



**UNITED STATES
DEPARTMENT OF THE INTERIOR**



**BUREAU OF LAND MANAGEMENT
Fire and Aviation Directorate
National Interagency Fire Center
Lead Agency for the Joint Fire Science Program**

Joint Fire Science Program

The Joint Fire Science Program provides funding for scientific studies to address problems associated with managing wildland fuels, fires, and fire-impacted ecosystems.

Department of the Interior and Related Agencies Appropriation Act for FY 1998 and subsequent years
(P.L. 105-83; H.R. Report 105-163)

**PROJECT ANNOUNCEMENT No. FA-FON0016-0001
Primary Announcement (8 Task Statements)**

**CFDA No. 15.232
ISSUE DATE: September 11, 2015**

JFSP Funding Opportunity Notice (FON) 2016-1

CLOSING DATE & TIME

November 13, 2015 5:00 p.m. MST

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SECTION I. FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority: Department of the Interior and Related Agencies Appropriation Act for FY 1998 and subsequent years (P.L. 05-83; H.R. Report 105-163).

B. Project Background Information: 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 wildland fuels, fires, and fire-impacted ecosystems. The partnering agencies include the U.S. Department of Agriculture, Forest Service and five bureaus in the U.S. Department of the Interior: Bureau of Indian Affairs, Bureau of Land Management, National Park Service, Fish and Wildlife Service, and the Geological Survey.

For further background on the JFSP, those considering submitting proposals are encouraged to visit our website at www.firescience.gov

- C. Program/Project Objective:** The U.S. Congress directed the Department of the Interior and the USDA Forest Service to develop a Joint Fire Science Program and Plan to prioritize and provide sound scientific studies to support land management agencies. Current priorities are identified as task statements in the Funding Opportunity Notice (FON).
- D. Statement of Joint Objectives/Project Management Plan:** The JFSP Governing Board and Program Manager will establish an oversight relationship with the Principal Investigator on each funded project. Projects will be required, at a minimum, to provide a written progress report annually.
- E. Period of Project:** The JFSP Governing Board generally anticipates that individual projects can be accomplished within three years or less.

SECTION II. AWARD INFORMATION

- A. Expected Number of Awards:** Approximately 15-25
- B. Estimated Total Program Funding:** Approximately \$6,000,000
- C. Award Ceiling:** None
- D. Assistance Instrument:** To be determined at a later date by the JFSP

SECTION III. ELIGIBILITY INFORMATION

- A. Eligible Applicants:** The JFSP encourages proposals from all interested parties. All selected awardees must provide a valid Dun & Bradstreet number (D&B) <http://fedgov.dnb.com/webform> and have a current registration with the federal System for Award Management (SAM) www.SAM.gov.
- B. Funding Cooperator:** JFSP will enter into only one agreement per project with the PI institution or the funding cooperator institution. The PI institution or funding cooperator institution will be responsible for entering into sub-agreements with collaborating institutions. Budgets must be reviewed and approved by your Budget contact and your Agreements contact prior to proposal submission. JFSP will not provide additional funds to cover budget errors discovered after the proposal submission deadline.

Funds will be awarded through a federal agency, a university, or a non-governmental organization (NGO). Proposals that included budgeted funds to be spent by a federal agency and that do not have a federal PI must list a funding cooperator from the federal agency requesting funds. Similarly, proposals with a university or NGO PI that do not include funding for federal agencies do not need a funding cooperator and funds will route through the PI's institution.

All proposals with a PI from other organizations, e.g., states or private business, or have any international funding, must also identify a funding cooperator from the United States to receive and process the funds. If the funding cooperator is from the Forest Service, the cooperator must be from a Forest Service research station. Please work with your station

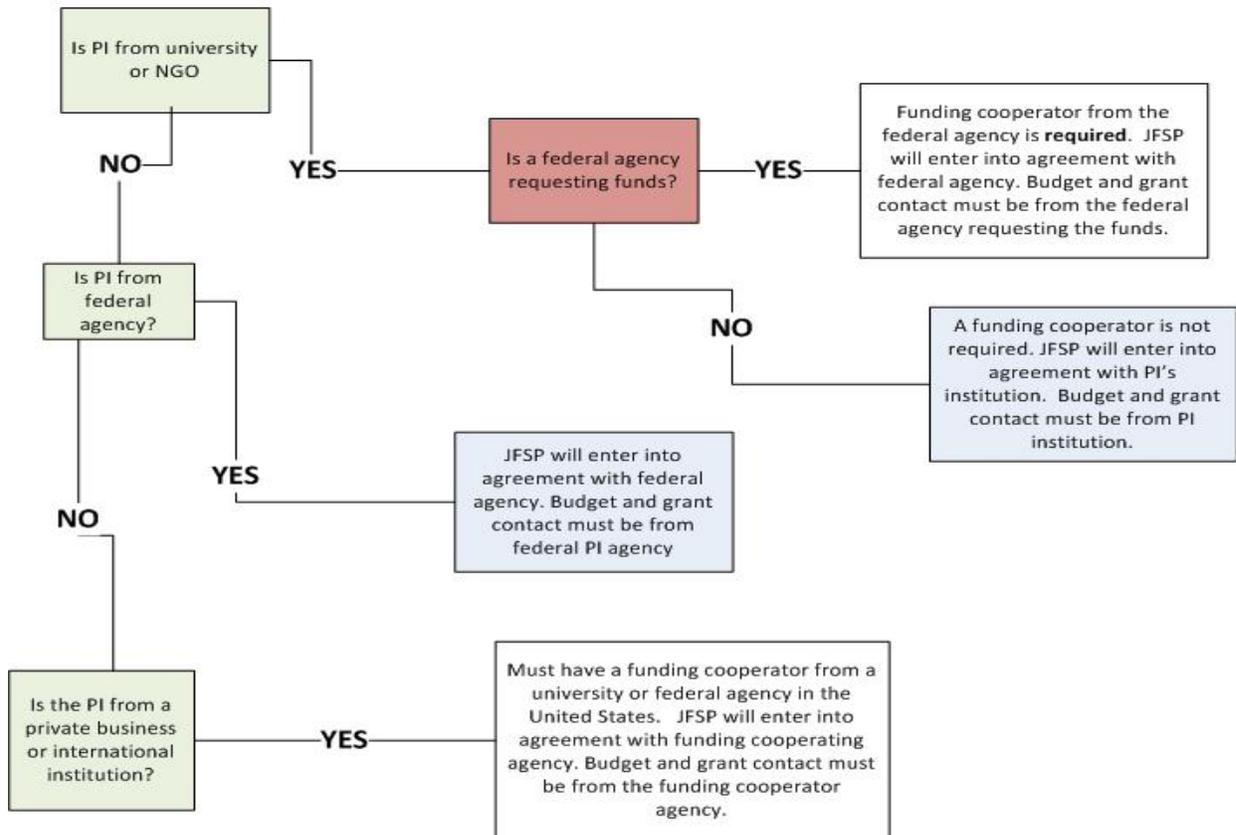
funding cooperator to ensure you meet the station requirements for submission. The Agreements contact and Budget contact must be from the funding cooperator’s institution.

