



Subject: Draft Outline, FPA-PM Reference Guide

Introduction: The FPA Team is developing an interagency Reference Guide to support the FPA-PM analysis process. This Guide will identify agency policies and procedures relative to implementation of FPA-PM and will supplement the various system documents that the contractors (IBM and Bighorn) will provide. Please consider the following as ‘chapters’ of the Guide, but note some of these will change. The objective in distributing this “Outline” is to provide future users of FPA-PM an overview of the process.

- Overview of FPA
 - Background
 - Purpose and need
 - History
 - Overview of the budget formulation process
 - Relationship between FMP/LMP
 - High level overview of the FPA-PM process
 - Overview of Transition Plan to implement to FPA-PM outputs
 - Linkages to other tools (PCHA, FARSITE, budget formulation process, etc.)
 - Skills/Tools recommendations to complete analysis
- Basic Business Rules
 - Who needs to conduct FPA analysis
 - Other high level business rules
 - Basic definitions and acronyms
- Identify Fire Planning Unit (FPU)
 - Apply standards and guides for developing an FPU
 - Identify partners
 - Identify the FPU team
 - Develop FPU charter (roles/responsibilities/timelines)
 - Assign the FPU name
 - Develop GIS data layers for ownership, boundaries, protection responsibility
 - Prepare FPU data for entry into FPA-PM
- Identify Fire Management Units (FMU’s)
 - Apply standards and guides for developing FMU’s
 - Assign FMU names
 - Identify current management direction/objectives, reference LMP/FMP
 - Group FMU’s with like objectives where appropriate
 - Apply management constraints by FMU, i.e., no mechanized in wilderness
 - Identify distribution of representative fuel types
 - Identify Workload Point
 - Validate workload point
 - Determine % drive-in, walk-in, fly-in per workload point
- Perform Fire Management Complexity Analysis
 - Link to use of expert systems (rules and thresholds) to define Fire Leadership and Support
- Develop Historical Data using PCHA
 - Identify analysis years
 - Identify weather stations or weather data sets
 - Import fire occurrence records
 - Validate fire counts
 - Validate critical fields
 - Search for duplicate records
 - Identify fire historic category: suppression/wildland fire use/etc
 - Calculate discovery time for FMU
 - Develop probability distribution for fire occurrence based on ERCg.
 - Define wildland fire use data.
 - Process weather data
 - Validate weather data
 - Calculate ERCg values
 - Calculate probability of distributions for wind and develop fuel moisture scenarios
 - Define fuel types
 - Canopy characteristics (cover %, base height, bulk density, stand height)
 - Surface fuel model
 - Define topographic types
 - Slope/aspect/elevation
 - Determine fire season

- Build fire event scenario
 - Build probabilistic fire event scenario
 - Build historic based fire event scenario
- Prepare file and export to FPA-PM
- Define Appropriate Sensitivity Periods for Analysis
 - Determine if fire management objectives change for different times of the year.
- Develop FMU Weights
 - Identify relationship of fire management objectives to the weighting process
 - Theory/Background of Expert Opinion Weight Elicitation Process (EOWEP)
 - Define relevant "Attributes" and definitions
 - Determine acres of each attribute for each FMU
 - Determine relative importance of each attribute compared to each other attribute
 - Compute FMU weights based on attributes.
- Develop Fire Resources
 - Import the ROSS catalogue and add/edit for Kind, Category, and Type
 - Develop/confirm standard modules and associated cost for the geographic area.
 - Apply resource limitations, equipment capability
 - Identify production rates & enter (NWCG standards)
 - Develop standards for non-standard fire resources
 - Establish equipment capital costs for Kind, Category, and Type
- Develop Dispatch Locations
 - Identify dispatch locations to be analyzed
 - Define station capacity
 - Establish facility capital costs
 - Calculate travel times
- The FPA Optimization Model
 - Overview of the model
 - Data validation
 - Data transformation
 - Running the optimizer
- Identify Indirect Costs
 - Develop expenses necessary for operations and not attributable to a specific program or output, i.e., costs for employees involved in administration that support more than one program or output.
- Identify One Time Costs
 - I.e., additional engine to increase capability
 - Process for one time cost associated with increased station capacity
- Identify Direct Management and Support Costs
 - Leadership (aviation officers, fire planners, dispatchers, etc.)
 - Fire support (cache, admin, etc.)
- Reports and Results
 - Interpreting the results
 - Using results to evaluate land management practices and policies
 - Using results in outyear budget formulation
- Regional/National Budget Formulation and Allocation
 - The National Database
- Review/Certification process
 - Validating and certifying FPA data for the FPU
- Appendix
 - FPA Glossary: terminology/definitions
 - Agency Policy References
 - Optimization Model Formulation
 - Sample FPU Charter
 - References: FPA-PM User Guide; FPA-PM Desk Guide; FPA-PM Data Administrator Guide; FPA-PM Installation Guide; PCHA1.2 User Guide
 - Help Desk