Topic:

Historical fire report data used to develop Fire Event Scenarios (FES) for the Fire Program Analysis (FPA) application.

Purpose

This document explains how FPA determined and used historical fire report data and data sources to develop the distributions for generating modeled ignitions in the FES. The FES is a representation of the annual initial response fire activity based on historic fire occurrence, and is an output of historic analysis.

> FPA recommends not using historical reporting data as the only criteria when defining a Fire Management Units (FMUs) or Fire Workload Areas (FWAs).

Background

FPA analyzed several criteria when developing the FES. These included:

- Lands where agencies are responsible for wildland fire protection, or

- Lands on which the managing owning agencies perform cultural and natural resource management activities or actions.

Discussion

FPA decided to use lands where the managing agencies perform cultural and natural resource management. Department of the Interior (DOI) fires are filtered to include the following Fire Types and Protection Types. This reduces the potential number of duplicate fire reports used to shape the distributions used by the Fire Ignition Generator (FIG) in creating FES:

Fire Type	Protection Type
1	1 - Bureau of Indian Affairs (BIA),Bureau of Land Management (BLM), Fish and Wildlife Service (FWS), or National Park Service (NPS) land protected by the same agency
	2 - Agency land protected by another Federal agency.
	3 - BIA, BLM, FWS, or NPS land protected by a non-Federal agency under a co-op agreement/contract.

Fire Type	Protection Type
	4 - BIA Trust lands where action is limited to monitoring or reducing suppression response because of low fire danger or low resource impact
	4 - NPS Point of origin is located on NPS land when the management goal is other than full suppression or when conditions dictate a limited suppression response
	5 - Other land, not under agreement, memorandum of understanding, or contract, where suppression action is taken to prevent fire spread to agency/bureau land
	6 - Alaska and any state where National Association of State Foresters (NASF) cause code is greater than 100
	9 - Response based on approved FMP & end result beneficial on greater than 50% of burned acres
4	9 - Wildland fires ignited by lightning, volcanic activity, or other natural ignition sources and managed as wildland fire use for resource benefit

USDA Forest Service filters when block 3 fires, ownership at origin, equal:

Code	Ownership
1	National Forest, National Grassland, or Land Utilization Project
2	State and Private lands inside Forest Service protection boundary
4	Other Federal lands inside Forest Service protection boundary

When fires occur on state, local government, or privately held lands, FPA uses historic fire data from the NASF or the specific states database as provided to FAMWEB or FPA.

By filtering fire reports, FPA includes fires on all lands in the FES process. This excludes fires not reported by the appropriate agency that occur on non-owned agency lands.

An Interagency Working Group is currently developing the business rules to be used by FPA when filtering fire report data with the objective of reducing as many of the multiple fire reports for the same fire as possible.