

Announcement for Proposals, 2006-1

Joint Fire Science Program

U.S. Department of the Interior

**Bureau of Indian Affairs
Bureau of Land Management
National Park Service
U.S. Fish and Wildlife Service
U.S. Geological Survey**

U.S. Department of Agriculture

Forest Service

Opens October 14, 2005

Closes December 14, 2005

**NOTE TO POTENTIAL PROPOSERS:
There are significant changes in requirements for proposals.
Please read the AFP carefully.**

This Announcement for Proposals includes two Task Statements: 1) Rapid response projects for future wildland fires; and 2) Rapid response projects for past (2005) wildland fires.

Announcement for Proposals

by the
Joint Fire Science Program

A. Program Description

The Joint Fire Science Program (JFSP) is a partnership of six federal wildland management and research agencies with a need to address problems associated with managing accumulating wildland fuels, fire regimes, and fire-impacted ecosystems on lands administered by the partner agencies. The partner agencies include the USDA Forest Service and five bureaus in the Department of the Interior (Bureau of Indian Affairs, Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and the U.S. Geological Survey). For the purpose of this Announcement for Proposals (AFP), "wildland fuels" are considered to be living and dead plant material associated with forests, woodlands, shrublands, grasslands, wetlands, and riparian areas.

Wildland fuels have been accumulating during at least the past half-century due to wildland fire management policies, wildland management practices, and other factors. As demonstrated in recent years, the additional fuels contribute to intense fire behavior and increase the resistance of fires to control. Consequently, property and natural resources have been destroyed, costs of fire management have escalated, fire dependent ecosystems have deteriorated, and the risks to human life and property continue to escalate.

Congress, agency administrators, JFSP partners, and others have recognized that the accumulation of wildland fuels must be reduced in order to reduce the human threat from fire and maintain natural resource values. Congress directed the Department of the Interior and the USDA Forest Service to develop a Joint Fire Science Plan to provide science-based support to land management agencies as they address this need. The JFSP was established with the 1998 Appropriation for Interior and Related Agencies to help ensure that cooperating Federal land management agencies expedite scientifically sound, efficient, systematic, and effective solutions and monitoring programs that cross agency jurisdictions and fuel types.

The 1998 Joint Fire Science Plan addressed four issues (Principal Purposes) critical to the success of the fuels management and fire use programs. These included wildland fuels inventory and mapping, evaluation of fuels treatments, scheduling of fuels treatments, and monitoring and evaluation. Congress included additional direction in the 2001 Appropriation for Interior and Related Agencies. In addition to the four original Principal Purposes, the JFSP was directed to focus attention on issues such as protocols for evaluating post fire stabilization and rehabilitation projects, aircraft based remote sensing, and regional/local issues.

For further background on the goals of the JFSP, those considering submitting proposals and other interested parties are encouraged to review the Joint Fire Science Plan, which is available via the Internet at: <http://jfsp.nifc.gov>. The JFSP has issued AFPs every year since 1998 and subsequently selected and funded more than 270 projects. Previous AFPs and lists of funded projects can be found on the program web site. Historically approximately 25% of submitted proposal have received funding.

The Governing Board does not fund projects that are or should be internally funded from existing

accounts (such as routine agency monitoring) or operational portions (such as the installation of fuels treatments or development of Fire Management Plans) of other projects.

The JFSP encourages proposals from all interested parties. However, because the focus of the JFSP is on wildland fire and fuels issues on Federal wildlands, evidence of direct involvement by Federal scientists or land managers in the development of proposals must be included in all proposals. **Proposals that do not have evidence of direct involvement by federal land managers or scientists will not be considered for funding.** Examples of direct involvement by land managers or scientists include participation as a principal investigator, cooperator, or collaborator; letters of commitment and support; and written evidence from the manager that the proposal is responding to an urgent fire or fuels problem related to the land manager's unit.

B. Proposal Submission

All proposals must include the following items to be considered. The JFSP program office must receive the complete proposal package (including all items in the checklist in section F) by close of business (5:00 pm MST) December 14, 2005. There will be no exceptions to this closing date. Incomplete proposals will not be considered.

Facsimile or e-mailed proposals will not be accepted.

1. One original and five copies of complete proposal packet including all material.
2. An electronic version on a compact disk (in MS Word or editable pdf format) must be included.
3. Signature and complete address including phone number, mailing address, surface mail address (if different than mail address) and e-mail address of principal investigator, Federal cooperator or land manager as appropriate, point of contact, and appropriate Federal Fiscal Representative (see definition section H).
4. Letters of support are not required but are considered in the peer review process. However, all letters of support must be included with the hard copy proposal package and received by the due date. Each letter must clearly state the title of the project and the principal investigator of the proposed work.

Questions and proposals should be directed to:

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Joint Fire Science Program
National Interagency Fire Center
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C. Area of Interest for Proposals

This Announcement for Proposals includes two (2) Task Statements: 1) Rapid response projects for

future wildland fires; 2) Rapid response project for past (2005) wildland fires. Both Task Statements focus on the effectiveness of pre and post-fire treatments. Proposals that address biological, social, cultural, or physical effects of wildland fires (wildfires and wildland fire use fires) will be considered. **Post-fire salvage proposals should be submitted under AFP 2006-3.**

The Governing Board anticipates that these projects can be accomplished within three years or less. The Governing Board does not anticipate funding projects that are or should be internally funded from existing accounts (such as routine agency monitoring, development of fire management plans or NEPA compliance) or operational portions (such as the installation of fuels treatments) or other projects.

