC (Winnemucca): 775-623-1555
YREKA: 530-842-3380
MODOC: 530-233-4581
KLAMATH CO 911: 541-884-4876
LAKE CO 911: 541-947-2504
MODOC CO 911: 530-233-4416

SOUTH CENTRAL OREGON FIRE MANAGEMENT PARTNERSHIP

DISPATCH RESPONSE PLAN FOR DECLARED FIRE SEASON

RESPONSE ZONE: **SAGE GROUSE**

DISPATCH RESPONSE LEVEL	BLUE	YELLOW	RED
	LOW	MODERATE	HIGH
Module (Engine or Squad)*	2	3	5
HELICOPTER		1	1
AIR ATTACK		1	1
SEAT		CHECK AVAIL	1
WATER TENDER		CHECK AVAIL	1
SMKJ		CHECK AVAIL	CHECK AVAIL
DOZER**		CHECK AVAIL	CHECK AVAIL
AIRTANKER		CHECK AVAIL	CHECK AVAIL
READ		CHECK AVAIL	CHECK AVAIL

DUTY OFFICER, LIFC COORDINATOR AND INCIDENT COMMANDER HAVE THE OPTION TO INCREASE OR DECREASE THE INITIAL RESPONSE.

* Modules dispatched to NOT include more than two squads (e.g. 20-person crew = 2 modules)

Project leader permission needed for **ANY dozer use on USFWS lands.

Notifications

Duty Officer of **ALL** Fires

911 (RFD's) of **ALL** Fires in or within 1 mile of their jurisdiction

Landowners of **ALL** Fires

Adjacent Dispatch Center(s) if near a border

Consider the Following

Fire Investigator- Coordinate with D.O.

Agency Resource Advisor

Agency Representation on **ALL** Fires

Move-up resources-coordinate with D.O.

Type 3 IC on fires with potential for significant growth or duration

STANDBY= LOCATE & PLACE 1 ON STANDBY FOR IMMEDIATE DISPATCH (paid).
CHECK AVAIL= Locate resource and check availability.

Module is an Engine or 4-10 person squad
Block Card is for the initial dispatch of SCOFMP agency controlled resources only. RFPD and/or RFPA resources are not included in intial response considerations.
Dispatch level set using Desert FDRA

BICC(Burns): 541-573-4410
COIDC (Redmond): 541-216-7700
MEDFORD ODF: 541-664-1213
RVCC (Medford):541-618-2510
WALKER RANGE: 541-433-2451
UMPQUA: 541-957-3325
EICC (Eugene): 541-225-6400
SIFC (Susanville): 530-257-5575
CNIDC (Winnemucca): 775-623-1555
YREKA: 530-842-3380
MODOC: 530-233-4581
KLAMATH CO 911: 541-884-4876
LAKE CO 911: 541-947-2504
MODOC CO 911: 530-233-4416

SOUTH CENTRAL OREGON FIRE MANAGEMENT PARTNERSHIP

DISPATCH RESPONSE PLAN FOR DECLARED FIRE SEASON

RESPONSE ZONE: **WILDERNESS/SHR Escarpment**

DISPATCH RESPONSE LEVEL	BLUE	YELLOW	RED
	LOW	MODERATE	HIGH
MODULE (Engine or Squad)*	1	1	1
AIR ATTACK		1	1
HELICOPTER/HELITACK		CHECK AVAIL	CHECK AVAIL
SMOKE JUMPERS/RAPPELLERS		CHECK AVAIL	CHECK AVAIL
AIR TANKER		CHECK AVAIL	CHECK AVAIL
SEAT		CHECK AVAIL	CHECK AVAIL

DUTY OFFICER, LIFC COORDINATOR AND INCIDENT COMMANDER HAVE THE OPTION TO INCREASE OR DECREASE THE INITIAL RESPONSE.

***ANY USE OF LOW LEVEL AIRCRAFT, RETARDANT, OR MOTORIZED EQUIPMENT NEEDS**

FOREST SUPERVISOR'S PERMISSION OR DELEGATED AUTHORITY PRIOR TO USE IN WILDERNESS.

*Modules dispatched to NOT include more than two squads (e.g. 20-person crew = 2 modules)

**Dispatch CRT in IA Zone 1 on USFS and USFWS land

Notifications

Duty Officer of **ALL** Fires
Adjacent Dispatch Center(s) if near a border

Consider the Following

Fire Investigator- Coordinate with D.O.

Agency Resource Advisor

Type 3 IC on fires with potential for significant growth or duration

Move-up resources-coordinate with D.O.

STANDBY= LOCATE & PLACE 1 ON STANDBY FOR IMMEDIATE DISPATCH (paid).
CHECK AVAIL= Locate resource and check availability.

Module is an Engine or 4-10 person squad

Block Card is for the initial dispatch of SCOFMP agency controlled resources only. RFPD and/or RFPA resources are not included in intial response considerations.

Dispatch level set using Desert FDRA for SHR Escarpment, Central FDRA for Gearhart Wilderness, Cascade FDRA for Sky Lakes, Mountain Lakes, and Mt Thielsen Wilderness areas.

BICC(Burns): 541-573-4410
COIDC (Redmond): 541-216-7700
MEDFORD ODF: 541-664-1213
RVCC (Medford):541-618-2510
WALKER RANGE: 541-433-2451
UMPQUA: 541-957-3325
EICC (Eugene): 541-225-6400
SIFC (Susanville): 530-257-5575
CNIDC (Winnemucca): 775-623-1555
YREKA: 530-842-3380
MODOC: 530-233-4581
KLAMATH CO 911: 541-884-4876
LAKE CO 911: 541-947-2504
MODOC CO 911: 530-233-4416

NFDRS ANALYSIS OUTPUTS & DECISION POINT DETERMINATIONS

The intent of the NFDRS analysis and decision point determination is to differentiate thresholds that would require different strategic and tactical considerations to successfully manage a fire. Fire danger index Burning Index (BI) was selected as appropriate to set incident response levels. Fuel model Y had better correlation with fire history in Cascade and Central FDRAs while fuel model X had better seasonal fire danger correlation in the Desert FDRA. BI was selected because:

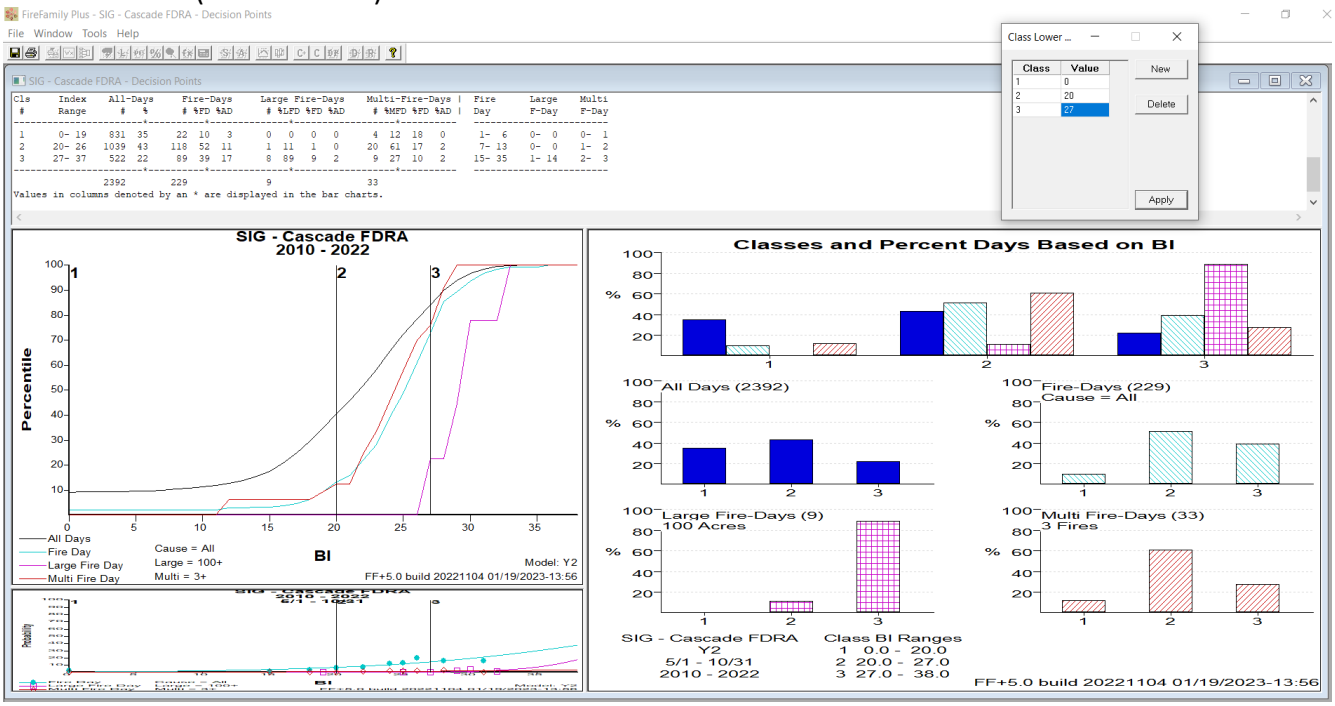
1) it considers wind
2) a forecast index value for the next day is available so dispatch levels can be set the afternoon before
3) and firefighting resources are adaptable to changing dispatch levels.

The BI is a combination of Energy Release Component (ERC) and Spread Component (SC). ERC does not include wind in the index calculation and is highly weighted to large fuel moistures. SC is very sensitive to wind and is weighted to fine fuel moistures. The BI can fluctuate dramatically from day to day but does have a seasonal trend. Fires can occur at a BI of zero but would have little spread potential if conditions at the fire location were similar to conditions at the weather station, where the index value was computed from.

