FPA Desk Guide
Table of Contents

FPA Project Vision

"To develop a comprehensive interagency process for fire planning and budget analysis identifying cost-effective programs to achieve the full range of fire management goals and objectives."

FPA

Fire Program Analysis

Charter

TABLE OF CONTENTS

Document History

Date	Summary of Revision
7/11/05	Initial draft for review by the IRM-WT
11/22/05	Draft ready for approval by NFAEB.
4/9/07	Draft revised to reflect new governance and IST architecture.
4/30/07	Addresses some PMO comments. DPK

DEC 3 2007 Signature

1. Project Overview

1.1 Identification

The project will be known as the Fire Program Analysis (FPA) project. The resulting application system will support the development and implementation of the U.S. Forest Service and the four Department of the Interior wildland fire management agencies (Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service and National Park Service) program budgets and Land Management Plans.

1.2 Background

The 2001 report titled *Developing an Interagency, Landscape-scale Fire Planning Analysis and Budget Tool* found that a comprehensive interagency process for fire planning and budget analysis, identifying cost-effective programs to achieve the full range of fire management goals and objectives, is feasible and desirable.

Historically, three different planning models have been used to analyze staffing and budget required for wildland fire programs: NFMAS, FirePro and FireBase. None of these models have adapted to the increasingly complex environment of the wildland fire program. One interagency application system is needed to support an integrated, interagency fire program analysis process. This new application system will replace the current legacy systems.

1.3 Purpose and Business Need

The need for developing FPA derives from interagency wildland fire program policy and direction. Under the National Fire Plan, the wildland fire management agencies have made significant progress creating a seamless, integrated approach to on-the-ground wildland fire management operations.

In order to meet the requirements of the federal wildland fire program provided by federal policy guidance, the five agencies need to develop a standard, integrated, interagency analysis system to aid in planning and budget development and implementation. FPA will move the agencies to a standard, shared, integrated system that will support consistent analysis across a broad spectrum of the wildland fire management program. The process will also allow voluntary participation in the analysis by State and local governments and the consideration of their resources to provide a comprehensive approach to fire planning at the landscape level.

1.4 Project Scope

The FPA system will provide managers with analysis tools to support strategic fire planning and budgeting for a comprehensive, interagency fire management program.

FPA will evaluate the effectiveness of alternative fire management strategies for meeting fire and land management goals and objectives. In FPA "effectiveness" will be assessed in terms of multiple performance measures.

Many fire program objectives (e.g. reducing landscape-scale fire threats by changing the structure and amount of vegetation and fuels) require many years to accomplish. FPA will model program effectiveness of alternative strategies over a period of time.

The FPA project will develop and implement a robust, user-friendly application system that will be used at the Fire Planning Unit (FPU) level as well as the national level. The FPA project will provide operations and maintenance support for two budget analysis cycles through the end of FY 2010.

1.4.1 Scope Definition

The scope of FPA describes all of the work that needs to be accomplished in order for the project to be successful. FPA can be described in terms of business scope and system scope.

Business Scope

The FPA application system will provide information relative to cost-effective, interagency, wildland fire management programs for a range of budget levels. Cost-effective program scenarios will recognize the interactions among fire program components, such as the synergistic interactions of fuels treatments, wildland fire use, and suppression of unwanted wildland fires. These cost-effective programs developed at the FPU level will then be evaluated at the national level to develop effective program options.

The results of this national analysis will provide information to support fire planning, budget development and budget implementation at the FPU and national levels while allowing for analysis of various budgets to inform decisions relative to cost-effectiveness and out-year performance.

System Scope

The FPA project will:

- Develop, deliver and implement a robust application system to support the business and system requirements.
- Provide two years of operations and maintenance (O&M) following release of the application system to address system fixes and enhancements.
- Provide support to train and implement the FPA application across all FPUs through the O&M phase.
- Conduct project management activities according to established OMB and Project Management Institute (PMI) standards and practices, including ANSI 748 Earned Value Management (EVM).
- Conduct Capital Planning and Investment Control (CPIC) activities to comply with established OMB and departmental direction.
- Conduct required security planning and Certification & Accreditation (C&A) activities in compliance with OMB and departmental direction.

1.4.2 High Level Requirements

FPA analysis will consist of a two-tiered analysis that will occur respectively at the FPU and national levels. FPA has three top-level goals:

Support Fire Planning

- To inform FPU and national fire management priorities and planning decisions.

Support Budget Development and Implementation

- Develop information to inform the budget request.
- Provide analyses to inform the budget implementation process.

Identify Cost-Effective Fire Programs

"Effectiveness" is described by five effectiveness, efficiency and performance (EEP) measures.

- Reducing the probability of occurrence of costly fires.
- Reducing the probability of occurrence of costly fires within the Wildland Urban Interface.
- Increasing the proportion of land meeting or trending toward the attainment of fire and fuels management objectives.
- Protecting highly valued resources areas from unwanted fire.
- Maintaining a high initial attack success rate.

1.4.3 Outside the Scope of FPA

- Facilities and construction projects.
- Fuels project plan details.
- Severity funding.
- Cleaning of corporate data such as fire reports or weather files.
- FPA is not intended to replace any departmental or individual agency financial systems.
- FPA will not provide an automated interface to any existing federal financial system.
- FPA will be designed as a federal fire planning and budget tool. This design will include the capability to incorporate non-federal resources and protection responsibilities which may provide non-federal partners with useful information.

1.5 Sponsorship & Ownership

This project is chartered, funded and sponsored by the U.S. Forest Service and the Department of the Interior.

The U.S. Forest Service has been designated as the managing partner for the FPA system, and therefore responsible for all OMB business cases, approvals and IT oversight. The designated owner of the FPA system is the U.S. Forest Service Director of Fire and Aviation Management.

The FPA project will be funded 50% by the U.S. Forest Service and 50% by the Department of the Interior wildland fire management agencies.

2. Project Approach

The development strategy is based on delivery of a proof-of-concept prototype of selected components by June 30, 2007. This prototype will be FPA prototype version 2.0.

Following successful completion of the prototype, a fully functional application system will be developed for implementation by June 30, 2008. This will be FPA version 2.0. The detailed scope and requirements of FPA v2.0 will be validated following completion of the prototype v2.0.

FPA will be managed in cooperation and collaboration with other NWCG projects and in conformance with enterprise architecture, data, and repository principles. The project will follow the guidance and standards provided by the NWCG and the NWCG Program Management Office (PMO). The project will align and contribute to the evolution of the NWCG National Wildland Fire Enterprise Architecture (NWFEA).

2.1 Project Deliverables

Project deliverables will support fire planning, budget development and budget implementation at both the FPU and national levels and will include, but is not limited to, the following:

FPU Level
Reports, charts, graphs, displays and maps of the modeled performance measures by fire program alternative along with the associated estimated costs.

National Level
Reports, charts, graphs, displays and maps of the modeled performance measures by national budget level along with the FPU alternatives selected and the associated estimated costs.

Implementation of the FPA application system includes:

- Development and deployment of operational software.
- Development and delivery of initial application software training.
- Development and delivery of user and systems documentation.
- Initial operations and maintenance of all application system components.
- Hosting of all FPA modules on suitable hardware and software.
- Delivery and transition to the system owner for long-term implementation and operations and maintenance.

Within the scope of the project, operations and maintenance of the FPA system will be provided through the end of FY 2010. O&M includes:

- Helpdesk and user support.
- Identification and prioritization of system defects and user problems.
- Repair of defects.
- Identification and prioritization of system enhancements.
- Implementation of program change requests (PCR) approved by the configuration control board (CCB).
- Maintenance of hardware and software licensees.

- Periodic upgrades to hardware and software.
- Maintenance and upgrades to training materials.
- Continuance of training delivery.
- Maintenance of system documentation.

2.2 Organization and Responsibilities

Wildland Fire Leadership Council (WFLC) – The WFLC may provide high-level direction to the FPA project through designated executives of the Executive Oversight Group (EOG).

Executive Oversight Group (EOG) – The EOG will provide executive level leadership for the project. The EOG will include co-leads for the Department of the Interior and the U.S. Forest Service. The composition of the EOG will include interdisciplinary and interdepartmental personnel as established by the U.S. Forest Service, the Department of the Interior, and the States. The co-leads may request non-federal representation on the EOG, within Federal Advisory Committee Act requirements. Roles of the EOG include:

- Keep the WFLC informed of project status and issues.
- Advocating for Fire Program Analysis with departmental executives, OMB and Congress.
- Providing a point of coordination and collaboration within and between sponsoring agencies.
- Supporting the project through agreed-upon funding.
- Making strategic high-level decisions affecting the project.
- Providing strategic business direction.
- Staying abreast of the project's status and relevant issues.
- Resolving policy issues that cannot be resolved by the Executive Project Manager and Business Leads at the project level.
- Providing direction and support to the Executive Project Manager and Business Leads relative to decisions regarding scope, time, quality and cost tradeoffs.

Executive Project Manager - The Executive Project Manager will provide project leadership and direct day-to-day supervision. Roles include:

- Decision authority for the management and development of the project within the overall guidance of the EOG and collaboration with the Business Leads.
- Ensuring that the FPA project is completed within scope, on schedule and within budget.
- Organizing, leading, and directing the FPA Project Team.
- Working with the Business Leads to ensure the needs of the fire program stakeholders are met.
- Developing, maintaining, and managing a comprehensive project management plan that meets NWCG project guidelines.
- Developing and submitting budgets, controlling and tracking project expenditures.
- Reporting project status according to departmental, agency, and sponsoring entity requirements.

Business Leads – There will be two Business Leads, one each from the Department of the Interior and the U.S. Forest Service. Their roles include:

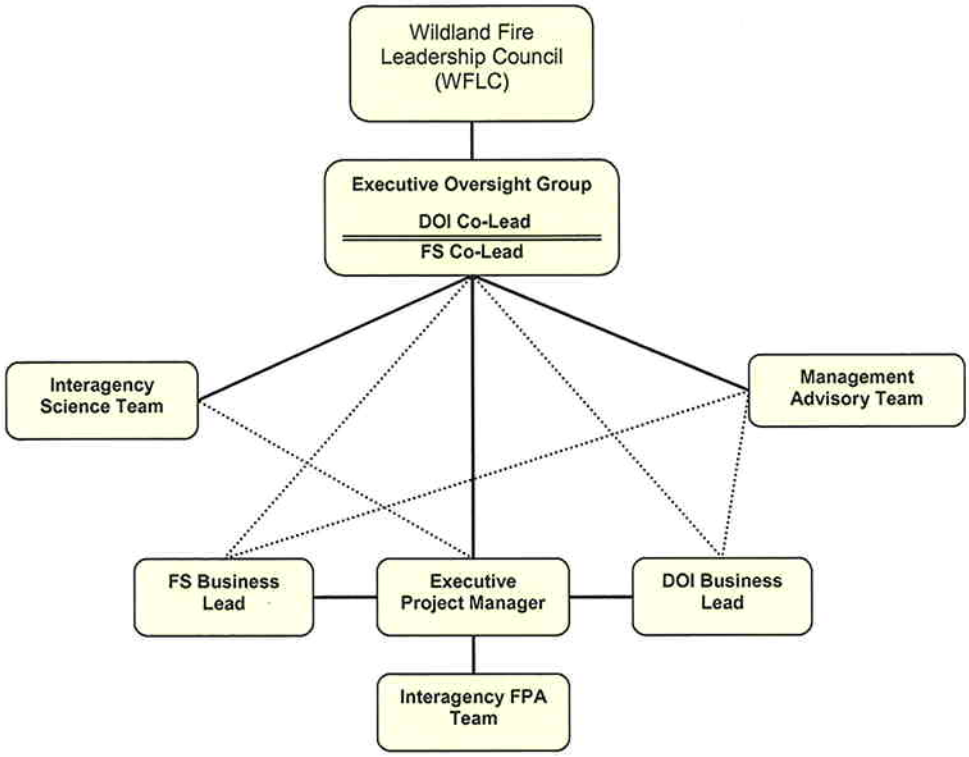
- Organizing interagency funding to implement the project.
- Providing unified counsel to the Executive Project Manager to ensure that business requirements and stakeholder expectations are met.
- Establishing, maintaining, and communicating the business case for FPA.
- Performing their role as specified in the project communications plan.
- Representing the FPA project as spokespersons to stakeholders and various publics.
- Coordinating among staff units and agencies at the Washington Office level.
- Facilitating and coordinating linkages among related national efforts.
- Ensuring that the A11-Exhibit 300 business case and all necessary approvals and authorizations are developed and maintained in accordance with established departmental and agency guidelines.
- Assisting the Executive Project Manager and EOG in resolving issues affecting scope, time, quality, and cost.
- Providing FPA project progress reports and feedback to the business community.

FPA Project Team - The day-to-day work on the FPA system will be conducted by the FPA Project Team. The Project Team will be organized by the Executive Project Manager to effectively address the project scope, schedule and cost.

Interdisciplinary Science Team (IST) - An Interdisciplinary Science Team will provide science support and guidance to the FPA project. The IST will have DOI and FS co-leads and respond to the Executive Project Manager, as well as interact with the Executive Oversight Group. The IST will be comprised of designated primary members; other scientists will be ad hoc members as needed. Team roles are to review, evaluate and recommend conceptual designs, architectures, data sources, and analysis techniques.

Management Advisory Team (MAT) - The interagency Management Advisory Team will provide business process guidance and help ensure a strong linkage between the FPA project and the field through the Business Leads. The MAT will include co-leads for the Department of the Interior and the U.S. Forest Service. The composition of the MAT may include line officers, fire management officers from various geographic levels, and geographic budget planners as established by the U.S. Forest Service, the Department of the Interior, and the States.

Chart 1: FPA Governance Overview



2.3 Reporting, Oversight, & Review

Project reporting, internal oversight and review will help ensure that the project stays within the approved scope, schedule, and cost.

- Periodic status reports will be prepared and disseminated to key stakeholders identified in the project communications plan.
- The managing partner agency, U.S. Forest Service, will provide oversight to ensure that the project complies with USDA and DOI CPIC regulations.
- Agency IRM officials will provide oversight for information resource management and alignment with agency enterprise architectures.
- The NWCG IRM Working Team and the NWCG Program Management Office will provide oversight for information resource management, project coordination, and compliance with National Wildland Fire Enterprise Architecture.
- The NWCG IRM Working Team and the NWCG Program Management Office, in conjunction with the FPA EOG, will review and approve IRM aspects of project deliverables, and provide recommendations to the NWCG.

2.4 Dependencies

FPA is dependent on receiving standard geospatial data for fire behavior, fire occurrence, weather and climate, and geographic conditions. Other fire management data may be identified and required as the "requirements and design" process continues.