Proposals where the PI or funding cooperator is an employee of a university or NGO will be funded directly by an award document (e.g., a cooperative agreement) between JFSP and the PI’s institution. The institution will be required to respond to a second non-competitive posting on grants.gov to initiate funding.

Upon receipt of a fully executed award document, the institution receiving funds from JFSP will be responsible for all sub-award transactions to cooperators or contractors related to the project. The end date and indirect costs for all sub-awards must match the end date and indirect costs in the original funding award document.

(See funding cooperator flowchart below)

Funding Cooperator Flowchart



C. Cost Sharing or Matching: This program has no matching requirements. However, contributed costs are desired and are an evaluation factor.

D. Scientific Integrity: Scientific integrity is vital to Department of the Interior (DOI) activities under which scientific research, data, summaries, syntheses, interpretations, presentations, and/or publications are developed and used. Failure to uphold the highest degree of scientific integrity will result not only in potentially flawed scientific results, interpretations, and applications but will damage DOI's reputation and ability to uphold the public's trust. All work performed must comply with the DOI Scientific Integrity Policy posted to <http://www.doi.gov>, or its equivalent as provided by their organization or State law

SECTION IV. APPLICATION AND SUBMISSION INFORMATION

A. Proposal Submission and Agency Contact

All proposals must be submitted by 5:00 p.m. MST November 13, 2015, using the electronic submission process provided on the JFSP website (www.firescience.gov). Proposals should not be submitted in Grants.gov. There will be no exceptions to this closing date and time.

All proposals must meet all requirements in this FON (see especially Section IV. E below). Proposals that do not meet all requirements in this section will not be considered for funding.

Questions should be directed to:

Administrative questions:

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Task statement questions:

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Ed Brunson, Deputy Program Director

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B. Steps to Create and Complete a JFSP Proposal

There are multiple steps necessary to create a JFSP proposal, some of which are dependent on prior steps. We recommend that investigators plan ahead, start early, and use the following process to create a proposal:

Step 1 – PI establishes profile, updates password

Step 2 – PI initiates proposal (select task, receive proposal #, enter proposal title)

Step 3 – Enter contacts (all contacts establish profiles, update passwords; PI assigns roles). Once the PI enters a contact they will have access to sign into the database and access the proposal

Step 4 – Investigators develop proposal (templates, requirements)

Step 5 – Complete budget (template, narrative)

Step 6 – Attach all documents (proposal, budget, budget narrative, data management plan, CVs, support letters (optional))

Step 7 – PI enters final details (project location, budget summary, start/end dates, abstract, project category)

Step 8 – Budget Contact and Agreements Contact certify review of budget and budget narrative

Step 9 – PI submits proposal (convert to Final Draft status first if not previously done)

Notes

- Many steps can be in progress concurrently
- All information, including attachments, can be saved as Draft and edited later

C. Task Statement(s)

1. Implications of changing ecosystems – selected regions

Evidence is abundant that ecosystems are shifting due to climate change, invasive species, changing disturbance regimes, and an expanding wildland-urban intermix zone. The Joint Fire Science Program (JFSP) Governing Board invites interdisciplinary proposals that depict alternative future scenarios of ecosystem change. These scenarios are intended as a basis for estimating potential shifts in fuels and fire regimes, and for describing potential management implications. The overall goal of this task is to advise managers of likely long-term effects of current practices, suggest alternative approaches where warranted, and to examine adaptation and mitigation strategies.

This task consists of two related components. The first component is a science assessment, which can include a synthesis of existing knowledge, or research aimed at producing new knowledge. New data must be interpreted and presented in a form that supports an assessment of management implications. The second component is an integration and interpretation of this information in some form of operational scenario analysis depicting manager's ability to meet land and resource management objectives. Proposals must include both components.

Proposals submitted to address this task must address research questions in one or more of the following regions:

- Alaska
- Pacific Northwest
- Northern Rockies

No funding will be provided for analyses of additional areas or regions. Please refer to the JFSP Fire Exchange Network map (<http://www.firescience.gov/>) to determine regional boundaries applicable to this announcement. JFSP may request proposals for other regions in future years.

Responsive proposals must address questions in both of the following topical areas:

- Changing fuels and fire regimes - How might fuels, fire regimes, and fire effects shift across the region, and how might these changes affect fuels and fire management? How likely are these shifts?
- Implications for management programs - What are the implications for fuels treatment programs, and what fuels treatment strategies are most likely to be successful in the long-term? What are the implications for post-fire restoration and rehabilitation, and what post-fire restoration and rehabilitation strategies are most likely to be successful in the long-term?

The JFSP Governing Board encourages investigators to focus on changes to fuels and fire regimes that appear most likely to have significant management implications.