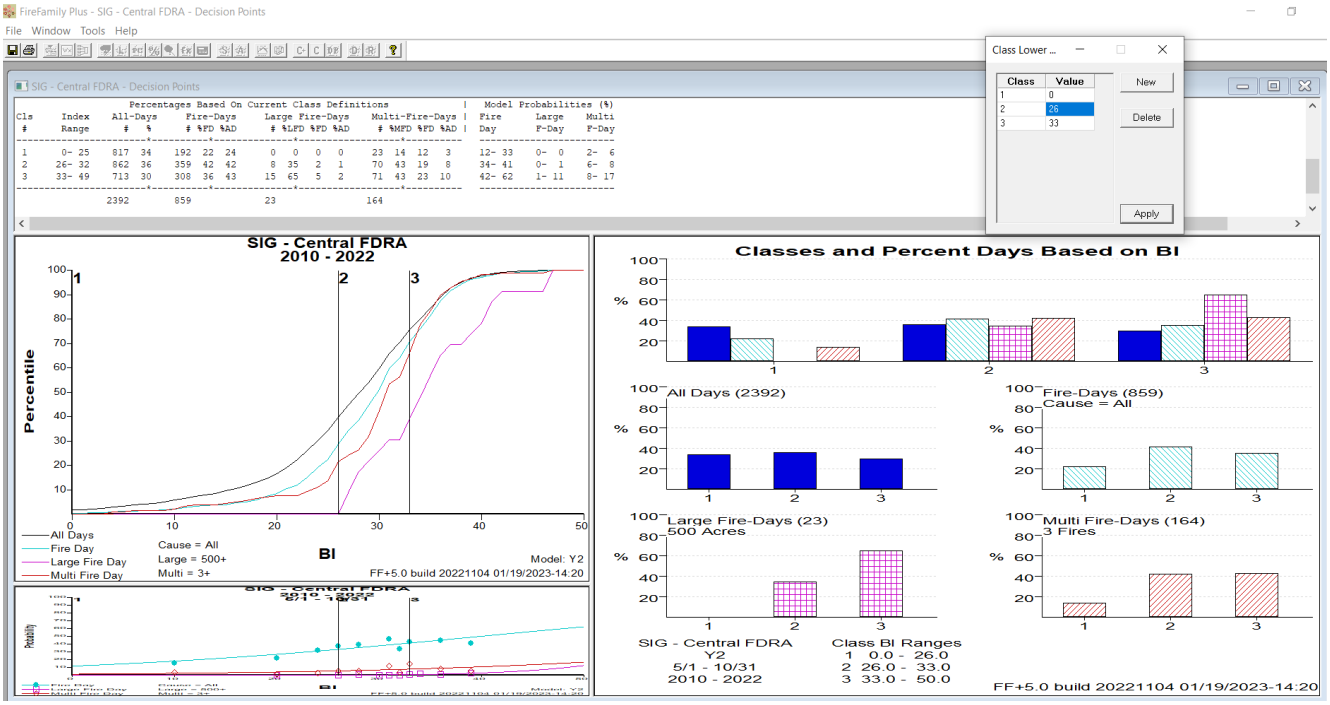
Dispatch Level Color	**SCOFMP Analysis**
Blue	Historically fires have occurred during this range of index values, but few to no large fires (as defined in the analysis) have occurred.
Yellow	Historically large fires have occurred during this range of index values. There may be less probability of high intensity, high resistance to control, and fires than in the Red category. Large fires during this range of index values may be most related to fine fuels.
Red	Historically large fires have occurred at a higher rate, more fires for a given number of days, than during the Yellow range of index values. Large fires may have a higher resistance to control due to greater intensity, more fuels contributing to fire behavior, and all size classes and types of fuel being readily available for combustion.

FIREFAMILYPLUS DECISION POINTS GRAPHS

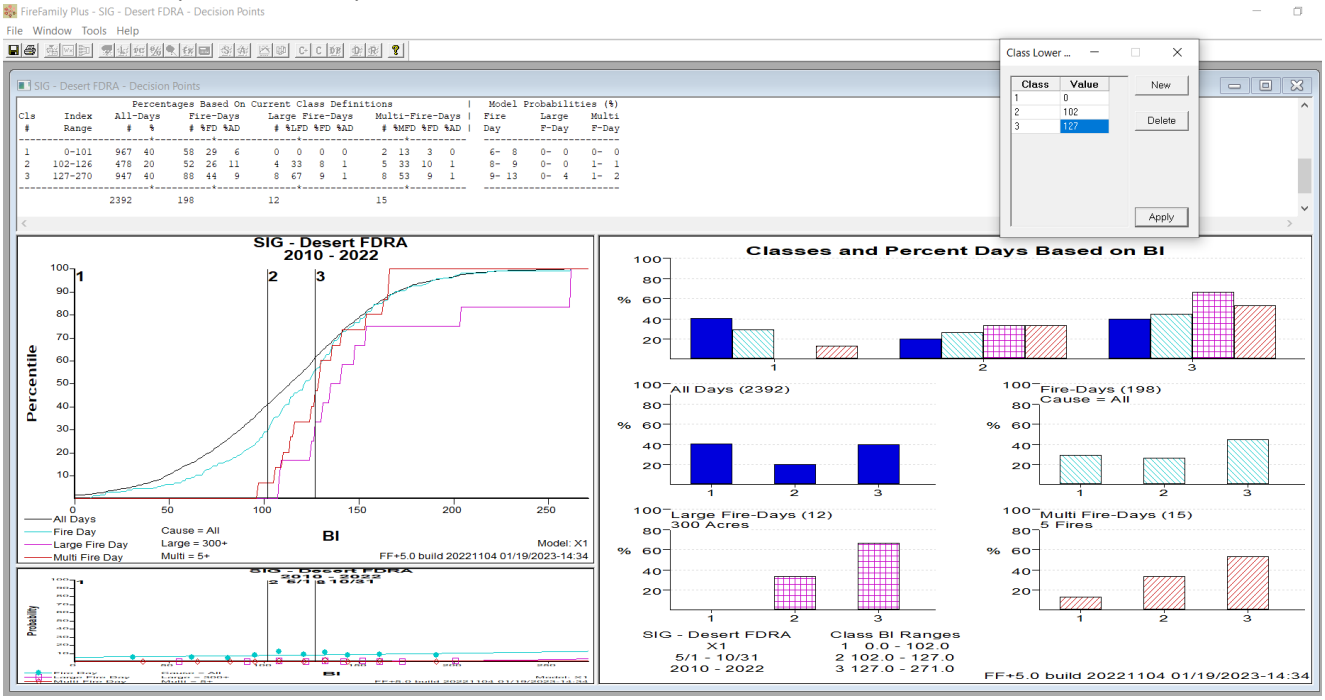
Cascade FDRA (Fuel Model Y)



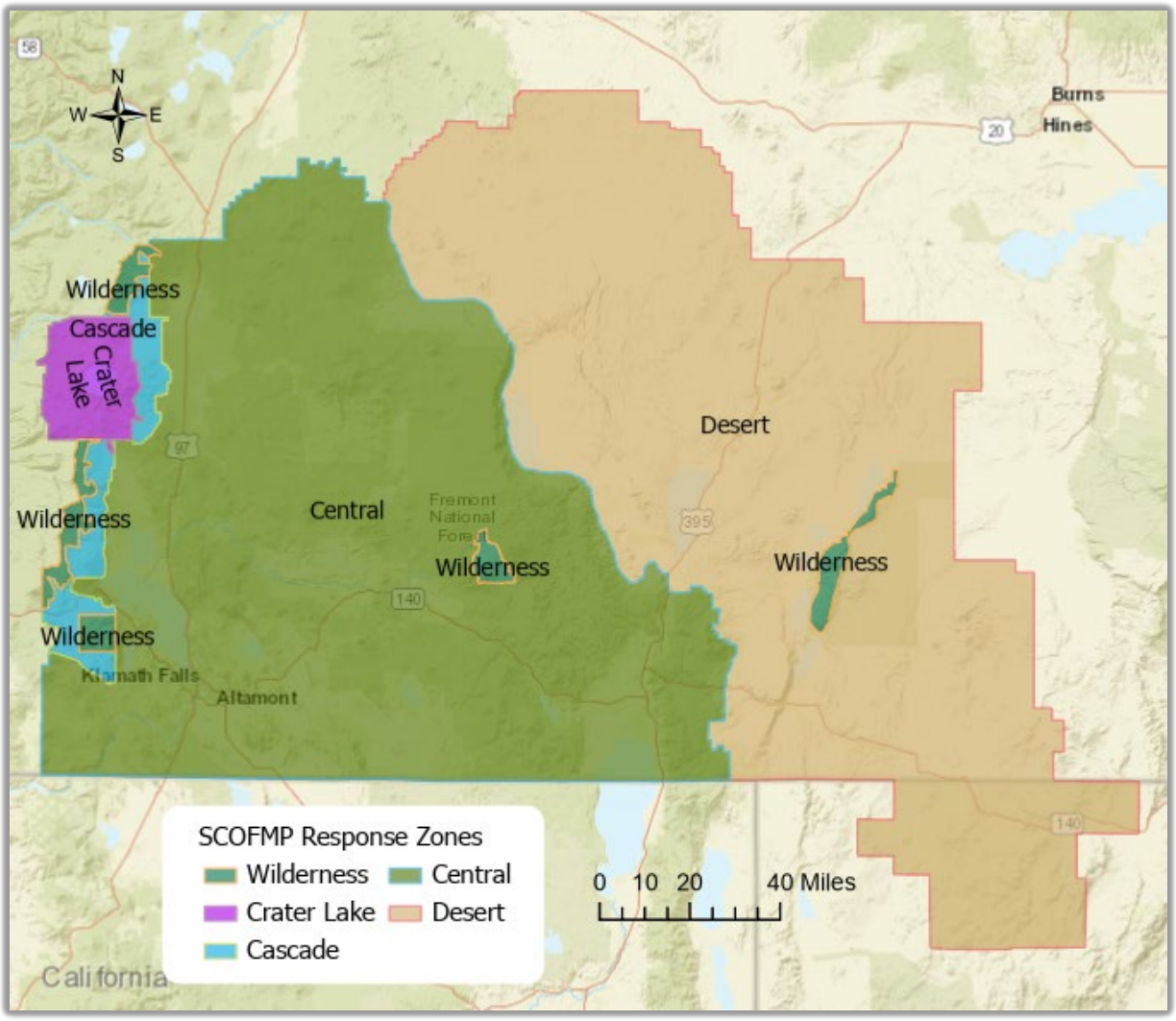
Central FDRA (Fuel Model Y)