2.5 Plans for Support Activities

The FPA project will use an integrated project planning approach for project management. As part of this approach, the project will develop and maintain these project management plans:

- Integrated Project Management Plan
- Scope Document and a Scope Management Plan
- Staffing Plan
- Risk Management Plan and Regular Risk Assessments
- Earned Value Management Plan
- Communications Plan
- Security Plan
- Certification and Accreditation (C&A)
- Acquisition Management Plan
- Project Schedule
- Budget and Funding Plan
- Enterprise Architecture Plan
- Telecommunications Plan
- Technical Architecture Plan
- Annual Spending Plan, and
- OMB A-11 Business Case

2.6 Project Schedule

June 30, 2007	Demonstrate a proof of concept prototype
Spring, 2008	Begin field training
June 30, 2008	Implement a fully functional application system
FY 2009	Use FPA to inform FY 2011 budget requests

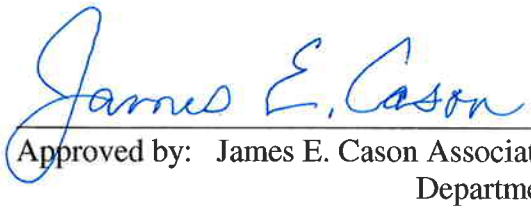
2.7 Project Cost Estimate (Million$)

FPA Cost Estimate	2007	2008	2009	2010	Total
Prototype	4.90	0.00	0.00	0.00	4.90
DME	1.80	7.20	0.00	0.00	9.00
O&M			4.00	2.90	6.90
Total	**6.70**	**7.20**	**4.00**	**2.90**	**20.80**

Refer to the separate FPA Budget & Funding Plan for subsequent updates

3. Approval Section

Approved by: Abigail R. Kimbell, Chief, U.S. Forest Service

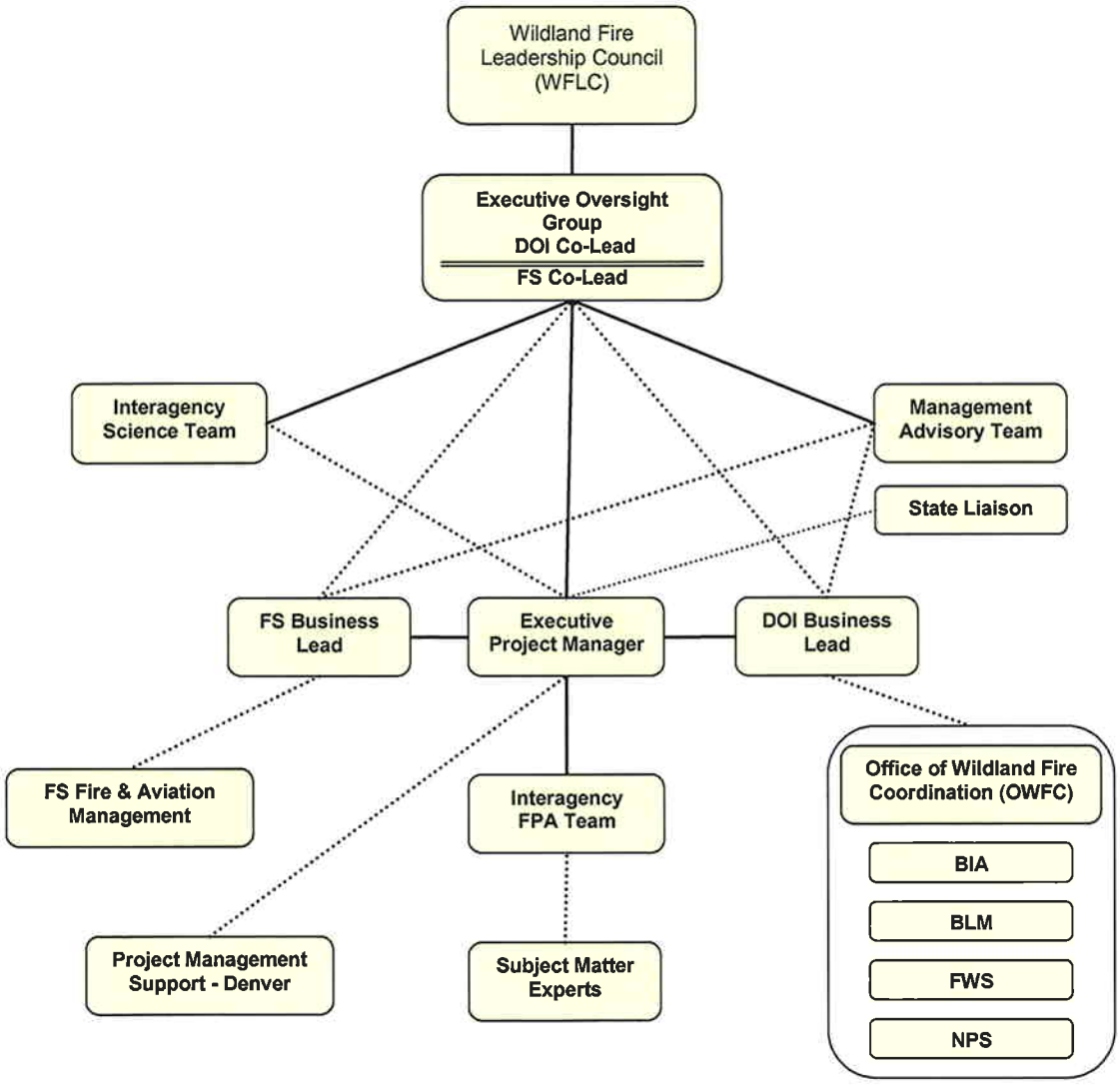


Approved by: James E. Cason Associate Deputy Secretary,
Department of the Interior

Appendix A

Fire Program Analysis Project Communication Links

Communications are critical to the success of the project. The following diagram illustrates linkages between various project components.



System Components: Alternatives

Investment alternatives describe varying strategies for achieving land management goals in a Fire Planning Unit (FPU). Developed by FPU planners, the investment alternatives are combinations of these two options:

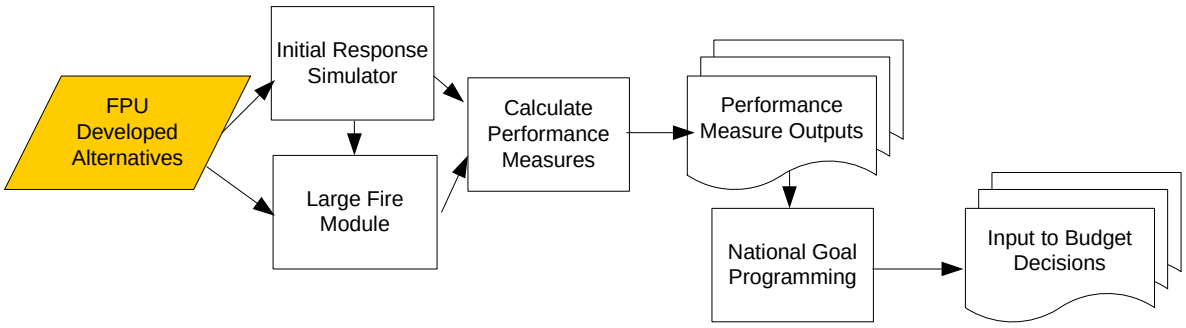
Preparedness Options comprise

- **Initial response organizations** consisting of personnel, engines, crews, helicopters, etc. - the fire resources that produce fireline and are funded by the FPU's budget. These resources are modeled to show how they affect initial response success.
- **Prevention programs** describe activities associated with prevention education, engineering and enforcement. These activities affect the number of person-caused fires.

Fuels treatment options describe on-the-ground projects by the total number of acres treated, treatment cost, the cost of the fuels program supporting those treatments, and the changes in fuels conditions resulting from the treatment. Fuels treatment options are used by the model to show how they may affect the success of initial response and large fire suppression.

The FPU investment alternatives are extremely important to the FPA process because they are modeled for probable success in meeting the performance measures and for their associated costs. The modeled performance measures and costs for each alternative can be compared enabling the FPU planner to select combinations of investment alternatives that are likely to be the most cost efficient.

Performance and cost are modeled values used to compare alternative investments. They are not absolute measures or targets, but are used for comparison when making trade-off decisions.

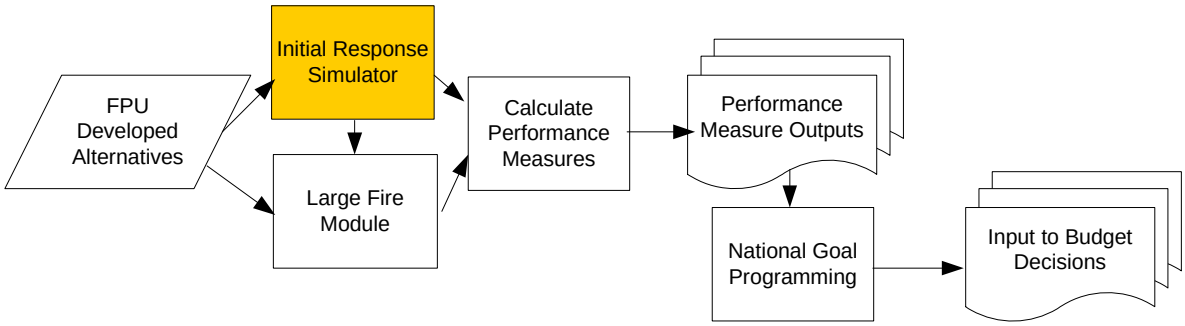


System Components: Initial Response Simulator

The Initial Response Simulator (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." 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.

This module enables fire planners to compare efficiencies and probable costs for alternative initial response organizations, prevention programs and fuel treatments.



Inputs into IRS:

- Historic fire occurrence records
- Weather observations
- Topographic data
- LANDFIRE fuels model data
- Fire Planning Units and their component Fire Management Units and Fire Workload Areas
- Dispatch locations
- Initial Attack Fireline Production Rates (NWCG)
- FPU-designed preparedness options with
  - initial response organizations, and
  - prevention programs
- FPU-designed fuel treatment options

Outputs from IRS:

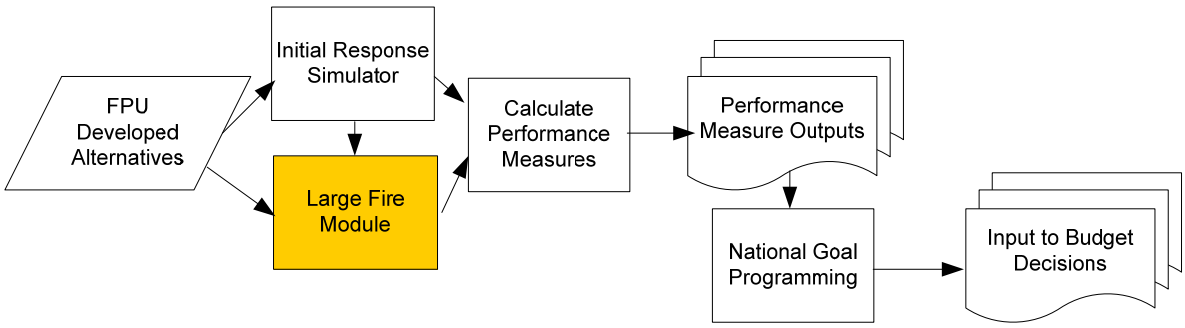
- Number of fires contained
- Number of fires exceeding simulation limits.
- Size of Fires
- Potential costs of fire

System Components: Large Fire Module

The Large Fire module predicts final fire size and relative costs for different resource investment alternatives at the Fire Planning Unit level. Weather, topography, fuel and burn duration are variables used in both the Initial Response and Large Fire models.

The Large Fire model combines statistical analysis with fire simulations based on the Fire Spread Probability (FSPro) model developed at the Missoula Fire Sciences Laboratory. The FPA implementation of FSPro runs a series of simulations that vary fuels, weather, suppression, and treatments to calculate the probability of large fires for points on a landscape. A statistical regression model uses these calculations to determine relationships between fuel, weather, topography, and burn duration to predict final fire size. The results from the statistical analysis are used to estimate the impact of fuel treatments and suppression on large fires. The statistical analysis is used in lieu of running computer-intensive FSPro software for each FPU alternative.

The Large Fire Module enables fire planners to evaluate investment alternatives in terms of effectiveness, efficiency and cost.



Large Fire Model Inputs:

- Historic fire occurrence records
- Weather observations
- Topographic data
- LANDFIRE fuels model data
- Fire Planning Units and their component Fire Workload Areas (if any)
- FPU-designed fuel treatment options
- Number of fires exceeding simulation limits

Large Fire Model Outputs:

- Burn probability
- Fire intensity level
- Large fire costs estimated using the Stratified Cost Index
- Effects of fuel treatments on large fires
- Final fire size

System Components: Performance Measures

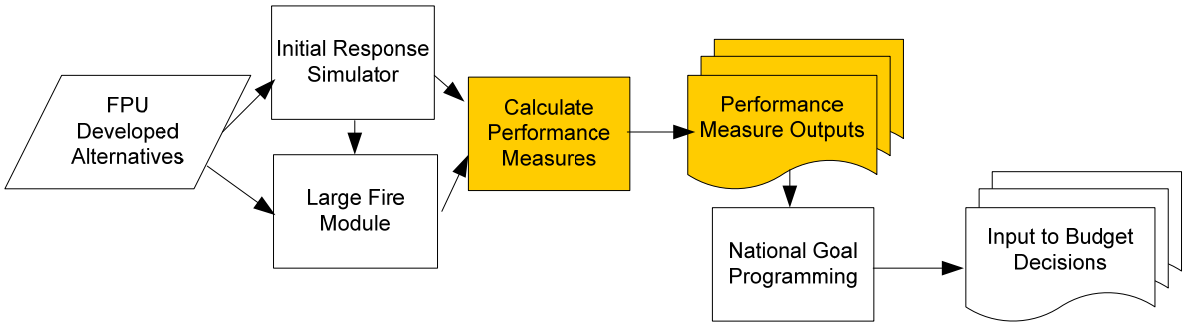
The performance of each Fire Planning Unit (FPU) investment alternative is measured by how well it helps attain the five Effectiveness, Efficiency and Performance Measures:

1. Reducing the probability of occurrence of costly fires
2. Reducing the probability of occurrence of costly fires within the Wildland Urban Interface (WUI)
3. Increasing the proportion of land meeting or trending toward the attainment of fire and fuels management objectives
4. Protecting highly valued resources areas from unwanted fire
5. Maintaining a high initial attack success rate

The performance measures were developed by the FPA Executive Oversight Group and endorsed by the Wildland Fire Leadership Council (WFLC).

Investment alternatives consist of a preparedness option and fuel treatment option designed by the FPU fire planner. Results from the Initial Response Simulator (IRS) and Large Fire module enable the FPA system to calculate performance measures. Fire planners evaluate performance measure calculations to select alternatives that are cost efficient fire management strategies.

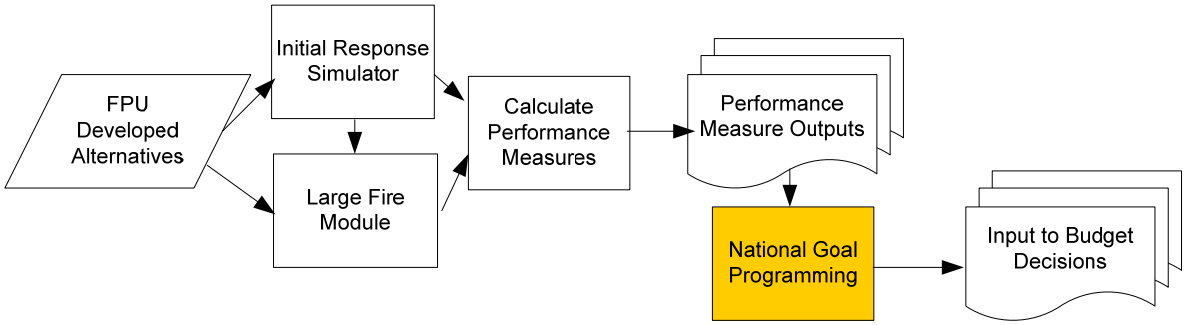
Performance and cost are modeled values used to compare alternative investments. They are not absolute measures or targets, but are used for comparison when making trade-off decisions.



System Components: Goal Programming – National Trade-Off Analysis

The national trade-off analysis module in the FPA system enables budget decision-makers to assess trade-offs between investment alternatives in terms of multiple Effectiveness, Efficiency and Performance Measures at different proposed budget levels.

The effectiveness of proposed investment alternatives submitted by each Fire Planning Unit (FPU) will be viewed with alternatives submitted by other FPUs to find the mix that provides high national performance for the most effective national expenditures. The key concept underlying trade-off analysis is that there is no one "best" answer, but trade-offs between differing investment alternatives. For example, an FPU can increase initial attack success (good for Performance Measure #5 – "Maintaining a high initial attack rate") by containing more fires in the back-country while letting fires in the Wildland Urban Interface escape (bad for Performance Measure #2 – "Reducing the probability of occurrence of costly fires within the Wildland Urban Interface"). In this case, the initial attack success increases while putting more WUI at risk. Trade-off analysis aims at highlighting these conflicts while providing a tool that enables budget decision-makers to come to a national compromise in a transparent manner.



Inputs to Goal Programming:

- Five Effectiveness, Efficiency and Performance Measures for each investment alternative submitted by the FPU
- Modeled costs for each investment alternative submitted by the FPUs

Outputs from Goal Programming:

- A set of five national Effectiveness, Efficiency and Performance Measures using a combination of each FPU's investment alternatives
- A total national cost for initial response organizations, prevention programs and fuels treatments associated with the selected sets of efficient FPU investment alternatives

FPA Project Timeline

August 2007	Information call for spatial data.
September 2007	Assess and summarize results of August information call.
September 2007	Complete first set of analyses for prototpye FPUs.
October 2007	Send out training strategies assessment for feedback from FPUs
November 2007	Workshop for prototype FPUs
Spring 2008	FPUs to beta test end-to-end run, including prevention
June 2008	FPA system release
June 2008	Training begins
Sept 2008 – Feb 2009	Training continues All FPUs run FPA analysis
Feb 2009	FPU-selected investment alternatives for FY 2011sent to national level
March - May 2009	National level analysis for FY2011 (Goal Programming)

Fire Program Analysis

FPA Budget Request History

July 2, 2007	PY-4 2002	PY-3 2003	PY-2 2004	PY-1 2005	PY 2006	CY 2007	BY 2008	BY+1 2009	BY+2 2010	Total
FPA-PM Total	**0.83**	**4.99**	**4.54**	**0.85**	**0.30**	**0.00**	**0.00**	**0.00**	**0.00**	**11.50**
Planning	0.83									**0.83**
DME		4.99	4.54	0.60						**10.13**
O&M				0.30	0.30					**0.60**
FS Funding	0.13	2.00	3.04	0.45	0.15					**5.76**
DOI Funding	0.70	2.99	1.50	0.40	0.15					**5.74**
FPA-2 Total				**6.97**	**8.23**	**8.00**	**5.50**	**2.20**	**1.15**	**32.05**
Planning				4.40	0.00	0.00	0.00	0.00	0.00	4.40
DME				2.57	7.23	7.12	4.00	0.00	0.00	20.92
O&M				0.00	1.00	0.75	1.50	2.20	1.15	6.60
FS Funding				2.97	4.00	3.60	2.00	1.45	1.15	15.17
DOI Funding				4.00	4.23	4.40	3.50	0.75	0.00	16.88
Total FPA+FPA-2	**0.83**	**4.99**	**4.54**	**7.82**	**8.53**	**8.00**	**5.50**	**2.20**	**1.15**	**43.56**
FS Funding	0.13	2.00	3.04	3.42	4.15	3.60	2.00	1.45	1.15	20.94
DOI Funding	0.70	2.99	1.50	4.40	4.38	4.40	3.50	0.75	0.00	22.62

Notes: Drops FPA-PM O&M in FY07-08
Actuals through FY07

DME - Development/Modernization/Enhancement
O&M - Operations & Management

FPA Project Chronology

September – December 2001	- The Departments of Agriculture and Interior reviewed the federal agencies' wildland fire budget models. - Review findings published in the report "*Developing an Interagency, Landscape-scale Fire Planning Analysis and Budget Tool.*" - Congress directed the Departments to develop and implement a coordinated and common system for calculating fire preparedness.
July 2002 – April 2003	- The House of Representatives Committee on Appropriations directed the Forest Service and the Department of the Interior to design and develop an automated system for preparedness resource planning. - The Fire Program Analysis (FPA) Project chartered.
October 2004 – December 2004	- Officially released FPA-Preparedness Module v1.0.0. - Initiated FPA-Preparedness Module training across western states.
January 2005 – December 2005	- Training continues for using the Preparedness Module. - Fire Planning Units use Preparedness Module for program analyses. - FPA project reviewed: Technical Review of Preparedness Module.
January 2006- August 2006	- Mid-course review. (Final report on both reviews issued June 2006) - 135 of 138 Fire Planning Units completed their first analysis. - FPA project rechartered.
September – December 2006	- Interagency Science Team formed to work with FPA team on model development and provide scientific review of the FPA system. - The Wildland Fire Leadership Council approved proceeding with developing and testing a prototype decision-support tool for fire planning and budgeting.
January – July 2007	- FPA team developed system prototype. - Updated the Wildland Fire Leadership Council on FPA prototype. - Prototype tested by 7 interagency Fire Planning Units from across the nation. - Conducted 2 workshops with the Fire Planning Units testing the prototype. - Reported to Wildland Fire Leadership Council on prototype success.
July 25, 2007	- The Council approved full development of the FPA system for release in June 2008

FPA Project Team Members

Donna Scholz	Executive Project Manager
Dan Keller	Senior Project Manager
Jaymee Fojtik	Business Lead, Department of the Interior
Bonnie Wood	Business Lead, USDA Forest Service
Venetia Gempler	Communication Director
Fay Anderson	Administrative Assistant
Lou Ballard	**Prototype Coordination Lead**; Initial Response Simulation
Grant Beebe	**User-Focused Team Lead**; FPA Outputs and Reports
Tom Cable	**Model-Focused Team Lead**; Large Fire
Ed Delaney	Bayesian Decision Network; FPA Outputs and Reports, Fire Event Scenario
Brian Eldredge	**User Interface Lead**; Training Coordinator
J.R. Epps	Business Process; FPA Outputs and Reports, Fire Event Scenario
Cal Gale	**Business Process Lead**; Prototype Coordination
Jim Hutton	**Large Fire Lead**; Fuels
Andy Kirsch	**Bayesian Decision Network Lead**; Large Fire; Business Analyst
Kevin Knauth	**FPA Outputs and Reports Lead**; Business Process, Prototype Coordination
Terri Knauth	**Fuels Lead**; User Interface
Howard Roose	**Initial Response Simulation Lead**; Fire Event Scenario, Prototype Coordination
Nikki Saleen	Business Process; FPA Outputs and Reports, Prototype Coordination
Craig Thompson	Geographic Information Systems; Bayesian Decision Network; Large Fire
Susan Weber	Initial Response Simulation; User Interface, Prototype Coordination

FPA Functional & Specialty Teams

	User Focused Teams		Model Focused Teams							Implementation Coordination Group*
	(Lead: Grant Beebe)		(Lead: Tom Cable)							
	Business Process Outputs and Reports	FPA User Interface	Bayesian Decision Net & Goal Program-ming	Prevention	Initial Response Simulation Module (IRS)	Large Fire Simulator Surrogate Module (LFM)	Fire Event Scenario	Fuels	Prototype Coordination	
JR Epps	X						X			X
Kevin Knauth	X							X	Central Oregon	X
Nikki Saleen	X		X						Color Country	
Cal Gale	**X**								New Jersey	X
Ed Delaney	X			X			X			**X**
Grant Beebe	X									
Brian Eldredge		**X**								Training
Susan Weber		X			X		X		Southern Sierra	X
Terri Knauth		X						**X**		
vacant										Training
Andy Kirsch			**X**			X				
Craig Thompson		X	X			X				
Howard Roose				X	**X**		**X**		NW Montana & Alaska	
Jim Hutton						**X**		X		
Lou Ballard				X	X				Central Florida	
Tom Cable				**X**		X				
Venetia Gempler	**Communications Coordinator & Advisor**									

Bold "X" denotes functional team lead.

Communication Strategy

Introduction:

The purpose of the Fire Program Analysis (FPA) System is to provide managers with a common interagency process for wildland fire management planning and budgeting. Managers will be able to use the FPA system as a tool to evaluate the effectiveness of alternative fire management strategies, to meet land and fire management objectives.

This plan outlines the FPA team's communication and outreach activities. The plan's primary goal is to inform the fire planning unit's agency administrators and fire managers about the FPA system so they can prepare for implementation in June 2008.

Communication actions are discussed for the development, training, and implementation phases of the Fire Program Analysis system. Focused outreach will be designed to facilitate line officer's and fire manager's understanding of FPA, implementation plans which includes training strategies.

Goals:

1) Develop and implement a coordinated, proactive outreach program which supports the development and implementation of FPA.
2) Improve employee understanding of how the FPA system will support wildland fire management planning and budget formulation locally and nationally.
3) Communicate the benefits of wildland fire management partners working together; sharing data, and developing an interagency analysis.
4) Clarify expectations about what can, and cannot, be accomplished with the FPA system.

Objectives:

1) Provide fire management leaders and line officers with appropriate information, talking points, briefing papers, etc, at regular intervals and as requested for special events or meetings.
2) Provide timely and appropriate information to sponsors and end-users to ensure active participation required to meet project objectives and timelines.
3) Establish feedback loops for field units to provide the FPA team comments, such as active prototyping, workshops, and conference calls to improve the utility of the new Fire Program Analysis process.

Target Audiences:

1) The Wildland Fire Leadership Council
2) Wildland fire partners (including, nonfederal partners)
3) Scientific or research and academic communities
4) Executive Branch (OMB) and Congress
5) Agency personnel

a. State wildland fire agencies
b. Line officers and wildland fire and fuels managers
c. FPA Geographic Area coordinating leads
d. FPA Prototype Fire Planning Unit team members
e. Wildland fire and land management planners
f. Fire Planning Unit (FPU) personnel
g. Agency fire budget personnel

Key Messages:

These key messages are a separate outcome of the communication plan and will be updated as needed. Key messages will be developed based on the following themes:

- FPA supports interagency wildland fire planning
- FPA provides data for developing the national fire management program out year budgets
- FPA provides local and national fire managers and line officers with tools for analyzing a mix of investment alternatives to display program trade-offs.

The FPA Organization.

The FPA organization is divided into the seven components shown below.

Organization	Description
1. Executive Oversight Group (EOG)	High-level agency executives that provide guidance and direction to the FPA project
2. Management Advisory Team (MAT)	An interagency team representing agency line officers that provides advice and feedback to the FPA team through the business Leads
3. Interagency Science Team (IST)	Provides science support and guidance to the FPA project.
4. Project Management	Executive Project Manager, Senior Project Manager, and USDA Forest Service and Department of the Interior Business Leads.
5. Development Team (Includes Implementation Coordination Group to facilitate development and communication)	An interagency application design and development team. Coordinates with subject matter experts and assists with training development, documentation and help desk. Divided into functional groups to facilitate FPA Prototype development
6. Implementation Coordination Group (ICG)	An interagency team that works closely with field personnel to implement FPA. Develops and coordinates training and assists with the help desk and documentation.
7. Communications, Training and Support	Communications Director, two Training Specialists and Staff Administrator

FPA Communication Plan Matrix

Audience	Communication Vehicle	Delivered by	Medium	Frequency	When Delivered	Expected Result
Wildland Fire Leadership Council (WFLC)	Primarily briefings and teleconferences	Project Manager, USDA Forest Service and DOI Business Leads. Subject matter experts as needed.	Hardcopy briefing materials	At regularly scheduled meetings and conference calls – generally quarterly	As needed or requested	Continue to build understanding of the utility of the system and support for the project.
Executive Oversight Group	Briefings, newsletters, face-to-face meetings, teleconferences	Project Manager and USDA Forest Service and DOI Business Lead.	Hardcopy materials	As scheduled	One week prior to meeting and as requested	Project understanding, issue clarification
WO Liaisons	Expenditure Reports, Quarterly Reports	Project Manager and Senior Project Manager	Hardcopy and electronic spreadsheet	Monthly and Quarterly	Monthly and Quarterly	Monitor expenditures to ensure the project stays within budget.
Elected Officials (Interior Appropriations) and Members of the Executive Branch (OMB and GAO)	Briefings, hearings, and teleconferences	EOG with assistance from Project Manager, USDA Forest Service and DOI Business Leads and WO liaisons.	Hardcopy materials, testimony and quarterly reports	As needed or requested	When requested	Continue to build understanding of the utility of the system and support for the project.
Management Advisory Team	Monthly telecons, quarterly report, newsletters, FPA list service and website, TechNews, meetings, phone calls, issue papers and e-mails.	Business Leads with Project Manager and technical specialists.	Hardcopy materials, PowerPoint presentations, e-mail, and FPA list service and website	As scheduled and as needed	One week prior to meetings and when requested	Frequent two-way communications Receive advice regarding system development and implementation. The MAT will be a first level “sounding board” for emerging issues and prospect solutions.
National Fire and Aviation Executive Board (NFAEB)	Primarily briefings and issue papers	Project Manager and USDA Forest Service and DOI Business Lead. Subject matter experts as needed.	Hardcopy briefing materials or handouts	At their quarterly meeting	One week prior to meeting Issue paper for timely decisions	Continue to build understanding of the utility of the system and support for the project.
Interagency Science Team	Meetings, e-mails, system documentation papers, and teleconferences. Coordination through IST leads and Science Liaison	Project Manager and USDA Forest Service and DOI Business Lead. Subject matter experts as needed.	Hardcopy documentation as needed, spreadsheets, etc.	Scheduled and other meetings as needed	One week prior to meeting or when requesting feedback	Obtain feedback on the system development including concepts and operational design.

Audience	Communication Vehicle	Delivered by	Medium	Frequency	When Delivered	Expected Result
Project Management Team including IST leads, IST liaison and WO liaisons	Bi-weekly Project Status Teleconferences	Project Manager, USDA Forest Service and DOI Business Leads, WO Liaisons and Interagency Science Team Leads.	Hardcopy agenda and supporting documents as needed.	Bi-weekly on Wednesday @ 0730 MT	Agenda distributed Monday prior to call.	Discussion of project status, issues, policy and emerging issues
Geographic Area Leads	Monthly teleconferences, quarterly reports, newsletters, FPA list service and website, TechNews, meetings, phone calls and e-mails.	Implementation Coordination Group and Business Leads and Project Manager	Hardcopy materials, presentations, e-mail, and FPA list service and website	As scheduled and as needed	Teleconferences first Thursday of month and as needed	- Continue to build understanding of the utility of the system and support for the project. - GA leads will assist in gathering and disseminating information throughout their geographic area.
Prototype FPU Participants - both Federal and Nonfederal	Workshops e-mails, teleconferences, quarterly reports, newsletters, TechNews, FPA list service and website, face-to-face meetings, one-on-one phone calls and e-mails	Prototype leads with FPA Team	Hardcopy materials, presentations e-mail, and FPA list service and website	frequently	As needed	Frequent two-way communications -Work closely with FPA team and design and build contractor(s). -Test and provide feedback to FPA development team. -Advise and validate the FPA business process and model outputs. -Assist with presenting training materials and coaching.
Other National groups and projects such as: Fuels, Budget Leads, EMDS, LANDFIRE, WFDSS etc.	Teleconferences, face-to-face meetings, phone calls and e-mails	Business Leads, Project Manager and subject matter experts	Hardcopy materials, presentations, meetings, e-mail, and FPA list service and website	Schedule as needed	As needed or requested.	- To gain information about other national projects, to explain the FPA system and how it “fits” into the wildland fire management program. - To collect information from national subject matter groups and projects.

Audience	Communication Vehicle	Delivered by	Medium	Frequency	When Delivered	Expected Result
FPU planners, Line Officers, Fire Management Officers,	Briefing materials, quarterly reports, newsletters, FPA list service and website	USDA Forest Service and DOI Business Leads, Project Manager and Communication Director	Hardcopy briefing materials, e-mails, teleconferences, presentations	As needed and as identified by staff and at regularly scheduled meetings	As scheduled and when requested or in preparation for a meeting.	Frequent two-way communications Continue to build understanding of the local utility of the system and support for the project. Reinforce guidance and direction from WFLC
FPU field personnel and Fire Planners	Quarterly reports, newsletters, FPA list service and website, TechNews, face-to-face meetings, one-on-one phone calls, e-mails, and training workshops	USDA Forest Service and DOI Business Leads, FPA team and Project Manager.	Hardcopy materials, presentations, e-mail and FPA website	Frequently and as needed	As scheduled and when requested or in preparation for a meeting.	Continue to build understanding of the utility of the system and how it will be implemented. Provide the training to fully implement the FPA system when directed.
Partners - Nonfederal wildland fire management agencies Such as: Tribes, NASF Nat'l Assoc. of Counties International Assoc. of Fire Chiefs, etc.	Quarterly reports, newsletters, FPA list service and website, TechNews, face-to-face meetings, phone calls and e-mails.	USDA Forest Service and DOI Business Leads FPA team and Project Manager.	Hardcopy letters and briefing materials, and website-based materials	Scheduled as needed	To be determined	Continue to build understanding of the utility of the system and how it will be implemented, used for budget development.

Prototype Fire Planning Units

The FPA Team recruited a small group of Fire Planning Units (FPUs) to provide feedback during system development. Each of these FPUs have existing cooperative wildland fire management programs in place and represent the various ecosystems and fire regimes throughout the United States. These "Prototype FPUs" test and validate models and provide field-user input. The seven Prototype FPUs are:

Alaska. Alaska is the largest FPU, incorporating the entire state. Remote area access requires work to be done by aircraft making their fire management program unique. The state includes a wide range of vegetation; from coastal rainforests and boreal forests, to tundra. Interagency partners include: Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service; the State of Alaska is an active partner but was not part of the prototype analysis.

Central Florida. Central Florida has a diverse ecosystem incorporating southern pines, marsh, grasslands and southern rough. This FPU has a large fuels treatment program and, in many cases, adjoins wildland urban interface areas. The FPU partners include Forest Service, National Park Service, and US Fish and Wildlife Service.

Central Oregon. The Central Oregon FPU has three distinct vegetation bands: high elevation alpine plant communities with mountain hemlock; mid-elevation mixed conifer forest with juniper and ponderosa and lodgepole pines; and lower elevation grasslands with sagebrush and bitterbrush. Interagency partners participating in the FPU are the Bureau of Land Management, Forest Service, National Park Service and various Tribal representatives.

Color Country (Southern Utah). This FPU has drier Great Basin-type vegetation with grasslands, sagebrush steppe, and mixed conifer forests of Douglas-fir, pinion and ponderosa pine, and juniper. Color Country is a LANDFIRE prototype area and is using LANDFIRE vegetation data in the FPA analysis. Interagency partners include Bureau of Indian Affairs, Bureau of Land Management, Forest Service, and National Park Service.

New Jersey. This FPU represents the eastern area of the country and other small FPUs nationally. It has a high concentration of values at risk with many wildland urban interface areas. Vegetation includes oak-beech forests, grasslands and old fields, Forested and scrub wetlands and upland forests. Interagency partners include the National Park Service, U.S. Fish and Wildlife Service, and New Jersey Department of Environmental Protection Division of Parks and Forestry.

Northwest Montana. The Northwest Montana FPU has a significant annual wildfire workload. The mixed-conifer forest includes ponderosa pine, Douglas-fir and larch. They are part of the 2006 LANDFIRE rapid assessment modeling and mapping zone. Interagency partners include Forest Service, National Park Service, US Fish and Wildlife Service and State of Montana Department of Natural Resources and Conservation.

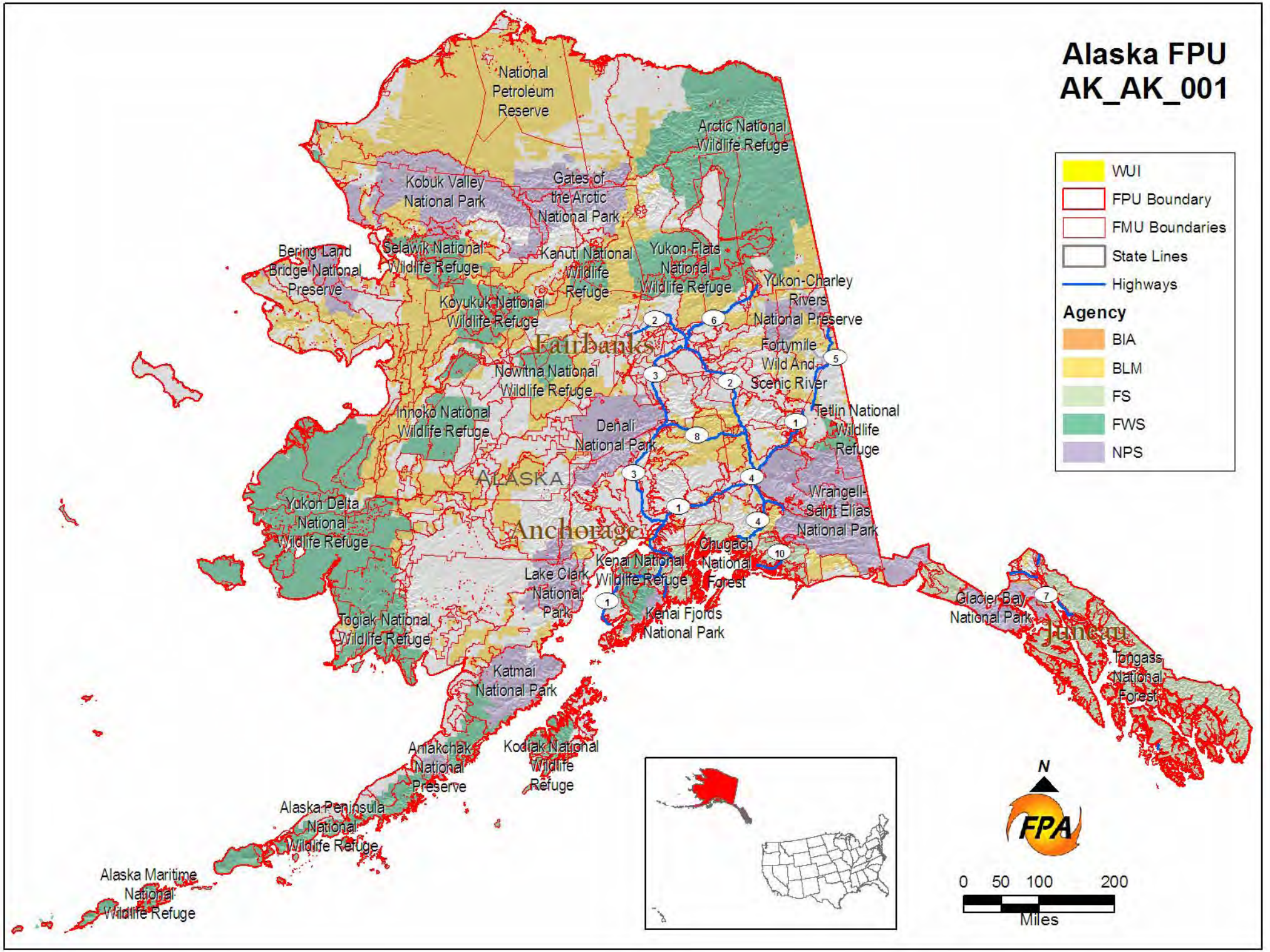
Southern Sierra. This FPU has an active fuels management program and a sizeable wildland fire workload. Three zones characterize the vegetation in this FPU: low elevation grasses and foothills oak; mid-elevation mixed conifer forests with sequoia, Shasta fir, incense cedar and sugar, Jeffery and lodgepole pines; and high elevation zones with foxtail pine. Interagency partners include Bureau of Indian Affairs, Bureau of Land Management, Forest Service, and National Park Service.

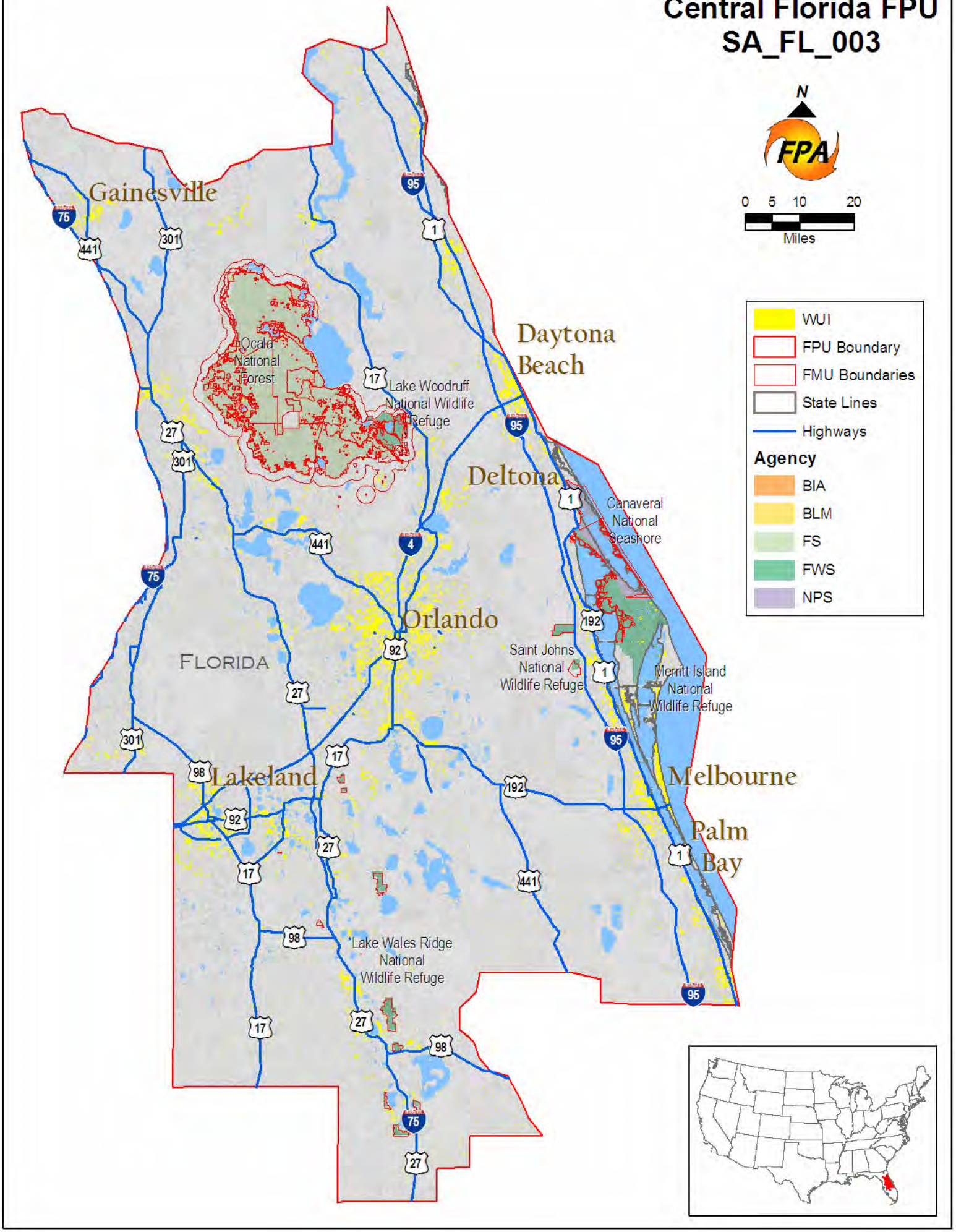
Prototype FPU Selection Criteria
The chief selection requirements for the prototype FPUs were on-going interagency fire planning activities and line officers willing to participate. The project wanted representation from the diverse geographic areas across the United States. Chosen FPUs also met a range of the following criteria:

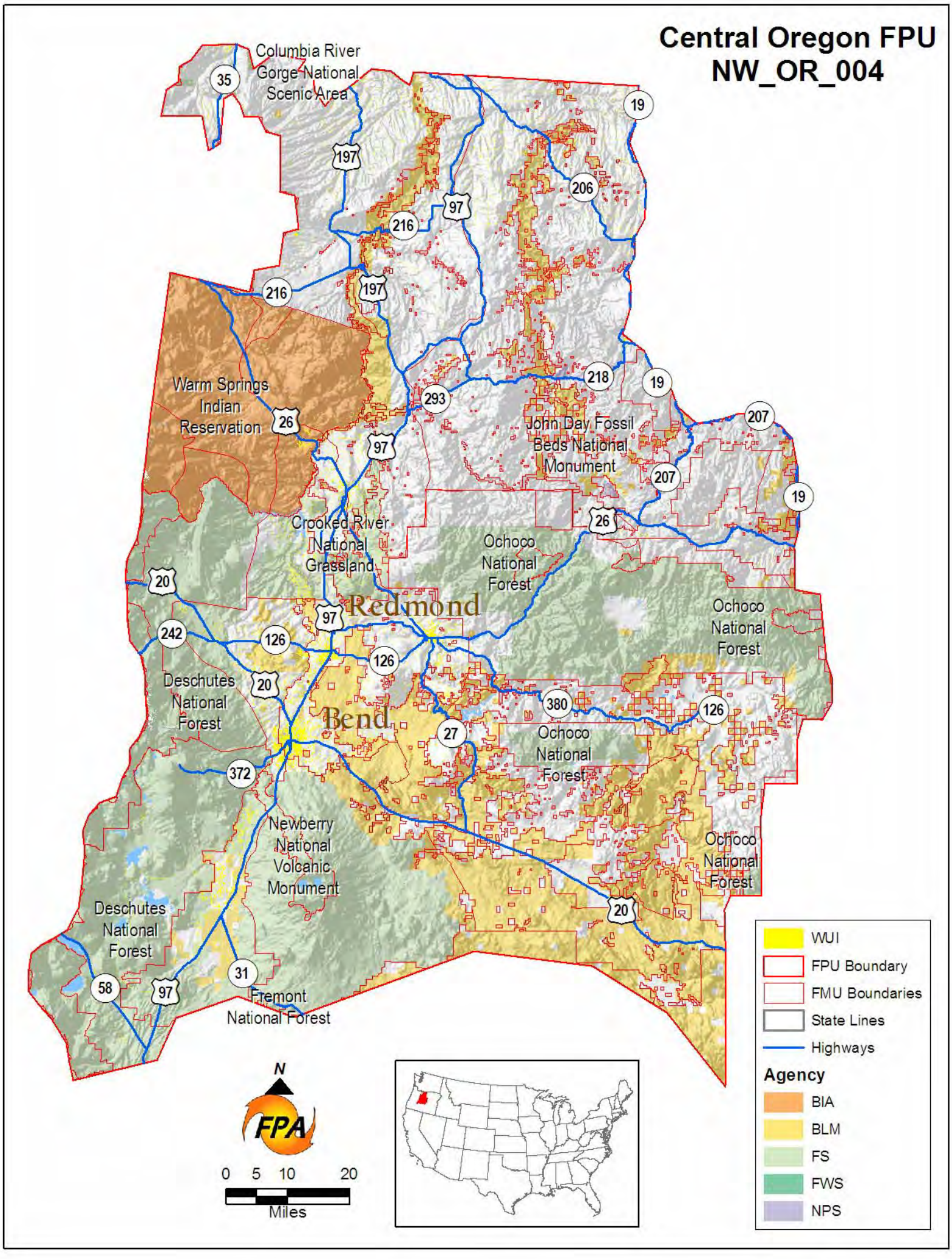
- Ecological diversity from one FPU to another
- Multiple agency representation
- Proven spatial analysis capabilities
- At least a moderate level of fuels management activities such as Wildland Urban Interface and ecosystem restoration
- At least a moderate level of extended attack and large fire workload
- At least a moderate level of fire prevention workload
- At least a moderate level of wildland fire occurrence
- Ties to LANDFIRE's prototype areas

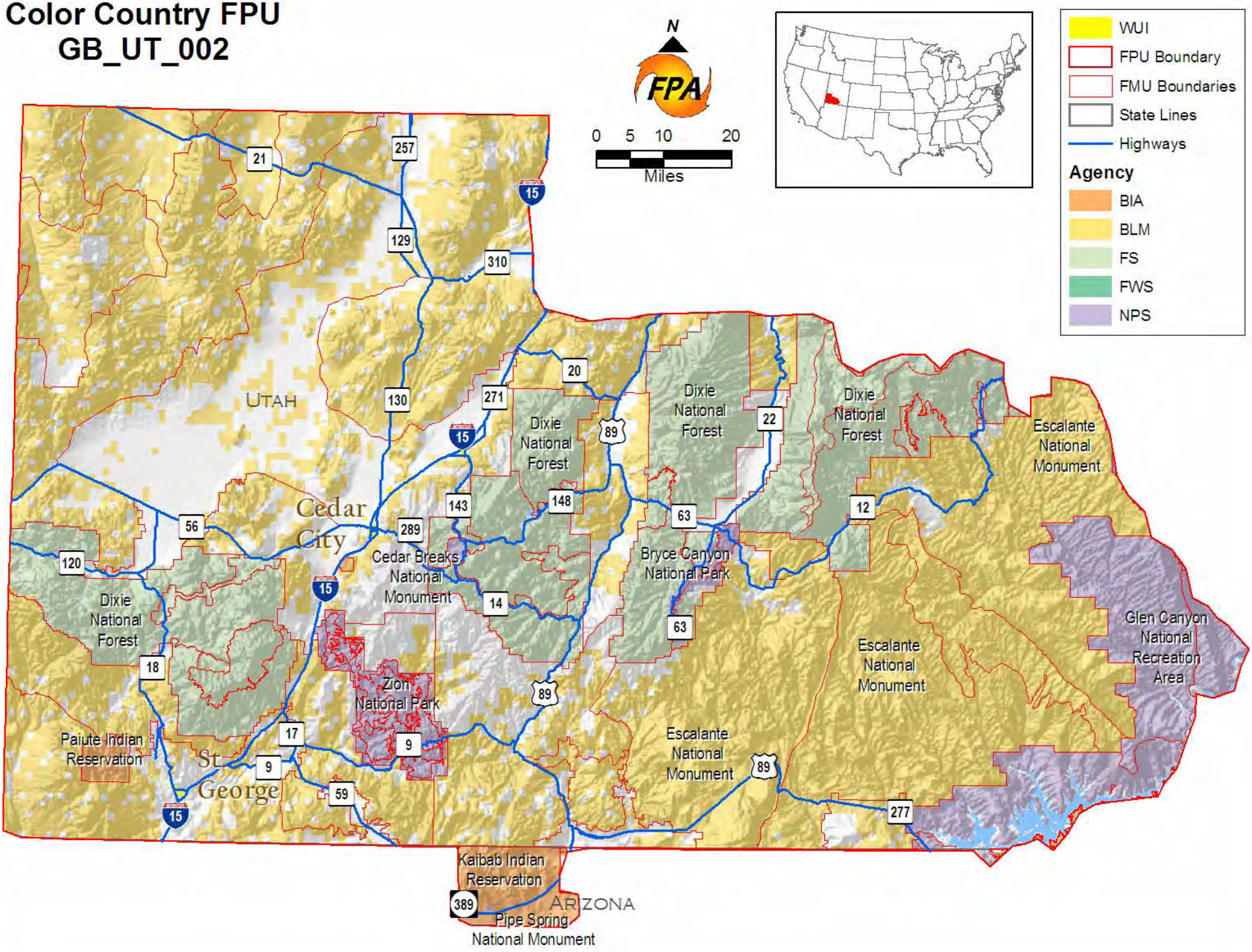
The FPA Team's Expectations of the Prototype FPUs
The overall expectation for each prototype FPU was to test the developing FPA modules and provide feedback. Specific expectations were:

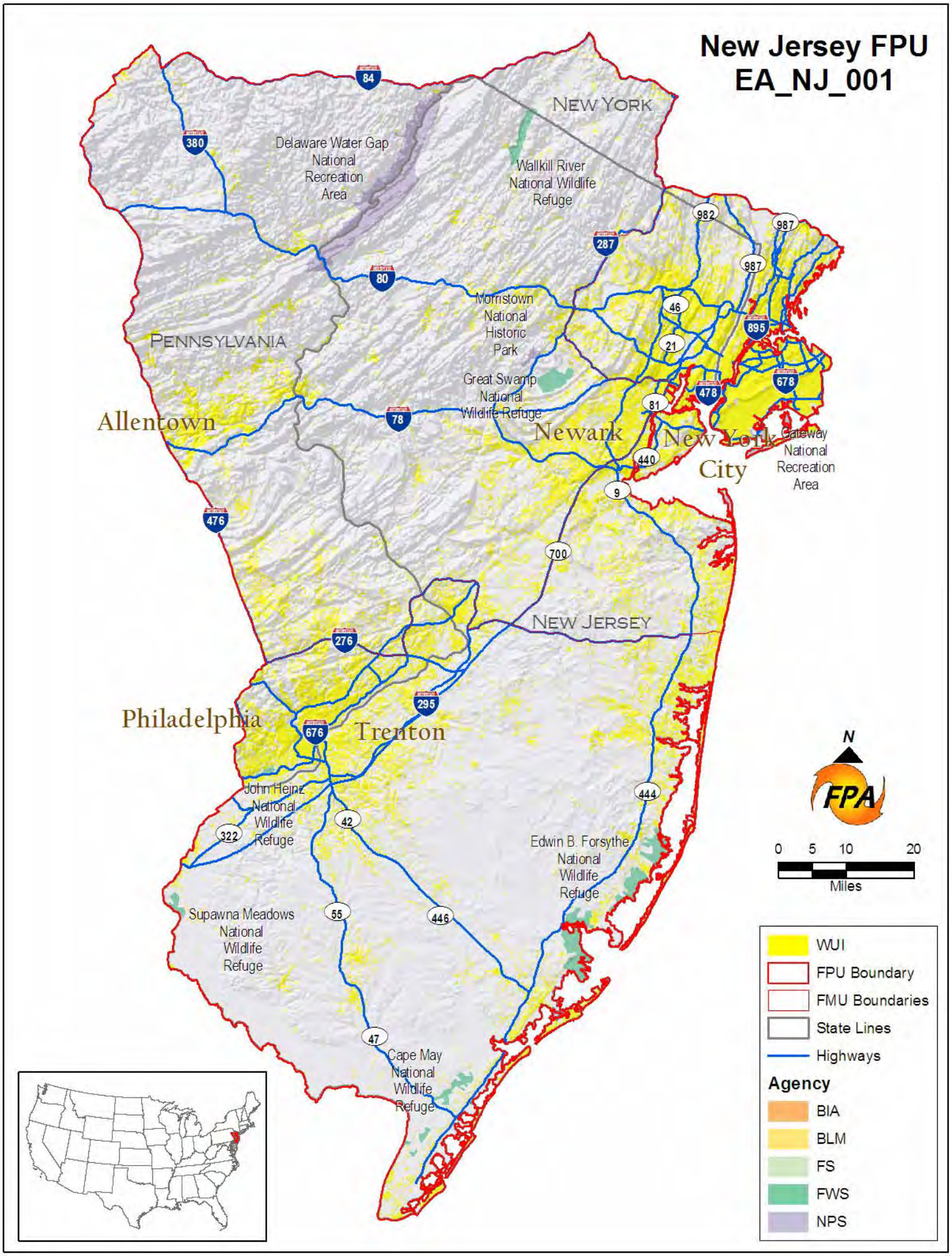
- Develop strong interagency planning partnerships.
- Develop or refine resource management objectives relative to fire management and develop a full range of fire management objectives, constraints, and restrictions for all aspects of the fire management workload such as fuels, and prevention.
- Develop and refine the required data inputs for the various modules.
- Test and provide feedback on interim and final products.
- Provide validation for model outputs; costs, fire resource, and rules and thresholds.
- Work closely with the FPA Team and the design and build contractor.
- Participate as subject matter experts.
- Travel periodically.
- Assist in presenting training materials and coaching initial implementation.


Alaska FPU
AK_AK_001
WUI
FPU Boundary
FMU Boundaries
State Lines
Highways
Agency
BIA
BLM
FS
FWS
NPS
National Petroleum Reserve
Arctic National Wildlife Refuge
Kobuk Valley National Park
Gates of the Arctic National Park
Bering Land Bridge National Preserve
Selawik National Wildlife Refuge
Kanuti National Wildlife Refuge
Yukon Flats National Wildlife Refuge
Koyukuk National Wildlife Refuge
Yukon-Charley Rivers National Preserve
Fairbanks
Nowitna National Wildlife Refuge
Fortymile Wild And Scenic River
Innoko National Wildlife Refuge
Denali National Park
Tetlin National Wildlife Refuge
ALASKA
Yukon Delta National Wildlife Refuge
Anchorage
Wrangell-Saint Elias National Park
Chugach National Forest
Kenai National Wildlife Refuge
Lake Clark National Park
Glacier Bay National Park
Kenai Fjords National Park
Juneau
Togiak National Wildlife Refuge
Tongass National Forest
Katmai National Park
Aniakchak National Preserve
Kodiak National Wildlife Refuge
Alaska Peninsula National Wildlife Refuge
Alaska Maritime National Wildlife Refuge
N
FPA
0 50 100 200
Miles

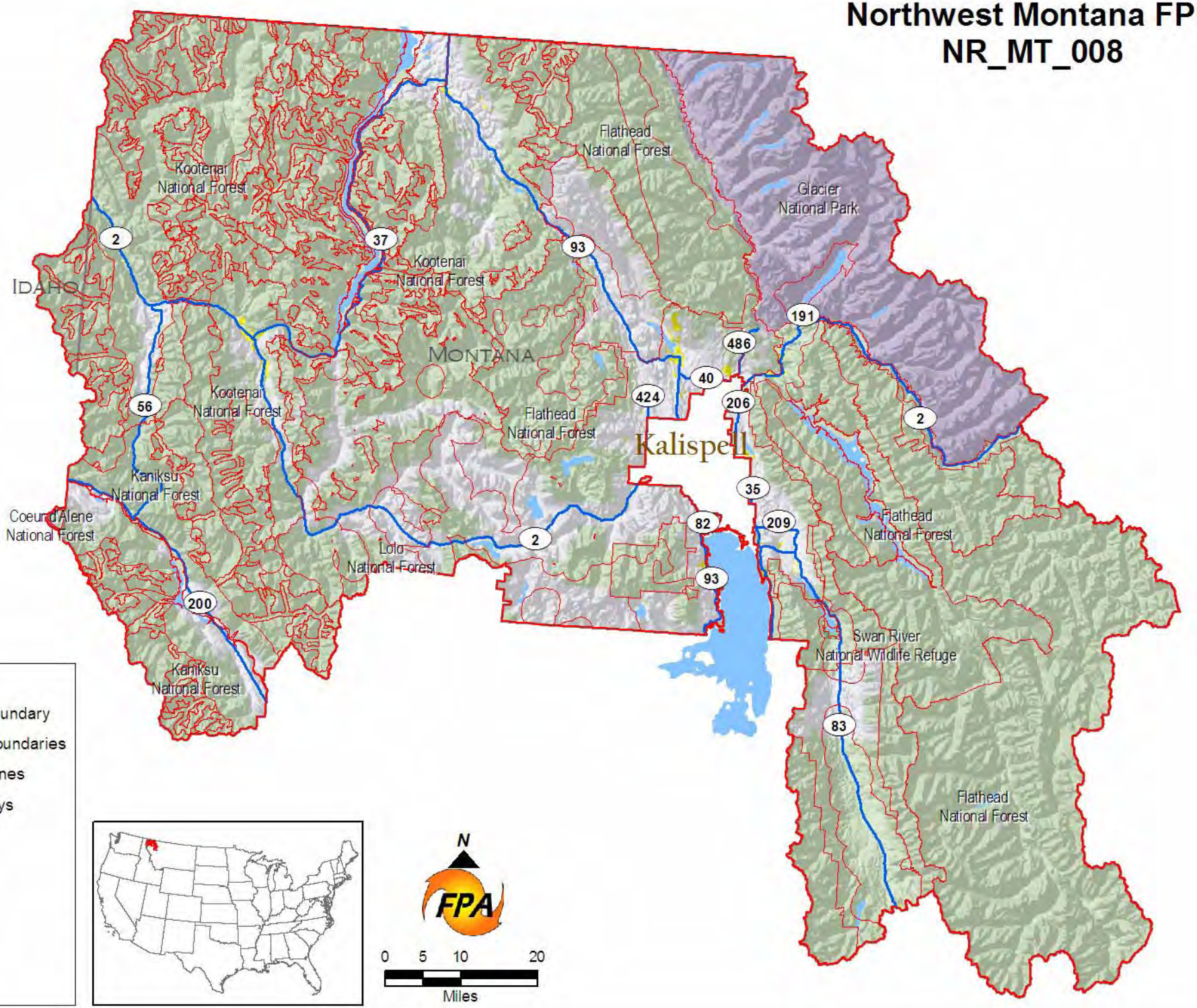

Central Florida FPU
SA_FL_003
N
FPA
0 5 10 20
Miles
WUI
FPU Boundary
FMU Boundaries
State Lines
Highways
Agency
BIA
BLM
FS
FWS
NPS
Gainesville
Daytona Beach
Deltona
Orlando
Lakeland
Melbourne
Palm Bay
FLORIDA
Ocala National Forest
Lake Woodruff National Wildlife Refuge
Canaveral National Seashore
Saint Johns National Wildlife Refuge
Merritt Island National Wildlife Refuge
Lake Wales Ridge National Wildlife Refuge


Central Oregon FPU
NW_OR_004
Columbia River Gorge National Scenic Area
Warm Springs Indian Reservation
Crooked River National Grassland
John Day Fossil Beds National Monument
Ochoco National Forest
Ochoco National Forest
Ochoco National Forest
Ochoco National Forest
Redmond
Bend
Deschutes National Forest
Deschutes National Forest
Newberry National Volcanic Monument
Fremont National Forest
35
197
216
97
206
19
216
197
218
19
293
26
97
207
207
19
26
20
97
242
126
126
20
380
126
27
372
20
58
97
31
N
FPA
0 5 10 20
Miles
WUI
FPU Boundary
FMU Boundaries
State Lines
Highways
Agency
BIA
BLM
FS
FWS
NPS

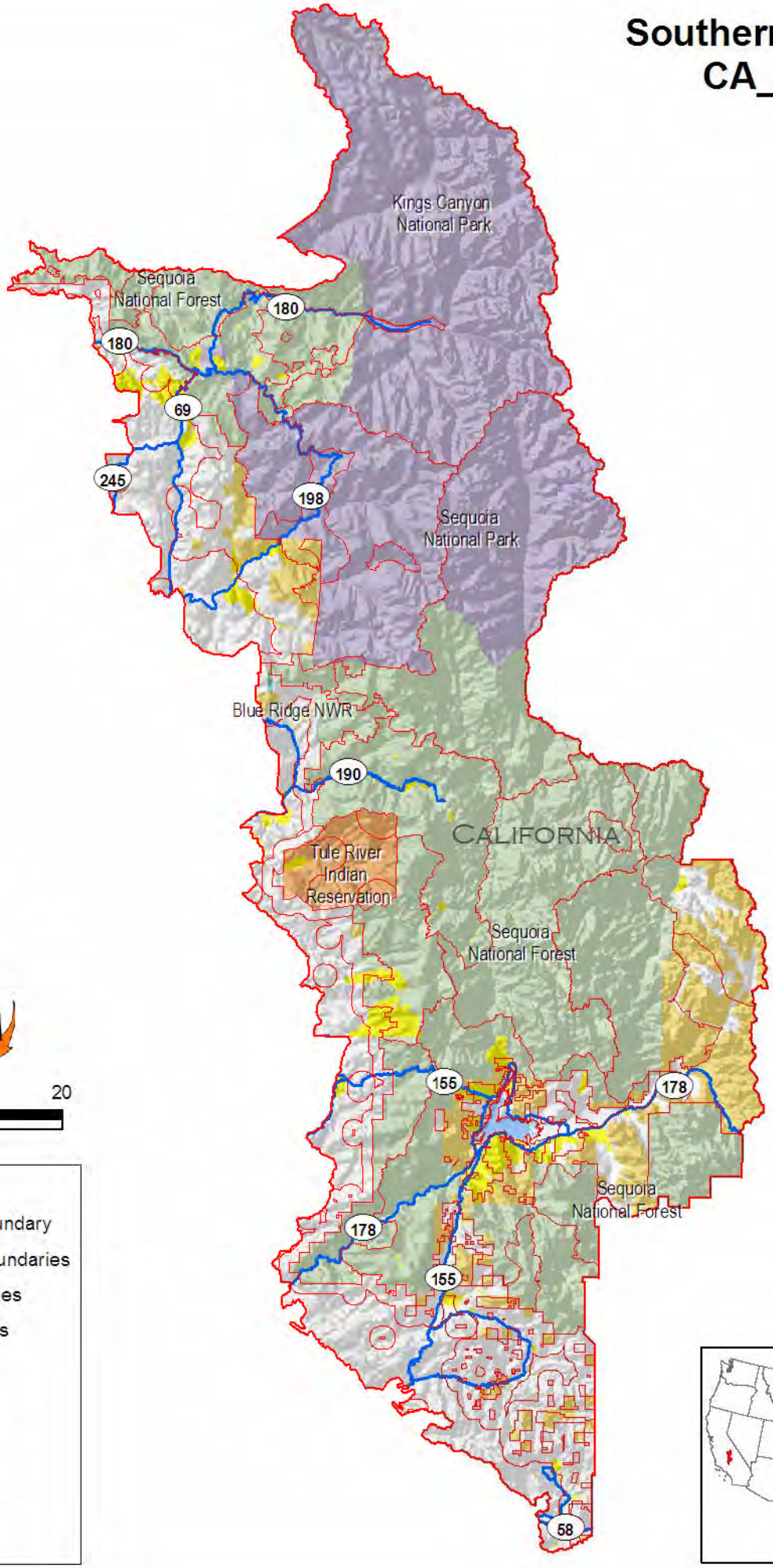

Color Country FPU
GB_UT_002
N
FPA
0 5 10 20
Miles
WUI
FPU Boundary
FMU Boundaries
State Lines
Highways
Agency
BIA
BLM
FS
FWS
NPS
UTAH
ARIZONA
Cedar City
St. George
Dixie National Forest
Dixie National Forest
Dixie National Forest
Escalante National Monument
Cedar Breaks National Monument
Bryce Canyon National Park
Zion National Park
Escalante National Monument
Escalante National Monument
Glen Canyon National Recreation Area
Paiute Indian Reservation
Kaibab Indian Reservation
Pipe Spring National Monument
21
257
15
129
310
20
130
271
89
22
143
148
63
12
56
289
120
14
63
18
17
9
59
277
389


New Jersey FPU
EA_NJ_001
New York
Pennsylvania
New Jersey
Allentown
Philadelphia
Trenton
Newark
New York City
Delaware Water Gap National Recreation Area
Wallkill River National Wildlife Refuge
Morristown National Historic Park
Great Swamp National Wildlife Refuge
Gateway National Recreation Area
John Heinz National Wildlife Refuge
Edwin B. Forsythe National Wildlife Refuge
Supawna Meadows National Wildlife Refuge
Cape May National Wildlife Refuge
84
380
80
287
78
476
276
295
676
700
9
440
478
678
895
982
987
46
21
81
42
322
444
55
446
47
N
FPA
0 5 10 20
Miles
WUI
FPU Boundary
FMU Boundaries
State Lines
Highways
Agency
BIA
BLM
FS
FWS
NPS

Northwest Montana FPU
NR_MT_008



Southern Sierra FPU
CA_CA_008



N

FPA

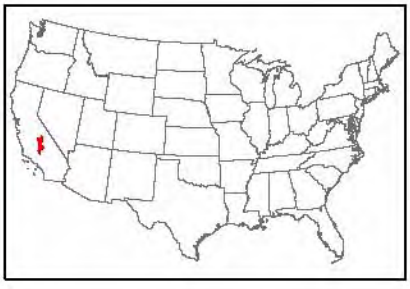
0 5 10 20

Miles

- WUI
- FPU Boundary
- FMU Boundaries
- State Lines
- Highways

Agency

- BIA
- BLM
- FS
- FWS
- NPS



Synopsis of FPA System Alternatives

Alternative 1: Decision Support System Foundation

Alternative 1 uses Bayesian decision analysis to compare various combinations of fire program elements (Large Fires, Initial Response, Fuels, and Prevention) for each Fire Planning Unit. Cause and effect relationships are displayed in a graphical network (i.e., influence diagram) linking decisions to intermediate variables and ultimately to performance measures. The strength of each relationship is expressed through a conditional probability table, where probabilities are established by the FPU team members using expert opinion supported by historical data and existing analyses and models. Extensive spatial analysis is optional, although some analysis of spatial information may be essential. An advantage of Alternative 1 is that it is relatively simple in design.

Alternative 2: Add Initial Response Simulator

Alternative 2 adds an initial response simulation model to build probability tables used in the decision support system described above. With the initial response simulator, initial response success is simulated under various combinations of preparedness organizations, weather, and fuel treatments. The initial response simulator incorporates a quasi-spatial approach, requiring basic spatial information.

Alternative 3: Add Large Fire Probability Surrogate

Alternative 3 incorporates a GIS–based analysis of factors contributing to large fire occurrence and intensity to derive spatial indices of risk. Existing indices such as the Wildland Fire Sensitivity Index (WFSI) provide prototypes for the type of analysis to be conducted. For example, WFSI assigns an index of the relative probability of burning based on fuel conditions, weather patterns, and historical fire size and uses established models of fire behavior. Comprehensive spatial analysis is a key element of this alternative.

Alternative 4: Add Large Fire Probability Simulator

Alternative 4 incorporates a large-fire simulator that mimics the spatial and temporal pattern of large fires. By simulating large numbers of fires in a Monte Carlo fashion, probabilities of burning under different intensities can be assigned to individual pixels in a landscape. The effects of fuel treatments are more realistically portrayed because the model evaluates the effect of the treatments on fire size, intensity, and spatial patterns. Individual fires can be examined to create probability distributions of fire effects, suppression costs, and impacts on resource values. The large fire simulator can be directly linked to the initial attack simulator, ensuring logical consistency in analysis.

Alternative 5: Add Large Fire Strategy and Vegetation Change Modeling

Alternative 5 builds on Alternative 4 by including two additional modules: A vegetation change model and a large fire strategy model. The vegetation change model provides a process to project effects of fuels treatments for the FPU using existing scientific models of vegetation succession and change. The large fire strategy model would allow mechanistic modeling of different management responses to fire (e.g., suppression tactics or wildland fire use) rather than relying on simpler assumptions incorporated in other options.

Interagency Science Team

In July 2006, the Departments of Agriculture and Interior assembled a science panel to work with the Fire Program Analysis (FPA) team. The panel ensures the FPA project is peer-reviewed. The Interagency Science Team (IST) is composed of 12 scientists, listed below, from both Departments and academia. The team will be used to help develop the analytical tools, simulation models, geographical information systems, and a relational data base management system for the Fire Program Analysis (FPA) project. The IST advises the FPA project team.

Interagency Science Team Members

Name (alphabetically)	Expertise	Agency/Affiliation
Dr. Mike Bevers	Operations research	USDA Forest Service
Dr. Mark Finney	Fire Behavior	USDA Forest Service
Dr. Jeremy Fried	Economics, Fire Preparedness, Forest Inventory	USDA Forest Service
Dr. Miles Hemstrom	Ecology	USDA Forest Service
Dr. Bill Labiosa	Decision Science	DOI - USGS
Dr. Danny Lee, Co-lead	Risk Modeling	USDA Forest Service
Dr. Keith Reynolds	Decision Science	USDA Forest Service
Dr. Doug Rideout	Forest Economist	Colorado State University
Dr. John Sessions	Quantitative Modeling	Oregon State University
Dr. James E. Vogelmann	Land cover characterization monitoring (LANDFIRE)	DOI - USGS
Dr. Jack Waide, Co-lead	Ecology	DOI - USGS
Dr. Anne M. Wein	Operations Research Analyst	DOI - USGS

Fire Program Analysis Prototype Results

July 18, 2007

(FPA Project Briefing to the FPA Executive Oversight Group)

Issue: The FPA Development Team and Interagency Science Team (IST) have completed the analytical prototype for Alternative 3 – representing preparedness/initial attack, large fire suppression, fuels treatments, and tradeoffs without extensive simulation.

Background: The Wildland Fire Leadership Council (WFLC) in December 2006 endorsed development of a prototype to be delivered June 30, 2007. Since December, the FPA Development Team has worked with the IST and other partners to construct a series of interacting models that collectively address landscape-level fuel treatments, preparedness for fire and initial response (initial attack), and the consequences and costs. Additionally, WFLC requested a prototype of the large fire simulation model that could be used to validate the large fire surrogate indices that were envisioned.

These models comprise an analytical system that will help Fire Planning Units (FPUs) and the agencies' national budget planners analyze investment options for preparedness and fuels when proposing budgets to OMB and Congress beginning with the FY 2011 budget. Options for fire prevention programs will be incorporated into the analysis by June 2008. Prototype success criteria were approved by Executive Oversight Group co-chairs in January 2007. These criteria include the ability to calculate performance measures, demonstrate internal compatibility across subcomponents, meet subject matter expert expectations, ensure that workload demands are reasonable, and that cost and schedule for final delivery can be assessed.

Prototype Development Highlights and Key Considerations:

- Initial Response module runs are consistent with FPU expectations for all seven prototype FPUs
- Data from two of the prototype FPUs have run through the analytical models.
- The large fire surrogate is based on a statistical summary of the existing Fire Spread Probability (FSPro) model.
- The goal programming module for national decision makers has begun and initial results are being evaluated.
- The prototype large fire simulation model envisioned to validate the large fire surrogate indices was successfully developed and tested.
- Nonfederal partner involvement - the design has been enhanced to ensure it incorporates nonfederal resources in the trade-off analyses.
- The IST suggests the prototype is broadly consistent with the recommended system architecture and recommends continued development of the FPA system and strengthened interactions with the science team. A more detailed description of IST feedback can be found in Attachment 4.

Success Criteria – Scope, Schedule, and Cost

One of the primary reasons for conducting a prototype was to identify any risks that might affect the development of an operational FPA system. Listed below are highlights of that risk assessment. A more detailed discussion of these risks can be found in Attachment 1.

Scope:

- Little to no risk is perceived in meeting the scope or staying within scope of the project.

Schedule:

- Some risks are related to data availability of current information in LANDFIRE data, tight timelines for system integration of subcomponents, expectations for broader uses of the FPA system, potential expectations to expanded stakeholder involvement, and continued involvement of the science team – these risks can be mitigated to a substantial degree.

Cost:

- Cost risks are mostly related to scheduling and data availability – these can be mitigated to a substantial degree.

Recommendation:

It is recommended that the development and implementation of the FPA system should proceed with a June 2008 delivery.

Contact: Donna Scholz, FPA Executive Project Manager (208-947-3784) or dscholz@blm.gov

Attachments:

1: FPA Prototype Success Criteria & Results

2: Effectiveness, Efficiency, and Performance Measures (EEPs)

3: Key Design Feature Comparison of the Large Fire Module (IST Alternative 3) and the Large Fire Simulation Module (IST Alternative 4)

4: Interagency Science Team – Feedback on Prototype Results

Attachment 1: FPA Prototype Success Criteria & Results

The reader might find it useful to refer to Figure 1 below while reading the success criteria described in the sections that follow.

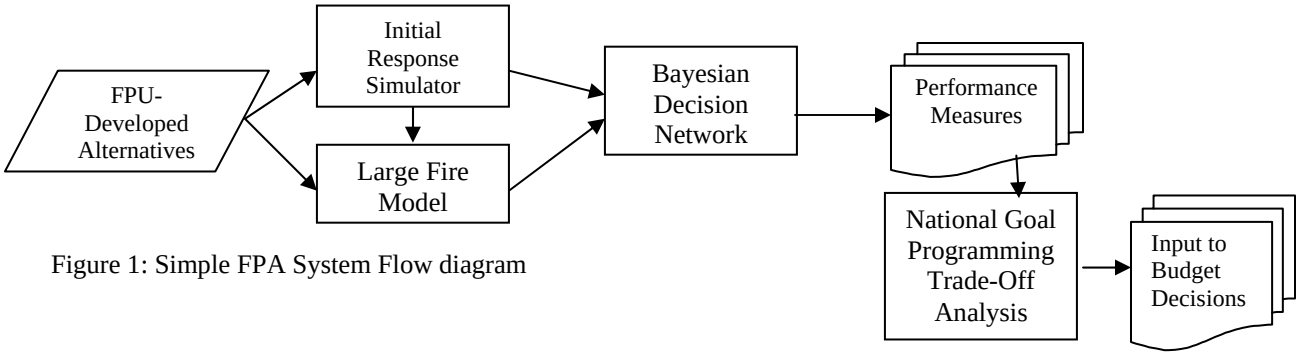


Figure 1: Simple FPA System Flow diagram

Success criteria were developed in January 2007 to judge whether the prototype results met expectations and provide background for decisions concerning continuing the development of the FPA system. Results from the prototype work are described in terms of the potential risks associated with the project scope, schedule, and costs.

Criteria 1: Demonstrate the capability to calculate the modeled performance measures based on input information available from data and models.

Results:

Initial Response Simulation (IRS) – The IRS module was developed based on the California Fire Economics Simulator (CFES2).

- The IRS module is used to compare multiple investment scenarios within each of the seven prototype FPUs.
- The prototype participants reported that the IRS analyses were consistent with expected results for their FPUs.

Large Fire Surrogate-Developing a large fire module that is reasonably accurate and straightforward to apply was a major challenge. Several options were explored, ranging from a primarily GIS-based exercise to a full simulation approach.

- The prototyped process combines simulation, statistical analysis, and GIS analyses to build a prototype large fire module. This process was applied to Northwestern Montana and Southern Sierra prototype FPUs.
- This large fire surrogate is a practical alternative to full simulation, and it reduces the number of computer runs and workload to the field when compared to the full simulation.
- While initial results required some modification to meet expected large fire outcomes, on-going work with the IST is automating and improving the process.

Bayesian Decision Network (BDN)- A Bayesian Decision Network was constructed to link the fire modules and generate the Effectiveness, Efficiency, and Performance Measure (EEP) values (see Attachment 2 for a list of these measures).

- A working version of the BDN has been developed for the NW Montana and Southern Sierra FPUs.
- Final validation of the BDN will be completed this summer when all seven prototype FPUs large fire surrogate results are available.

Goal Programming- Even though the goal programming portion of FPA was outside the scope of the 6-month prototype, design has begun and initial testing using simulated investment alternatives is underway.

- National decision product examples have been created using a limited data set.
- Refinement of the National Goal Programming module will continue as results are available from more than the prototype FPUs.

Risks:

Scope: Little risk with regard to meeting original scope.

Schedule & Cost: Modest risk because the user requirements for national level fire budget development has a tendency to expand beyond the original FPA scope. Risk can be reduced by deferring additional national budget development requirements to next release.

Criteria 2: Demonstrate that individual modules are consistent internally and compatible with other modules.

Results:

The analytical system is designed with modular construction and shared databases. This design eliminates duplication of data entry by field staff, and automates data sharing between modules. Improvements are being explored to tighten linkages between the IRS and the large fire modules including synchronization of the weather data.

The decision network utilizes the IRS and large fire module results to calculate the EEP measures.

The FPU investment alternatives, and the performance measures reside in a shared database so local FPUs and national decision makers can compare the cost and performance of alternatives using the goal programming module.

Risks:

Scope & Schedule: Little risk.

Cost: Modest risk since the Alternative 3 solution for large fire simulation surrogate may require additional development and computer investment. Risk will decline as analysis of all seven FPUs allows the Project to further validate the surrogate approach and further mitigation through shared computer resources with the Forest Service's Wildland Fire Decision Support System (WFDSS).

Criteria 3: Meet subject matter experts' expectations in terms of model results.

Results:

The seven FPUs have participated in two prototype workshops, January and May. They have provided timely and first hand feedback to the development team at each of these workshops.

- The prototype FPUs have tested the IRS module using actual data from their FPU.
- The FPUs concur that the IRS model produces expected results based on their knowledge of fire behavior within their planning units.
- The large fire module surrogate analysis was completed for the Northwest Montana and Southern Sierra prototype FPUs. Results have undergone initial evaluation and indicate a high level of agreement with the full simulation approach (see Attachment 3 for a brief comparison of the two large fire approaches).
- Data for the New Jersey FPU are being prepared for the large fire surrogate. Completion of this analysis will help demonstrate the model's utility in the Eastern Geographic Area.
- All seven FPUs will complete end-to-end analysis by the end of October 2008.
- The National Goal Programming module will be fine tuned as the FPUs complete their IRS, large fire and BDN analysis.

Risks:

Scope: Little risk.

Schedule & Cost: We will need to identify and prioritize expanded expectations for use of FPA in order to maintain expected cost and schedules. Risk can be reduced by deferring increased scope expectations until future versions. The cost savings potential of the innovative approach to large fire modeling are so key to the success of the Alternative 3 approach to FPA that it warrants validation on all seven FPUs which represent the varied geographic areas and the fire conditions they manage.

Criteria 4: Assess the workload demands on the field and that computational needs are reasonable.

Results:

The FPA prototype validated the feasibility of using existing data from FPA-PM, and then prototyped online interactive tools for the FPUs to use in updating and adding additional data.

A field workload estimate for the end-to-end FPA process was completed by the seven FPUs who participated in the prototype. Estimates were considered reasonable (ranging from 45 to 87 interagency total person days per FPU including cost and spatial data preparation and planning tasks).

The design includes the ability to import the FPUs' existing spreadsheets and databases, rather than require manual data entry.

The IRS module has been prototyped on desktop PCs and on the FPA development server. Computation loads are within reasonable bounds of a prototype.

- The large fire module requires approximately 10 hours of computer processing per FPU in its current prototype construction.
- Operational implementation computer use is expected to be less, but additional servers may be required to run all 138 FPU and nationwide analyses in FY2009.
- Cost savings are possible through sharing of computer systems resources with the Forest Service's Wildland Fire Decision Support System (WFDSS).

Utilizing the large fire module surrogate should reduce the workload and computational requirements for the field personnel as compared to full simulation approach proposed in the original Alternative 4.

- Increased efficiency comes from use of a statistical model that duplicates the simulation results and allows rapid evaluation of multiple investment alternatives.

- A core set of simulations is still required, but these can be done independent of the evaluation of alternatives. (See Attachment 3 for more details on the two large fire approaches).

Risks:

Scope: No risk.

Schedule & Cost: The Project's commitment to use LANDFIRE as the source for fuels information to run the FPA models was based on the assumption these data would have a currency that is not in the LANDFIRE Charter, nor in the proposed LANDFIRE O&M Plan. Consequently, there is substantial risk that field personnel will need to invest time in updating their fuels data layers, or that FPA will have to invest money in assisting the field in updating these fuels layers. Risk will be further evaluated through sensitivity

testing using 2000/2001 LANDFIRE fuels data and local updated fuels data available from the prototype FPUs.

Criteria 5: Accurately assess the expected cost and schedule for implementing the scope of FPA as recommended by the Interagency Science Team and approved by WFLC.

Results:

Based on the success of the two FPU prototypes, the schedule to release FPA in June 2008 as a tool to help prepare the FY2011 budget request, although challenging, is feasible without compromising the project scope.

Project cost estimates to implement the FPA approach as being developed is within the budget approved for FPA shown in the table below.

FPA Phase	Cost ($M)
Prototype (FY '07)	**4.9**
Two-year Development (FY '07/'08)	**9.0**
Two-year Transition O&M (FY'09/'10)	**6.9**
Total	**20.9**

Risks:
Scope, Schedule and Cost: The overall Project risk is low to modest if:

- Expanded stakeholder requirements are deferred to subsequent FPA system versions.
- LANDFIRE adopts and implements an O&M process that incorporates local fuels characteristic changes and other major landscape disturbances to the vegetation.
- IST members are engaged and participate in developing validation processes for the large fire surrogate.

Attachment 2: Effectiveness, Efficiency, and Performance Measures (EEPs)

The Wildland Fire Leadership Council (WFLC) recognizes the following positive goal statements as outcomes that, if FPA can deliver information on status with respect to each item, would be extremely helpful in their deliberations regarding budgets and planning:

EEP # 1: Reducing the probability of occurrence of costly fires

EEP # 2: Reducing the probability of occurrence of costly fires within the Wildland Urban Interface

EEP # 3: Increasing the proportion of land meeting or trending toward the attainment of fire and fuels management objectives

EEP # 4: Protecting highly valued resource areas from unwanted fire

EEP # 5: Maintaining a high initial attack success rate

Attachment 3: Key Design Feature Comparison of the Large Fire Module (IST Alternative 3) and the Large Fire Simulation Module (IST Alternative 4).

1. Both module approaches have at their core the Fire Spread Probability (FSPro) fire behavior model developed by Mark Finney at the Rocky Mountain Research Station in Missoula, MT.
2. The large fire surrogate (Alternative 3) is designed to run FSPro once for each FPU per budget season by FPA Project staff before the field units begin their FPA analysis. All alternatives developed in the FPU analysis utilize this FSPro run. This will minimize the field workload and give the FPUs maximum flexibility to explore investment alternatives without requiring additional runs of FSPro.
3. The Large Fire Simulator approach (Alternative 4) requires the field personnel to run FSPro for each alternative to be analyzed in the FPU. It is anticipated that the operational costs of these multiple runs may make this approach cost prohibitive and a significant burden in terms of field workload.

Attachment 4: Interagency Science Team – Feedback on Prototype Results

Some members of the Interagency Science Team (IST) were involved in interactions with the FPA Development Team during the prototype process. All members of the IST were invited to participate in a conference call/meeting to discuss prototype results with key members of the Development Team. The results of that call/meeting are summarized below:

- The IST recognizes that substantive progress has been made in developing and testing major parts of the FPA modeling system.
- The prototype is broadly consistent with the system architecture recommended by the IST, with the substitution of a promising surrogate fire model for the full fire simulator.
- While significant progress has been demonstrated, considerable work remains to complete development of a fully operational FPA modeling system. That said, the IST believes that the FPA Development Team has done an excellent job in bringing the prototype system to its present state of completion in the time available.
- Consequently, the IST believes that sufficient progress has been demonstrated in developing the current prototype system to recommend proceeding with development of the full FPA modeling system based on the decision of WFLC in December 2006.
- The IST recognizes the need to manage risks associated with completing all system components and their integration on the present timeline.
- The IST recommends renewed and even strengthened interactions between the development team and the science team as development work proceeds.
- There is a need to design/develop strategies to validate the component models that are being developed within the overall FPA system. The IST offered suggestions for what might be feasible.

Fire Program Analysis Prototype Results

July 23, 2007

(EOG Recommendations to WFLC)

Issue: The FPA Development Team and Interagency Science Team (IST) have completed the analytical prototype for Alternative 3 – representing preparedness/initial attack, large fire suppression, fuels treatments, and trade-offs.

Background: The Wildland Fire Leadership Council (WFLC) in December 2006 endorsed development of a prototype to be delivered June 30, 2007. Since December, the FPA Development Team has worked with the IST and other partners to construct a series of interacting models that collectively address landscape-level fuel treatments, preparedness for fire and initial response (initial attack), and the consequences and costs. Additionally, WFLC requested a prototype of the large fire simulation model that could be used to validate the large fire surrogate indices that were envisioned.

These models comprise an analytical system that will help Fire Planning Units (FPUs) and the agencies' national budget planners analyze investment options for preparedness and fuels when proposing budgets to OMB and Congress beginning with the FY 2011 budget. Options for fire prevention programs will be incorporated into the analysis by June 2008. Prototype success criteria were approved by Executive Oversight Group co-chairs in January 2007. These criteria include the ability to calculate performance measures, demonstrate internal compatibility across subcomponents, meet subject matter expert expectations, ensure that workload demands are reasonable, and that cost and schedule for final delivery can be assessed.

Prototype Development Highlights and Key Considerations:

- Initial response module runs are consistent with FPU expectations for all seven prototype FPUs.
- Data from two of the prototype FPUs have run through the analytical models.
- The large fire surrogate is based on a statistical summary of the existing Fire Spread Probability (FSPro) model.
- The design of the goal programming module has begun. Initial results are being evaluated for use by national decision makers.
- The prototype large fire simulation model envisioned to validate the large fire surrogate indices was successfully developed and tested.
- The design has been enhanced to ensure it incorporates nonfederal partners and their resources in the analyses.
- The IST suggests the prototype is broadly consistent with the recommended system architecture, and recommends continued development of the FPA system and strengthened interactions with the science team.
- The membership of Management Advisory Team (MAT) is being identified, and the business leads who will co-chair the MAT have begun their FPA roles in Boise.

Success Criteria – Scope, Schedule, and Cost

One of the primary reasons for conducting a prototype was to identify any risks that might affect the development of an operational FPA system. The FPA Executive Oversight Group approved five criteria by which to measure the success of the prototype:

1. Demonstrate the capability to calculate the modeled performance measures based on input information available from data and models.
2. Demonstrate that individual modules are consistent internally and compatible with other modules.
3. Meet the subject matter experts' expectations in terms of model results.
4. Assess the workload demands on the field and that the computational needs are reasonable.
5. Accurately assess the expected cost and schedule for implementing the scope of FPA as recommended by the Interagency Science Team.

Based on these criteria, please find listed below the highlights of an analysis of risk that remains:

Scope:

- Little to no risk is perceived in meeting the scope or staying within scope of the project.

Schedule:

- Some risks are related to data availability of current information in LANDFIRE data, tight timelines for system integration of subcomponents, expectations for broader uses of the FPA system, potential expectations to expanded stakeholder involvement, and continued involvement of the science team – these risks can be mitigated to a substantial degree.

Cost:

- Cost risks are mostly related to scheduling and data availability – these can be mitigated to a substantial degree. The prototype was completed under its $4.9M budget and the development and deployment phases are expected to likewise be delivered within the $9.0M budget.

Recommendation:

It is recommended that the development and implementation of the FPA system should proceed with a June 2008 delivery.

Contact: Nina Rose Hatfield at 202-208-1829 or Kent Connaughton at 202-205-1657

Geographic Area Leads

Geographic Area	Geographic Area Lead	Agency	Phone Number	email
Alaska	Lindsey Lien	BLM	(907) 356-5859	Lindsay_Lien@blm.gov
California	Larry Hood – Primary Elizabeth Wright	USFS	(707) 441-3650 (619) 445-6235 x3429	lhood@fs.fed.us ewright@fs.fed.us
Eastern Area	Valdo Calvert – Primary Sean Hart	FWS BIA	(612) 713-5445 (612) 725-4525	Valdo_Calvert@fws.gov seanhart@gmail.com
Great Basin	Gwenan Poirier	BLM	(775) 861-6523	gpoirier@nv.blm.gov
Northern Rockies	Jesse DuhnKrack - Primary Kurt Werst	NPS USFS	(303) 969-2678 (406) 329-3232	Jesse_Duhnkrack@nps.gov kwerst@fs.fed.us
Northwest	Richard Smedley	NPS	(360) 696-7545	Richard_Smedley@nps.gov
Rocky Mountain	Brian Bischof	USFS	(303) 275-5758	bbischof@fs.fed.us
Southern Area	Cheryl Herbster – Primary Pat Phillips	USFS BIA	(404) 347-3463 (303) 410-1519	cherbster@fs.fed.us Pat_Phillips@nifc.gov
Southwest	John Selkirk – Primary Marlena Hovorka	BLM USFS	(505) 438-7431 (505) 842-3472	jselkirk@blm.gov mhovorka@fs.fed.us

Expected Role of FPA Geographic Area Coordinators

This document describes the general expectations the FPA Implementation Coordination Group (ICG) has of FPA Geographic Area (GA) Coordinators (also known as "GA Leads").

The GA Coordinator plays an important role in the implementation of Fire Program Analysis. (S)he:

- Acts as the point of contact within the GA for matters relating to FPA processes, policies, training and workshops, and guidelines.
- Contributes local level expertise to those directly involved in FPA (i.e. users), and those indirectly affected by FPA (Line Officers, Fire Program staff, etc.).
- Communicates updates from the FPA project office to Fire Planning Units (FPUs) within the GA and provides clarification as appropriate.
- Identifies the need for the FPA project office to communicate with local Line Officers during the implementation of FPA.
- Contributes to the technical review of FPUs in their GA.

FPA Acronyms

BDN	Bayesian Decision Network
EEPs	Effectiveness, efficiency, and performance measures
EOG	Executive Oversight Group
ESL	Exceed Simulation Limits
FIL	Fire Intensity Level
FMU	Fire Management Unit
FOA	Fire Occurrence Area
FPU	Fire Planning Unit
FWA	Fire Workload Area
GA	Geographic Area
IRS	Initial Response Simulator
IST	Interagency Science Team
LFCI	Large Fire Cost Index
LFSI	Large Fire Susceptibility Index
MAT	Management Advisory Team
PCHA	Personal Computer Historical Analysis
WFLC	Wildland Fire Leadership Council
WUI	Wildland Urban Interface

Fire Program Analysis System

August 2007

FPA Website Highlights

http://www.fpa.nifc.gov/

The Fire Program Analysis Team maintains a Web site with information about the project and a ListServ which emails project announcements.

- Visit the Website for project background information, technical information and project updates.
- Subscribe to the ListServ to receive emails about new project information and developments (click on ListServ at the bottom of the green navigation bar on the left).

Here are a few ideas for navigating the FPA Web site:

Hover over the boxes on the navigation bar on the left side of pages for a drop down menu (which will give you more options than just clicking on the box).

Project Information → Overview States the reference from the 2003 House Appropriations bill mandating the creation of the Fire Program Analysis Project.

Project Information → Presentations Short video clips introducing the FPA project.

Project Information → Status Reports Lists all the quarterly reports.

Library includes supporting documentation like white papers, interagency memos, reports, newsletters and technical news, both past and current. Hover over ***Library*** to see the options.

Library → Archives Lists past project documentation and publications related to FPA.

Library → Glossary For definitions of terms or clarification of acronyms.

FAQs. Find answers to general questions as well as more specific ones about project and how fuels are used in the FPA system.

Contacts. For names and phone numbers of FPA agency contacts, geographic area contacts, project managers, and FPA team roster.

Printable Information to Share:

Look in ***Library*** for newsletters, TechNews, and white papers.

Related Links:

LANDFIRE: www.landfire.gov
Wildland Fire Leadership Council (WFLC): http://www.forestsandrangelands.gov/leadership/index.shtml

Fire Directors

Bureau of Indian Affairs:

Lyle Carlile, Director Branch of Wildland Fire Management
NIFC BIA
3833 S. Development Ave.
Boise, ID 83705-5354
Phone: 208-387-5697
e-mail: Lyle_Carlile@nifc.gov

Bureau of Land Management:

Jim Douglas, Assistant Director, Fire & Aviation
BLM National Office
1849 C Street, NW
Washington, DC 20240
Phone: 202-208-5440
Fax: 202-289-3812
e-mail: Jim_Douglas@blm.gov

Timothy Murphy, Deputy Assistant Director
NIFC BLM
3833 S. Development Ave
Boise, ID 83705-5354
Phone: 208-387-5511
Fax: 208-387-5376
e-mail: Timothy_Murphy@nifc.blm.gov

National Park Service:

Mike Wallace, NPS Fire Director
NIFC NPS
3833 S. Development Ave.
Boise, ID 83705-5354
Phone: 208-387-5225
Fax: 208-387-5250
e-mail: Mike_Wallace@nps.gov

US Fish and Wildlife Service:

Brian McManus, Chief, Branch of Fire Management
NIFC USFWS
3833 S. Development Ave.
Boise, ID 83705-5354
Phone: 208-387-5583
Fax: 208-387-5668
e-mail: Brian_McManus@fws.gov

Forest Service:

Tom Harbour, Director, Fire & Aviation Mgmt
USDA Forest Service
201 14th Street SW
Washington, DC 20250
Phone: 202-205-1483
Fax: 202-205-1401
e-mail: tharbour@fs.fed.us

Rick Prausa, Deputy Director
USDA Forest Service
1200 Independence Ave. SW
Mailstop 1107
Washington, DC 20250-1107
Phone: 202-205-1579
Fax: 202-236-3139
e-mail: rprausa@fs.fed.us

Karyn Wood
Director of Operations
NIFC Forest Service
3383 S. Development Ave.
Boise, ID 83705
Phone: 208-387-5605
Fax: 208-387-5971
e-mail: klwood@fs.fed.us

Fire Program Analysis

Management Advisory Team

(Listed in alphabetical order by first name)

Cecilia Seesholtz
Deputy Forest Supervisor,
Deschutes National Forest
Bend, OR 97701
Office: 541-383-5300
Cell: 541-410-6269
Fax: 541-383-5531
e-mail: cseesholtz@fs.fed.us

Jim Pena
Deputy Regional Forester,
Region 5
1323 Club Drive
Vallejo, CA 94592
Office: 707-562-9000
Cell: 707-980-0895
Fax: 707-562-9091
e-mail: jpena@fs.fed.us

Larry Timchak
Forest Supervisor,
Caribou-Targhee National Forest
1405 Hollipark Drive
Idaho Falls, ID 83401
Office: 208-557-5761
Cell: 208-313-7766
Fax: 208-557-5827
e-mail: ltimchak@fs.fed.us

Dave Henderson
District Manager,
Vale District BLM
100 Oregon Street
Vale, OR 97918
Office: 541-473-3144
Cell: 208-863-6405
Fax: 541-473-6213
e-mail:
Dave_Henderson@blm.gov

Kathy Davis
Superintendent,
Montezuma Castle and Tuzigoot National Monuments
P.O. Box 219
Camp Verde, Arizona 86322
Office: 928-567-5276 X223
Cell: 928-821-3913
Fax: 928-576-3597
e-mail:
Kathy_M_Davis@nps.gov

Marsha Kearney
Forest Supervisor,
Florida National Forests
Woodcrest Office Park
325 John Knox Road, Suite F0-100
Tallahassee, FL 32303
Office: 850-523-8549
Cell: 850-570-9092
Fax: 850-523-8504
e-mail: mkearney@fs.fed.us

Jim Leach
Refuge Supervisor
Minnesota & Wisconsin
One Federal Drive
Ft. Snelling, MN 55111-4056
Office: 612-713-5406
Fax: 612-713-5286
e-mail: Jim_Leach@fsw.gov

Keith Smith
Representative,
National Association of State Foresters
6532 Rustin Court SE
Lacey, WA 98513
Office: 208-947-3735
Cell: 360-791-2232
e-mail: keith_smith@blm.gov

Scott Bradshaw
Fire Planner, BIA
National Interagency Fire Ctr
3833 S. Development Way
Boise, ID 83705-5354
Office: 208-387-5373
Cell: 208-869-7802
Fax: 208-433-6543
e-mail:
Scott_Bradshaw@nifc.gov

Bonnie Wood
FS Business Lead
3187 S. Vinnell Way
Boise, ID 83709
Office: 208-947-3774
Cell: 208-401-5107
Fax: 208-947-3785
e-mail: bjwood@fs.fed.us

Donna Scholz
FPA Executive Project Mgr
3187 S. Vinnell Way
Boise, ID 83709
Office: 208-947-3784
Cell: 208-861-3601
Fax: 208-947-3785
e-mail: Donna_Scholz@blm.gov

Jaymee Fojtik
DOI Business Lead
3187 S. Vinnell Way
Boise, ID 83709
Office: 208-947-3756
Cell: 208-559-4174
Fax:208-387-3785
e-mail: Jaymee_Fojtik@blm.gov

Budget Leads

Bureau of Indian Affairs:

Maggie Moran, BIA NIFC Budget Officer
NIFC
3833 S. Development Ave.
Boise, ID 83705-5354
Phone: 208-387-5932
Fax: 208-433-6424
e-mail: Magdalene.Moran@bia.gov

Bureau of Land Management:

Jeff Scott (Acting)
NIFC
3833 S. Development Ave.
Boise, ID 83705-5354
Phone: 208-387-5568
Fax: 208-387-5359
e-mail: Jeff_Scott@blm.gov

National Park Service:

US Fish and Wildlife Service:

Kathy Winship, Fire Program Budget Specialist
NIFC
3833 S. Development Ave.
Boise, ID 83705-5354
Phone: 208-387-5712
Fax: 208-387-5668
e-mail: Kathy_Winship@fws.gov

Forest Service:

Bill Breedlove, Branch Chief Fire Planning and Budget
USDA Forest Service
201 14th Street SW
Washington, DC 20250
Phone: 202-205-0996
Fax: 202-306-2127
e-mail: bbreedlove@fs.fed.us