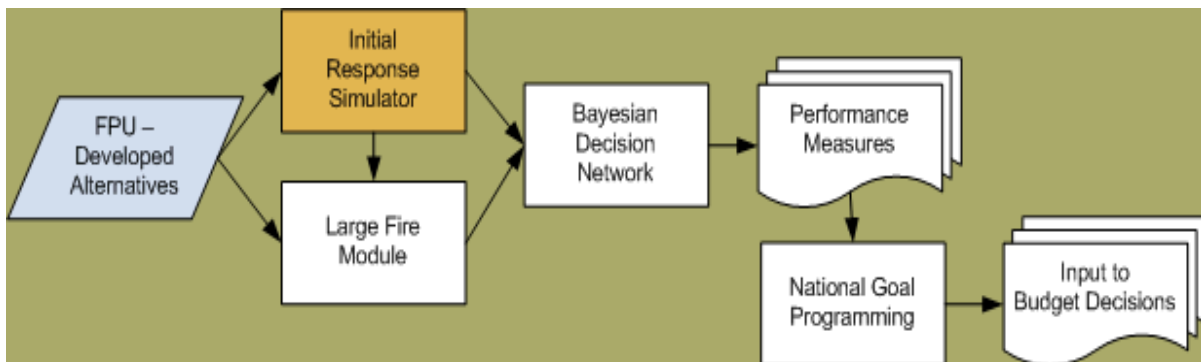




November 2007

**Understanding the System:** - This is the second in a series of newsletters that walk readers through the components of the FPA system flow.

### FPA System Flow Diagram



#### Current Topics:

- Touring the FPA System
- Initial Response Simulator
- Departmental Memos
- FPU Prototype Workshop
- FPA Enterprise Data Sources
- What's Next?

For more information visit  
<http://fpa.nifc.gov>  
 or call Venetia Gempler  
 208-947-3786

#### Fire Program Analysis

Fire Program Analysis (FPA) system is a common interagency decision support tool for wildland fire planning and budgeting.

This tool will enable wildland fire managers in the five federal land management agencies to plan jointly.

[The Wildland Fire Leadership Council \(WFLC\)](#) is a cooperative

■ **Touring the FPA System** - Last month the newsletter described the first step of the FPA system, Fire Planning Units going through the process of developing their investment alternatives based on national direction and objectives from the FPU's land and fire management plans. Investment alternatives include multiple options for the FPU's initial response organization, prevention, and the fuels program and treatments. The next step includes analyzing the investment alternatives' effectiveness in impacting fire behavior using the Initial Response Simulator (IRS).

■ **The Initial Response Simulator:** Combinations of the FPU's initial response organization, fuels treatments, and prevention options are selected by the FPU and analyzed using the Initial Response Simulator (IRS). The IRS is a strategic model that mimics a Fire Planning Unit's initial response to wildland fires.

The IRS uses data drawn from interagency databases for the Fire Planning Unit (FPU) to develop potential fire seasons, or "Fire Event Scenarios."

*Fire Event Scenarios are a representation of the potential annual initial response fire activity based on historic fire occurrence. The fire event scenario is a series of modeled fire events, which are developed based on frequency distributions and random draws from fire history records.*

After calculating fire behavior for each fire in a Fire Event Scenario, the model simulates fire growth and containment considering the interaction between the fire growth and fire line built during initial response. Resources are dispatched to fires under user-defined conditions that mimic decisions made in dispatch response plans or by duty officers.

The IRS module enables fire planners to compare efficiencies and probable

interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy. The Council provides leadership and oversight to ensure policy coordination, accountability, and effective implementation of the National Fire Plan and the Federal Wildland Fire Management Policy.

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### The FPA System:

- will be designed to encourage state, local, and tribal agency participation. - incorporates geospatial data which provide the means to map levels of wildland fire risk on lands across the country.
- generates outcomes from fire planning units that provide information to the national budget planning process.
- will provide a way for land managers to compare trade-offs between wildland fire program components.
- is a tool to ensure wildland fire management actions help meet performance measures outlined in the 10-Year Comprehensive Strategy.

costs for alternative initial response organizations, prevention programs and fuel programs and treatments.

■ **The Latest Departmental Memorandums are Available.** The memos, from the [Forest Service](#) and [the Department of the Interior](#), describe the Project's progress and system delivery date.

■ **The FPU Prototype Workshop** held in Boise November 28-29 was an opportunity for all seven Fire Planning Unit Prototypes to review the internal release of FPA Release 1.0. This release contained the core functionality of building FPU investment alternatives and analyzing them using IRS. The user interface framework was also included in this release.

All the FPU Prototypes shared their most recent suggestions and experiences revolving around the FPA system development. Other participants included the FPA Geographic Area Leads and two members from FPA's newly formed Management Advisory Team.

■ **Enterprise Data Sources will be used by FPA.** Based on work done earlier this year during the prototype phase, the FPA Project has elected to recommending to its Executive Oversight Group that the Project adopt enterprise sources for key data required by the initial response and large fire simulators. Those enterprise data sources will be used for fire history records, fuel layers, wildland urban interface and weather. System utilities to enable Fire Planning Units to use local "what if" analyses will be prioritized along with other enhanced functionality for future releases of the FPA system.

- Fire History will be derived from the agencies' fire history systems of record ingested into [FAMWEB](#) (Fire and Aviation Management Web Applications). The Personal Computer Historic Analysis (PCHA) records previously developed are not reliably available from all FPU's.
- [LANDFIRE](#) fuels and canopy layers will be used where they are available. (LANDFIRE is working on a strategy to update information that has changed since 2001.) In areas where they are not available the Multi-Resolution Land Characteristics Consortium (MRLC) [National Land Cover Data](#) (NLCD 2001) will be used to derive fuels.
- Since there is no interagency definition for Wildland Urban Interface (WUI), [SILVIS](#) data will be used; it is scheduled for an updated release spring of 2008. Some local definitions of WUI are so tactical that they would add unnecessary complexity to FPA and others are too broad for FPA's fire behavior modeling.
- Weather Data will be pulled from the National Fire Danger RatingSystem (NFRDS) weather data on [FAMWEB](#) and the (North American Regional Reanalysis) [NARR](#) grid. Using NARR gridded data will ensure adequate weather information, even in areas where NFRDS has sparse weather stations. Long-term plans are to develop realistic national weather streams that produce 500 fire weather season scenarios.

### ■ What's Next?

- FPA Internal Release 2.0 in February 2008 featuring advanced IRS functionality, core Large Fire functionality, and expanded User Interface capabilities.