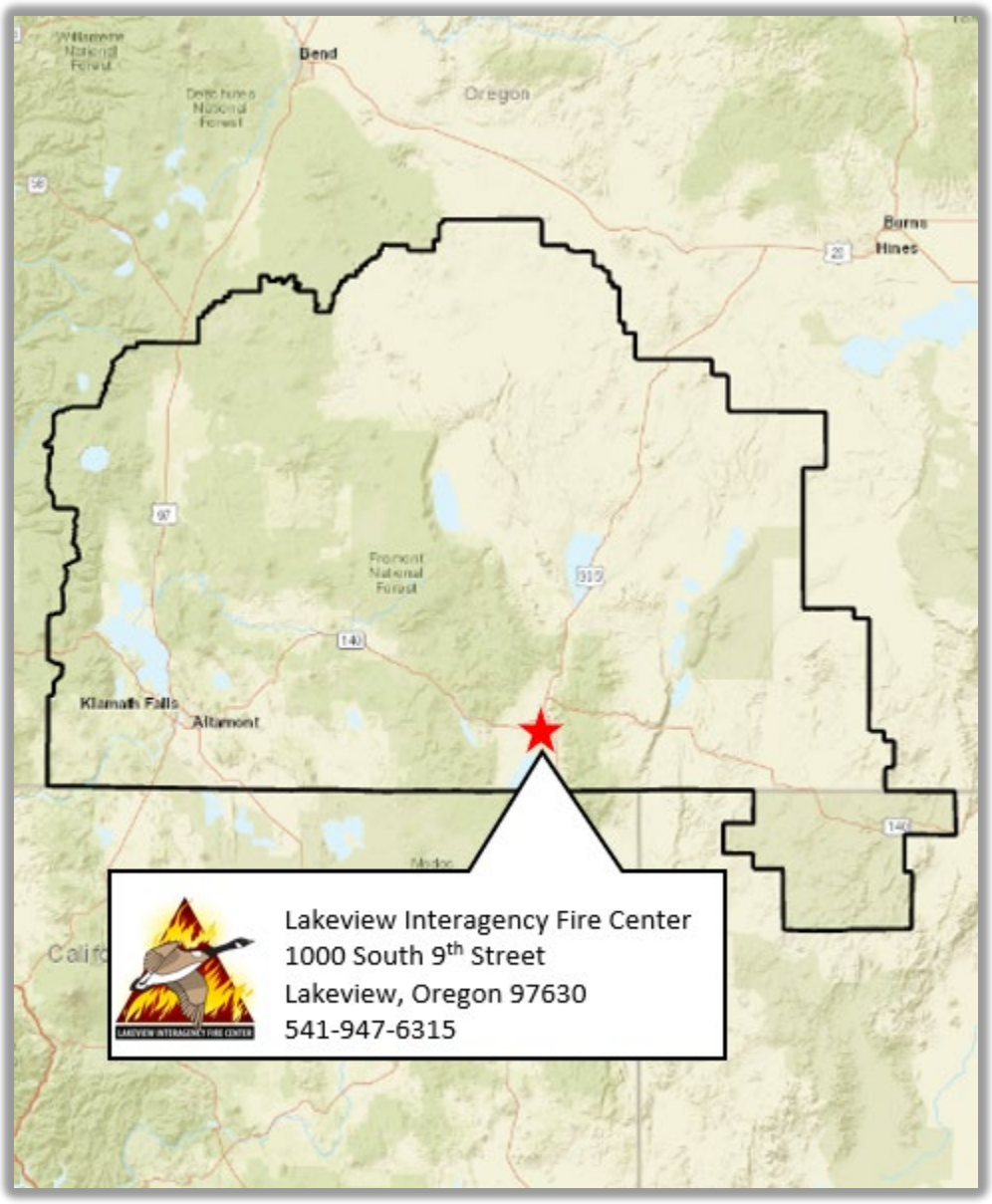
Desert FDRA (Fuel Model X)



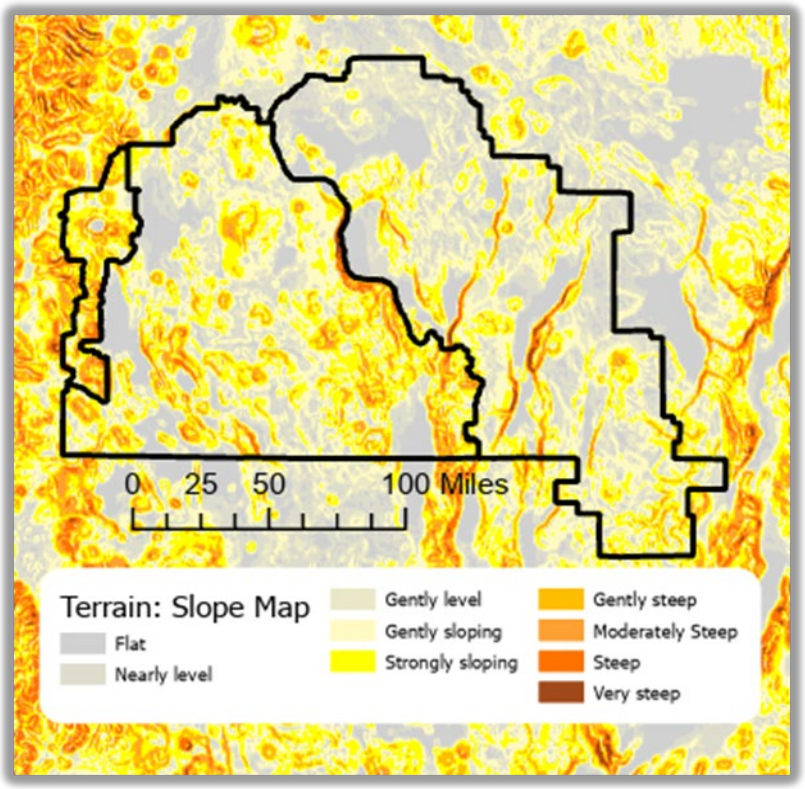
SCOFMP RESPONSE ZONES MAP



DISPATCH LOCATION



APPENDIX G: TOPOGRAPHY



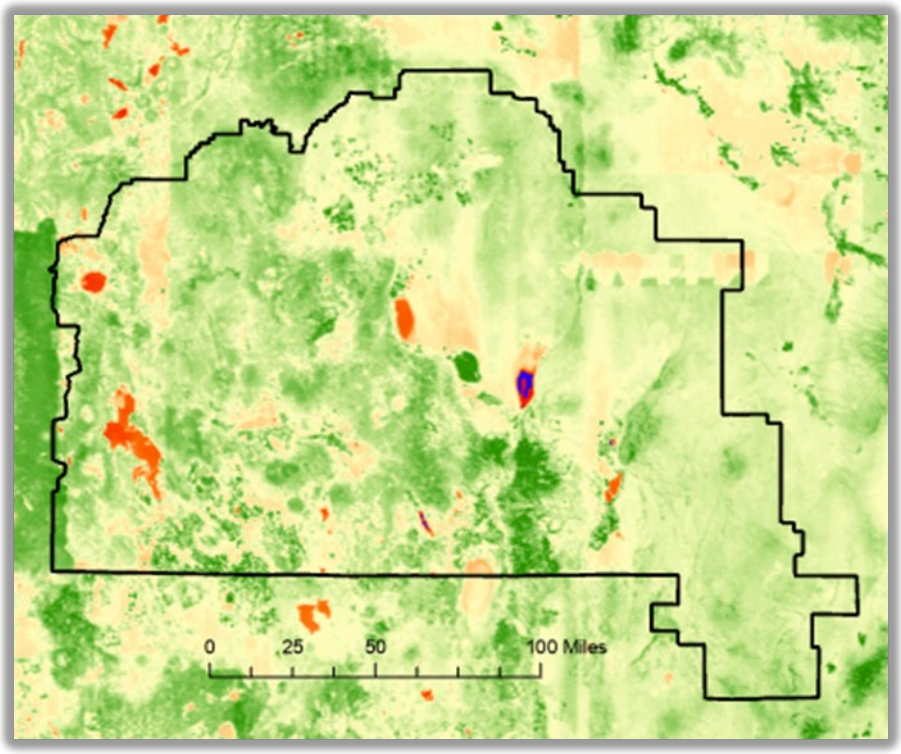
Analysis of the SCOFMP area topography was conducted using available GIS topographic and terrain data. The map shown above was derived from GIS layer data found HERE.

Elevations in the SCOFMP area range from 3,200 feet to over 8,000 feet with the highest elevations found to the west along the Cascade Mountain crest and the Warner Mountains in the Central FDRA.

The majority of the SCOFMP area contains flat to gently sloping terrain with slopes averaging less than 30 percent. Steep to very steep slopes can be found scattered throughout the SCOFMP area and are generally associated with topographic features such as the Cascade and Warner Mountain Ranges, individual mountain peaks, and numerous rims and escarpments.

More topographic information specific to individual FDRAs can be found in Appendix L – Fire Danger Rating Area Details.

APPENDIX H: VEGETATION



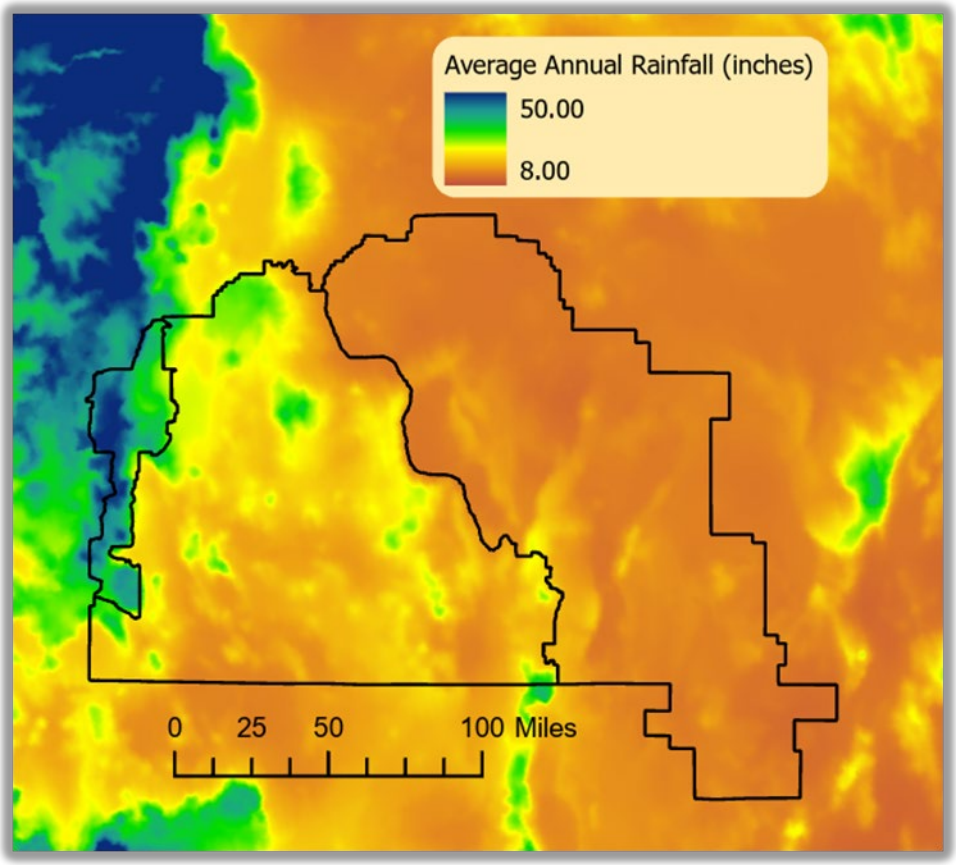
Analysis of the SCOFMP area vegetation was conducted using available GIS vegetation data. The map shown above displays Normalized Difference Vegetation Index (NDVI) data gathered from 2010 through 2019 and was derived from GIS layer data found HERE.