Task 1: Proposals are sought to obtain, document, and evaluate critical, time-sensitive information or data during or immediately following future wildland fire incidents (wildfires and wildland fire use fires). Proposals should address the biological, social, cultural, or physical effects of wildland fires or evaluate the effects of post-fire treatments for slope stabilization or rehabilitation. Proposals are also sought that identify, document, and evaluate factors that influence an agency administrator's decision processes related to selecting the appropriate management response and strategy. Proposals that will evaluate the effects of previous land management activities (such as mechanical treatment and/or prescribed burning that removed biomass) on fire behavior, fire severity, and/or fire effects will receive the highest priority for funding. Response teams must meet the requirements described in Section D – Special Requirements

Certain types of information or data that are essential to our understanding of wildland fire can only be obtained during or immediately after a fire. For example, estimates of flame length or fire spread are more precise and reliable if measured *in situ* rather than inferred from general documentation, poorly validated models, or indirect methods such as stem char heights. Similarly, certain impacts such as water-borne erosion, sedimentation, and changes in stream chemistry occur within days to weeks after a fire. In the same way, there may be time-sensitive social information that is essential to our understanding of public reactions to wildland fire incidents that can only be obtained during or immediately after an event when the context of the event is still vivid.

Additionally, many of the factors that influence agency administrator's decision making processes must be viewed within the context of the situation and in the "heat of the moment". The interaction among factors also affects the agency administrators "risk assessment" and ultimately the selection of the appropriate management response and strategies. Retrospective approaches to assessing the influences on decision processes usually will not reveal the full impact of the time and place. In general, proposals addressing social and cultural effects or agency administrator's decision processes should not develop new techniques but should focus on previously developed measurement tools to collect information on issues related to these topics.

All of these situations have in common the need for a rapid, well organized, and pre-planned response from the science community. In the past, this type of work has often been hampered by lack of funding and by lack of adequate pre-incident planning.

To meet this need, the Governing Board envisions the development of rapid deployment teams of research scientists and technical specialists that can mobilize quickly to investigate and document

various aspects of fire behavior or fire effects on uncontrolled wildland fire incidents. Proposals must clearly describe data needs, research objectives and experimental design, and must identify the types of fire incidents and site conditions required to complete the work. Proposals must identify clear criteria for selection of fire incidents and study sites that reflect the needs of the particular study. **Proposals addressing resource effects should also include provisions in the study design to take maximum advantage of sites where pre-fire data is available to evaluate the effects of previous land management activities (such as mechanical treatment and/or prescribed burning that removed biomass) on fire behavior, fire severity, and/or fire effects.**

The Board believes that deployment and actions by teams in active fire areas would be greatly enhanced if at least one team member were currently qualified at the Strike Team/Task Force Leader level or higher. The Governing Board may request that successful proposers visit specific incidents that the Board believes have value to the goals and objectives of the projects funded under this Task Statement.

Proposals must clearly demonstrate the need to evaluate the information or data during or immediately following future wildland fire incidents.

Task 2: Proposals are sought to collect post-fire data on wildland fires that burned in 2005, which address the biological, social, cultural, or physical effects of wildland fires (wildfires and wildland fire use fires) or evaluate the effects of post-fire treatments for slope stabilization or rehabilitation. Proposals should address wildland/urban interface areas and issues as appropriate. Proposals that analyze and describe relationships between pre-fire condition and fire behavior, at local to landscape scales, specific to the effects of previous land management activities (such as mechanical treatment and/or prescribed burning that removed biomass) will receive the highest priority for funding. Proposals should take advantage of sites where pre-fire data is available on fuel treatments, fuel characteristics, and/or stand structure; such sites are strongly preferred.

Some of the fires of 2005 may have burned over experimental sites and other areas where extensive pre-fire data are available on fuel treatments, pre-fire stand structure, fuel characteristics or other resource attributes. Proposals for sites where reliable fire behavior observations exist are strongly encouraged. Such sites can provide unique opportunities for post-fire studies to evaluate the effects of pre-fire condition on fire behavior, fire severity, ecosystem impacts or other resource impacts. Proposals that will link biological or physical resource effects to pre-fire vegetation conditions, including stand structure and fuels characteristics, and observed fire behavior are preferred.

Proposals addressing social or cultural effects should not develop new techniques but should focus on previously developed measurement tools to collect information on issues related to these topics. Proposals that build on previous assessments in communities affected by wildfire are encouraged.

Proposals must:

- **Clearly articulate the need for rapid response**
- Describe the opportunity presented by the fire and the pre-existing data
- Document the extent and quality of pre-fire data;
- Describe pre-fire experimental design or sampling design and sampled variables;
- Describe pre-fire experimental treatments or variations in vegetation composition and

- structure;
- Describe expected response variables;

D. Special Requirements

Proposals submitted in response to AFP 2006-1 Task 1 must address the following special requirements that are specific to this AFP.

IMPORTANT – Safety Considerations! Please Read Before Submitting Proposals.

