

GEOGRAPHIC AREA WORKSHOP LOCATION

INSTRUCTOR: Coaches
LESSON: Task #5 – Matching NFDRS Outputs to Fire Business
UNIT: Day 3
WORKSHOP: NFDRS2016 Rollout Workshop

OBJECTIVE(S)

Upon completion of this lesson, participants will be able to:

1. Determine which correlation of fuel model and NFDRS output is appropriate for a fire response plan.
2. Determine which correlation of fuel model and NFDRS output is appropriate for a staffing plan with 5 decision points.
3. Determine which correlation of fuel model and NFDRS output is appropriate for communication with our internal agency personnel affecting weekly, monthly, or seasonal fire preparedness decisions.

NARRATIVE

I. INTRODUCTION

As a reminder, please ensure documentation is included with the appropriate section of the FDOP or subordinate preparedness plans so that a reader could understand the rationale behind the fires analysis. Include graphics which illustrate the decision rationale. Utilizing the analysis area FireFamilyPlus (FFP) database and outputs from the previous exercises:

A. Focus the analysis as follows:

1. For each FDRA, analyze each NFDRS2016 fuel model using the weather station or SIG which represents the corresponding FDRA (from Task #4).
2. Evaluate correlations based on different fire causes (lightning, human, and both) from Task #3.

B. The analysis process in FFP for each FDRA requires a determination for an acreage value for large fire-days as well as the determination of a value for multiple-fire days (Image 1).

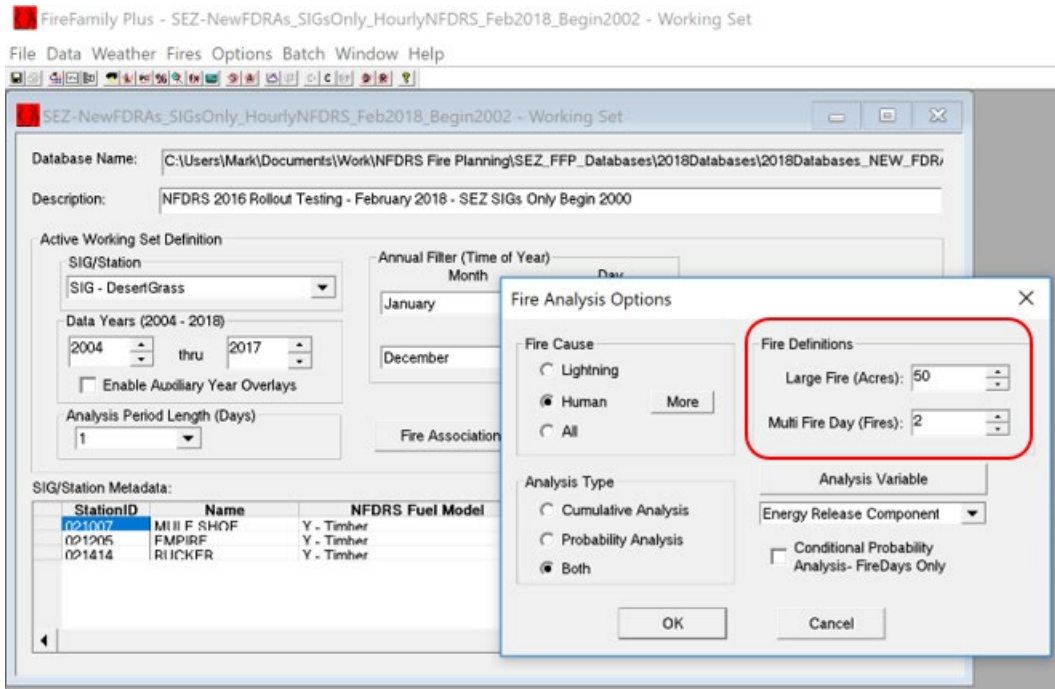


Image 1. Fire Analysis Options in FFP. Large Fire (acres) and Multi-Fire Day Fires values for each FDRA are determined by the user(s) prior to initiating the analysis process in FFP.

- C. Step 1 – Using the Fires Percentile Graph available through Fire Analysis or Interactive Batch in FFP; examine NFDRS outputs (BI, ERC, IC, SC, and KBDI) in combination with NFDRS2016 Fuel Models to determine a candidate list for further analysis.
- D. Step 2 – Using the information obtained from Step 1, further assess combinations of variables using the Fires Analysis Report in the Interactive Batch to evaluate the “Goodness of Fit” for individual stations and/or SIGs.

The information gathered from the Fire Workload Analysis Table in Task 3 is important for completing the subsequent Decision Summary Table in the FDOP template. The **Decision Summary Table** provides a summation of the planning area’s fire danger issues and concerns. Each issue is associated with a specific target group whose activities can be influenced through effective communication and implementation of specific control measures.

1 Target Group	2 Fire Danger Rating Area(s)	3 Statistical Cause	4 Climatological Breakpoints or Fire Business Thresholds	5 Index / Comp.	6 NFDRS2016 Fuel Model	7 Fire Danger Rating Level	8 Number of Decision Points	9 Preparedness Plan(s) to Modify Target Group Behaviour
Public	FDRA #1	4 - Campfire	Fire Business Thresholds	ERC	Z	Adjective Fire Danger Rating Level	5	Fire Danger Sign Plan
Choose Target Group		Choose Statistical Cause	Choose Breakpoints		Choose a Fuel Model	Enter the Rating	Choose Number	Choose Prep Plan

Image 2: Decision Summary Table from the FDOP Template (Section III.C)

The Decision Summary Table (Image 2) summarizes the relationships between the fire ignition issues and identifies common NFDRS-based management tools for the identified target groups:

1. Identify the major target group (Agency, Public, and Industrial) using the drop-down list that would be the focus of the management efforts associated with the ignition occurrences and affected most by the management tools.
2. Enter the applicable FDRA(s) in the “Fire Danger Rating Area(s)” column for the identified target group on the Decision Summary Table.
3. Select the appropriate Statistical Cause from the drop-down list in this column in the Decision Summary Table.
4. Select from the drop-down list whether “Climatological Breakpoints” or “Fire Business Thresholds” will be used as decision point thresholds to address the target group behavior and associated fire occurrence issue (i.e. Public, escaped campfires).
5. The analysis process for each FDRA using FFP aids in determining which NFDRS2016 fuel model and NFDRS index/component best relates to your historical fire and weather occurrence data. Based on lessons presented in the course so far, select from the drop-down list the NFDRS index/component that, based on its sensitivity and characteristics, best fits.
6. Enter the applicable NFDRS2016 fuel model will be used (i.e. V, W, X, Y, or Z). The fuel model that best relates to the historical fire and weather occurrence data is determined in the analysis process using FFP.
7. Using the drop-down list in this column, select the most appropriate NFDRS-based fire management tool (i.e. Dispatch Level, Staffing Level, Preparedness Level, Adjective Rating Level, Public/Industrial Restrictions Level) that will be utilized to address the identified fire ignition issues. Do not confuse the fire danger rating **levels** should with fire danger operating/preparedness **plans** (i.e. Staffing Plan, Preparedness Plan, Prevention Plan, Response Plan). Each **level** has specific tasks or direction that address target group behavior in relation to the identified ignition issue (Task #5).

8. Enter the number of decision points associated with the selected management tool. The number of decision points and threshold values are determined in the analysis process when matching NFDRS outputs with fire business (i.e. five decision points which define adjective fire danger rating levels: Low, Moderate, High, Very High, Extreme).
9. List the appropriate preparedness plan(s) (i.e. Prevention Plan, Fire Danger Sign Plan, Staffing Plan, Preparedness Plan, Initial Response Plan) which categorize the various management tool levels.

II. EXERCISE MATERIALS:

- A. Fire Danger Operating Plan template
- B. Decision Summary Table
- C. FireFamilyPlus database for the analysis area
- D. Weather station data selected in Task #4

III. REFERENCES:

- 5a. TechTip_Reading_Graphs
- 5b. TechTip_Fire_Analysis_Candidates_Reference
- 5c. TechTip_Goodness-of-Fit