The SCOFMP area contains widely varying vegetation types ranging from dense forests to vast expanses of sagebrush steppe ecosystems. Diverse conifer stands are common in the west and central areas with much of the north and east areas classified as high elevation desert containing sagebrush and juniper woodlands. Various brush species are found across the entire area. Grasses are a mix of perennial and annual. Much of the land around populated areas is currently managed for agriculture.

An analysis of historic Normalized Difference in Vegetative Index (NDVI) imagery indicated a large variation in the amount of time from when green up begins to when it peaks across the area, generally taking 6-8 weeks, peaking around the first of June, and showing significant curing by early to mid-July.

More vegetation information specific to individual FDRAs can be found in Appendix L – Fire Danger Rating Area Details.

APPENDIX I: CLIMATE



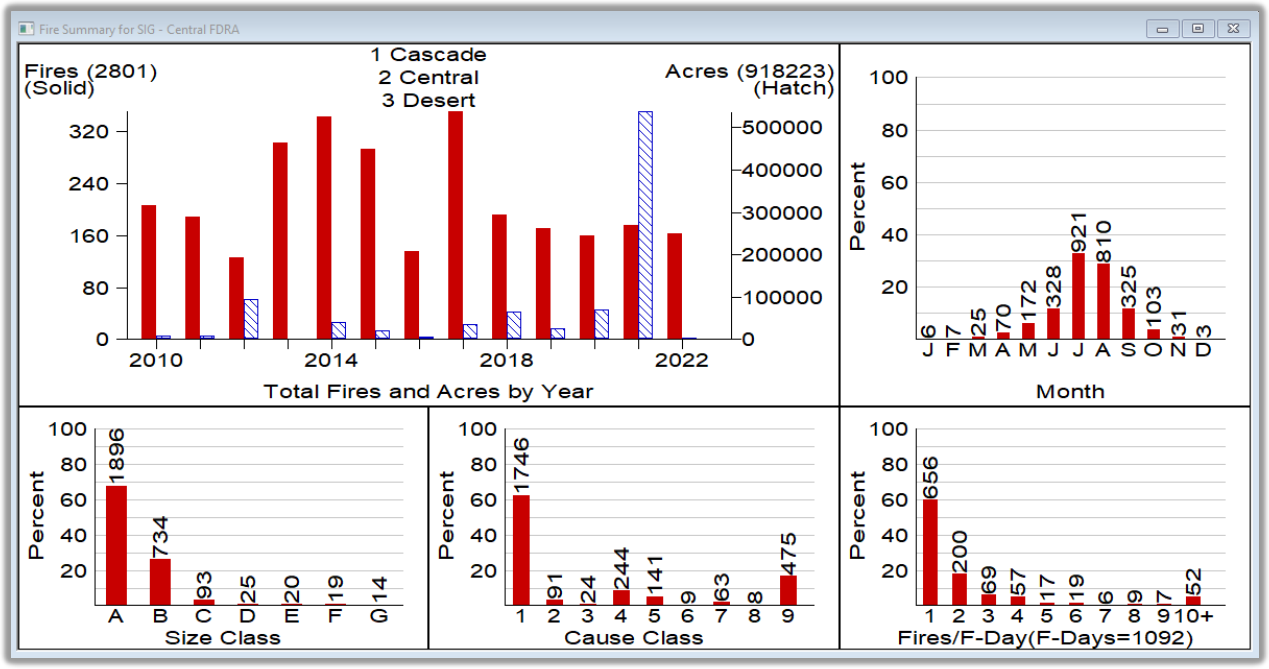
Analysis of the SCOFMP area climate was conducted using available GIS climate zone and annual precipitation data. The map shown above was derived from GIS layer data found HERE.

All portions of the SCOFMP area are subject to relatively large seasonal temperature differences. Temperatures (Fahrenheit) can range from below zero during winter months to over 100 degrees in the summer. Surface air temperatures tend to follow standard changes associated with elevation with a few notable exceptions throughout the year.

Annual precipitation falls in the form of rain and snow over all the SCOFMP area. As shown by the above map, annual precipitation is typically highest in western areas and in sharp contrast to relatively dry areas of the north and eastern areas. Annual precipitation amounts are more variable through the Central FDRA where localized precipitation amounts are heavily influenced by changes in elevation and aspect.

More climate information specific to individual FDRAs can be found in Appendix L – Fire Danger Rating Area Details.

APPENDIX J: FIRE OCCURRENCE



Fire occurrence records for all SCOFMP agencies were compiled for years 2010 through 2022 and input into FireFamily Plus for statistical analysis with summary results represented in the picture above. Some key observations from the 13-year analysis period are listed below:

- The SCOFMP area averaged 216 fires and 70,633 acres impacted by fire per year. (Average acres are heavily influenced by fire activity in 2021)
- In 2021, SCOFMP recorded 176 confirmed fires for a total of ***536,642 acres***
- 62% of all SCOMFP fires occurred during the months of July and August.
- 85% of all SCOFMP fires occurred between June 1st and September 30th
- 62% of all SCOFMP fires were lightning caused
- Of all Human Caused fires, 23% were attributed to Campfire(s)
- Of all Human Caused fires, 45% were attributed to Miscellaneous or Unknown Causes
- Of all Human Caused fires, 13% were attributed to Debris Burning
- 94% of all SCOFMP fires had a final fire size less than 10 acres
- 78% of all SCOFMP Fire Days (a day when a fire occurred) had no more than 2 ignitions
- 5% of all SCOFMP Fire Days (a day when a fire occurred) had 10 or more ignitions

APPENDIX K: FIREFAMILYPLUS ANALYSIS

Fire Family Plus Correlations and Analyses

1. Fire Weather history was re-created for 7 representative RAWS using a quality control process resulting in the most consistent, least erroneous historic weather data available. NFDRS v.4 fire danger calculations require numerical input from Solar Radiation sensors to perform fire danger calculations. Solar Radiation sensors were initially installed on all representative RAWS in 2010 therefore historical weather data from 2010-2022 was imported into Fire Family Plus for analysis.

2. Fire Danger Rating Areas were developed based on Vegetation, Climate, and Topography using GIS tools and data (*See Appendix L*). Local history of FDRA development and changes can be found in section II, B.

3. Fire histories of the USFS Fremont-Winema NF, BLM Lakeview District, ODF Klamath-Lake District, Crater Lake NP, USFWS Klamath Basin NWRC and Sheldon-Hart Mountain NWRC were obtained.

a) Imported into Fire Family Plus and exported to GIS.
b) The Fire history table was edited only to eliminate duplicate fires (reported by multiple agencies) using GIS.
c) All agency fire histories were assigned to the appropriate Fire Danger Rating Area.
d) The resultant GIS Fire table was imported into Fire Family Plus as a custom import. A custom agency (SCOFMP) was set up allowing the fire history to be selected by Fire Danger Rating Area.

4. Fire Family Plus probability analyses were conducted for each FDRA using representative RAWS within the FDRA. Probability Fire Analysis graphs were used to identify the best fit by looking for the best separation between All Days, Fire Days, Multiple Fire Days, and Large Fire Days. The statistics do not always correlate with the best fit looking at the graphs.

5. Generally the NFDRS index ERC best represented annual and seasonal fire danger trends and had good corelation with both large fire and multiple fire occurrence. ERC does not include wind in any part of the index calculation and is heavily weighted to large fuel moistures. Due to this fact, the ERC index shows the cumulative effect of weather over time on large fuels. The drying of large fuels results in an increasing ERC, while an ERC decrease indicates a net gain in large fuel moisture. Large fuel moistures are a key factor in fire intensity, high intensity fires having a high resistance to control. ERC was selected for public and industry fire danger communication because it is relatively stable and displays a seasonal trend.

a) Cascade FDRA – Fuel models Y and Z were analysed for best visual and statistical fit to display relative fire danger and large fire growth days. In the Cascade FDRA only, dates of fire occurrence records were changed from date of discovery to date of large fire growth. Due to environmental conditions and generally poor incident access within the Cascade FDRA it is common for a fire to ignite and burn with relative low intensity for several days before exhibiting high resistance to suppression efforts and large fire growth occurs during times of high fire danger values. Fuel Models Y and Z yielded similar ERC graphs with fuel model Y having slightly less day-to-day variation and slightly better correlation to large fire growth days, therefore, fuel model Y was selected for NFDRS analysis in the Cascade FDRA.

b) Central FDRA – Fuel model Y was again found to have good correlation between ERC and large fire occurrence and was selected for NFDRS analysis. Fuel model Z was evaluated and showed similar results to fuel model Y with more daily variation. Fuel model V, W, and X have shown some value for targeted analysis by time of year and location but did not have consistently good correlation of seasonal trends and large fire occurrence.

c) Desert FDRA – GSI calibrations were completed for the weather stations in this FDRA allowing analysis of all fuel models. Individual notes by fuel model are as follows:

1) **Fuel Model V** – Analysis shows very little seasonal variation in fire danger showing essentially the same fire danger mid-Aril through mid-September. Very little decision space was available as applicable ERC graph values only ranged from 0 to 7.
2) **Fuel Model W** – Utilizing fuel model comparison tools this fuel model should be most representative of the fuels within the FDRA. ERC graph averages show distinct curves during vegetation green up and curing cycles. Very little decision space was available as applicable ERC graph values only ranged from 0 to 12. Daily ERC variation could range from zero to over the 97th percentile and back to zero within a few days with large fire occurrence at almost any ERC value. Perhaps with different scaling this fuel model could be utilized in this FDRA.
3) **Fuel Model X** – Although fuel model parameters do not exactly match primary fuels found in this FDRA, ERC graphs show distinct seasonal curves that closely resemble observed fuel moisture and fire danger. ERC graphs accurately capture elevated fire danger conditions during pre-vegetation green up time periods as well as elevated fire danger during summer months. Large fire and multiple fire occurrence correlation is good throughout the season(s). Adequate decision space exists within the range of ERC values. Although other fuel models have been used recently

in this FDRA, **fuel model X has been selected** on a trial basis for fire danger analysis and use for this FDOP period.
4) **Fuel Model Y** – This fuel model has good large fire correlation within the FDRA during summer months but not early in the season during pre-vegetation green up periods. Adequate decision space exists within the range of ERC values. This fuel model has been used recently and could be used again if fuel model X is found to be unrepresentative of conditions.
5) **Fuel Model Z** – This fuel model yields similar results to fuel model Y with more daily variations. Fuel loading parameters do not match primary fuels found in the FDRA.

6. Generally the NFDRS Burning Index (BI) best represented the combination of both seasonal and daily fluctuations in fire danger. BI had good, but not the best, large fire correlation in all three FDRAs. BI values change relatively quickly compared to ERC values and BI was selected for fire danger plans that primarily address agency employees and functions such as staffing plan and response plan. Fuel model BI analysis was conducted in all FDRAs with similar findings as noted in the previous section.

FireFamilyPlus Analysis Parameters

Large Fire Size (acres)	20
Multiple Fire Day (fires/day)	3

SIG: ***Cascade***

Weather Station Number →	353339				
Weather Station Name	Seldom				
NFDRS Fuel Model	Y				
Data Years Used in Analysis	2010-22				
Weight	1.00				

Large Fire Size (acres)	500
Multiple Fire Day (fires/day)	3

SIG: *Central*

Weather Station Number →	353344	353310	353328	353421	
Weather Station Name	Parker	Chiloquin	Gerber	Summit	
NFDRS Fuel Model	Y	Y	Y	Y	
Data Years Used in Analysis	2010-22	2010-22	2010-22	2010-22	
Weight	1.00	1.00	1.00	1.00	

Large Fire Size (acres)	100
Multiple Fire Day (fires/day)	8

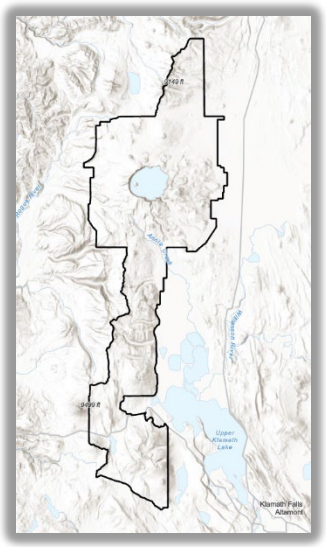
SIG: *Desert*

Weather Station Number →	353406	353424		
Weather Station Name	Fort Rock	Rock Creek		
NFDRS Fuel Model	Y	Y		
Data Years Used in Analysis	2010-22	2010-22		
Weight	1.00	1.00		

APPENDIX L: FIRE DANGER RATING AREA DETAILS

Cascade

- General Location:



The Cascade FDRA is generally located along the eastern slopes of the North-South oriented Cascade Mountain Range. The Cascade FDRA, from north to south, includes portions of the Mount Thielsen Wilderness, all of Crater Lake National Park, portions of the Sky Lakes Wilderness, Mountain Lakes Wilderness, and sections of the Pacific Crest Trail. The large majority of this FDRA is within Klamath County with small portions extending into Douglas and Jackson Counties; all in Oregon.

- Vegetation:

Vegetation includes pure stands of Hemlock and Douglas Fir with pockets of Pine and mixed conifers with regeneration. It is important to note there has been significant fire impacts in the Cascade FDRA within the last ten years, affecting several thousand acres.

- Climate:

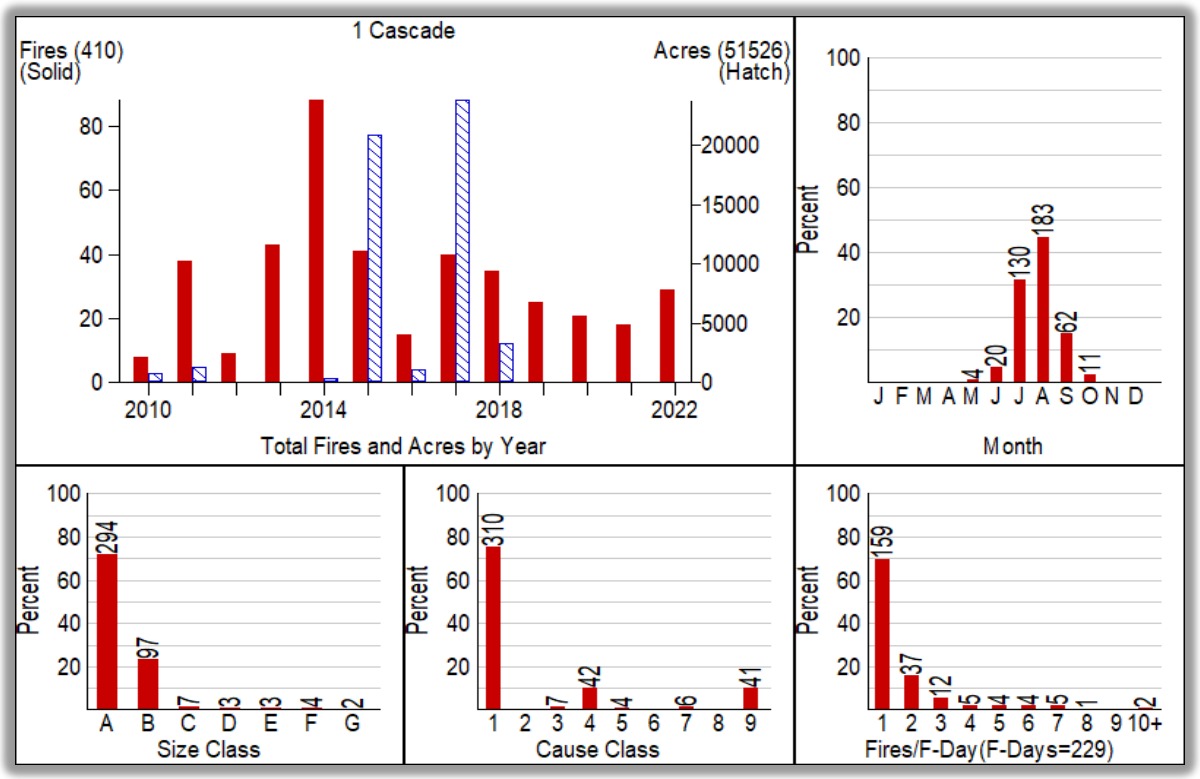
Weather systems typically travel from south and west to north and east across south central Oregon. These weather systems combine with significant topography and orographic effects to produce more measurable precipitation in the Cascade FDRA than other areas of SCOFMP. Representative weather stations average around 40 inches of precipitation per water year while Crater Lake National Park records an average of 40 feet of annual snow fall.

The Cascade FDRA shares similar boundaries with, and is well represented by, National Weather Service fire weather zone 623 with forecasts generated by the Medford WFO.

- Topography:

Elevations range from 8,000-foot peaks along the Cascade Crest to around 4,000 feet in valleys on the east side of the FDRA. In general, the Cascade FDRA has an east aspect with many slopes measuring over 50 percent.

- Cascade – Fire Summary Graph (2010 – 2022)



Size Class:

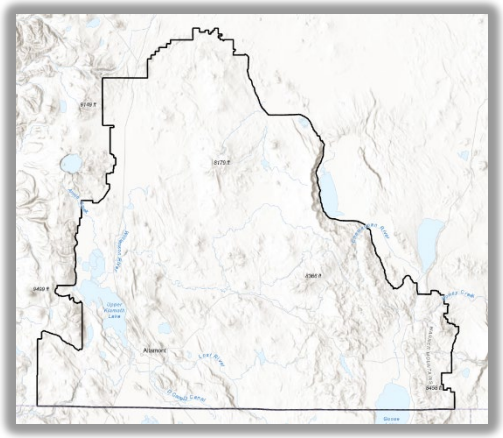
A =	0 —	.25	acres
B =	.30 —	9	acres
C =	10 —	99	acres
D =	100 —	299	acres
E =	300 —	999	acres
F =	1000 —	4999	acres
G =	5000 +		acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

Central

- General Location



The Central FDRA represents a large portion of south-central Oregon. Most of Klamath County and approximately half of Lake County fall within this FDRA. The southern boundary of this FDRA follows the Oregon-California state border**.**

- Vegetation:

The Central FDRA contains a wide range of vegetation. Ponderosa pine is found in most areas of the FDRA mixed with areas of Lodgepole, Fir, Sugar Pine, and Cedar. Forested areas often mix with brush understory containing bitterbrush, ceanothus, and manzanita. Sagebrush and Juniper woodlands are scattered across the FDRA with larger areas in south-central and northeast. Much of the land in the Klamath and Goose Lake basins is managed for agriculture.

