Fire Program Analysis (FPA) System

Preparedness Module

Project Charter

November 7, 2002

(Note: this version of the Charter has been modified to delete cost information)

TABLE OF CONTENTS

1. PROJECT OVERVIEW 4

1.1 IDENTIFICATION 4
1.2 PURPOSE / BUSINESS NEED 4
1.3 PROJECT SCOPE 6
1.4 PROJECT OBJECTIVES 10
1.5 OUTSTANDING SCOPE ISSUES 10
1.6 SPONSORSHIP & OWNERSHIP 10
1.7 KEY REFERENCES 11
1.8 TERMINOLOGY 11

2. PROJECT APPROACH SECTION 11

2.1 PROJECT DELIVERABLES AND QUALITY OBJECTIVES 11
2.2 PROJECT ORGANIZATION AND RESPONSIBILITIES 12
Executive Sponsors 13
Project Steering Committee 13
Business Lead 13
Project Manager (PM) 13
Deputy Project Manager 14
Project Business Analyst 14
Project Core Team 14
User Team 15
Project Advisors 15
Project Support Services 16
2.3 PROJECT FACILITIES AND RESOURCES 16
2.4 REPORTING, OVERSIGHT, & REVIEW 16
2.5 DEPENDENCIES 17
2.6 PLANS FOR SUPPORT ACTIVITIES 17
2.7 RISK MANAGEMENT 17
2.8 PROCESS OPTIONS AND DEVIATIONS 18
2.9 PROCESS STAGES 18
Phases and Iterations--The Time Dimension 18
Inception Phase 19
Elaboration Phase 19
Construction Phase 19
Transition Phase 20
Iterations 20
Core Process Workflows 20
2.10 PROJECT CONTROL 22
2.11 QUALITY CONTROL ACTIVITIES 22
2.12 COMMUNICATIONS 23
2.13 SECURITY 24
2.14 ACQUISITION STRATEGY 24
2.15 PROJECT SCHEDULE 25
2.16 PROJECT EFFORT ESTIMATE 26

2.17 PROJECT COST ESTIMATE 26
2.18 PROJECT BENEFITS ESTIMATE 27
2.19 BUDGET AND FUNDING 27
3. APPROVAL SECTION 28
APPENDIX 29
EXAMPLE MONTHLY PROGRESS REPORT 29
DETAILED PROJECT SCHEDULE 29
MEMORANDUM OF UNDERSTANDING 29

1. Project Overview

1.1 Identification

This project is to be known as **Fire Program Analysis (FPA) System Preparedness Module** Project. The FPA System Preparedness Module is an interagency project of the following five federal wildland fire management agencies:

- USDA Forest Service
- USDI Bureau of Land Management
- USDI National Park Service
- USDI Fish & Wildlife Service
- USDI Bureau of Indian Affairs.

Agencies involved in the project will develop uniform, common and consistent policies, procedures and analysis systems and products that will be used by the FS, BLM, BIA/Tribes, NPS, and FWS. State and local governments will not be required to implement the Preparedness Module, although resources owned by those organizations may be included in the planning process.

The resulting application system will be known as the **Preparedness Module** of the **Fire Program Analysis (FPA) System**. The project team is to be known as the FPA Project Team.

1.2 Purpose / Business Need

The USDA Forest Service (FS), Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), National Park Service (NPS), and the U.S. Fish and Wildlife Service (FWS) all use planning analysis models to determine the desired staffing and budget required for wildland fire programs. Presently, these five agencies use different systems to determine their wildland fire management program needs, including preparedness resource planning. No one system has been able to adapt to the increasing fire program complexity, thereby creating the need for a new, interagency, fire program analysis system.

The report titled Developing an Interagency, Landscape-scale Fire Planning Analysis and Budget Tool (a.k.a. "Hubbard Report") found that a comprehensive interagency fire planning and budget analysis, identifying the most cost-effective program to achieve the full range of fire management goals and objectives, is feasible and desirable. The Preparedness Module of the Fire Program Analysis System (FPA System) will be an interagency, automated system for fire preparedness resource planning. The need for developing the FPA System – and developing the Preparedness Module as the first installment of the system - derives from interagency policy and direction guiding the federal wildland fire programs as well as specific congressional and executive direction.

Federal wildland fire policy, developed in 1995 and reaffirmed in a 2001 review, specifically calls for developing a system with the characteristics of the FPA System. The policy states:

> *"Agencies will use compatible planning processes, funding mechanisms, training and qualification requirements, operational procedures, values-to-be-protected methodologies, and public education programs for all fire management activities."*
>
> *"Fire management planning, preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring research, and education will be conducted on an interagency basis with the involvement of cooperators and partners."*
>
> *"Fire management programs and activities are economically viable, based upon values-to-be-protected, costs, and land and resource management objectives."*

Developing the FPA System is necessary for the federal wildland fire agencies to fully comply with their federal wildland fire policy.

A new preparedness planning model is also required as part of the *10-Year Comprehensive Strategy*. This document identifies specific steps that must be taken in order to realize measurable progress for reducing wildland fire risks to communities and the environment. One of these implementation tasks calls for a new program analysis system.

> *"Prepare and implement a consistent preparedness-planning model for Federal agencies that provides cost-effective fire protection among all administrative boundaries, considers State and local protection needs and resources in the wildland-urban interface, and is based on historic levels of fire activity."*

This implementation action will be accomplished through development of the FPA System.

Congress has provided additional direction to the five agencies in order to resolve concerns about the variation in methods utilized by the agencies to calculate fire readiness and distribute firefighting resources efficiently. The Fiscal Year 2002 Appropriations Bill directed the Department of Agriculture and the Department of the Interior to,

> *"Develop and implement a coordinated and common system for calculating readiness which includes provisions for working with the shared fire fighting resources of the States and other cooperators and considers values of various resources on both Federal and other lands."*

Additional direction is expected in the fiscal year 2003 Appropriations Bill. Draft report language from the Appropriations Committee directs the Departments to design and develop a focused automated system for preparedness resource planning to replace the

systems currently in use by the fire management agencies. Developing the FPA System: Preparedness Module represents the first step towards achieving the broader vision outlined in the Hubbard Report. The time frame calls for design and implementation to be completed by the end of fiscal year 2004.

Executive direction has also reaffirmed the need for developing a new program analysis system. The Office of Management and Budget (OMB) has provided specific instruction stating:

> *"The five agencies will develop a common program analysis system that is more transparent and easy to understand, scientifically-based, peer-reviewed, performance-oriented, and based on specific protection goals rather than on theoretical resource values… Develop a system for use across agency boundaries that meets land management goals, considers benefits of fire to ecosystems, and incorporates protection of life and property."*

In order to meet the needs of the federal wildland fire program provided by federal policy guidance as well as Congressional and executive direction, the five agencies must develop a standard, integrated, interagency program analysis system. The FPA System is needed to fulfill the needs of these wildland fire management programs. Developing the Preparedness Module is the first step towards achieving a standard, shared, integrated system that will eventually support consistent analysis across the entire fire program.

1.3 Project Scope

The scope of this immediate effort is limited to developing the Preparedness Module of the FPA System. As written in a Memorandum of Understanding dated July 9, 2002, (see Appendix) the long-term, strategic objective of the FPA System will be to perform a federal interagency, objective driven, performance based fire program analysis for budgeting and organization planning. This structured analysis process will be useable at a landscape level across agency boundaries and will cover the full scope of fire management activities.

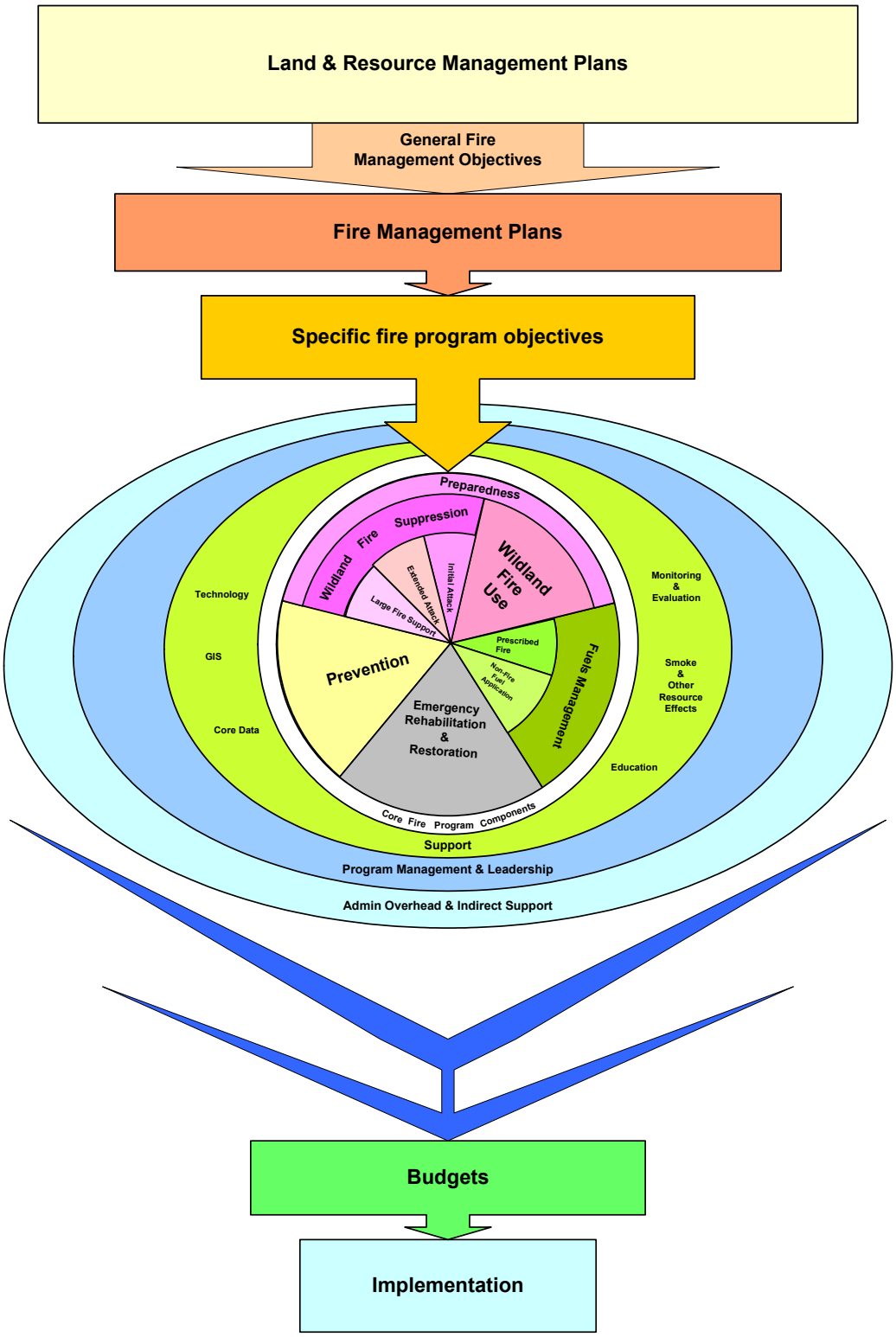
The Preparedness Module will provide an automated system for resource planning for wildland fire preparedness activity, including for:

- Local and/or Interagency Landscape Level fire response activities
  - Initial attack
  - Equipment
  - Facilities
  - Wildland fire use

The Preparedness Module will establish a foundation for integrating future components, including:

- National Level fire response activities
  - Extended attack
  - Large fire support

Figure 1: Fire Management Program Diagram



This project will result in a major realignment of the business process for fire preparedness planning and budgeting. This realignment goes beyond simply enhancing existing processes and procedures; it establishes a new paradigm for fire planners.

Figure 1 depicts the full scope of activities of federal wildland fire management programs. Land and Resource Management Plans developed for federal land management units set general fire management objectives for an administrative unit. Fire Management Plans tier from these broad general management plans and describe more specific objectives for the fire management program. Fire Management Plans can be developed for a single administrative unit or collaboratively, among different units and across agency boundaries. However, every federal land management unit with burnable wildland vegetation is required to have a Fire Management Plan.