Firefighter and public safety is the first priority on all incidents. Proposers responding to this AFP should note that it is their responsibility to ensure those persons visiting, or working within or adjacent to, active wildland fire incidents remain safe at all times. This includes meeting all required training beforehand, arriving at the incident with all necessary personal protective equipment (PPE), coordinating all activities with the Incident Commander or Incident Management Team, and ensuring field teams have adequate supervision to meet wildland management mandatory training and safety requirements for such work.

The Interagency Standards for Fire and Fire Aviation Operations (Red Book) serves as the basis for qualifications and training required for field assignments on wildland fire incidents. The Board strongly recommends that all team members meet Firefighter Type 2 training requirements and participate in annual firefighter refresher training. Chapter 6 - Safety, pages 06-13 to 06-15, specifically addresses safety considerations and requirements for non-operational personnel on wildland fire incidents and should be reviewed carefully prior to each field season. In addition to these guidelines, field investigators will be required to meet the following standards when conducting research funded by JFSP on uncontrolled incidents:

- 1) Principal Investigators (PI) must work closely with Incident Management Teams. This should include meeting with Incident Commanders, Fire Use Managers, and Geographic Area Coordinating Groups prior to the fire season to discuss protocols, exchange information, and share areas of concern. All field teams are required to coordinate with the IC or IMT before they enter an active fire zone and must include an individual qualified as single resource crewboss or higher. This person is responsible for fireline oversight and safety of the field team. Depending on the size, composition, and fire experience of the field team, additional overhead or higher qualifications (e.g. Strike Team Leader, Division Supervisors) may be necessary to provide for field crew safety. It is the responsibility of the field team leader to coordinate these needs prior to engagement at the incident. The incident management team should *not be expected* to provide additional overhead. The Incident Commander or Fire Use Manager must approve all fireline visits before field team engagement.
- 2) Field crew members collecting data on or directly adjacent to an active wildland fire or fire use incident will be minimally qualified as a Firefighter (FFT2) or Technical Specialist with a fitness score of “Arduous” on the Work Capacity Test (Pack Test), as demonstrated by walking 3 miles in 45 minutes or less while carrying a 45 pound backpack. The test is generally available from local fire management offices. Additional information is available

on the Internet at http://www.fs.fed.us/fire/fire_new/safety/wct/wct_index.html. Each field crew member will carry a current “red card”, signed by an agency Fire Management Officer or other fire supervisor. The arduous fitness rating must be clearly indicated on the card.

Note: *The arduous fitness rating is required for Field Observer and Fire Effects Monitor (Wildland and Prescribed Fire Qualification System Guide 310-1). These are the two National Wildfire Coordinating Group (NWCG) recognized positions that most closely resemble the type of work that a field researcher would be doing. “Technical Specialist” is a generic term for which there are no training and qualification standards in 310-1. Information about qualifications and training courses is generally available from local fire management offices.*

- 3) Other project personnel must coordinate visits with the individual responsible for field team fireline safety (i.e. Single Resource Crewboss) prior to entering fire active fire zones. Other visiting project personnel will be required to achieve a fitness score of “moderate” on the Work Capacity Test, as demonstrated by walking 2 miles in 30 minutes while carrying a 25-pound backpack. They will carry a current red card, signed by an agency Fire Management Officer or other fire supervisor, indicating that he or she is minimally qualified as a Technical Specialist. The moderate fitness rating must be clearly indicated on the card. The Incident Commander or Fire Use Manager must also agree to accept the moderate rating for occasional visits to the active incident.
- 4) Personnel who will confine their work to the Incident Base Camp or other areas far removed from the perimeter of the incident are not required to attain a fitness standard. However, a red card indicating Technical Specialist is still recommended.
- 5) Field team members will be required to wear approved wildland fire incident personal protective equipment (PPE) including Aramid shirt and pants, helmet with chinstrap, leather gloves, fire shelter, eye and hearing protection, personal first aid kit, water canteen, hand tool, and lace type leather boots with non-slip (Vibram type) soles and minimum 8" top. PPE can often be checked out from cooperating wildland fire offices or purchased from a variety of sources. PPE should be obtained prior to initiating planned work.
- 6) The field team leader and qualified line supervisor will attend daily briefings, be knowledgeable of weather and fire behavior predictions and daily strategy and tactics. All air operations will be conducted only with specific approval of the responsible Incident Commanders or Fire Use Managers. Field team leaders will establish contact and brief incident personnel assigned, such as Division Group Supervisors, in the area of operations. Field team leaders are responsible for the safety of their teams and shall ensure they have communications with incident personnel at all times and be knowledgeable of emergency procedures in the incident action plan. All field teams will abide by LCES, the 10 Standard Firefighting Orders, the 18 Situations That Shout Watch Out, the Thirty Mile Hazard Abatement Implementation Plan (as required by agency policy), and any other requirements stipulated by the Incident Commander or Fire Use Manager when in close proximity to an active wildland fire or fire use incident.
- 7) Acceptance of any funding from JFSP under this AFP implies the PI will ensure that field

investigations on active fire incidents are conducted according to these terms. *Due to the hazardous work environment, failure to comply with these fireline safety requirements will result in termination of the project agreement and funding by the Program Office.*

Reference Materials: <http://www.fire.blm.gov/Standards/redbook.htm>
<http://www.fs.fed.us/fire/safety/investigations/30mile/index.html>
<http://www.wildfirelessons.net/>

E. Format for Proposals

Overview of the Proposal Format

The full proposal should specify rationale, objectives, methodologies, and deliverables in sufficient detail to allow an informed reader to assess the proposal's validity in addressing one of the Task Statements in the AFP. The proposal should also identify criteria by which success of the project can be determined. The proposal text and accompanying tables and figures, exclusive of title page, curricula vitae or other appended information, should be limited to twelve (12) pages. Please use at least 11-point font. Complete annual and total budgets and a firm timeline for deliverables must be included, as well as a mechanism for technology transfer to appropriate end users. The proposal also provides a record of management responsibility and accountability for various aspects of the project.

All proposals must be submitted in the attached format (Appendix A) to be considered. Additional elements may be added as needed by the Proposers, but all elements contained in the required format and order must be retained.

Title Page

The attached template (Appendix A) must be used for the title page. The title page may not exceed 2 (two) pages in length). The information required to be completed on the Title Pages is:

- Project Title:
- **Announcement for Proposals and task statement this proposal is responding to:**
- Principal Investigator(s):
 - Affiliation:
 - Address:
 - Telephone/Facsimile Number(s):
 - E-mail:
- Point of Contact - This person will be the one contacted by the program office with all correspondence on this project. Include full mail and e-mail address as well as phone and facsimile number:
- Federal Cooperator: Include full mail and e-mail address as well as phone and facsimile number
- Federal Fiscal Representative: Include full mail and e-mail address as well as phone and facsimile number
- Duration of Project: Include both the actual calendar dates of the proposal and the federal fiscal years for the proposal.

- Annual Funding Requested from the Joint Fire Science Program: by Federal Fiscal Year (October 1 to September 30)
- Total Funding Requested from the Joint Fire Science Program:
- **Total Value of In-Kind and Financial Contributions:**
- Abstract: Summarize the proposed project in a brief abstract not to exceed the available space in the Title Page Template. The abstract should include the justification for the proposed project in relation to one or more task statements in the AFP, objectives, appropriate methodology, and applicability of results.
- Signature of PI _____ Date:
- Signature of Federal Cooperator: _____ Date:
- Signature of Federal Fiscal Representative (see definition section H): _____ Date:

(The Federal Fiscal Representative will be responsible for receiving funding if the proposal is successful. Signature by the Federal Fiscal Representative also indicates that the federal grants and agreements specialist has reviewed and concurs with the terms of the proposal).

I. Introduction

An introductory section should include:

1) Project Justification. A summary of the issue(s), why the project needs to be done (relevance to Task Statement(s) in the AFP), and benefits derived.

2) Project Objectives. A statement of the project objective(s) must be clearly stated and measurable. This should include a brief statement of the hypothesis to be tested (if applicable), what information or product(s) will be provided at the end of the project, and how the information or product(s) can be used to resolve the issue(s) stated in the Task Statement(s).

3) Background. This section includes a concise review and synthesis of existing knowledge and previous research or other pertinent background information in the project task area, a description of how the proposed project adds to or improves existing knowledge or tools, and a description of coordination with other relevant ongoing or completed products to ensure cross-compatibility and eliminate redundancy.

The introductory section is intended to provide peer reviewers and the Governing Board with evidence that the proposal demonstrates new work or significantly builds on previous and on-going work. Proposals should also describe how the work responds to task statements in the AFP.

II. Materials and Methods

This section should describe procedures proposed for conducting the project in sufficient detail that a knowledgeable reviewer could understand the process and that a peer could replicate the proposed work.

This section should resemble an **abbreviated** methods section typically found in research study plans or scientific peer-reviewed journal articles. At a minimum, methods should **succinctly** identify the following if applicable or appropriate:

- A description of the study sites.
- Materials to be used to conduct the investigation.
- Experimental design- both treatment and design structures.
- Response variables and tentative independent variables or covariates.
- Sample design- including procedures for sub-sampling.
- The experimental unit(s) for statistical analysis.
- Tentative statistical analysis procedures.

III. Project Duration

Proposals will generally not be approved for longer than three years unless otherwise specified in the task statement. Proposals must clearly state how research activities, including the final report and deliverables, can be completed within the project term. Proposals should provide a proposed timeline for the project that identifies the significant milestones to be achieved.

Agreement funding (except for proposals received for Task 2 of this AFP) is typically not available until late summer following selection and funding approval decision by the Governing Board. Projects will most likely not be funded in time to complete substantial amounts of fieldwork the summer following funding decisions. Proposers should adjust project schedules accordingly.

IV. Project Compliance:

Proposals must clearly state when required NEPA and other necessary clearances will be completed to ensure the project may be completed within the project term. Proposals should identify the unit responsible for the NEPA and other compliance. Letters from the responsible unit that describe the unit's commitment to the schedule are encouraged.

V. Budget

Proposed project budgets can be complex, often involving multiple agencies or units in association with non-Federal units. Proposers should ensure that appropriate Federal Fiscal Representative (see definition section H), as well as budget or grants and contract offices of non-federal cooperators, review the proposal prior to submission to ensure that the budget and other fiscal aspects of the proposal meet agency requirements. **Concurrence, signature, and contact information of the Federal Fiscal Representative is required on the title page of the proposal.** Both the fiscal representative and the grants and agreements specialist or contracting office must be involved if the development of the budget if a portion of the work will be subcontracted or sub-granted. **Signature by the Federal Fiscal Representative also indicates that the federal grants and agreements specialist has reviewed and concurs with the terms of the proposal.**

Budget Format

A budget summary using the following format must be included in the body of the proposal.

Table x. Proposal Budget Summary for FYs 200x, 200y, and 200z

Budget Item	200x		200y		200z	
	Requested	Contributed	Requested	Contributed	Requested	Contributed
LABOR						
TRAVEL						
VEHICLES						
CAPITALIZED EQUIPMENT:						
MATERIALS AND SUPPLIES:						
SCIENCE DELIVERY AND APPLICATION:						
OTHER						
TOTAL DIRECT COSTS						
INDIRECT COSTS: XX% - of total direct costs (if applicable)						
TOTAL REQUESTED JFSP FUNDING		xxxxxxx		xxxxxxx		xxxxxxx

The proposed budget should be sufficiently detailed to identify direct and indirect costs and related surcharges, to separate labor costs from operational costs, and to identify salaries associated with funded scientists. Contributed costs and the source of those costs should be included in the budget. Annual and total costs should be specified. Separate line items for "capitalized" equipment (more than \$5000) should be included. Out-year projections should be included for multi-year proposals. Proposed budgets should include travel expenses for one PI to participate in an annual 3-day PI workshop. The Governing Board of the Joint Fire Science Program reserves the right to negotiate budget amounts and deliverables with proposing organizations. Stipends are normally funded, but tuition fees are not.

Budget detail must be presented in the proposal appendices using the format (Appendix B) shown below:

Table x. Budget Detail for FYs 200x, 200y, and 200z

Budget Item	200x		200y		200z	
	Requested	Contributed	Requested	Contributed	Requested	Contributed
LABOR/PI salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and						

zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
Commercial air travel:						
Travel expenses (i.e., meals, lodging): - Field - Site Visits - PI workshop - Other						
Vehicle Rental:						
Capitalized Equipment: - Computers - software - other (itemize)						
Materials and Supplies:						
Science Delivery and Application: - Manuscript Prep/Publication Costs - Web Page - Software distribution - workshops - Other						
Other - Itemize -						
Total Direct Costs						
Indirect Costs attributable to project (in-house): XX% - of total direct costs (if applicable)						
Pass-through indirect costs: YY% - of total direct costs (if applicable)						
Total Requested JFSP Funding						

Indirect Costs

The JFSP Governing Board recognizes the need of agencies and organizations participating in the program to recover reasonable indirect overhead costs. However, cost effectiveness of the individual

projects is clearly a determining factor in the final selection process of the proposals that will be awarded funding. The JFSP is limited within its authorization regarding the amount of the indirect cost rate that will be approved. The standard maximum indirect rate is twenty (20) percent of that portion of the recipient Federal agency's cost attributable to the project. Proposals that are submitted and applicable to the Cooperative Ecosystem Studies Units (CESU) criteria should abide by the established CESU indirect rates, which are currently capped at Seventeen and one-half (17.5) percent. The standard maximum indirect rate that a Federal agency may charge for flow-through/pass-through indirect costs when a major portion of the project is subcontracted or sub-granted is ten (10) percent.

Salary Policy

Normally, salaries of permanent full-time employees are expected to be provided by their agencies. This is also true of university faculty on 12-month tenure-track appointments. These employees are already fully funded by their institutions. However, the Governing Board recognizes there can be some unique situations where the Governing Board may agree to fund the salary of permanent employees.

A detailed justification for funding the salary of permanent employees must be included in the proposal to be considered for funding. The justification should indicate all sources of funding, including other pending projects and associated FTE for the permanent position for which salary funding is requested. The justification must be certified by the agency administrator, research line officer or other appropriate institutional authority, other than the PI or other cooperator on the proposal, at the employee's organization or institution.

The format included in this AFP (Appendix D) **must** be used for the certification. In addition, permanent employee salary costs must be explicitly identified in the project budget. The Governing Board requires no special justification (other than a brief description of the need for the position in the budget justification section of the proposal) for funding temporary or term employees, post-doctoral employees, graduate, or undergraduate students. Stipends are normally funded, but tuition fees are not.

VI. Research Linkage

This section should detail any other current research projects that this proposal is linked to in study sites, design, funding, or results including other JFSP, NFP or other projects

Grant Program	Project or Proposal Description/Identification	Funding Amount	Project Completion Date

VII. Science Delivery and Application

Investments in wildland fire science need to be accompanied by an emphasis on science interpretation and delivery. Program success will not be measured by how many research projects are funded or how many research papers are generated, but how critical information from research efforts is successfully conveyed to resource managers and end users with the expressed purpose of improving management decisions. Therefore, it is imperative that each proposal include a description of how results and products will be effectively transferred to field managers and other end users in a useful form. A combination of passive (e.g., published papers, CDs, websites) and active (e.g., field tours, workshops, and training sessions) methods are preferred. Those proposals utilizing a variety of methods and approaches to accomplish this function will receive higher ratings. Proposals that utilize innovative methods or approaches will be given additional consideration. Proposals should provide detail on the methods that will be utilized to get the deliverables to the user community. Project descriptions and deliverables must be available on the Internet.

VIII. Deliverables

Deliverables include final reports, published articles, data, results, software, tools, and other information or products developed during the proposed research project. Proposals must provide specific details on deliverables that will be provided by the proposed work, along with realistic delivery dates. Submit information about deliverables using the following table or similar format.

Deliverable	Description	Delivery Date(s)

Annual progress summaries are required and will be requested by the program office around mid-August each year.

A final report must be delivered to the program office (both electronically and hard copy) by the project termination date that includes:

- A statement of how the deliverables listed in the proposal match what has actually been produced.
- Copies of all completed deliverables and a timeline of additional deliverables not yet completed
- It is expected that all final products will include an electronic version suitable for distribution, posting, etc. Descriptions in English units, with metric equivalents in parenthesis, are required.
- A brief summary of what was learned from the investigation, including how the research met the objectives stated in the proposal.

IX. Expected Benefits of the Proposal

Provide a concise summary of the benefits expected from the results of the proposal either to the land management, fire managers or research community.

X. Qualifications of Investigators

Include Curriculum Vitae for at least one PI and at least one Federal agency manager or research collaborator in the proposal appendices. These should reflect recent, relevant experience and publication(s) and should not exceed 2 pages. Brief summaries of co-PIs should be included as appropriate.

The project personnel, (including collaborators) and their responsibilities must be described in the table below.

Table x. Personnel Involved in Project, and their Responsibility

Personnel	Responsibility

XI. Literature Cited

Although the literature may be extensive, the synthesis should generally include reference to no more than 15-20 of the most important and/or most relevant sources.

F. Submission Checklist

Proposers are encouraged to use the following checklist prior to submitting their proposals to ensure all required items are addressed.

Checklist of items that must be included in Proposal Submissions:

- One original and five copies of complete proposal packet including all material.
- An electronic version on a compact disk (in MS Word or editable pdf format) must be submitted with the packet.
- Federal cooperator or land manager (if different than the PI) is identified (see definitions of Federal cooperator and land manager)
- Signature and complete address including mailing address, surface mail address (if different than mail address), phone numbers and e-mail address of the principal investigator(s)
- Complete address including mailing address, surface mail address (if different than mail address), phone and facsimile numbers and e-mail address for the project point of contact are shown.
- Concurrence signature and complete address including mailing address, surface mail address (if different than mail address), phone and facsimile numbers and e-mail address of the Federal Fiscal Representative (see definition) are included.
- An introduction or background section that includes the specific objectives of the project,

and describes how the proposed work is relevant to the Task Statement in the AFP.

- A brief review and synthesis of related past and current literature and work.
- A project budget, including identification of salaries and indirect costs.
- Include a “Justification of Need for Salary Support,” approved by appropriate authority, as necessary.
- A list of deliverables with dates of delivery.
- A science delivery and application mechanism as described in the science delivery section of this AFP.
- A list of cooperators and their proposed contribution.
- A Curriculum Vitae or other description of credentials of the PI and co-investigator(s) that are signatories which demonstrates ability to complete the proposed work.
- Letters of support are considered in the review process but are not required. However, letters of support must be included with the proposal package. Letters of support submitted separately from the proposal will not be accepted or considered. Letters must include the title and principal investigator of the project.

Facsimile or e-mailed proposals will not be accepted.

G. Review and Evaluation

Reviews and evaluations of proposals submitted in response to this AFP to the Joint Fire Science Program will focus on the following five factors:

- Relevancy
- Scientific Methods and Study Design
- Products and Delivery into Application
- Collaboration and Leverage
- Administrative Adequacy

Criteria associated with the factors include:

Relevancy:

1. Does the proposal address the Task Statement in the AFP?
2. How relevant is the proposed work to field level personnel?
3. Does the Project Justification adequately describe why the project needs to be done?
4. Is there evidence that land managers need the proposed work?

5. Does this proposal demonstrate new or significant contributions to existing knowledge bases?

Scientific Methods and Study Design (if applicable or appropriate):

1. Are the questions, objectives, or hypotheses well-formed and clearly stated?
2. Are study approaches appropriate and adequate to meet stated objectives?
3. Is the design statistically sound? (i.e. Can hypotheses or questions be answered with the proposed design? Does the design provide for sufficient statistical power?)
4. Do proposed administrative studies or demonstrations lay out the desired outcome and a series of steps (methods) that will lead to that outcome?
5. What are the qualifications of the team to do the proposed work?
6. If the proposal involves software development, does it include beta-testing and is there evidence that the proposal addresses agency system architecture and security requirements?

Products and Delivery into Application

1. Does the proposal provide for adequate transfer of information or products?
2. Does the proposal complement or strengthen other research in this field? If so, how will efforts from this proposed work be coordinated with other research in this area?
3. At what scale will the proposed work provide information or products? Are the products useful across agency jurisdictions, fuel types, and geographic areas?
4. Does the delivery method facilitate and enhance the utility of the scientific information for management application?
5. Does the delivery use a combination of passive and active science application and delivery methods?
6. Will the final product(s) stand alone and be complete or need further work or development to be useful?

Collaboration - Leverage:

1. Does the proposal provide for adequate collaboration among agencies, fire and land management personnel, research scientists, and other collaborators?
2. Does the proposal ensure broad integration among disciplines; build on existing knowledge or ongoing studies?
3. Will results and recommendations be applicable to a variety of agencies and organizations?
4. Is there evidence of local or regional agency support and involvement in the proposal?
5. Are the in-kind contributions reasonable and adequate?
6. Is the proposed work cost effective?

Administrative Adequacy:

1. Does the proposal follow the requested format and include all the requested information?
2. Are adequate institutional resources and support available?
3. Based on the design and the track record of the investigators/participants, what is the likelihood of success?
4. If formal cooperative arrangements are proposed (e.g., with universities or other non-federal

organizations), is there documentation that these will be feasible and agreeable to the cooperators?

5. Does the proposal address compliance with the National Environmental Policy Act, Threatened/Endangered Species Act, or similar statutes?
6. Are proposed timeframes and budgets reasonable and adequately justified, including funding for sub-agreements? Is adequate time allocated to complete the study? Is a justification for salaries included and adequate if necessary?
7. Is the problem statement written and signed by an Agency Administrator?

H. Definitions

Agency Administrator: The agency Administrator is the federal official responsible for administering policy on an area of public land who has full authority for making decisions and providing direction. Also known as "Agency Line Officer," "Line Officer," and "Land Manager." Examples include Park Superintendent, Forest Supervisor, District Manager, Refuge Manager, District Ranger, and Field Office Manager. Research line officers are not included for the purpose of this AFP.

Announcement for Proposals (or AFP): Joint Fire Science Program method of requesting proposals. Announcements for Proposals include Task Statements for which proposals are sought, instructions for proposal submission, and related information.

Federal Fiscal Representative: The JFSP partner agency federal employee attached to the Federal proposers or Federal cooperator's unit who will be responsible for the administrative and fiscal aspects of the proposed work. This person will be responsible for receiving funding if the proposal is successful. This individual is typically an Administrative Officer, Contracting Officer, or Grants and Agreements Specialist.

Federal Cooperator: Representative of a Joint Fire Science Program partner agency.

Indirect Costs: Those costs that are a percentage of the overhead/administrative costs attributable to a specific research project. Examples include the cost of operations and maintenance such as janitorial, phone, and clerical services. The Joint Fire Science Program recognizes two types of indirect costs: "in-house" costs incurred by the agency, institution, or unit completing the research, and "pass-through" costs associated with passing funds to another agency, institution, or unit for the purpose of completing research.

Joint Fire Science Program Governing Board: An appointed, 10-person board, representing the JFSP partners, that manages the JFSP. The Board drafts and posts Announcements for Proposals, selects proposals for funding, supervises the JFSP Manager and program office, and conducts related business.

Joint Fire Science Program PI Workshop: Annual workshop, in which PIs of JFSP-funded projects provide progress reports, discuss research-related issues, and conduct other business.

Land Manager: see Agency Administrator

Principal Investigator (or PI): The individual identified in a proposal who is primarily responsible for completing a research project.

Point of Contact: The person that will be the main technical contact for the JFSP Office.

Problem Statement or Statement of Need: A brief statement, written and signed by the agency administrator, which clearly describes the need for the proposed work and how the proposed work would resolve the issue. The statement also includes the agency administrator's commitment to supporting the proposed work. The problem statement is typically one page or less.

Science Delivery and Application: The transfer of information, materials, models and other research deliverables to end users, along with adequate information and training to apply the deliverables. Examples of active methods include workshops, training sessions, guided field tours, conferences, meetings, and symposia. Examples of passive methods include published papers and websites. A combination of active and passive methods is preferred.

Task Statement: A specific area of interest, identified in an Announcement for Proposals, for which proposals are sought.

Stabilization: Planned actions to stabilize and prevent further unacceptable degradation to minimize threats to life or property resulting from the effects of a fire, critical natural and cultural resources, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources. Emergency Stabilization actions must be taken within one year of containment of the fire.

Rehabilitation: Efforts (non-emergency) undertaken within three years of a wildland fire to repair or improve fire-damaged lands unlikely to recover to management approved conditions.

Restoration: The continuation of rehabilitation beyond the initial three years

APPENDIX A – PROPOSAL TEMPLATE

Project Title:	
Announcement for Proposals and task statement this proposal is responding to:	Joint Fire Sciences AFP 200x-x Task Y,
Principal Investigator:	<Name>
Affiliation:	<Organization/Unit/Institution>
Address:	<Mailing Address>
Phone:	<000-000-0000>
Email:	<smokey@bear.com>
Co-Principal Investigator:	<Name>
Affiliation:	<Organization/Unit/Institution>
Address:	<Mailing Address>
Phone:	<000-000-0000>
Email:	<smokey2@bear.com>
Co-Principal Investigator:	<Name>
Affiliation:	<Organization/Unit/Institution>
Address:	<Mailing Address>
Phone:	<000-000-0000>
Email:	<smokey3@bear.com>
Point of Contact:	<Name> <Affiliation> <Mailing Address> Email: <bambi@deer.com> Phone: <000-000-0000> Fax: <000-000-0000>
Federal Cooperator:	<Name> <Affiliation> <Mailing Address> Email: <woodsy@owl.com> Phone: <000-000-0000> Fax: <000-000-0000>
Additional Federal Collaborator(s):	<Name> - <Affiliation> <Name> - <Affiliation> <Name> - <Affiliation>
Federal Fiscal Representative:	<Name> <Affiliation> <Mailing Address> Email: <scrooge@bigbucks.com> Phone: <000-000-0000> Fax: <000-000-0000>
Duration of Project:	X calendar years (MM/YYYY through MM/YYYYY); X fiscal years
Annual Funding Requested:	FY200x: \$ FY200y: \$ FY200z: \$
Total JFSP Funding Requested:	\$xx,xxx
Total Value of In-Kind Contributions:	\$xx,xxx

Abstract:

Signature of PI:	<signature>	<Date>
Signature of Co-PI:	<signature>	<Date>
Signature of Co-PI:	<signature>	<Date>
Signature of Co-PI:	<signature>	<Date>
Signature of Federal Cooperator:	<signature>	<Date>
Signature of Federal Fiscal Representative:	<signature>	<Date>

I. Introduction

<Narrative>

1. Project Justification

<Narrative>

2. Project Objectives

<Narrative>

3. Background

<Narrative>

II. Materials and Methods

1. Study Site

<Narrative>

2. Sampling Design

<Narrative>

3. Methods

<Narrative>

4. Data Analysis

<Narrative>

5. Materials

<Narrative>

III. Project Duration and Timeline

This project will last approximately x years, assuming a start date in Month of Year, with completion in Month of Year.

Time Period (Month/Year)

- Project Milestone(s)

Time Period (Month/Year)

- Project Milestone(s)

Time Period (Month/Year)

- Project Milestone(s)

IV. Project Compliance - NEPA and other clearances.

<Narrative>

V. Budget

Budget and Salary Justification

Narrative – If salary is requested for a permanent full-time Federal employees or university faculty on 12-month tenure-track appointments a detailed justification must be included in the proposal. The justification should indicate all sources of funding and associated FTE for the permanent position for which salary funding is requested. The justification must be certified by the agency administrator, research line officer or other appropriate institutional authority, other than the PI or other cooperator on the proposal, at the employee’s organization or institution. The format included in Appendix D **must** be used for the certification.

Table x. Proposal Budget Summary for FYs 200x, 200y, and 200z

Budget Item	200x		200y		200z	
	Requested	Contributed	Requested	Contributed	Requested	Contributed
LABOR						
TRAVEL						
VEHICLES						
Capitalized Equipment:						
Materials and Supplies:						
Science Delivery and Application:						
Other						
Total Direct Costs						
Indirect Costs: XX% - all costs						
Total Requested JFSP Funding		xxxxxxx		xxxxxxx		xxxxxxx

VI. Research Linkage:

<Narrative>

Table x. Current and Pending Research Grants

Grant Program	Project or Proposal Description/Identification	Funding Amount	Project Completion Date

VII. Science Delivery and Application

<Narrative>

VIII. Deliverables

<Narrative>

Table x. Deliverable, Description and Delivery Dates

Deliverable	Description	Delivery Dates

IX. Expected Benefits of the Proposal

<Narrative>

X. Qualifications of Investigators

The CVs of <PI>, <Co-PI> and <Co-PI> are included in the Appendix. A summary of the project personnel, (including collaborators) and their responsibilities are described in the table below.

Table x. Personnel Involved in Project, and their Responsibility

Personnel	Responsibility

XI. Literature Cited

APPENDIX B – BUDGET DETAIL

Table x. Budget Detail for FYs 200x, 200y, and 200z

Budget Item	200x		200y		200z	
	Requested	Contributed	Requested	Contributed	Requested	Contributed
LABOR/PI salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
LABOR/Other Salary: \$xx/week @ xx weeks for FY xx, yy, and zz)						
Commercial air travel:						
Travel expenses (i.e., meals, lodging): <ul style="list-style-type: none"> - Field - Site Visits - PI workshop - Other 						
Vehicle Rental:						
Capitalized Equipment: <ul style="list-style-type: none"> - Computers - software - other (itemize) 						
Materials and Supplies:						
Science Delivery and Application: <ul style="list-style-type: none"> - Manuscript Prep/Publication Costs - Web Page - Software distribution - workshops - Other 						

Other						
- Itemize						
-						
Total Direct Costs						
Indirect Costs attributable to project (in-house): XX% - of total direct costs (if applicable)						
Pass-through indirect costs: YY% - of total direct costs (if applicable)						
Total Requested JFSP Funding						

APPENDIX C - CURRICULUM VITAE

APPENDIX D – SALARY JUSTIFICATION

**Certification to the Joint Fire Science Program
Justification of Need for Salary Support**

I hereby certify the attached Justification of Need to provide temporary salaries for full-time permanent employee (s) _____ (*list name of employee(s)*) is necessary and appropriate to enable him/her (them) to fully and directly participate in the proposed project.

Justification:

I understand that salary funding for this/these employee(s) directly involved in the proposed project is temporary and will not be provided beyond the duration of the proposed project.

Signature _____

Date _____

Name (type or print) _____

Title _____

Phone Number _____