- Climate:

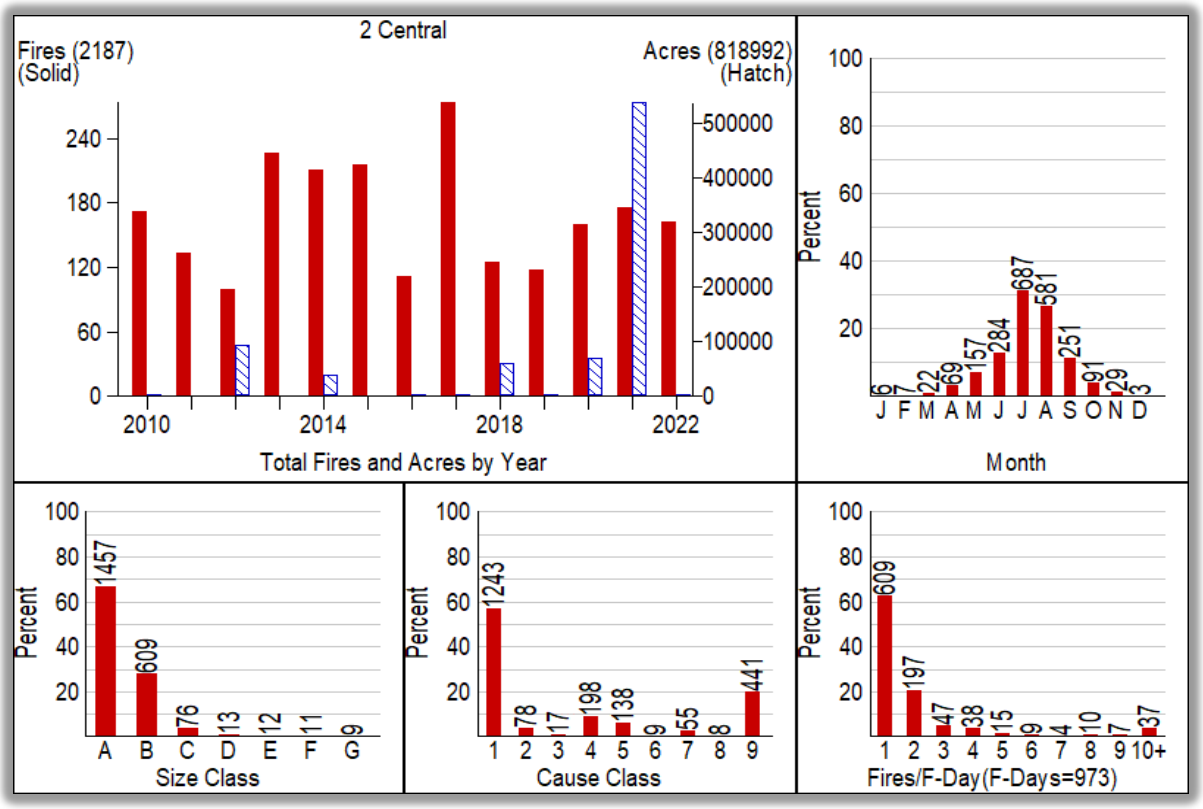
Annual rain and snow fall vary across the FDRA. Forested areas across the north, east, and southeast tend to be higher elevation and receive more precipitation that the basins located in the south and southwest portions of the FDRA. Average annual precipitation ranges from around 16 inches in Klamath Basin to around 30 inches in northern and eastern forested areas.

The Central FDRA shares similar boundaries with, and is well represented by, National Weather Service fire weather zone 624 with forecasts generated by the Medford WFO.

- Topography:

Topography includes basins, high elevation peaks, and prominent rims with escarpments. The lowest elevations within this FDRA are in the southwest corner along the Klamath River Canyon at approximately 3,000 feet. Most basins are located between 4,000 and 5,000 feet with the highest mountain peaks topping 8,000 feet. Slopes are relatively gentle to rolling except for isolated deep river canyons and escarpments with slopes that exceed 100%.

- Central – Fire Summary Graph (2010 – 2022)



Size Class:

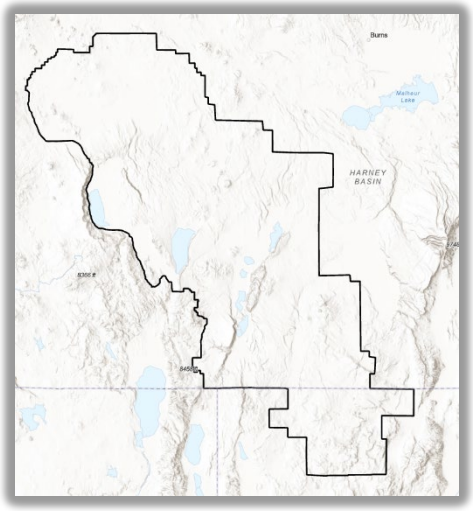
A =	0 —	.25	acres
B =	.30 —	9	acres
C =	10 —	99	acres
D =	100 —	299	acres
E =	300 —	999	acres
F =	1000 —	4999	acres
G =	5000 +		acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

Desert

- General Location:



This FDRA encompasses a large portion of Lake County with small portions of Harney County in south central Oregon. The southern portion of this FDRA extends into Washoe and Humboldt Counties in northern Nevada to include lands managed by a USFWS refuge complex based in Oregon.

- Vegetation:

Vegetation is dominated by sagebrush steppe landscapes with scattered juniper woodlands. Grasses are a mix of annual and perennial. Minimal forested areas are found within this FDRA.

- Climate:

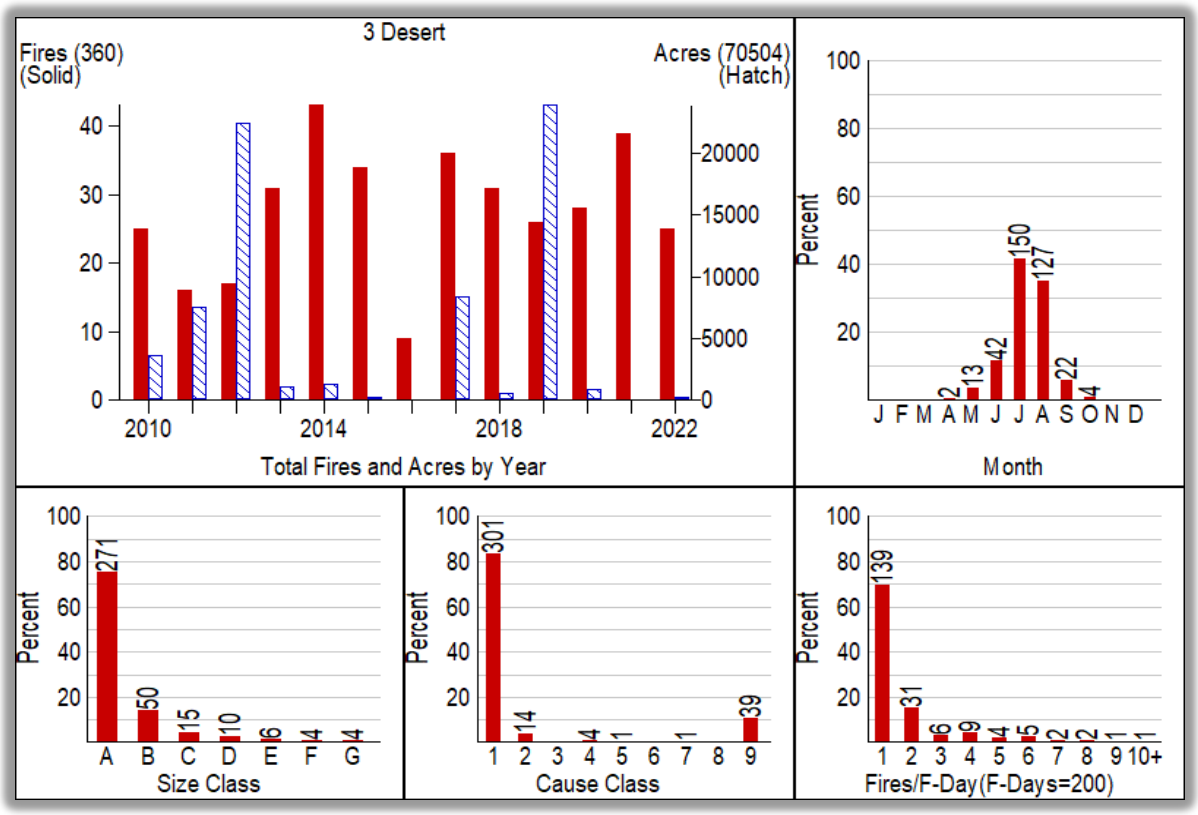
This FDRA represents landscapes classified as high elevation desert associated with the Great Basin. Annual precipitation is generally less than 12 inches across the entire FDRA.

The Desert FDRA shares similar boundaries with, and is well represented by, National Weather Service fire weather zone 625 in Oregon with forecasts generated by the Medford WFO. The portion of this FDRA in Nevada falls within National Weather Service fire weather zones 458 and 437 with forecasts generated by the Reno WFO and Elko WFO respectively.

- Topography:

Elevations range from 4,000 to over 7,000 feet. Terrain is generally flat to rolling except for deep river canyons and escarpments with slopes that exceed 100%.

- Desert – Fire Summary Graph (2010 – 2022)



Size Class:

A =	0 —	.25	acres
B =	.30 —	9	acres
C =	10 —	99	acres
D =	100 —	299	acres
E =	300 —	999	acres
F =	1000 —	4999	acres
G =	5000 +		acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

APPENDIX M: INDUSTRIAL FIRE PRECAUTION LEVELS

For federal agencies, the Industrial Fire Precaution Level (IFPL) system is used to regulate industrial and firewood cutting operations. Industrial operations may require a signed contract (timber sales, road maintenance, trail maintenance, silviculture operations, etc.). By signing the contract, the signer agrees to abide by the IFPL provisions in the contract. The intent of the IFPL system is to prevent large and costly fires.

Determination of IFPL Levels

Current IFPL (OR/WA) will continue to be used during the 2023 season, with an updated analysis of NFDRS v.4 Fuel Model Y Energy Release Component (ERC) and Ignition Component (IC) to inform the Precaution Value (PV). PV for individual stations in OR/WA are available to field units through the Region 6 Fire Danger Rating Area website

To ensure the best available science is utilized in the analysis, an interagency group evaluated a combination of ERC and IC, and a second option that combines Burning Index (BI) with Energy Release Component. The analysis showed that a combination of ERC and IC had a higher statistical significance when setting breakpoints related to fire size and occurrence than a combination of ERC and BI. The decision was made to use ERC and IC, similar to legacy IFPL systems.

