



TASK #4 EVALUATING AND SELECTING WEATHER DATA

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OBJECTIVE(S)

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

1. Import weather data for use with NFDRS2016 in FireFamilyPlus
2. Evaluate and validate the available fire weather data for use in fire danger analysis.
3. Evaluate the degree to which fire weather stations are representative of each Fire Danger Rating Area (FDRA).
4. Develop recommendations to address situations where representative weather data for a FDRA is not available.

NARRATIVE

I. INTRODUCTION

- A. Evaluate the quality and completeness of weather station data utilizing the analysis area GIS data and FireFamilyPlus database:
 - 1. Perform a quality check/evaluate fire weather station data available for the analysis area. Review the period of record, consistency of the observations within the period of record, and overall quality of the data for the weather stations. Document findings in the Fire Danger Operating Plan (FDOP) Template.
 - 2. Identify and/or prioritize weather stations by FDRA based on data quality and likelihood they are representative. Document findings in the FDOP Template.
 - 3. Evaluate possible weather data collection needs such as maintenance program, additional stations and priority of installation, redundant stations, and stations of poor historic record that need to be replaced or removed. Document conclusions in the FDOP Template.
- B. For each FDRA, decide which weather stations, (individually, or as a Special Interest Group/SIG), would best represent the FDRA by utilizing the FireFamilyPlus database and the SIG Selector Tool:
 - 1. Based upon the findings in section A, make the appropriate corrections to weather data in the FireFamilyPlus database. Document changes in the FDOP Template.
 - 2. Compare stations to determine if the data adequately represents a FDRA's weather/climate. Evaluate representative stations as Special Interest Groups (SIGs). For each FDRA, determine which weather station (or SIG) will best represent the FDRA. Document findings in the FDOP Template.
 - 3. The potential weather stations in each of the FDRAs will carry forward to Tasks #5 and #6 as a starting point for the fire correlation analysis.

II. EXERCISE MATERIALS

- A. [Fire Danger Operating Plan template](#)
- B. Fire Weather Station layer (Analysis area GIS product)

C. FireFamilyPlus database for analysis area

REVIEW OBJECTIVE(S)

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

1. Import weather data for use with NFDRS2016 in FireFamilyPlus
2. Evaluate and validate the available fire weather data for use in fire danger analysis.
3. Evaluate the degree to which fire weather stations are representative of each Fire Danger Rating Area (FDRA).
4. Develop recommendations to address situations where representative weather data for a FDRA is not available.

REFERENCES

- A. [FireFamilyPlus Job Aids \(https://www.firelab.org/document/ffp-job-aids\)](https://www.firelab.org/document/ffp-job-aids)
- B. [Lesson 10: Weather Stations](#)
- C. [TechTip: SIG Selector Tool](#)
- D. [TechTip: TechTip FFP4](#)
- E. [Evaluating the Adequacy of a Fire-Danger Rating Network; R. William Furman, 1984](#)
- F. [Fire Danger Rating Network Density; Research Paper RM-177](#)
- G. [An Aid to Streamlining Fire-Weather Station Networks; General Technical Report RM-17](#)
- H. [Weather Station Handbook - an Interagency Guide for Wildland Managers; Arnold I. Finklin and William C. Fisher, 1990](#)
- I. [Interagency Wildland Fire Weather Station Standards & Guidelines, PMS 426-3](#)
- J. Project specific materials