Successful proposals will need to engage both scientists and managers. For example, scientists and managers could meet in a workshop format to define alternative scenarios and management practices; scientists could then estimate effects under changing climate regimes; and then scientists and managers could jointly interpret modeled results to assess current practices and make recommendations. Proposals should include a description of how managers will be involved in the study, and funding needed to support involvement of managers. JFSP recommends that the appropriate regional member of the JFSP Fire Science Exchange Network (see www.firescience.gov) be consulted and involved to help plan and conduct scientist-manager interactions.

2. Social and regulatory barriers and facilitators to implementing prescribed fire

The decision to utilize prescribed fire to meet management objectives often naturally represents a tradeoff between restoring or maintaining fire-adapted ecosystems and minimizing fire impacts to communities or other public value. Mandates to consider such tradeoffs are articulated in various federal, state, and local regulations and agency guidelines. Thus, the multitude of existing regulations and guidelines present both barriers and facilitators to prescribed fire implementation. For example, managers may have to contend with several federal policy documents that highlight the need to return fire to fire-adapted ecosystems and restrictive burn windows that are defined by state or local agencies for a number of reasons (e.g. concerns over air quality, escape fires). Similarly, studies of public opinion have documented both support and opposition to prescribed fire, which could influence a manager's decision to utilize the tool. However, it is unclear the degree to which public opinion influences managers' decisions regarding prescribed fire. The JFSP is interested in research that examines factors that influence managers' decisions regarding implementation of prescribed fire, how they deal with tradeoffs, and when social and regulatory factors act as barriers or facilitators to use of prescribed fire.

Submitted proposals must address one or more of the following sets of questions:

- *Social barriers and facilitators*: What level of public opinion regarding prescribed fire actually impacts prescribed fire implementation? What is the role of collaborative efforts or advocacy groups in facilitating or limiting prescribed fire?
- *Regulatory barriers and facilitators*: What federal, state, and local regulations and agency guidelines are used in decision-making regarding prescribed fire implementation? What barriers and opportunities do these regulations and guidelines

present for applying prescribed fire? How do managers make decisions when regulations and guidelines conflict with use of prescribed fire for wildfire mitigation goals and objectives?

For all sets of questions, the JFSP is interested in projects that examine the relative importance of different barriers/facilitators and that demonstrate how key social and regulatory factors vary by region, agency or other important influence. The JFSP is also interested in projects that document successful strategies managers have employed to overcome barriers to prescribed fire implementation.

3. Maintenance and restoration of sagebrush habitat in the Great Basin

JFSP is interested in research that evaluates and improves the effectiveness of vegetation treatments intended to protect or restore the diversity and productivity of sagebrush ecosystems and sage grouse habitat in the Great Basin. The scope of requested proposals includes evaluation of past, ongoing, or newly proposed operational treatments, and can include both a synthesis of existing knowledge and/or new research. This work is in direct support to Department of Interior Secretarial Order # 3336.

The intent of this task is to support field application of operational vegetation treatments that could be used to meet the objectives of the DOI Integrated Rangeland Fire Management Strategy

(http://www.forestsandrangelands.gov/rangeland/documents/IntegratedRangelandFireManagementStrategy_FinalReportMay2015.pdf). Investigators are strongly encouraged to involve field practitioners in the proposed work, e.g., conduct field workshops to define operational field treatments, or to jointly interpret the management implications of research results. If new field treatments are proposed, the proposal must show concrete evidence of the involvement, support, and ability to implement the proposed field treatments by the responsible field managers. Evidence could include involvement of land managers as Co-Investigators, description of coordination with land managers in the proposal, evidence in the proposal that the details of treatment implementation have been adequately considered, and/or letters of support.

Submitted proposals must address at least one of the following questions:

- What are the most effective treatment options to increase resilience and resistance of sagebrush stands that are prone to invasion by undesired plants (e.g., stands that lack perennial grass and forb cover), or have an existing understory of invasive annual plants?
- What are the best treatment options to increase desired plant establishment (i.e., survival, species composition, density, rate of recovery) in post-fire sagebrush stands?
- Where and under what conditions should seed, seedlings, or a combination be used to meet habitat or ecosystem objectives, especially for establishing sagebrush and other desirable shrubs?

Proposals that focus on other research questions will not be considered.

Investigators are encouraged to test combinations or mixes of approaches tailored to specific site conditions and potential. Treatment types and prescriptions should be linked to

management thresholds, limits, or controls correlated with site potential indicators such as ecological sites, precipitation zones, elevation zones, or soil moisture or temperature zones. JFSP is particularly interested in proposals that demonstrate how results could be integrated and applied across large landscapes.

Investigators are encouraged to consider potential future climates and how climate change could affect treatment and site selection in the future, e.g., species selected for seeding or planting. JFSP is particularly interested in proposals that focus on Wyoming big sage and Basin big sage communities.

Investigators should plan on working with the Great Basin Fire Science Exchange to share results, products, and outreach activities.

4. Effects of fire on tree mortality

Empirical models that predict mortality of trees from prescribed fire and wildfire are widely used for many purposes. Yet, the narrow range of available data limits the applicability of these models to certain tree species, tree age and size classes, and climatic conditions. There is a general need for better understanding of the applicability of statistical models across a range of species, ecosystems, and climatic conditions. These models could be improved with additional empirical data from a wider range of species. Better yet, improvements to process-based models that incorporate stem, root, and crown damage would also expand our knowledge of the physiological basis for tree mortality. If the physiological basis for tree mortality is incorporated into empirical models, our ability to predict tree mortality across a range of species and climatic conditions would be greatly improved.

The JFSP seeks research on fire-induced tree mortality that will lead to better predictive models of tree mortality for a wider range of species and conditions. Specifically, JFSP is interested in research that:

- Uses existing or newly developed datasets from prescribed fires or wildfires to evaluate existing tree mortality models
- Incorporates new data on fire-induced tree mortality into existing models so that they can be used over a wider range of conditions
- Improves our understanding of the fire-induced physiological basis for tree mortality

The JFSP is particularly interested in studies that incorporate mortality from root, stem and crown damage. Any new models or improvements to existing models must be evaluated against independent datasets. Improvements to existing models should be delivered as modules for inclusion in existing software systems.