IFPL Implementation

IFPL will be observed during fire season unless otherwise specified in a contract. As a general practice, readouts greater than IFPL 1 should not be adhered to until green-up is initiated and the adjective rating level is moderate.

When the calculated PV has been above a 2 for *three consecutive days* and the weather forecast or pattern shows no relief, the duty officers, LIFC coordinator, deputy fire staff, and fire staff are consulted about moving to an IFPL 2. The decision to move is generally made in the afternoon of the third consecutive day. The official move will be made on the morning of the second calendar day after the decision, or later as determined by the fire leadership.
When the calculated PV has been above a 3 for *seven consecutive days* and the weather pattern shows no relief, the duty officers, LIFC coordinator, deputy fire staff and fire staff are consulted by the about moving to an IFPL 3. The decision to move is generally made in the afternoon of the seventh consecutive day. The official move will be made on the morning of the second calendar day after the decision, or later as determined by the fire leadership. The same consultation process will be utilized when moving from an IFPL 3 to an IFPL 4.

With consultation of duty officers, LIFC coordinator, deputy fire staff and fire staff and notification of partners and cooperators, movement downward of the IFPL can happen at any time without a waiting period if the future weather pattern indicates a holding or downward trend.

Public Information Officers make agency and media contacts. LIFC coordinator will make appropriate changes to their respective web sites and recorded phone messages. This is done so that all parties involved will have time to be informed and react to the change.

Fremont-Winema National Forest and Lakeview District Bureau of Land Management adhere to the same IFPL and public use restrictions decisions. Klamath-Lake District ODF is consulted before an IFPL change is made.

The IFPL system allows for waivers of IFPL restriction if the situation on a site is different than is represented by the model. The basic principle is that the Agency will not be assuming additional risk by granting a waiver. Waiver guidelines were prepared and agreed to by members of the Pacific Northwest Wildfire Coordinating Group (PNWCG).

Industrial Restrictions/Closures for Klamath Basin NWRC

Industrial operations on US Fish and Wildlife Service lands are limited primarily to agricultural operations (haying), hazard fuels reduction and refuge maintenance projects. The Klamath Basin NWRC will adhere to the IFPL system for all commercial operations on the Bear Valley, Upper Klamath and Klamath Marsh National Wildlife Refuges. The portion of the Lower Klamath NWR in Oregon is primarily agricultural grain land and will be exempt from the restrictions found in this plan. Waivers may be issued by the Project Leader, Deputy Project Leader or Fire Management Officer for commercial and non-commercial activities.

Industrial Restrictions/Closures for Oregon Department of Forestry

When Fire Season is declared, industrial restrictions are implemented. Operators are required to have a “Fire Box” with the appropriate number of fire tools for the size of operation, tools are required for trucks and power saws, fire extinguishers and approved spark arrestor/muffler are required for each internal combustion engine on the operation, adequately sized water supply, and a fire watchman. The Watchman service is linked to the adjective rating level: 1-hour fire watch at Low and a 2-hour fire watch at Moderate, High, and Extreme. In addition, at adjective rating level Extreme, tracked equipment, slash busters, and mechanized Harvesters with high-speed rotary saws are required to be shut down from 1pm to 8pm (unless waived by forester on operation specific basis). High speed rotary saws also require an operation area observer and additional fire suppression capabilities on the operation.

IFPL Waiver Guidelines

The following is the IFPL waiver guidelines that were developed and agreed to by the Pacific Northwest Wildfire Coordinating Group (PNWCG) in 1989.

PACIFIC NORTHWEST REGION WAIVER MANAGEMENT GUIDELINES
1989
PREPARED BY INDUSTRIAL FIRE PRECAUTIONS LEVELS REVIEW TEAM

I. WAIVER MANAGEMENT GUIDELINES

A. Background

The following guidelines have been developed by the Northwest Interagency Fire Prevention Group (NWIFPG) and Industry. The guidelines are general and will require administrative field units to develop specific guidelines/procedures that will support interagency and industry coordination and cooperation in the Pacific Northwest Region.

B. Objective

To enhance interagency uniformity and industry cooperation in the management of waivers.
To provide a framework for the development of more specific guidelines/procedures by field administrative units.

C. Introduction

A waiver may be considered when local site conditions, prevention, detection, suppression capabilities, or combinations of these alternatives can be used to effectively reduce risk.
Administrative field units should use the guidelines as a base to develop specific guidelines that support the review team's coordination and cooperation in the Pacific Northwest Region.

D. Definitions

Waiver: A written authorization that allows an operation to commence or continue so long as the level of risk present in the lower IFPL is not exceeded.

II. DIFFERING SITE CONDITIONS AND ADDITIONAL/SUBSTITUTE MEASURES

The specific operation site is not representative of the overall conditions in shutdown zone/regulated use area.

A. Site Specific Considerations:

- Area of continuous slash versus unit surrounded by timber.
- Type of work being performed.
- Opportunities for control.
- Time and distance from initial attack resources.
- Adjacent values at risk.
- Moist sites.
- Aspect (north slope versus south slope).
- Fog belt.

Note: Specific guidelines can be determined on an agency basis for weather parameters to be used on waivers.

B. Additional/Substitute Measures:

1. Prevention

- Raising of fuel moisture.
- Exceeding fuel clearing precautions required by law/contract, i.e., tail block clearing wider than required. Clearing moss/fuel off potential line rubs, etc.

- Cleaning all tracked and rubber tired skidders daily i.e., belly pans, manifolds and radiators.
- Timing of operation (at night, earlier shut-down, etc.).

2. Detection

- Additional watchman/security service at high hazard and risk locations at agreed time intervals.
- Special detection measures (IR).

3. Extra Suppression

- Prepositioning personnel and equipment in addition to that required (on site).

NOTE Should be reasonable based on predicted fire behavior in the event of a start

4. Other

- Communication system exceeds minimum requirements.
- Weather controls (humidity, temperature, wind, shut-down).

III. EXPERIENCE WITH OPERATOR

- History of compliance
- History of law/contract violations
- History of ignitions
- Condition of equipment
- Operators attitude towards prevention

IV. LANDOWNER/LAND MANAGEMENT AGENCY CONSIDERATIONS

- Landowner in agreement with the waiver issued to the operator (N/A USFS)
- Insure coordination with adjoining cooperators

V. AVAILABILITY OF SUPPRESSION RESOURCES

- National/Regional/State situation
- Ability to mobilize resources to respond to an ignition
- Ability to support an extended attack situation
- Ability to administer waivers due to a shortage of personnel

NOTE: Any combination of the above factors could result in the cancellation of waivers.
NOTE: This is a supervisor/staff/agency decision (not “on the ground” administrator decision)
NOTE: The above may include additional resources made available by the operator

INTERAGENCY IFPL WAIVER

1. The following entity is requesting that a waiver be granted from certain requirements that are set forth in the Industrial Fire Precaution Levels (IFPL) guidelines.

(Name of Company or Individual Requesting Waiver) (Address and Telephone #)

(Signature) (Date)

(Contract Number) (Project Name)

(Legal Location) (Agency Unit Receiving Request)

2. Applicable IFPL levels and restrictions that are requested to be waived:
   - ○
   - ○

3. Measures submitted by requesting party for waiving applicable IFPL levels and restrictions:
   (Include Effective Dates)
   - ○
   - ○
   - ○

4. Additional measures taken to prevent wildfires or respond to any incident that may occur:
   (To be determined by Fire Staff or District FMO in conjunction with line officer)
   - ○
   - ○
   - ○

5. This waiver will be revoked if any fire requirements in the contract or this waiver are not met at all times. This waiver will remain in effect until the project is completed or the IFPL level changes.

Recommended by: **Date:**
(COR/TSO/ER/Other)

Reviewed by: **Date:**
(Fire Management Staff Officer or District FMO)

***Reviewed by:** **Date:**
(Appropriate Line Officer)

***Approved by:** **Date:**
(Appropriate Line Officer/FSR/CO)

Cancelled by: **Date:**

Steps for filling out Waiver Form

1. **Requesting party fills out all applicable items in 1 thru 3; the requesting party may be assisted by the recommending official.**
2. **If the government feels additional measures need to be added for the waiver to be granted Fire Management in conjunction with the line officer includes this in item 4.**
3. **Applicable signatures need to be in place before the waiver is granted.**

***Under some contracts such as Timber Sale Contracts the Line Officer may not be the Approving Official, the FSR or CO is the approving official. In such cases the Line Officer becomes one of the Reviewing Officials and the FSR or CO of the contract becomes the Approving Official. All other waivers in which the Line Officer is the Approving Official the reviewed by line for the Line Officer is not needed**

APPENDIX N: PRESCRIBED FIRE APPROVAL PLAN

Refer to the *Interagency Standards for Fire and Fire Aviation Operations (Red Book), Chapter 17* for further information.

a. Prescribed Fire Approval Plan (USFS) – Local prescribed fire activities on USFS lands may be implemented subject to regional review and approval during times of regional Preparedness Level (PL) 4 or 5, or an "Extreme" adjective class rating in the county the prescribed fire is located in. The *USFS Regional Office Prescribed Fire Authorization Worksheet* is included on the following pages.

b. Prescribed Fire Approval Plan (BLM) – Local prescribed fire activities on BLM lands may be implemented subject to regional review and approval during times of regional Preparedness Level (PL) 4 or 5. The *Oregon/Washington BLM State Office PL 4/5 Prescribed Fire Worksheet & Instructions* is included on the following pages.

c. Prescribed Fire Approval Plan (USFWS) – During Geographic Area Preparedness Level 4 and 5, and National Preparedness Level 4, written concurrence from Regional Fire Management must be obtained prior to implementing a prescribed fire. During National Preparedness Level 5, written concurrence from Regional Fire Management and the Branch of Fire Management must be obtained prior to implementing a prescribed fire. See USFWS FMH Chapter 17 for additional information. The *USFWS National Preparedness Level 5 Prescribed Fire Concurrence Form* is included on the following pages.

d. Prescribed Fire Approval Plan (NPS) – At National Preparedness Level 4 or 5, concurrence from NPS Branch of Fire Management must be obtained prior to implementing prescribed fires. At Geographic Area Preparedness Level 4 or 5, NPS Regional Fire Management concurrence must be obtained prior to implementing prescribed fires.