Fire management objectives are set for the following core program elements:

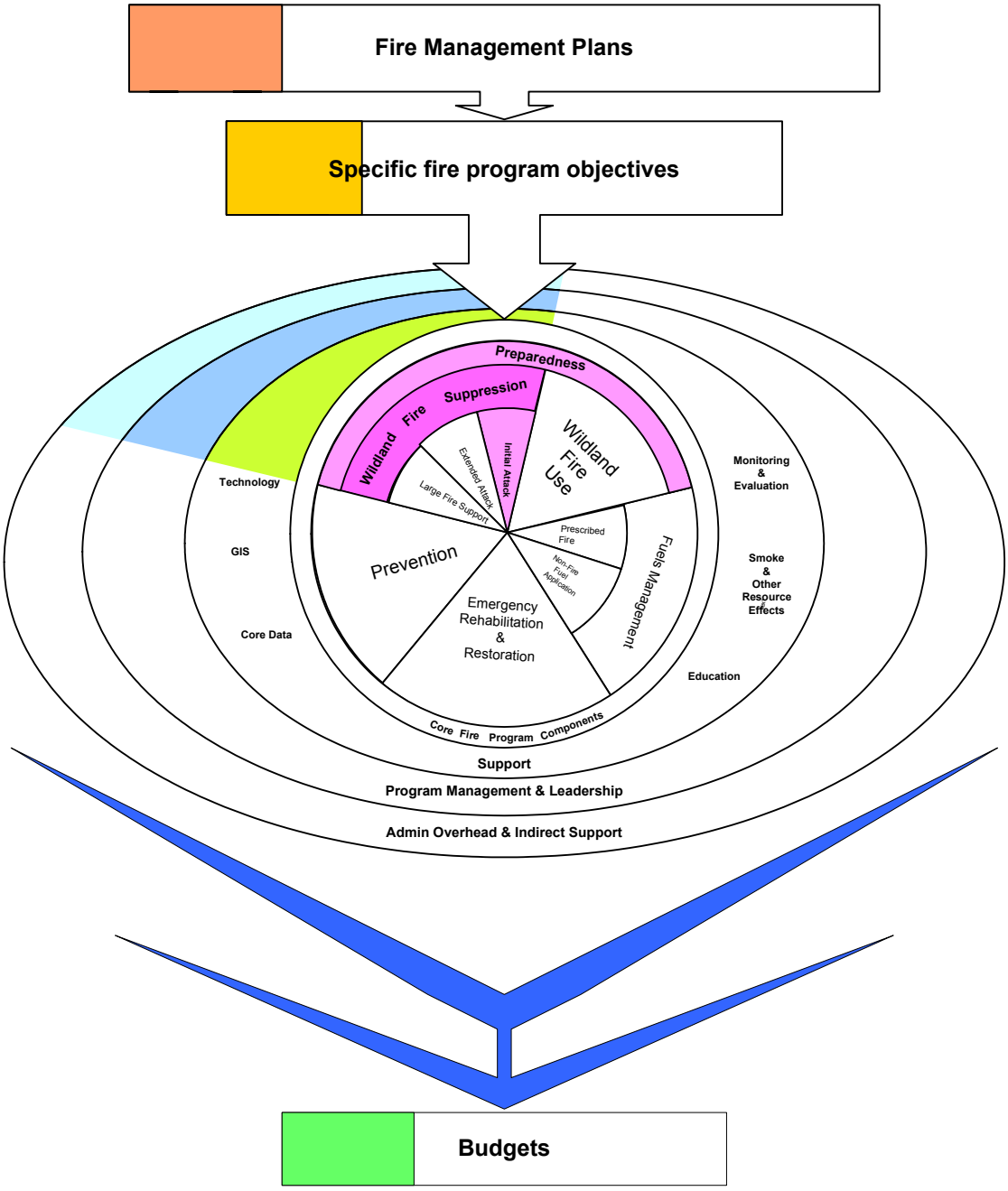
- Wildland Fire Suppression, including
  - Initial Attack
  - Extended Attack
  - Large Fire Support
- Wildland Fire Use
- Fuels Management, including
  - Prescribed Fire
  - Non-Fire Fuel Application
- Emergency Rehabilitation and Restoration
- Prevention.

Preparedness refers to activities associated with both Wildland Fire Suppression and Wildland Fire Use. These program elements represent the core fire management program.

Figure 2 depicts the scope of the program elements included in the analysis provided by the Preparedness Module. The Preparedness Module of the FPA System will deal with a **portion** of the fire management program that addresses Preparedness activities. This module will account for the objectives, program elements, and associated costs that comprise only the preparedness portion of the fire management budget. It is also important to note that the first installment of the Preparedness Module will include initial attack readiness, but not extended attack and large fire support. These functions will be added in a later version of the Preparedness Module.

The resulting application and database are also intended to be a foundation for future enhancements that will add modeling and budget considerations for all other elements of the wildland fire management program.

Figure 2: Scope of the Fire Program Analysis - Preparedness Module



1.4 Project Objectives

The goal of the Preparedness Module project is to produce policies, procedures and supporting application components that will be used by the five federal wildfire management agencies to conduct fire preparedness analysis and develop associated budgets within the context of the Fire Program Analysis System.

Specific project objectives to be accomplished within the Preparedness Module project timeline include:

- The business process requirements to support fire preparedness planning and budgeting are defined, reviewed and approved.
- Policies and procedures to support the business requirements are defined and approved.
- An automated system to support the business process requirements is designed.
- Software, databases, interfaces and required documentation are developed consistent with the approved design.
- Software is deployed across all agencies. Training in the new system and process is made available to all target users.
- Help Desk is established and in operation.
- Service Level Agreement is in place for ongoing maintenance and support. Project products are conveyed to the support staff.
- Project documents are finalized and filed per pertinent guidelines.
- Preparedness Module is implemented and in use throughout the target user community.

1.5 Outstanding Scope Issues

The Hubbard Report describes a vision of a comprehensive program analysis system that addresses the full scope of fire management activities. This first phase addresses only preparedness planning and budgeting. Care should be taken to design this first module so that additional modules may be added at a later time without a need to completely redesign the first module.

1.6 Sponsorship & Ownership

This project is chartered, funded and sponsored by the Federal Fire and Aviation Leadership Council (FFALC). This team will provide executive level oversight. The members of this team are Fire Directors or designee from the following agencies:

- USDA Forest Service
- DOI Bureau Of Land Management
- DOI National Park Service
- DOI Fish & Wildlife Service
- DOI Bureau of Indian Affairs

The USDA Forest Service is considered the lead agency. The project will be funded 50% by the Forest Service and 50% by the DOI agencies.

1.7 Key References

- 1995 Federal Wildland Fire Policy
- 2001 Update to the Federal Wildland Fire Policy
- National Fire Plan
- A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10-Year Comprehensive Strategy: Implementation Plan (a.k.a. 10-Year Comprehensive Strategy)
- Developing an Interagency, Landscape-scale Fire Planning Analysis and Budget Tool (a.k.a. "The Hubbard Report")

1.8 Terminology

The team will use terms consistent with those defined in the Glossary of Wildland Fire Terminology, published by the National Wildfire Coordinating Group (NWCG).

2. Project Approach Section

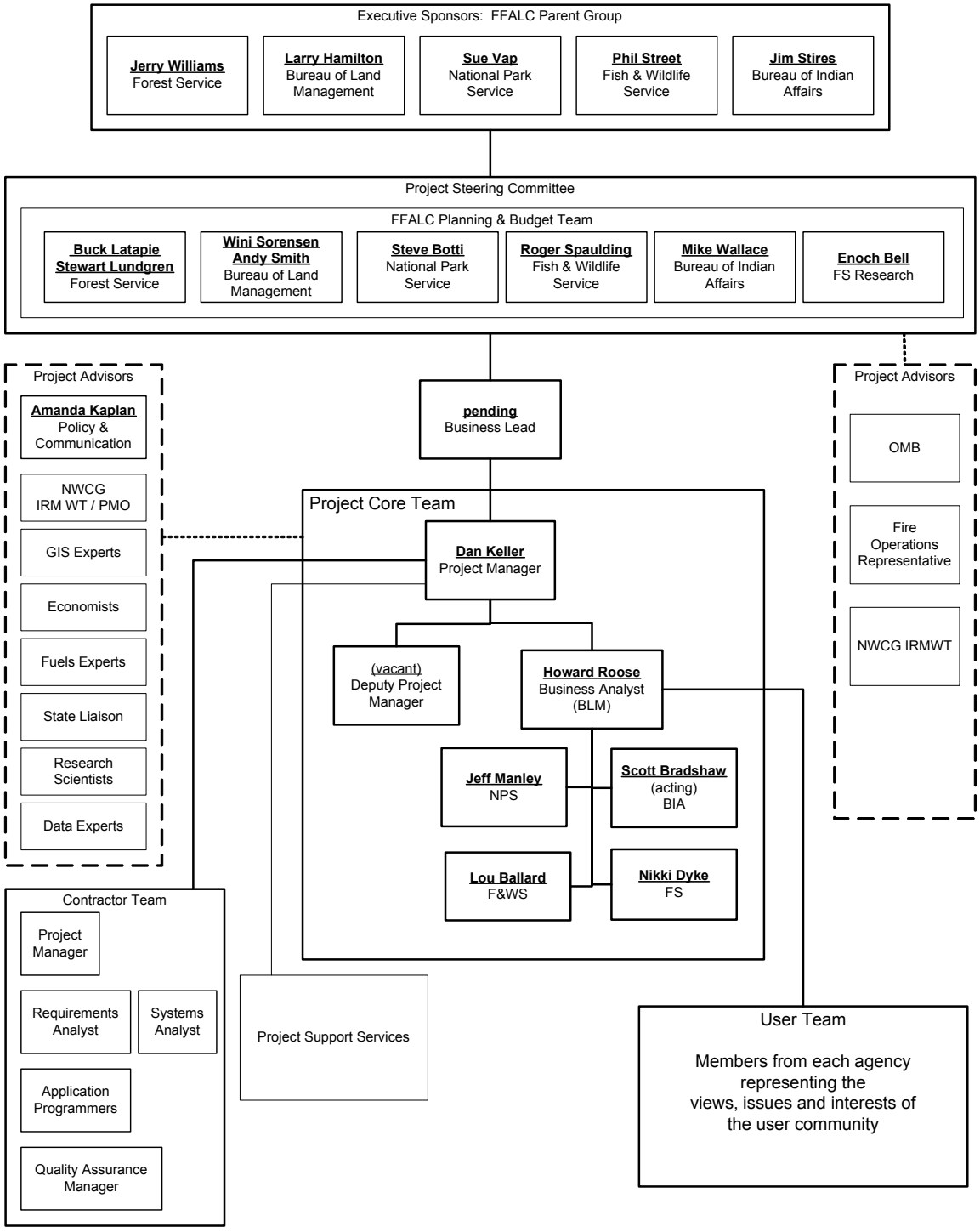
2.1 Project Deliverables and Quality Objectives

Primary deliverables from the project will include:

1. Policy, procedures and program direction for each of the five federal wildland fire agencies for conducting preparedness planning and budgeting.
2. A software package for a single, interagency application system to support fire preparedness planning and budgeting.
3. User guides for each of the application components.
4. System documentation for each of the application components.
5. Training materials and training sessions.
6. Data migration guides and support.
7. Service level agreement for future system maintenance and technical support.

2.2 Project Organization and Responsibilities

FPA Project Organization



Executive Sponsors

Federal Fire Aviation Leadership Council (FFALC) members are the executive sponsors of this project and are responsible to:

- Provide executive oversight.
- Provide project funding and resources.
- Provide approvals and signatory authority.
- Review and approve all project deliverables.
- Remain informed of project status and related issues.
- Provide administrative and management support for the project.
- Ensure accessibility to and support from relevant advisors, e.g. the NWCG Project Management Office (PMO) and NWCG Information Resource Management Working Team (IRM-WT).

Project Steering Committee

The Project Steering Committee members include the FFALC Planning and Budget Team and are responsible to:

- Provide direction regarding fire preparedness business strategy.
- Provide guidance on high-level business requirements to the FPA Project Team.
- Review project plans and deliverables especially business requirements.
- Help the Project Core Team make decisions regarding scope, time, quality and cost tradeoffs.
- Ensure that the deliverables of the project will meet the business needs of the sponsoring agencies.
- Ensure Congressional mandates and Agency and OMB policies are fulfilled.

Business Lead

A representative of the business community external from the project team responsible to:

- Provide direction to the project from the business community.
- Provide FPA project progress reports and feedback to business community.
- Represent the FPA project as spokesperson to the FFALC, business community, and other interested parties.
- Facilitates business issue resolution between the project and the business community.
- Provide PM performance assessment to the PM supervisor of record.

Project Manager (PM)

A Member of the Project Core Team responsible to:

- Lead the Project Core Team in partnership with the Project Business Lead.
- Report project management issues to FFALC.
- Ensure that the project is completed on time and on budget.

- Ensure Technical Approvals and USDA Office of the Chief Information Officer (OCIO). OCIO waivers are completed and approved on time.
- Prepare project budgets and ensure project funding is in place.
- Control and report on project activities (Scheduling, Cost Estimating and Tracking).
- Develop and implement project Staffing Plan.
- Develop a Contracts & Acquisition Strategy.
- Manage communications and documents.
- Develop and implement project Risk Management Plan.
- Serve as key point person for communication with contracted and support services staff.

Deputy Project Manager

The Deputy Project Manager will provide assistance to the Project Manager. In the absence of the Project Manager, the Deputy Project Manager will fulfill the responsibilities of the PM and perform other duties as assigned.

Project Business Analyst

A member of the Project Core Team responsible to:

- Lead the Project Core Team in partnership with the Project Manager.
- Report project business issues to FFALC.
- Review, interpret and refine documented Business Requirements.
- Develop and execute application test scenarios based on current and planned field certification and national applications, budgets and certification practices related to the FPA System national application and certification process.
- Implement standards, draft guidelines, and recommend policy for the business areas affected as a result of automation of business functions. These areas include training, training management, training facilitation, qualifications and certification and management direct qualifications.
- Serve as a Contract Inspector role in conjunction with contracts and agreements related to project operations.
- Serve as key point person for communication with the Project Steering Committee and the User Representatives Team.
- Serve as the business lead re: Fire Planning and Fire Management business issues.

Project Core Team

Members include Project Manager, Project Business Lead and representatives from sponsoring agencies. This team is responsible to:

- Develop Project Charter and submit for approval.
- Develop and advocate the project's business case.

- Establish fire preparedness planning and budgeting business process and procedures for all five federal wildfire management agencies.
- Coordinate with technical support groups and advisors.
- Define requirements for the new preparedness planning application system.
- Design user interfaces, data structures and models to support preparedness planning.
- Test resulting application components to ensure they conform to business and system requirements.
- Train users.
- Present project information to peers, associates and managers.
- Successfully produce the project deliverables on time and on budget to quality specifications.

User Team

Consists of members of the fire planning and budgeting user community who will eventually be using, operating and interpreting the outputs of the FPA System. The membership of this group is planned to be stable throughout the project, however the workload may be variable over time, perhaps requiring additional members. These technical users are responsible to:

- Participate with the Project Core Team as business area experts.
- Accomplish a variety of tasks, including requirements specification and validation, user interface design, testing, training, etc.
- Participate in prototyping the FPA System modules in the field, representing units among the agencies and throughout the country.
- Be an advocate for and support the project throughout their unit, agency and community.

Project Advisors

Project advisors serve the Project Core Team providing periodic input on specialty subjects. Members may include:

- The NWCG IRM Working Team and the Project Management Office (PMO) will serve as advisors and provide support to the FPA Project. The Project Team will coordinate with NWCG IRM WT and PMO and comply with NWCG standards.
- Liaisons from other fire business areas, e.g. Fuels, Prevention, Education, may serve as advisors to the FPA Project Team, providing input for consideration of interfaces, shared data/resources and to coordinate planning.
- Subject Matter Experts in economics, GIS, research, science, etc. may be called upon periodically throughout the project.
- Liaison from States and Tribes.
- Representative(s) from Fire Operations.

Project Support Services

These persons or units provide administrative support to the project as needed and may include:

- Contracting Officer
- Administrative Officer
- Technical Writer
- Personnel Specialist

2.3 Project Facilities and Resources

The FPA Core Team will be located at the National Interagency Fire Center (NIFC) in Boise, Idaho. Office space and office support will be provided by BLM.

The Project Manager (PM) will operate from the USDA Forest Service Fire & Aviation Management Project Office in Lakewood, Colorado. No additional project facilities or resources will be required for the PM.

2.4 Reporting, Oversight, & Review

Reporting, oversight and review will ensure that the project stays within scope, on budget and on time.

Oversight is provided by the USDA Capital Planning and Investment Control (CPIC) process and through OMB, departmental and bureau approvals:

- The FPA project is part of the USDA Forest Service's Fire & Aviation Management Portfolio in the USDA Information Technology Investment Portfolio System (ITIPS).
- The project has been rated the #1 priority for funding by the USDA Forest Service Information Review Board (IRB).
- The project has been reviewed and approved by the BLM Information Technology Investment Board (ITIB).
- FPA has prepared and submitted an OMB Exhibit 300. Approval from OMB is expected later in 2002.

Additional reporting, oversight and review will consist of:

- The FFALC Planning & Budget Team will provide oversight of the success of the project from a business standpoint.
- Monthly Progress Reports to the general mailing list.
- Quarterly Progress Reports to the Congressional Appropriations Committee, OMB, the Federal Wildland Fire Directors, and the BLM Systems Coordinating Office.

- Quarterly Management Reviews with the Federal Wildland Fire Directors and the FFALC Planning & Budget Team.
- Annual Project Review by the Federal Wildland Fire Directors.
- Independent Validation & Verification (IV&V) Review midway through the project.
- The NWCG IRM Working Team will provide oversight advice on project compliance with enterprise architectures for NWCG and each of the agencies and bureaus.

2.5 Dependencies

The success of the Preparedness Module is not dependant on the completion of any other, independent projects.

Tasks and milestones that are independent of the Preparedness Module and must be completed in order for this project to be successful include:

- Budget allocations and funding for FY 2003

2.6 Plans for Support Activities

Primary administrative support for the project will be provided by the USDA Forest Service Fire & Aviation Management Project Office in Denver, Colorado and the USDA Forest Service Region 2 Regional Office. Additional support for the Core Team located in Boise, Idaho will be provided by the supporting bureaus at the National Interagency Fire Center.

2.7 Risk Management

The FPA project is being managed under very high risk. Considerable risk is introduced by the schedule that is being imposed by the Congressional Appropriations Committee. Also, project budgets were established outside the project management and estimation process. This introduces additional risk since the only remaining project variable that can be adjusted by the project team is scope.

A formal risk management plan was drafted in June 2002. This plan will be updated as new risks emerge. The Top 10 Risks will be reported monthly to the project sponsors along with the monthly progress report and will also be posted on the project web site. New risks will be added to the risk list as they surface. Risks that are effectively mitigated will be identified. Risk events that actually occur will also be identified.

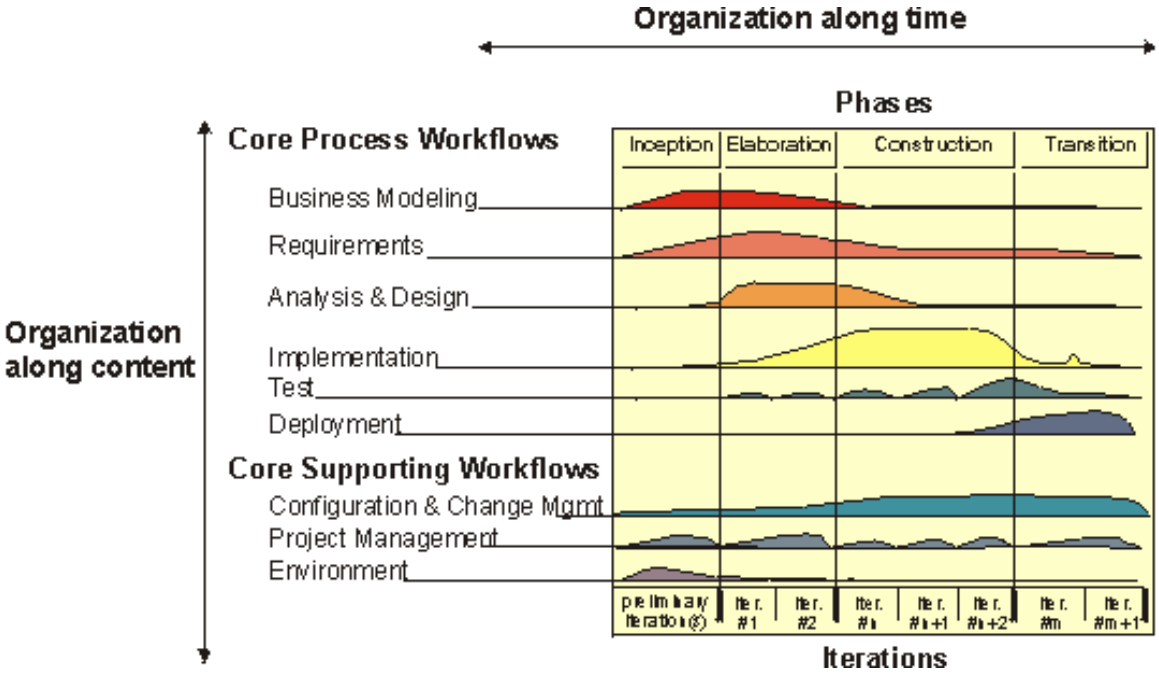
2.8 Process Options and Deviations

The project will follow an iterative approach using a spiral methodology.

2.9 Process Stages

The project will follow an iterative approach. This approach is a variation of the Rational Unified Process or RUP.

The process can be described in two dimensions:



The Iterative Model graph shows how the process is structured along two dimensions.

Phases and Iterations--The Time Dimension

The software lifecycle is broken into phases, each phase working on a new generation or iteration of the product. The four consecutive phases are:

- Inception phase
- Elaboration phase
- Construction phase
- Transition phase

Each phase is concluded with a well-defined *milestone*.

Inception Phase

During the inception phase, the team will establish the business case for the system and define the project scope. The outcome of the inception phase is:

- A vision document: a general vision of the core project's requirements, key features, and main constraints.
- An initial use-case model (10%-20% complete).
- An initial project glossary (may optionally be partially expressed as a domain model).
- An initial business case, which includes business context, success criteria (revenue projection, market recognition, and so on), and financial forecast.
- An initial risk assessment.
- A project plan, showing phases and iterations.
- A business model.

Elaboration Phase

The purpose of the elaboration phase is to establish a sound architectural foundation, develop the project plan, and eliminate the highest risk elements of the project. Architectural decisions have to be made with an understanding of the whole system: its scope, major functionality and nonfunctional requirements such as performance requirements.

At the end of this phase, the hard "engineering" is considered complete and the project undergoes its most important day of reckoning: the decision on whether or not to commit to the construction and transition phases.

The outcome of the elaboration phase is:

- The Software Architecture
- A revised risk list and a revised business case.
- A development plan for the overall project showing iterations and evaluation criteria for each iteration.
- A preliminary user manual (optional).

Construction Phase

During the construction phase, all remaining components and application features are developed and integrated into the product, and all features are thoroughly tested.

This project is expected to be large enough that parallel construction iterations can be spawned. These parallel activities can significantly accelerate the availability of

deployable releases; they can also increase the complexity of resource management and workflow synchronization.

The outcome of the construction phase is a product ready to put in the hands of end-users consisting of:

- The software product integrated on adequate platforms.
- The user manuals.
- A description of the current release.

Transition Phase

The purpose of the transition phase is to move the software product to the user community. Once the product has been given to the end user, issues usually arise that require new releases, corrections of problems, or finish features that were postponed.

The transition phase is entered when a product is ready for distribution to end-users. This phase typically requires that some usable subset of the system has been completed to an acceptable level of quality and that user documentation is available so that the transition to the user will provide positive results for all parties. This phase includes:

- "Beta testing" to validate the new system against user expectations,
- Parallel operation with a legacy system that it is replacing,
- Conversion of operational databases where feasible,
- Training of users and maintainers,
- Rollout the product and official releases.

The transition phase focuses on the activities required to place the software into the hands of the users. Typically, this phase includes several iterations, including beta releases, general availability releases, as well as bug fix and enhancement releases.

Iterations

Each phase in the process can be further broken down into iterations. **An iteration is a complete development loop resulting in a release (internal or external) of an executable product, a subset of the final product under development,** which grows incrementally from iteration to iteration to become the final system.

Core Process Workflows

Workflows describe meaningful sequences of activities that produce some valuable result. There are six core process workflows:

1. **Business Modeling Workflow**

   In Business Modeling business processes are documented using various modeling techniques. This step assures a common understanding among all stakeholders of what business process needs to be supported in the organization.

2. **Requirements Workflow**

   The goal of the Requirements is to agree on a description of what the system should do. A requirements document is created and any other system that may interact with the system being developed is identified.

3. **Analysis and Design**

   The goal of the Analysis and Design is to show how the system will be realized in the implementation phase. Analysis and Design results in a design model and, optionally, an analysis model. The design model acts as a 'blueprint' of how the source code is structured and written.

4. **Implementation**

   During Implementation the actual computer code is developed and constructed. Each component is individually tested (Unit Testing). All individual components constructed during this iteration are integrated into an executable system or sub-system.

5. **Test**

   Testing verifies that all the components of this iteration work together as a complete system. Testing also verifies that all components built up to this point work together.

6. **Deployment**

   The purpose of the deployment workflow is to successfully produce product releases, and deliver the software to its end users. Deployment covers

   - Planning and conducting beta tests
   - Migration existing data
   - Producing external releases of the software
   - Packaging the software
   - Formal acceptance and release
   - Distributing the software
   - Installing the software
   - Training
   - Providing help and assistance to users

2.10 Project Control

A detailed work breakdown structure (WBS) will be prepared. A schedule Gantt chart will be developed from the WBS describing the duration and responsibility for each task in the WBS. This structure will be established as the schedule baseline.

Cost estimates will be based on the WBS and Gantt chart.

Earned value data and reports will be prepared by the contractor and delivered to the contracting officer's technical representative (COTR) monthly. Earned value data will be reported by key WBS tasks mutually agreed upon by the COTR and the contractor.

Schedule and cost progress against the WBS and Gantt as well as earned value data will be tracked and reported quarterly to the project sponsors, steering committee, Congressional Appropriations Committee and the BLM Systems Coordination Office.

2.11 Quality Control Activities

Quality of the products and deliverables will be maintained through rigorous reviews and testing. All reviews will be approved by the Steering Committee.

The design and build contractor will be required to prepare a Quality Assurance and Test Plan that will guide reviews and testing for each phase of development. The Quality Assurance and Test Plan will be reviewed and approved by the Project Manager and Business Lead.

Requirements will be documented during all iterations. The Project Manager, Business Lead, Project Core Team and the Steering Committee will conduct interim requirements reviews following the requirements workflow for all iterations. A final requirements review will be conducted upon completion of the elaboration phase. The User Team will participate in the final requirements review. The NWCG IRM Working Team will be invited to participate in the final requirements review.

The system design will be documented during the analysis and design workflows in each iteration. The Project Manager, Business Lead, Project Core Team and the Steering Committee will review the design document following completion of the analysis and design workflows for each iteration. A final design review will be conducted early in the construction phase once the design specifications are substantially complete. The User Team will participate in the final design review. The NWCG IRM Working Team will be invited to participate in the final design review.

At the beginning of the construction phase, the contractor will prepare a test plan detailing unit, alpha and beta testing to be conducted during the construction phase. The test plan will be approved by the Project Manager and the Business Lead.

Configuration Management – The contractor will be required to exercise standard **software configuration management** (SCM) practices. The contractor will prepare an

SCM Plan. The project core team will also practice good configuration management for components that are the responsibility of the government, e.g., policy, documentation or training materials.

The contractor will maintain **Software Problem Reports** (SPR) in the STARBASE ® software configuration management database. The project core team, working with the contractor, will prioritize SPR's. Disposition of each SPR will be maintained by the contractor.

During the construction phase, a **unit test** will be conducted for each module being developed, in accordance with the test plan.

Once all modules are constructed and tested, an **alpha test** will be conducted at the contractor's site. Government users and the project core team will conduct alpha testing. SPR's identified during alpha testing will be prioritized by the core team working with the contractor. The government will make a determination that the alpha test was successful. If there are significant alpha test SPRs discovered, the COTR may decide to conduct a second alpha test after the priority SPRs are corrected. The COTR will make the determination that the alpha test is sufficient and the project may proceed to the beta test.

Upon successful completion of the alpha test and fixing the priority SPRs, users with a variety of skill levels will conduct a **beta test** at multiple government locations. The number and location of the beta test sites will be determined during the preparation of the test plan. SPR's identified during beta testing will be prioritized by the core team working with the contractor. The COTR will make a determination that the beta test was successful. If significant beta test SPR's are discovered, the COTR may decide to conduct a second beta test after the priority SPR's are corrected. The COTR will make the determination that the beta test is sufficient and the project may proceed to release. This determination represents that the implementation and testing iterations have been successful and represents a significant project milestone.

2.12 Communications

The Preparedness Module project will develop a communications plan that will identify:

- Key customer groups
- Key messages
- Methods for delivering messages to key groups
- An action plan for developing methods for delivering messages to key customer groups.

A website will be a critical communication vehicle. This website will be hosted on the web server that is currently used for the ROSS project website. The process to obtain a web address to link to the project has been initiated.

2.13 Security

A detailed security analysis and plan will be prepared. This security analysis will include a privacy assessment. The security plan and privacy assessment will be developed through the existing contract services.

2.14 Acquisition Strategy

The selection of the contractors that will support business modeling, requirements, analysis and design, implementation, test and deployment for the FPA project and applications is one of the most important project decisions. This decision will have profound impacts on the ability of the project to succeed. The project manager and the contracting officer will prepare an acquisition plan as part of the project planning tasks. This plan will outline tasks and requirements for acquiring contractor support for business modeling, requirements, analysis and design, implementation, test and deployment.

Approvals - Application development is considered a capital expense. As such, it is subject to the rules and regulations of the OMB Capital Planning and Investment Control (CPIC) process. Because the FPA project is interagency funded, approvals must be obtained from both the USDA Forest Service Information Resource Board (IRB) and the USDI Bureau of Land Management Information Technology Investment Board (ITIB). Additionally, the project must prepare and submit an OMB A-11 Exhibit 300 to document and justify the business case for proceeding with the capital investment.

Multiple Contracts - The project will execute separate contracts for (1) business modeling and requirements and (2) analysis, design, implementation, test and deployment ("Design & Build Contract"). Additional contract support for development of the business case, security plan, and independent validation and verification may also be executed.

"Cost Reimbursement" vs. "Fixed Deliverables" - Because the specific requirements and deliverables for the final Preparedness Module are unknown, the project expects to award a task order for "Cost Reimbursement" rather than "Fixed Deliverables". Under a cost reimbursement contract, we expect the contractor to work with the government as a partner. While a "fixed deliverable" contract reduces the risk to the government, a fixed deliverable contract requires thorough prior knowledge and articulation of the desired result. Since the contractor will play a key role in helping the government discover and document the architecture and requirements for the Preparedness Module, the only feasible contract option is Cost Reimbursement. Additionally, fixed deliverable contracts require more time since the exact requirement specifications must be developed and known prior to contract award. The project time frames are aggressive and mandated by Congress. A fixed deliverable contract would adversely impact the project schedule. To reduce the risk to the government, the design and build contract will be offered with incentives.

Options for Design & Build Contractors – Options for contractors include small contractors who may have experience with existing fire planning applications, large contractors who may or may not have experience with fire management systems, and national labs such as Lawrence Livermore Labs, Oak Ridge Labs, or Los Alamos Labs.

Contractor Selection Criteria – Criteria that will be used to assess potential contractor's ability to successfully support the analysis, design and construction of the FPA Preparedness Module will be developed prior to issuing the design and build RFP. Criteria may include:

- Understanding of and commitment to the fire business
- Cost
- Ability and capability to produce (staffing)
- Risk (the one man-show vs. the "industrial strength" contractor)
- Willingness and ability to adapt to change requests
- Ability to meet timeframe
- Ability to provide long-term capability and support for entire FPA vision.

Project Contracting Officer - The contracting officer for the FPA Project will be Karen Simpson, Director of Property & Procurement, USDA Forest Service, Rocky Mountain Region.

Contracting Officer's Technical Representative - The contracting officer's technical representative (COTR) will be the project manager, Daniel Keller.

Contractor Project Controls - The contractor will be required to maintain and submit earned value data and reports monthly that will contribute to project controls.

2.15 Project Schedule

A detailed project schedule will be developed and monitored using Microsoft Project ™. A schedule baseline has been established through the project's OMB Exhibit 300.

The following high level schedule represents a rough order of magnitude (ROM) estimate. More detailed schedule estimates will be developed in the future based on more accurate project effort estimates. If new schedule estimates based on better information result in significant deviations from this schedule baseline, a new baseline will be established with concurrence of the project sponsors and OMB.

The following schedule is not risk adjusted. That is to say, the expected impacts of risk events have not ben factored into this schedule.

Description	Schedule		
	Start Date	End Date	Days
01. Project Initiation	05/15/2002	06/30/2002	46
02. Develop Initial Architecture	05/15/2002	12/30/2002	229
03. Technical Approval & Contract Prep	06/15/2002	12/30/2002	198
04. Contract Award	06/15/2002	12/30/2002	198
05. Requirements Specifications	08/01/2002	06/30/2003	333
06. Design, Build & Integration Testing	01/01/2003	03/01/2004	425
07. Field Data Development	06/30/2003	06/30/2004	366
08. Develop Policy & Procedures	08/01/2002	09/30/2004	791
09. Beta Testing	03/01/2004	06/30/2004	121
10. Release	08/01/2004	09/30/2004	60
11. Training	03/01/2004	09/30/2004	213
12. Data Migration	06/01/2004	09/30/2004	121
13. Implementation	08/01/2004	09/30/2004	60

2.16 Project Effort Estimate

The estimate of project effort - in terms of staff months of both government and contractor resources by work breakdown structure - will be completed as part of a government contract and will be included in the OMB Exhibit 300.

Estimates of the project effort will be made using Cost Xpert estimating software. Effort estimates will be based on metrics of the scope of the project. Metrics will be determined by the number of graphical user interface metrics (forms, reports, windows, dialog boxes, menu items, data tables) and simulation procedures. Estimates will distinguish between existing code that can be re-used and new code that must be developed.

2.17 Project Cost Estimate

Note: this section has been removed from this version of the document.

2.18 Project Benefits Estimate

The FPA Preparedness Module will enable the five participating Federal agencies to submit consistent, common budget requests, resulting in more effective budget analysis and allocations and more efficient use of Federal fire fighting resources. Additionally, budget execution at the national level across all five wildland fire agencies will be facilitated by the common, consistent budget displays. Implementation of the new system will also allow the five agencies to support and maintain a single application system rather than the five separate preparedness planning systems now in use. This will reduce the cost of system support and maintenance by 80% since only one system will be maintained rather than five.

Specifically the FPA system is expected to result in the following quantitative benefits:

- Increase efficiency and effectiveness of interagency, landscape-level fire preparedness planning and budgeting;
- Increase efficiency and effectiveness of interagency, landscape-level fire suppression costs;
- Reduce system support and maintenance costs when the five Federal wildland fire management agencies need to maintain only one application system rather than five separate applications systems and numerous feeder systems;
- Increase the percent of unwanted and unplanned wildland fires controlled during initial attack;
- Reduce the number, size, and intensity of unwanted and unplanned wildland fires in the wildland-urban interface; and
- Reduce the average gross cost per acre of unwanted and unplanned wildland fires.

Although the FPA project manager expects to be able to quantify these benefits, they have not been quantified at this time. As part of the Select Phase analysis and CBA, the project manager will evaluate each of these benefits (as well as any other benefits that may be uncovered) to determine whether they are tangible or intangible. The tangible benefits will be quantified using the most accurate dollar estimations possible; the intangible benefits will be subjectively quantified using a rating system.

2.19 Budget and Funding

Note: this section has been removed from this version of the document.

3. Approval Section

This charter is effective as of the date of signature. By signing, the signatories indicate their agreement and support of the project charter and their commitment to the project.

_____ _____

Jerry Williams (date)
USDA Forest Service

_____ _____

Larry Hamilton (date)
Bureau of Land Management

_____ _____

Sue Vap (date)
National Park Service

_____ _____

Phil Street (date)
US Fish and Wildlife Service

_____ _____

Jim Stires (date)
Bureau of Indian Affairs

Recommended By:

/s/ *D. P. Keller* November 7, 2002

Dan Keller (date)
FPA Project Manager

_____ _____

Howard Roose (date)
FPA Business Analyst

APPENDIX

Example Monthly Progress Report

Detailed Project Schedule

Memorandum of Understanding