5. Post-fire landscape management

Fire size and total area burned have increased over the last several decades, leading to concerns over how to best manage post-fire landscapes. Observations suggest that some re-burns in recent (<20 year) burn areas may be exhibiting uncharacteristic patch sizes or fire severity as a result of novel fuel arrangements. Post-fire management actions influence long-term trajectories of fuels and the characteristics of subsequent wildfires. JFSP is interested in research on the changing characteristics of post-fire landscapes, and the influence of

management activities on the pattern of vegetation and fuel succession. Research outcomes are intended to provide guidance to help manage post-fire landscapes for increased resiliency.

Many studies have examined factors that lead to high-severity reburns. These studies found that factors contributing to areas reburning with high severity vary greatly by region and vegetation type. Research focused on the effects of post-fire management actions on future fire severity have largely focused on timber salvage and short-term watershed stabilization, with very few studies examining other management actions or long-term results. Almost all post-fire studies have focused on plot or treatment unit scales. However, land and resource managers are increasingly managing large landscapes with an eye towards the next wildfire.

The JFSP invites proposals that investigate the effectiveness of post-fire management actions in both forested and non-forested ecosystems. Potential investigators are encouraged to propose research that supports development of long-term strategies for management of post-fire landscapes. For example, studies are sought that provide information on where and when specific treatments are likely to be effective in reducing undesired fire effects or encouraging recovery of desired vegetation and fuels. Submitted proposals must address questions from both of the topic areas listed below:

- Ecological – What characteristics of post-fire landscapes are shaping the temporal and spatial patterns of vegetation and fuels, and how are these patterns changing in response to changing climate or wildfire management strategies? What conditions or thresholds result in novel landscapes and fire patterns? Where and to what extent are post-fire landscapes missing key ecosystem components (e.g., type change)?
- Management – How have past post-fire management actions (e.g., timber salvage, grazing, re-planting or re-seeding, fuels management) influenced fire severity and effects? What kinds and patterns of management actions (e.g., fuels management) can enhance landscape resilience in terms of fire severity, extent, and effects? How does post-fire treatment scale influence treatment effectiveness?

Investigators are encouraged to interpret and recommend post-fire management actions for operational landscapes. Recommendations should be made jointly with fire, fuels and resource managers working in landscapes with a history of large and novel fire events. Possible forums to jointly develop recommendation include joint workshops, field tours, or spatially and temporally specific scenario-building exercises. Investigators are encouraged to work with members of the JFSP Fire Science Exchange Network (www.firescience.gov) to plan and implement these activities.

6. Regional needs – Consortium of Appalachian Fire Managers and Scientist Season of prescribed burning to reach management objectives

Regional needs represent high priority science gaps that have been identified by and are applicable to managers and researchers within individual JFSP Fire Science Exchanges. The JFSP intends to invest in research to address these information gaps to better serve regional manager needs. Proposals to address regional needs are solicited for specific regions within the JFSP Fire Science Exchange Network. Proposed studies must be conducted within the defined boundaries of the identified exchange (see

http://www.firescience.gov/JFSP_exchanges.cfm). Investigators will be expected to work with the identified exchange to assure the proposed research meets manager needs and has robust science exchange activities. Proposals will be limited to a maximum of \$200,000.

Research over the past 15 years has revealed the critical role of fire in most Appalachian ecosystems. However, some states still use fire only on a limited basis and other states do not use fire at all. Most prescribed burning and almost all fire research has been with relatively cool fires, usually burning in middle to late winter. Yet, current research emphasizes that management objectives for stand structure, fuels, and vegetation cannot be reached by a single winter fire and few objectives can be reached by two or three winter fires.

The most common questions asked by fire managers over the Appalachian Mountains deal with expanding their burning window and meeting objectives quickly. To do so, information is needed on the impacts of prescribed fire in seasons other than winter on stand structure, surface fuels, and vegetation. The JFSP is interested in research that establishes new study sites or re-measures previously established studies that compare impacts of season of burning and/or numbers of burns on stand structure, fuels and vegetation.

Submitted proposals must address one or more of the following questions:

- How do differences in weather, fuel moisture, and fuel loading associated with season affect fire intensity, fire behavior, and fire severity?
- Does burning at different seasons create differences in stand structure? How are forest floor vegetation, the shrub layer, and the canopy layer effected? Of particular interest are impacts to litter, duff, and soil exposure.
- Which season of burning improves vegetative composition by promoting density or cover of desirable species (native gramminoids, forbs, fire-dependent trees, and others) and/or reducing density or cover of off-site species (red maple, white pine, mountain laurel, rhododendron, non-native invasive plants, and others)?

The Consortium of Appalachian Fire Managers and Scientists (CAFMS) is fortunate to have a number of demonstration sites through its partnership with the Fire Learning Network, and two research sites (Fire Surrogate in NC and OH) that provide some of the needed information. However, these can only serve as the beginning of a network of sites because many demonstration sites have no experimental design and those that do are limited in number and scope. Investigators are expected to work with CAFMS to incorporate any new or existing experimental units used for the proposed study into this existing network of demonstration sites.

7. Regional needs – Oak Woodlands and Forest Fire Consortium Prescribed fire effects on wood products

Regional needs represent high priority science gaps that have been identified by and are applicable to managers and researchers within individual JFSP Fire Science Exchanges. The JFSP intends to invest in research to address these information gaps to better serve regional manager needs. Proposals to address regional needs are solicited for specific regions within the JFSP Fire Science Exchange Network. Proposed studies must be conducted within the defined boundaries of the identified exchange (see http://www.firescience.gov/JFSP_exchanges.cfm). Investigators will be expected to work

with the identified exchange to assure the proposed research meets manager needs and has robust science exchange activities. Proposals will be limited to a maximum of \$200,000.

Forest management practices that include prescribed burning have been increasingly used in recent decades throughout the Oak Woodlands & Forests Fire Consortium region. Management objectives often intend to accommodate multiple land uses (e.g., timber, wildlife, water, recreation), restore remnant fire-dependent natural communities, promote biodiversity, and improve forest health and ecosystem function. While recent studies have addressed the effects of fire on various ecosystem attributes, the effects of prescribed fire on forest products and resulting forest valuation remain unstudied. Such information is needed in order to plan and implement prescribed fires to meet multiple management objectives.

The Joint Fire Science Program seeks proposals that evaluate the effects of prescribed fire on the economic value of wood products, including attributes such as desirable species, product quality or grades, and wood volumes. Submitted proposals must directly address the question:

- How do fire treatments change the economic value of wood products?

Proposals are expected to include a combination of new data collection and forest simulation modeling leading to quantitative analysis of fire effects on wood products. Proposed research should compare differences and similarities in wood products between stands with and without fire treatments.

Proposals should demonstrate that study areas have undergone significant changes in vegetation conditions due to fire treatments, alone or in conjunction with other treatments such as mechanical thinning or herbicide application.

8. Regional needs – Southern Fire Exchange Prescribed fire smoke emissions

Regional needs represent high priority science gaps that have been identified by and are applicable to managers and researchers within individual JFSP Fire Science Exchanges. The JFSP intends to invest in research to address these information gaps to better serve regional manager needs. Proposals to address regional needs are solicited for specific regions within the JFSP Fire Science Exchange Network. Proposed studies must be conducted within the defined boundaries of the identified exchange (see http://www.firescience.gov/JFSP_exchanges.cfm). Investigators will be expected to work with the identified exchange to assure the proposed research meets manager needs and has robust science exchange activities. Proposals will be limited to a maximum of \$200,000.

Despite an extensive research and modeling history to understand and predict air quality impacts of prescribed burning in the South, many questions still surround the actual contributions of prescribed fire to smoke emissions on a local basis. The great number of prescribed fires in southern states along with a wide network of air quality monitors provides opportunities to address questions regarding the discernible effect of prescribed fire on ground-level particulate matter and ozone levels. Yet, a lack of a unified record of prescribed fire occurrence and characteristics in southern states precludes such analyses. The JFSP is

interested in proposals to compile data on prescribed fire occurrence and characteristics needed to run fuel consumption and smoke models, and to update datasets of actual air quality with data from air quality monitors in more recent years. Investigators should then use the dataset to find case studies to address one or more of the following questions:

- What indication has the monitor network given that prescribed fire has had a discernable effect on ground-level particulate matter and ozone?
- Do current emissions estimation and smoke dispersion tools provide adequate predictions for prescribed burn planning?
- Are smoke management programs effective in minimizing ground-level particulate matter and ozone?

Research funded for this task will be based on existing data. No substantial new field data collection will be funded through this task.

Investigators are encouraged to propose an approach to test and demonstrate a prototype, unified, multi-state fire occurrence database.

D. Budget and Funding Policy

1. Funding Cooperator

Proposal may require a funding cooperator. See Section III.B above.

2. Indirect Costs

The JFSP Governing Board recognizes the need of agencies and organizations participating in the program to recover reasonable indirect costs. However, cost effectiveness of the individual projects is a determining factor in the final selection process. JFSP has an approved indirect cost rate exception that limits proposals to a maximum of twenty (20) percent of the direct costs for each institution. Proposals requesting funds for indirect rates higher than twenty (20) percent will not be considered. This memo can be found on the JFSP website at this link:

http://www.firescience.gov/documents/BLM_lindirect_cost_rate_exception_signed.pdf

The maximum indirect rate that a funding cooperating institution may charge for pass-through costs is ten (10) percent. Proposal funding through a federal funding cooperator must reflect either the prevailing indirect rate for the cooperating federal agency or the JFSP maximum limit of twenty (20) percent, whichever is less. Unrecovered indirect costs can be used as contributed funds in the budget.

Pass-through costs are charged only by the PI institution or funding cooperator institution for administrative costs associated with managing sub-agreements. Pass-through costs are limited to ten (10) percent of the sub-agreement direct charges.

(See indirect cost example below)

Indirect costs example

Scenario

- The PI is from a university or federal agency (lead institution)
- Co-PI is from a cooperating university or NGO (cooperating institution)
- The calculated expenses in the Budget for the lead institution are \$200,000 (salary, fringe benefits, travel, equipment, etc.)
- The calculated expenses in the Budget for the cooperating institution are \$40,000

Calculation of indirect costs

1. Cooperating institution

Maximum allowed indirect costs (20%)

$$\$40,000 * 0.20 = \$8,000$$

Total Budget for cooperating institution

$$\$40,000 + \$8,000 = \$48,000$$

Note: If there are multiple cooperating institutions this calculation would be performed for each institution.

2. Lead institution

Maximum allowed indirect costs (20%) on own Budget

$$\$200,000 * 0.20 = \$40,000$$

Maximum allowed pass-through indirect costs (10%) on cooperating institution Budget

$$\$48,000 * 0.10 = \$4,800$$

Total Budget for lead institution

$$\$200,000 + \$40,000 + \$4,800 = \$244,800$$

$$3. \text{ Total Budget} = \$244,800 + \$48,000 = \$292,800$$

Points of emphasis

- Lead institutions can include pass-through costs for each cooperating institution in their Budget
 - Pass-through costs are calculated based on the total Budget for each cooperating institution, including the indirect costs calculated by the cooperating institution
 - Cooperating institutions do not include pass-through costs in their Budgets
 - Institutions should use their negotiated indirect cost rates with their cooperating institutions, but cannot exceed JFSP maximums
-

3. SBIR Costs

Certain proposals may be required to pay a percentage of the project's costs into the Small Business Innovation Research (SBIR) program. Proposals where the funds are transferred to a Forest Service institution and subsequently award a portion of the total budget to a non-federal entity through a sub-agreement or sub-contract may be required to pay the prevailing rate of the total funds awarded externally to the SBIR program. Check with your Agreements contact to determine if this applies to your proposal and to determine the current rate.

4. Equipment Policy

Investigators are encouraged to contribute equipment to conduct studies funded by JFSP from existing equipment inventories. Contributed equipment should be included as “contributed costs” in JFSP budget spreadsheets and on the budget tab.

If necessary equipment is not available, JFSP will partially or fully fund equipment needed to conduct research funded by JFSP. If newly purchased equipment has an expected lifespan extending beyond the life of the project, the owner of the equipment is expected to contribute a portion of the purchased equipment costs in approximate proportion to the remaining lifespan. E.g., if a needed piece of equipment costs \$1,000 and will have a 50% lifespan at the end of the project, then the owner of the equipment is expected to contribute \$500.

In no case will JFSP pay more than \$5,000 for a piece of equipment. If a new piece of equipment costing more than \$5,000 is needed for the proposed project, proposal investigators are expected to contribute the remaining costs in excess of \$5,000.

This criterion is to be applied for each and every piece of equipment.

5. Salary Policy

Salaries of permanent full-time employees are not covered by JFSP and must be provided by your institution. This includes university faculty on 12-month tenure-track appointments.

JFSP will provide funding for part-time, temporary, term employees, post-doctoral employees, graduate, or undergraduate students. JFSP will cover salary for employees on a 9-month appointment, but only for the months they are not funded by their institution and only for the time focused on their JFSP project. JFSP will not pay salary for other personnel to fill in for employees working on a JFSP project.

Stipends are normally funded, but **tuition and other university fees will not be funded.**

6. Budget

Budget spreadsheet and narrative must be reviewed by your Budget contact and your Agreements contact to ensure all costs have been included and the budget is correct including indirect charges. JFSP will not provide additional funds to cover errors discovered after the proposal submission deadline.

Budget spreadsheet must use the provided template and have a separate worksheet for each institution requesting or contributing funds including contracts. Budget narratives must detail all costs in the budget spreadsheet. We highly suggest you use the format provided in the example for the budget narrative. Funded proposals will be closely scrutinized for allowable and reasonable costs before award is issued.

The Budget contact and Agreements contact must sign in to the JFSP system and certify the budget is correct and they understand their role in receiving funds and facilitating agreements. Proposals cannot be submitted by the PI if both contacts have not completed this task in the database. **(See screen print below)**

Budget Certify

Start: Details	Required: Attachments	Required: Contacts	Required: Budget	Required: Location	Certification	Finish: Submit	Group Review	Reviewers
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Correspondence

Proposal ID: 11-S-4-1 (jdbid: 2886) Status: **Draft**

Title: **Test proposal**

Principal Investigator: **Smokey T. Bear, Forest Service, Boise National Forest**

Budget Contact Certification

By checking this box and clicking the "I Agree" button, I certify that the attached budget spreadsheet has been reviewed by me as the Budget Contact for this proposal. I certify that the budget is correct and I agree to receive funds and facilitate the transfer of funds, if necessary. To revoke this agreement, uncheck the box and click the "I Disagree" button.

I Agree I Disagree

Agreements Contact Certification

By checking this box and clicking the "I Agree" button, I certify that the attached budget spreadsheet has been reviewed by me as the Agreements Contact for this proposal. I understand that I will be responsible for facilitating all necessary agreements including sub-agreements to cooperating institutions. To revoke this agreement, uncheck the box and click the "I Disagree" button.

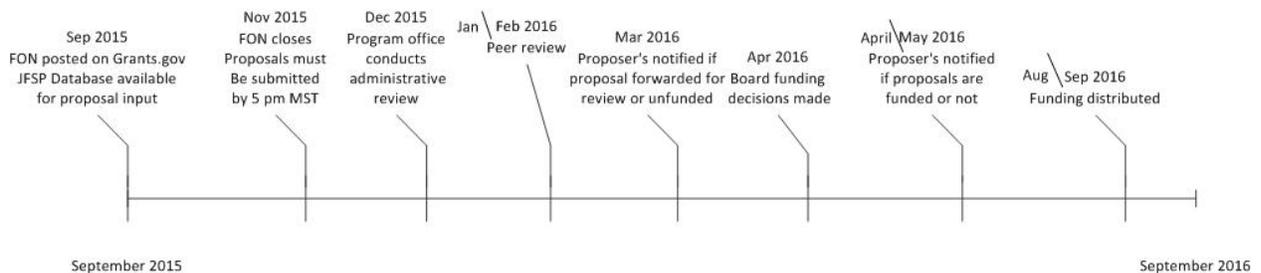
I Agree I Disagree

Proposals will be funded via Inter-agency agreement, cooperative agreement, or budget transfer. Please talk to your Budget contact and Agreements contact to ensure your budget has the correct indirect rates for your circumstances.

The JFSP Governing Board does not fund projects that are, or should be, funded internally 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.

Funding is usually distributed in late summer; please plan budgets accordingly (See proposal timeline below).

JFSP FON Process Timeline



E. Data Management Plan (DMP)

It is the intent of JFSP that all data collected or generated through JFSP funds are of high quality and made freely available to others within a reasonable time period. JFSP recognizes that preparation of data and metadata for publication is a time consuming process. Adequate funds to support this work should be included in proposal budgets.

DMPs must be attached as a separate document and are limited to two pages maximum. DMPs will be considered in the proposal review process.

DMPs must contain the following (see DMP template and instructions for further detail):

- Description of data type, scale, resolution, and format for all data to be submitted to a data repository
- Steps used to process and quality assure the data
- Specific data repository intended for long-term data storage
- Metadata language used to describe the data
- Provisions for data access and necessary limitations to protect sensitive data
- For modeling studies, only data generated for model input should be included in the DMP.

All collected or generated data should be evaluated for errors, and subjected to data proofing and validation procedures.

Investigators must select a data repository well suited for long-term archival, publication, and data sharing of data collected or generated through JFSP funding. JFSP recommends use of the Forest Service R&D data archive (<http://www.fs.usda.gov/rds/archive/>). If you would like to discuss the archive's services, please contact archivist Dave Rugg (drugg@fs.fed.us) or associate archivist Laurie Porth (lporth@fs.fed.us).

Submission of data sets and metadata will be required at the time of final report submission. JFSP will review the data and metadata to ensure that all required information is provided (including a pointer in the metadata to the location of the data). Projects will not be considered complete until this data has been successfully reviewed. After successful review, the metadata will be provided to the Forest Service R&D data archive (<http://www.fs.usda.gov/rds/archive/>), which will provide the central metadata catalog for all JFSP projects. The PI is responsible for keeping the metadata in the official catalog current over time.

PIs can limit release of data sets for up to two years following submission of the final report. At the end of this period, all data sets will be made publicly available. All extensions of this deadline require extenuating circumstances and approval by the JFSP Program Manager.

F. Additional Application Requirements

Proposals must meet all of the following requirements to be considered. Incomplete proposals will not be considered. There will be no exceptions to either the submission deadline or other submission requirements. If you have questions about these requirements, please contact the JFSP Program Office for clarification (Becky Jenison 208-387-5958, John Cissel 208-387-5349, or Ed Brunson 208-387-5975).

1. Proposal Submission

Proposals must be submitted electronically via the JFSP website (www.firescience.gov). Proposals should not be submitted in Grants.gov. Hard copy, email, or facsimile proposals will not be accepted. Proposals can be created in the database at any time and saved for submission any time prior to the closing date & time.

- Proposers must have a JFSP database login and password to submit a proposal. Requests for access will be processed in approximately 24 hours.
- The Budget contact must sign into the system and certify the budget is correct before proposal can be submitted. Note that the PI will not be able to complete this task for the Budget contact. PI must assign this contact on the contact tab before the Budget contact can sign in to complete this process.
- The Agreements contact must sign into the system and certify the budget is correct before proposal can be submitted. Note that the PI will not be able to complete this task for the Agreements contact. PI must assign this contact on the contact tab before the Agreements contact can sign in to complete this process.
- Only the PI can submit the proposal.
- Proposals can be saved in the JFSP system and submitted prior to the closing date and time. Submitted proposals can be reverted back to final draft by the PI prior to the closing date. If you revert a proposal back to draft you must resubmit the proposal before the closing date and time.
- The JFSP proposal submittal system will not allow proposals to be submitted after the closing date and time.

2. Profiles

- **All** contacts must have a profile in the JFSP database and must be entered on the contacts tab.
- Proposals cannot be submitted if all required contacts (see Contacts below) are not entered on the contacts tab by the PI.
- It can take up to 24 hours to get a profile created. It is advisable to request profiles early in the process.
- To request a profile or password resets go to the JFSP website and click on the sign in link. Use the appropriate link for requesting a password reset or requesting a new user registration.

3. Contacts

Proposals may be required to have the following contacts (see Section VI. Definitions to understand the role of each contact) assigned to a proposal:

- Principal Investigator (required, only one Principal Investigator can be assigned)
- Funding Cooperator (may be required, see Section III.B. funding cooperator)
- Budget Contact (required) in some cases this may be the same as the Agreements contact
- Agreements Contact (required) in some cases this may be the same as the Budget Contact
- Co-PIs and Collaborators (options)

It is the PI's responsibility to ensure all correct PI contacts are entered into the proposal database. Please read Section VI. Definitions carefully to ensure you have the correct contact from the correct institution listed.

4. Confirmation Page

When you submit your proposal you will receive a confirmation page. We highly recommend that you save or print this page for your records. If you do not receive this confirmation page you have not submitted your proposal correctly.

You should receive an email from the JFSP Program Office letting you know that your proposal has either been forwarded for review, or rejected for not meeting administrative requirements. If you do not receive this email by the end of December, you should fax or email your confirmation to Becky Jenison at bjenison@blm.gov or fax: 208-387-5960.

5. Attachments

All required documents and templates must be attached before the proposal can be submitted. All attachments except the budget must be attached as a pdf document; the budget template is in an Excel format. Attachments over the page limit cannot be submitted. All information in a template must be included as part of that attachment and must be within the page limit. Extraneous materials (e.g., extra graphs and text) are not permitted and will not be reviewed.

Required attachments for all proposals must use templates provided to be considered:

- Proposal body
- C.V.s (PI: two-page maximum, Co-PI(s): one-page maximum)
- Budget spreadsheet (Excel spreadsheet, includes a separate worksheet for each institution requesting funding)
- Budget narrative (explanation of specific budget assumptions and costs)
- Data Management Plan (see below)

Additional attachments:

- Letter(s) of support (optional, but recommended)
- Specific to a task statement (check the applicable task statement for additional requirements)

6. Data Management Plan

All proposals are required to submit a Data Management Plan (DMP) using the instructions, template, and example provided (See Section IV. D above).

7. Budget

Budget summary numbers summarized by institution type requesting funds must be input in the JFSP database on the Budget tab. The budget spreadsheet and budget narrative must be attached on the attachments tab using the spreadsheet template provided. Proposals cannot be submitted without completing these required fields and attachments. Do not edit spreadsheet formulas and formatting without contacting Becky Jenison first (bjenison@blm.gov).

8. Task Statement Intent

Proposals that do not clearly and directly meet the intent of the task statement selected will not be reviewed or considered for funding. Please make sure you are submitting your proposal for the correct task statement.

9. Format

Proposals not following the required template(s) will not be considered. Proposals must use an 11 point font or larger. Additional guidance is included in the beginning of each template.

10. Page Limits

Attachments exceeding the page limit cannot be submitted. Page limits may vary by task statement and attachment; check the page limit in the template and JFSP database for each specific task statement. Everything in the template is included in the page limit.

11. Project Location

Project location fields must be completed on the location tab for a proposal to be successfully submitted. Instructions are listed on the project location tab.

12. Signatures

Handwritten signatures are not required. When Principal Investigators (PIs) submit proposals they will be prompted to input their password. By typing in the password and submitting a proposal, PIs are certifying that all contacts on the proposal have reviewed the proposal and understand what their role requires.

13. Indirect Costs

Proposals must follow JFSP indirect cost guidelines. (See Section III. B above)

14. Contributed Costs

See Section III. C above.

15. Support Letters

Support letters are encouraged, but not required. Support letters are useful if they show understanding of the proposed work and the author articulates how the work will benefit them. Support letters that appear to be ghost-written by the PI or are form letters are much less useful. If submitted, letters must be combined into one pdf document and attached on the attachments tab. Support letters sent by hard copy or email directly to JFSP will not be considered.

16. Past-Due Projects

No proposals will be considered if the work includes a PI or Co-PI who is a PI or Co-PI on a JFSP project that is past due as of the closing date of this announcement. See the JFSP website for the complete JFSP past-due and extension request policy.

SECTION V. APPLICATION REVIEW AND EVALUATION

Overview

Proposals will be reviewed in four stages:

1. JFSP Program Office – Administrative requirements and task statement intent
2. Peer Review – Relevancy, technical merit, products, and feasibility
3. Governing Board Review – Funding decisions
4. Statistical Review (optional) – Adequacy of study design and analysis methods

Note: All proposals are expected to be directly and clearly responsive to the task statement questions. Proposals that are not sufficiently responsive, as judged by the Joint Fire Science Program, will not be reviewed.

Review Criteria

Note: Review criteria are not arithmetically scored or weighted. However, applicants should note that the technical merit criterion is given particular attention. Proposals that do not receive strong technical merit reviews are unlikely to be funded.

Task statement responsiveness

- Does the proposal directly address the task statement?
- Are there significant elements of the proposal that are off-task?
- Will the intended results be useful to a broad cross-section of the fire, fuels, and resource management community?

Technical merit

- Does the proposal address scientifically important questions?
- Are objectives, questions and hypotheses clearly articulated?
- Can the questions or hypotheses be answered with the proposed design and analysis?
- Are the methods sufficiently rigorous to produce credible results?

Deliverables and science application

- Are there important and useful applications and deliverables described in the proposal?
- Is the scope and scale of planned applications and deliverables sufficient to have meaningful impact?
- Is there a sufficient plan to exchange results with relevant audiences?
- Where relevant, is there evidence that investigators have collaborated with the JFSP Fire Exchange Network to develop science delivery plans?

Budget

- Is the requested budget reasonable and realistic for the scope and scale of the proposed work?
- Does the proposal budget contain substantial contributed costs?
- Does the budget narrative provide sufficient explanation and justification for the requested budget?

Feasibility

- Does the project team have the skills and qualifications to execute the proposed work?
- Is the schedule reasonable?
- Have all likely barriers been identified and mitigated?
- Have managers been involved where appropriate?
- Is the probability of success high?

SECTION VI. DEFINITIONS

Funding Opportunity Notice (FON): The official label for the Joint Fire Science Program method of requesting project proposals. The FON includes task statements for which proposals are sought, instructions for proposal submission, and related information.

Principal Investigator (PI): The individual identified in a proposal who is the research lead for the project. This individual is responsible for coordinating all research related activities and will be the primary science contact for the project. In addition the PI is responsible for communicating and coordinating with Co-PIs and others on the research team. The PI is responsible to JFSP for completion of the project.

Funding Cooperator: The funding cooperator receives funds from JFSP and is responsible for distributing funds to other cooperators. A funding cooperator is only required if the PI is non-federal and a federal institution is requesting funding, or if the work is being completed through a private business, or requests international funding. The funding cooperator is responsible for coordinating with the PI, the Agreements contact, and the Budget contact on administrative activities for this project. The funding cooperator will be one of the primary contacts for the project and should stay informed and involved in project activities. If a federal agency is requesting funds the funding cooperator must be from the federal cooperating agency.

Budget Contact: Budget contact must be from the institution receiving funds from JFSP. This person is responsible for ensuring the budget details are correct prior to proposal being submitted and agrees to receive funds and facilitate the transfer of funds, if necessary. Budget contact must be from the institution receiving funds from JFSP. If a federal agency is requesting funds the Budget contact must be from the federal cooperating agency.

Agreements Contact: Person from institution receiving funds from JFSP that is responsible for facilitating the receipt of funds and the execution of any agreements or contracts necessary for a proposal if it is selected for funding. If a federal agency is requesting funds the Agreements contact must be from the federal cooperating agency.

Co-Principal Investigator (Co-PI): The individual(s) identified in a proposal who will work with the research lead on the project and makes a substantial contribution to the project. Co-PIs are responsible for communicating and coordinating with the PI.

Collaborator/Contributor: An individual that advises investigators, but is not involved at a level expected of a Co-Principal Investigator. For example, a collaborator may make recommendations on how best to involve fire and fuels managers in a project, or consult regarding the statistical design of a study. Individuals that serve as an author or co-author of a manuscript for a scientific journal are normally a Co-Principal Investigator.

Student Investigator (relevant to the GRIN announcement only): A current student with an approved dissertation or thesis plan responsible for leading and delivering the research proposed in a GRIN proposal.

Indirect Costs: Those costs used to pay for overhead/administrative costs attributable to a specific research project. Examples include the costs of operations and maintenance such as janitorial, phone, and clerical services. The Joint Fire Science Program recognizes two types of indirect costs: 1) “in-house” costs incurred by the agency, institution, or unit requesting funds; and 2) Pass-through costs are charged only by the PI institution or funding cooperator institution for administrative costs associated with managing sub-agreements.

Joint Fire Science Program Governing Board: An appointed 12-person Board representing the JFSP partnering agencies. The Board provides strategic direction and oversight to JFSP, identifies important research questions, selects proposals for funding, supervises the JFSP Program Manager, and conducts related business.

Science Exchange and Application: The exchange 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. Collaboration with the JFSP Fire Exchange Network is recommended.

Task Statement: A specific area of interest identified in the FON, for which project applications are sought.