USDA Forest Service
Regional Office Prescribed Fire Authorization Worksheet

Region:		
Date:		
Submitted by:		
Telephone/Email:		
Approval Required For:	**National Preparedness Level 4 or 5:** ☐	**NFDRS is "Extreme":** ☐

Forest	**Burn Unit ID**	**Unit Acres**	**Start/End Date**	**Personnel/Crews/Equipment To Implement Burn**	**Forecast NFDRS Rating**
TOTALS					

Actual and Forecasted Fire Business, Fire Weather and Fire Behavior Conditions:

Values and Risk/Benefit Assessment:

Coordination with Fed/State/Local Partners, Mitigation Measures, & Other Precautions:

Regional Office Use Only:

FAM Recommendation	**Approve:** ☐	**Deny:** ☐
FAM Notes:		
Regional Forester (or Designee) Decision:	**Approve:** ☐	**Deny:** ☐
Decision Rationale:		
Date/Time:	**Signature:**	

Note: Please use the following link to report all authorizations granted by the Regional Office to fulfil mandatory reporting requirements -

USDA FOREST SERVICE REGIONAL-LEVEL PRESCRIBED FIRE AUTHORIZATIONS

Oregon/Washington BLM State Office PL 4/5
Prescribed Fire Worksheet & Instructions

The attached worksheet is used to document the conditions, planning, and partner conversations needed to support prescribed burning under PL4/5 and NFDRS extreme conditions.

When submitting burn plans for review for this approval process, please complete a draft of this form. Items 1 and 2 may be left blank at this stage. Item 3: Rationale and Item 4: Mitigation Measures should be completed. Item 5 can be drafted now with the understanding that it may need to be updated when the burn window is in sight.

You will notice that these boxes are small—the intent is to be succinct with your discussion points.

Detailed information for each of these are included for your reference below:

1. **Forecasted Smoke, Fire Weather, and Fire Behavior Conditions (short & long term):**
   Short summary of 3-5-day weather outlook and fuel conditions. Acknowledge the level of drought, if any. Identify any potential areas that would be impacted with smoke. Include expected amount and duration of impacts.
2. **State/District/Local (cooperator) Incident Activity or Resource Availability Issues:**
   Describe the resources needed for your burn including contingency, current availability, and likely availability for extent of active ignitions and holding.
3. **Rationale:**
   Key reasons for why this burn needs to be completed under these conditions. One example: To meet the objectives of this burn we need exceptionally dry conditions, and this burn is of critical importance to neighboring tribes for cultural reasons.
4. **Mitigation Measures & Contingency Plans**:
   In consideration of resource shortages and/or elevated fuels conditions, what additional mitigation measures will you have in place? What contingency resources are you planning on and how are you ensuring their availability?
5. **State/County Coordination (NFDRS “extreme” only):**
   Document that your unit has discussed this burn with county authorities where there are NFDRS extreme conditions and that you have shared understanding and support of this undertaking.

When the burn window presents itself, this completed form, along with the PL4/5 & NFDRS along with Risk Assessment document, signed by your District Manager need to be sent to the State Fuels Lead Jason Simmons for routing and approval.

Updated 4/07/2021

Oregon/Washington BLM State
Office Prescribed Fire
Authorization Worksheet

Date:		District Name:	
Submitted by:		Contact Number:	
Approval Required For:	**Regional or National Preparedness Level 4 or 5:** ☐		**NFDRS is "Extreme":** ☐ County:

Project Name	Complexity Level	Acres	Start/End Date	Resource Needs & Availability (local/regional/national)

1. Forecasted Smoke, Fire Weather, and Fire Behavior Conditions (short & long term):

Project in Drought Conditions:	Yes ☐	No ☐	If yes, include in description above:

2. Regional/District/Local (cooperator) Incident Activity or Resource Availability Issues:

3. Rationale: Describe the compelling need to conduct this project under these conditions

4. Mitigation Measures & Contingency Plans:

5.* State/County Coordination *(NFDRS "extreme" only):

Date:		Contact:		Concerns: Yes ☐	No ☐
Note any concerns:					

State Office Use Only:

State Office & SORO Recommendation:	Approve: ☐		Pending: ☐	Deny: ☐	
Branch Chief of Resources Notes:					
State FMO Notes:					
State Director Decision:	Approve: ☐		Pending ☐	Deny: ☐	
Date/Time:		Signature:			

Note: This form is being proposed in the 2021 update of SORO Prescribed Fire Supplemental

PL4/5 and NFDRS Extreme Prescribed Fire Approval Sideboards
2021

Bureau of Land Management Policy requires State Director approval of prescribed fire initiation when we are at National Preparedness Levels IV and V or when the NFDRS rating for the county (BLM 9214 2021).

We recognize that these conditions can change even as the fire is underway. We also recognize that it can take days of coordination in advance of a burn window to have approvals from state air quality regulators, ensure proper notification of neighbors, cooperators, and stakeholders, and resources in place.

To best set up the state office and our districts up for success, we recommend the following sideboards to give requesting districts clear expectations on their decision space when approval is granted.

The requirements for the districts are these:

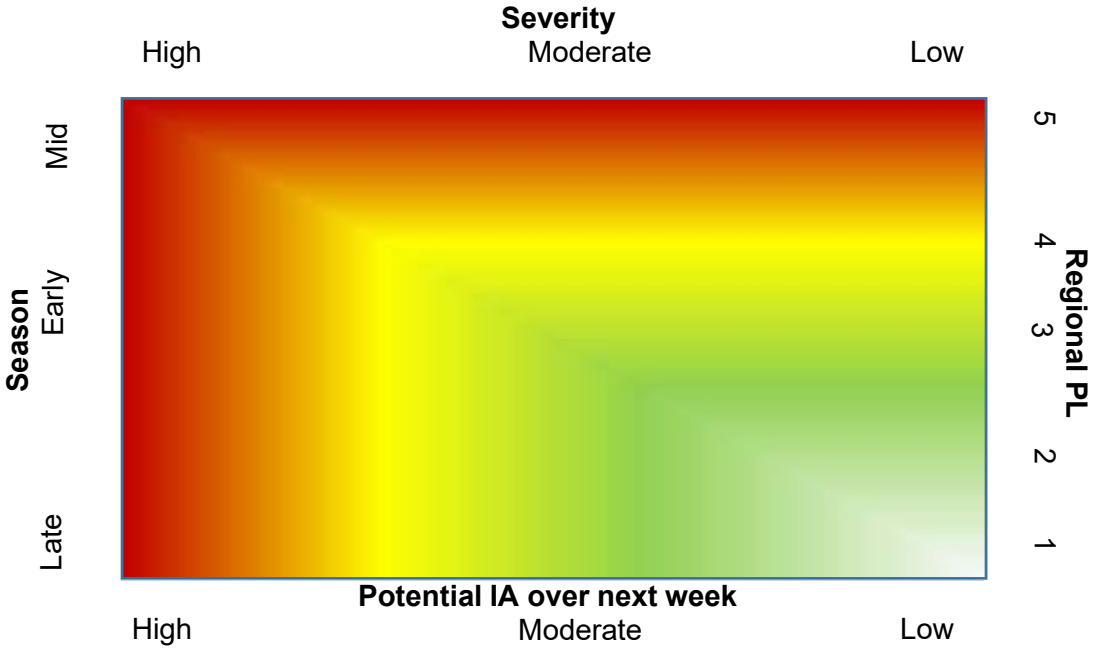
- The attached pdf (BLM State Office Rx Fire Authorization Worksheet.pdf) must be completed to ensure that the requirements of the policy described in the BLM 9214.
- The District Manager has determined that public and partner awareness has been raised regarding the prescribed fire through advanced notice and outreach efforts.

District Manager _____ Date _____

Fire Management Needs Matrix

The matrix below is a tool for qualified/trainee Agency Administrators and District FMOs to assess conditions and determine if they have the capacity to implement a burn while meeting other needs of fire season. Use the questions to get values for sides of the square, then draw lines from Severity to Potential IA and from Season to Regional PL. If your lines cross in the Red areas, justification for moving forward would be expected.

1. Where are we at in the fire season (early/middle/late)?
2. Where are we at in terms of seasonal severity (ERCs/Adjective Class/Fire Restrictions)?
3. What is resource availability (National and Regional PL, Draw Down levels)?
4. What is the potential IA workload for week?



United States Department of the Interior— U.S. Fish and Wildlife Service
National Preparedness Level 5 Prescribed Fire Concurrence Form

At National Preparedness Level 5 (NPL 5), Agency Administrators are responsible for submitting a written concurrence request for new prescribed fires to Regional Fire Management Coordinator or designee. Regional NWRS Chiefs, or if delegated, Regional Fire Management Coordinators, are responsible for transmitting the written concurrence request to the National Branch of Fire Management (Fire Branch). Prior to forwarding the request to the Fire Branch, Regional Fire Management staff will review proposed prescribed fire plan to ensure the plan meets the standards as set forth by agency policy, are at an acceptable risk, and a high priority for completion. Regional Fire Management staff should evaluate the potential need of resources from outside the local unit for each proposed prescribed fire and ensure that Initial Attack resource needs are met. It is advisable that Regional Fire Management staff consult with their geographic area partners prior to forwarding the concurrence request.

Region	
Date	
Submitted By	
Phone Number	

Describe Proposed Prescribed Fire:

Station Name	Project Name	Lat/Long	Complexity	Acres	Primary Fuel Type	Ignition Start/ End Date	Prescribed Fire Resources (See Note)	Contingency Resources (See Note)

Note: List each prescribed fire by name. Start/End Date identifies date of ignition and date of anticipated end of fire activity (i.e. when will prescribed fire no longer requires personnel to be on site). Enter engines, aviation resources, number of personnel, and crews required to implement the prescribed fire per approved fire plan; including identifying contingency resources, identify by agency type (i.e. federal, state, local Volunteer Fire Department, etc.)

- Contingency resource availability has been confirmed: yes ☐ no ☐
- Contingency resources: on site ☐ off site ☐ both ☐

Describe current and expected conditions. Note: Include description of the potential risk of escape given fuel conditions (KBDI, ERC, BI, etc.) including the fuels outside of ignition unit, forecasted weather, Local Fire Danger Rating, Initial Attack coverage when personnel assigned to prescribed fire, other active prescribed fires, and other relevant information.

Rationale for needing to conduct prescribed fire under current National Preparedness Level 5: